DODGE®

2010

GEARING ENGINEERING CATALOG

TORQUE ARM II

TORQUE ARM

MAXUM

TIGEAR-2



BALDOR®

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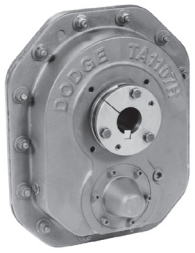
DODGE GEARING CATALOG

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REFERENCE GUIDE

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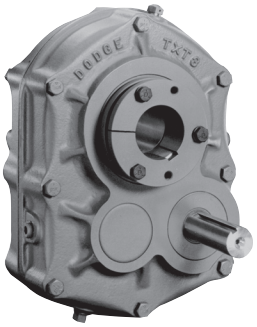
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- 12 new reducer sizes with modular accessories
- All reducers can be shaft mounted, screw conveyor, vertical, and flange mounted
- Up through 400 HP
- Torque ratings through 500,000 lb-in
- Standard 5, 9, 15, 25, and up to 40:1 gear ratios
- Nearly 300:1 speed reduction with V-belt drives
- Bushing bores: 1” through 7”
- All-new, highly efficient helical gearing design
- Meets or exceeds AGMA standards, including 5000 hours L10 life and 25,000 average life
- New metal shield sealing system with excluder lip
- Smooth, rugged Class 30 cast-iron housings with pry slots
- New 36-month/18-month warranty protection

TXT TORQUE-ARM Shaft Mount Reducers

Page G2-1



- Exclusive twin tapered bushings
- Rugged cast-iron efficient
- Precision, high-quality helical gearing
- Reliable anti-friction bearings and seals
- Efficient splash lubrication
- Meets/exceeds AGMA standards
- 100% factory noise and leak tested

Capabilities & Mounting

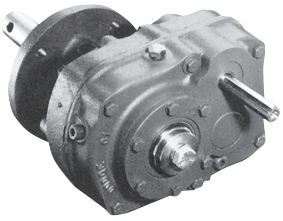
- Standard ratios: 5, 9, 15, and 25:1
- Ratios up to 210:1 with V-belts
- Fractional to 700 HP
- Output speeds through 400 RPM
- Optional flange mount and vertical shaft application
- Available with hydraulic motor input

Accessories

- Motor mounts
- Bushing assemblies
- Backstops
- Auxiliary seal kits
- Belt guards
- Cooling fans
- Harsh duty accessories

SCXT Screw Conveyor Shaft Mount Reducers

Page G2-81



- Industry standard, high quality, drive mounting
- Adapter conforms to any CEMA trough ends
- Sealing system alternatives in standard adapter
  - Seals
  - Waste packing
  - Braided felt seal
- Rugged, high-thrust roller bearings
- Conforms to CEMA standards
- CEMA high-strength shafts, 2- and 3-bolt

Capabilities

- Fractional to 75 HP
- Standard ratios: 5, 9, 15, and 25:1
- 1-1/2” to 3-7/16” CEMA drive shafts
- 0utput speeds through 400 RPM
- Available with hydraulic motor input
- Vertical and incline mounting capability

Accessories

- Standard C and adjustable packing gland adapters
- Drive shafts - standard steel and stainless steel
- Motor mounts
- Belt guards
- Auxiliary seal kits
- Cooling fans

REFERENCE GUIDE

MAXUM Concentric Speed Reducers



Page G3-1

- Compact, power-dense design
- Precision-machined, cast-iron housing
- Highly efficient AGMA-rated helical gearing
- Heavy duty tapered roller bearing design
- Metallic double-lip seals—input/output
- Full line of accessories available
- SO 9002 certified

Features

- 8 sizes
- Fractional to 1600 HP
- Ratios: 2.25 to 194.6
- Up to 502,000 (in-lb) torque
- Mounting flexibility
  - Direct coupled
  - Top mount
  - Scoop mount
  - Heavy duty base plate

Accessories

- Backstops
- Slide base
- Cooling fans
- Auxiliary seal kits
- Heat exchanger cooling package
- Paint options
- XT filter breather
- XT enclosed breather
- XT Impro machine seal
- Coupling and belt guards
- Oil sight gauge
- Sensory devices

TIGEAR-2 Speed Reducers



Page G4-1

- Single-worm with quill, separate or 3-piece coupled input
- Totally enclosed, ventless design that is maintenance free
- 10 case sizes 1.33” to 4.75” center distances
- 5:1 to 60:1 reductions
- Solid or hollow output
- GRIP TIGHT bushing system available
- E-Z KLEEN design available
- Cast iron construction that is durable and corrosion resistant
- Factory filled with synthetic lubricant

REFERENCE GUIDE

Also See These Publications For Additional Gearing Information



MAGNAGEAR XTR REDUCERS
CA1610

- 8 Case sizes
- Parallel and Right Angle configurations
- Base or Shaft mounted
- Solid or hollow shaft output
- Torque ratings up to 1,000,000 in/lbs



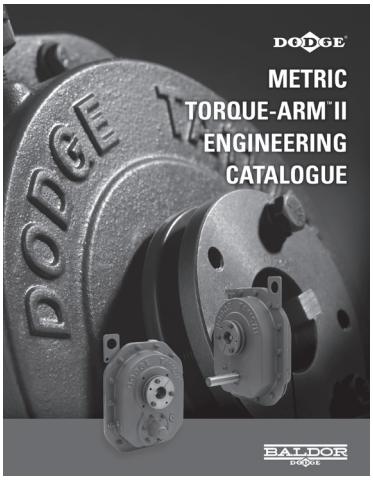
2009 Quantis Engineering Catalog
CA1603

- In Line Helical (ILH)
- Right Angle Helical Bevel (RHB)
- Motorized Shaft Mount (MSM)
- Eight sizes (38 through 168)
- Four Input Configurations
- Torque Ratings up to 120k in-lbs
- High efficiency product



Motorized Torque Arm II
CA1611

- Heavy Duty right angle gear reducer
- 3 Case sizes
- AGMA rated design
- Uses standard TAII accessories
- Twin Tapered bushing system
- Shaft sizes up to 3-7/16”
- Torque Ratings up to 65,000 in-lb



Metric Torque Arm II
ICA1602

- 12 case sizes
- Metric TAII Reducers
- Metric Twin Taper Bushings
- Metric Modular accessories
- Shaft sizes up to 190mm
- Torque Ratings up to 50,000 N-M



2009 Custom Classics Catalog
CA5001

- Master XL Right Angle
- Master XL Parallel
- Combination Tiger
- APG
- Reeves MotoDrive
- Ultima
- Junior & Senior Pulley

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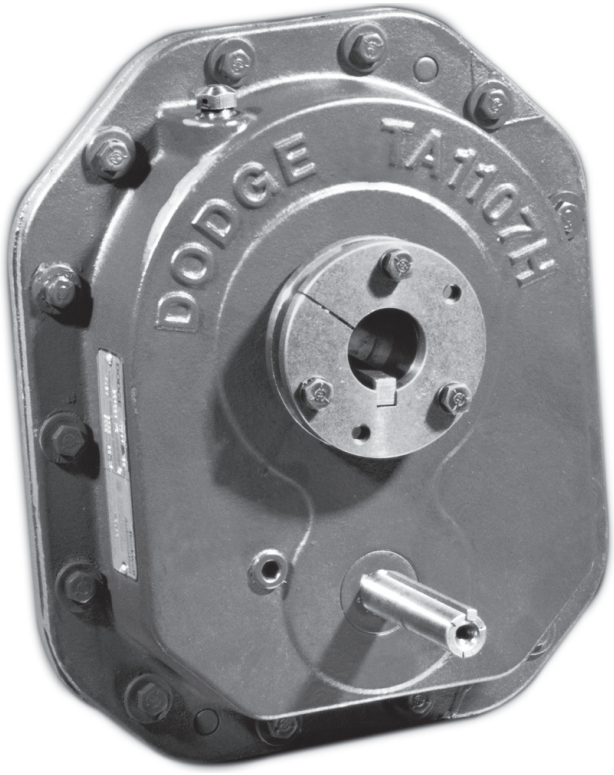
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FEATURES/BENEFITS

TORQUE-ARM II Shaft Mount Speed Reducers

THE LEGACY CONTINUES . . . . . .



With 60 years of proven dependability and more than 2 million units in service throughout the world, DODGE TORQUE-ARM speed reducers are the standard of the industry. Now, that legacy continues with the newest generation in shaft mounted speed reducers - TORQUE-ARM II - offering patented innovations, new features, plus increased torque and horsepower ratings.

FEATURES/BENEFITS

TORQUE-ARM II Shaft Mount Speed Reducers

THE LEGACY CONTINUES . . . . . .

The DODGE TORQUE-ARM II surpasses all other reducers on the market because of its industry proven design and patented features.

This powerful line of shaft mounted speed reducers - in 12 case sizes through 700 horsepower (HP) - offers unparalleled torque ratings and is quickly becoming the new industry standard. Improved features include: an all-new backstop concept, a patented sealing system, a steel motor mount system, a state-of-the-art, totally modular design with an expanded ratio range to 40:1, and a patented twin tapered bushing system.

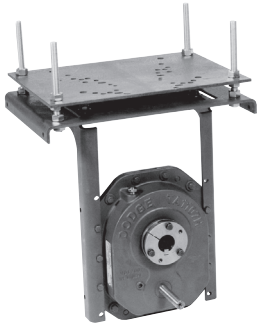
The increased ratings of the TORQUE-ARM II line are comparable to the next larger sized TXT reducer and are the result of the extended gear centers, wider gear faces, and optimized tooth geometry. The backstop design features centrifugal lift-off sprags for extended life and can be used with lubricants containing EP additives.

In addition, the TORQUE-ARM II line has a patented, premium sealing system that uses an HNBR oil seal protected by a metal excluder seal with rubbing lip. This harsh duty sealing system makes this reducer series a perfect fit for today's harsh duty industries such as aggregates, mining, cement, asphalt, mixing & milling and ethanol.

The steel motor mount adjusts to multiple center distances and mounts in shaft mount and screw conveyor positions.

Its patented twin tapered bushing system - in standard length, short shaft, and metric versions - offers all the features of our standard twin tapered TORQUE-ARM bushing design which are unique to DODGE. The patented insertable tapered wedge enables the optional extended tapered bushing kit to be applied for shorter shaft lengths, allowing the replacement of straight bore or single bushed reducers.

Shaft mounted reducer with twin tapered bushing and motor mount



Screw conveyor drive with adapter, drive shaft and motor mount



PRODUCT CAPABILITIES

Twelve reducer sizes with modular accessories

All reducers can be shaft mounted, screw conveyor, vertical and flange mounted

HP through 700, and torque ratings through 500,000 lb. in

Standard 5, 9, 15, 25 and up to 40:1 gear ratios

Nearly 300:1 speed reduction with V belt drives

Bushing bores 1 inch through 7 inches

All new highly efficient helical gearing design

Meets or exceeds AGMA standards including 5,000 hour L-10 bearing life, 25,000 average life

Smooth, rugged class 30 cast iron housings with pry slots

36 month - 18 month warranty protection

Complete Metric TA II product line available

TA II products in conformance to ATEX directive 94/9/EC guidelines

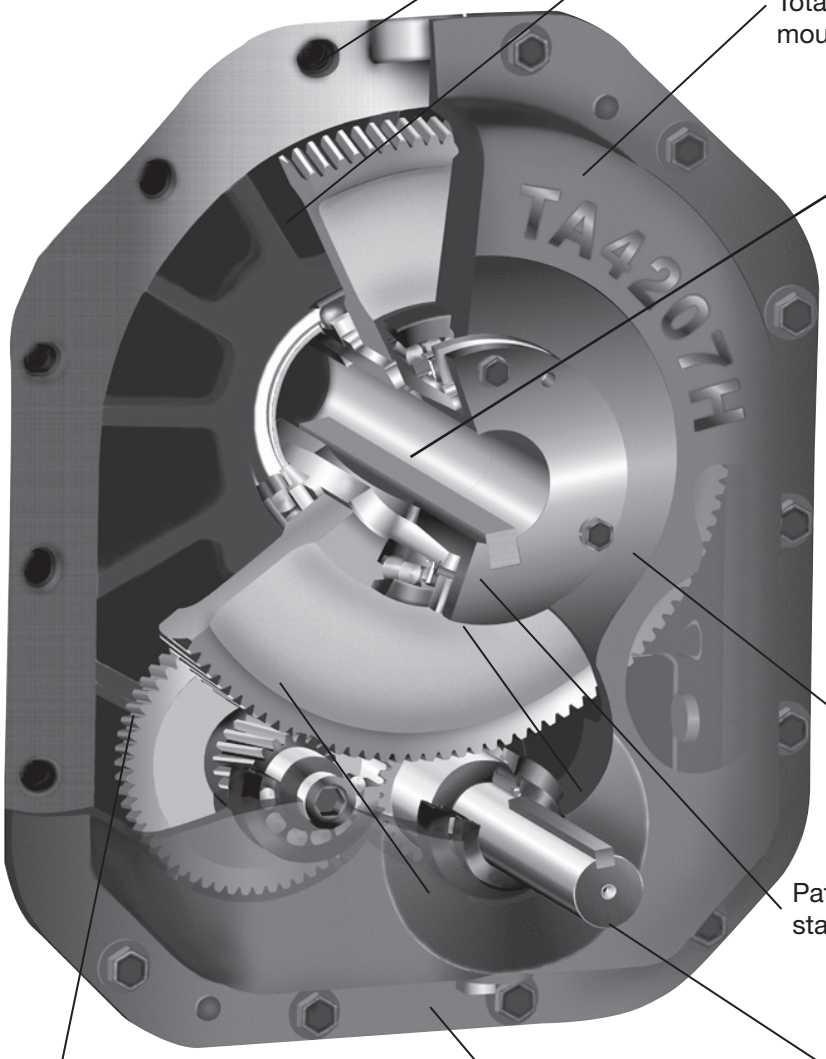
Premium HNBR oil sealing system and filter breather



TORQUE-ARM II Shaft Mount Speed Reducers

THE LEGACY CONTINUES . . . . . .

The new-generation DODGE TORQUE-ARM II has been engineered throughout with features designed to improve performance, extend service life, and reduce or simplify maintenance.



Three large pry slots make rebuilding easy.

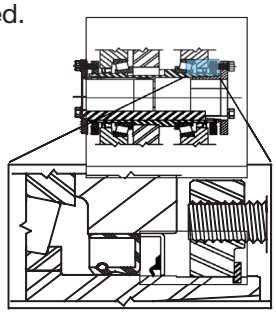
Proven, AGMA-rated, case-carburized gear design ensures high efficiency. Has Class I starting load capability of 200%.

Totally modular construction, one reducer for shaft mount, screw conveyor, vertical and flange mount applications.



Premium HNBR oil seals are protected by a patented labyrinth metal shield and excluder lip auxiliary seal on all shafts.

No lubrication required.
Factory tested.



100% cast iron housing (Class 30) eliminates bearing cap leak paths and maximizes surface area for heat dissipation.

Patented twin tapered bushings are available in standard, patented short shaft, and metric versions.

Heavy duty tapered roller bearings provide 25,000 hours average life and 5,000 L-10 minimum hours life—even in the heaviest load conditions.

Extended gear centers and increased gear tooth contact provide dramatically increased torque and horsepower ratings.

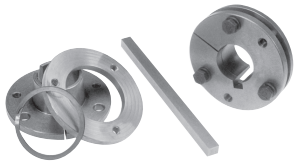
Magnetic drain plug and baffled air breather are standard.

FEATURES/BENEFITS

TORQUE-ARM II Shaft Mount Speed Reducers

THE LEGACY CONTINUES . . . . . .

Shaft Mounted



STANDARD TWIN TAPERED BUSHING SYSTEM is an easy on, easy off, no-wobble bushing system featuring a fully split, ductile iron 8° taper and reliable twin support. Available in inch and metric bores. Increased bore capability in many sizes.

Our **SHORT-SHAFT TWIN-TAPERED BUSHING KITS** eliminate the need for full-length shafts. Constructed with ductile iron, it has all the features of our standard bushing system. Available in both inch and metric bores.





This **MODULAR MOTOR MOUNT** is attached and supported by two angle iron brackets with equally spaced holes, which align with the spacing of the cast slots of the gear case. This way, the motor mount can be adjusted up or down depending on the customer's requirements. It can also be mounted on the side of the reducer for screw conveyor applications.



This new-design **BACKSTOP** option helps prevent reverse rotation in high stop-start loads, and results in less wear and longer life. Its centrifugal throw-out design eliminates sprag sliding and reduces wear. It operates with standard and EP lubricants and requires no external lubrication.



Ruggedly constructed, the **TA Rod Kit** includes standard brackets, functions as a belt-tensioning device, and offers universal mounting options.

Screw Conveyor

The CEMA BOLT-ON ADAPTER features double-lip seals on both surfaces. The adapter center is open for contaminate drop out for optimized sealing.



An optional ADJUSTABLE PACKING KIT bolts to the standard adapter and provides a proven sealing option for hostile environments. Packing can be retightened.



The SCREW CONVEYOR DRIVE SHAFTS are made from high alloy steel and engineered to CEMA dimensions. They are three-bolt drilled and their tapered fit ensures simple installation. The rugged locking plate (patent pending) also provides a mechanical shaft removal feature. #316 Stainless Steel drive shafts also available.



This complete BOLT-ON BELT GUARD PACKAGE requires no drilling or straps. It allows multiple height adjustments, and has an open metal inspection feature.



Other accessories include cooling fans and vertical breather kits.



TORQUE-ARM II Shaft Mount Speed Reducers

General Specifications

TORQUE-ARM II Speed Reducers:

The speed reducer shall be either a belt driven or direct coupled enclosed shaft mount type unit with a single or double reduction ratio. The reducer shall mount directly on the driven shaft and utilize an adjustable torque arm that attaches from the gear case to the support structure or foundation. Optional all steel motor mount adjusts to various belt center distances and supports the motor.

The reducer housing shall be constructed of two piece corrosion resistant, class 30 gray iron. All housings shall be doweled and precision machined to assure accurate alignment for all gear sets. Pry slots are provided for ease of repair.

All gearing shall be of helical design, case carburized and precision finished to insure a high surface durability with a resilient tooth core for impact resistance and optimum service life. Gears shall be supported between bearings to maintain proper alignment of gear meshes, maximize load carrying capabilities, and to eliminate overhung loads imposed on bearings. Design meets or exceed AGMA standards.

Reducer bearings shall be of the tapered roller type, meet or exceed AGMA standards, and provide a 25,000 hour average life, a 5,000 L-10 AGMA Class I standard.

All seals shall be of the lip, spring loaded type, made of Hydrogenated Nitrile Butadiene Rubber. A metal excluder seal with rubber lip is external to the standard oil seal.

Reducer installation shall be accomplished by using ductile iron, fully split, two bushing system. Reducer removal shall be accomplished by providing jack screw holes in the bushing flanges to mechanically remove the tapered assembly.

Backstops should be lift-off sprag type designed for use with standard and extreme pressure (EP) lubricants.

Screw Conveyor Drives:

The drive shall consist of a standard speed reducer; a cast iron, bolt on, four bolt mounting adapter with double lip seals on both ends, and optional bolt on adjustable packing kit.

A standard three-hole drive shaft will be machined from a high quality alloy steel.

The drive shall conform to Conveyor Equipment Manufacturers Association (CEMA) standards.

Optional all steel motor mount adjusts to various belt center distances and supports the motor.

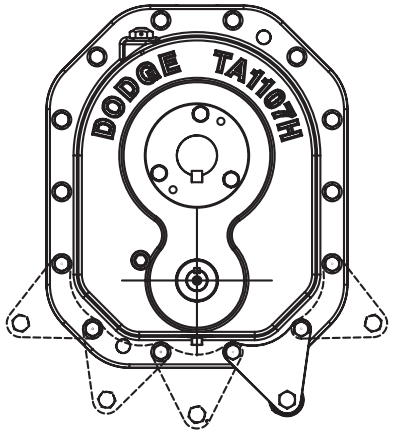
NOMENCLATURE

TORQUE-ARM II Shaft Mount Speed Reducers

Basic TORQUE-ARM II Reducer

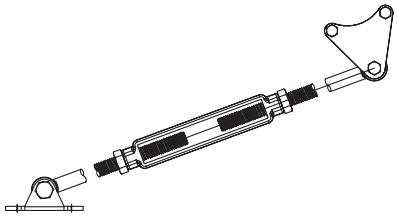
TA1107H25

TA - TORQUE-ARM II Shaft Mount Reducer
1- Case Size 1
107 - AGMA Code reference & Traditional Bore Size
H - Heavy Duty Rating & Extended Bore Size
25 - Nominal Reducer Ration

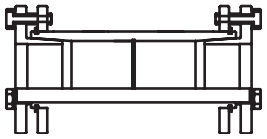


Shaft Mount Reducer Drive Accessories

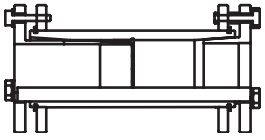
TA1107RA
TA1107 Rod Assembly



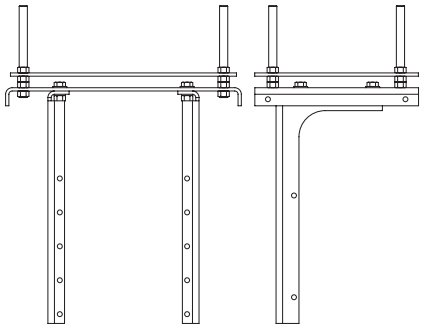
TA1107TB x 1-7/16
TA1107TB x 1-7/16 Twin Tapered Bushing Kit for Standard Length Driven Shaft



TA1107TBS x 1/7-16
TA1107TB x 1-7/16 Twin Tapered Bushing Kit for Short Driven Shaft

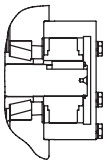


TA1107MM
TA1107MM Motor Mount Assembly

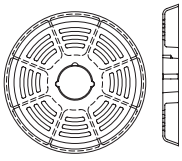


Other Accessories

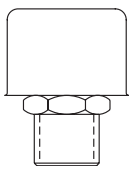
TA1107BS
Backstop Assembly



TA4207CF
Cooling Fan Assembly

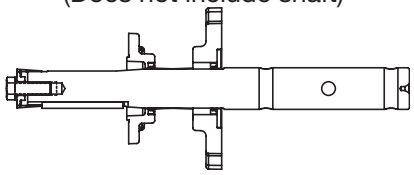


TA1-4 FB KIT
Filter Breather Kit

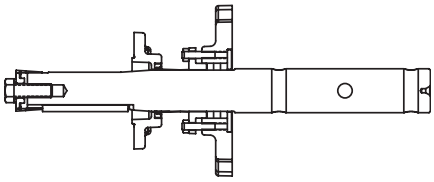


Screw Conveyor Drive Accessories

TA1107SCA
TA1107SCA Screw Conveyor Standard Adapter & Hardware Kit (Does not include shaft)



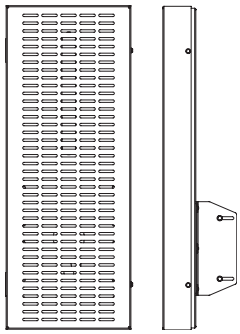
TA1107SCP Kit
TA11070SCP Screw Adjustable Packing Kit (Does not include shaft)



TA1107SCS x 1-7/16
TA11070SCS Screw Conveyor Drive Shaft x 1-7/17" Diameter



TA1107BG
TA1107BG Belt Guard





TORQUE-ARM II Shaft Mount Speed Reducers

Easy Selection Method (For Electric Motors) For TORQUE-ARM II Reducer And Screw Conveyor Drive Reducer Applications

When to Use Easy Selection

The Easy Selection tables for TA II Shaft Mount reducers are for electric motor selections up to 400 horsepower with output speeds up to 400 RPM, using AGMA recommended application class numbers. For extreme shock or high energy loads which must be absorbed, as when stalling; for a power source other than an electric motor; or for extreme ambient temperatures or oversized equipment, consult DODGE Application Engineering, 864-284-5700.

How to Select

Step 1: Determine Class of Service - See Table 1 to determine Load Classification for applications under normal conditions. Find the type application and duty cycle that most closely matches your specific application.

Class 1 - Steady load not exceeding Motor HP rating and light shock loads during 10 hours a day. Moderate shock loads are allowable if operation is intermittent

For Class 1 applications, the maximum value of starting and momentary peak loads should not exceed 2 x Motor HP rating. If it exceeds this amount it should be divided by 2 and the result used in the selection table instead of the Motor HP rating.

Class 2 - Steady load not exceeding Motor HP rating for over 10 hours a day. Moderate shock loads are allowable during 10 hours a day.

For Class 2 applications, the maximum value of starting and momentary peak loads should not exceed 2.8 x Motor HP rating. If it exceeds this amount it should be divided by 2.8 and the result used in the selection table instead of the Motor HP rating.

Class 3 - Moderate shock loads for over 10 hours a day. Heavy shock loads are allowable during 10 hours a day.

For Class 3 applications, the maximum value of starting and momentary peak loads should not exceed 4 x Motor HP rating. If it exceeds this amount it should be divided by 4 and the result used in the selection table instead of the Motor HP rating.

Step 2: Determine Reducer Size - See the Easy Selection Tables, pages G1-12- G1-34. From Class I, II or III Table, find the reducer size for the application horsepower and output speed.

Note: For applications where fan cooling is acceptable, use the Easy Selection tables with an increased Class of Service number. Where more than one reducer selection is listed, the most economical ratio is generally listed first.

See Engineering/Technical pages for maximum input speed, output speed, and thrust capacity ratings for TA II reducers.

Step 3: Compare Hollow Shaft Bore with the size of the driven shaft. All DODGE TA II Taper Bushed reducers require bushings to mount reducer to driven shaft. Refer to reducer pages for available bushings. If the driven shaft is larger than the bore of the selected reducers, the shaft must be machined to the proper size, or select a larger reducer. Check driven shaft and key for strength.

Step 4: Check Dimensions - See Selection/ Dimension pages for reducer dimensions, weights, part numbers and Torque-Arm rod mounting positions. See Engineering/ Technical pages for reducer mounting positions.

Step 5: Select a Belt Drive Arrangement - From the Sheave ratio information, pages G1-125 thru G1-126, select a sheave ratio for the belt drive. The reducer sheave P.D., Pitch Diameter, should not be smaller than the minimum sheave diameter shown in the selection tables. Note: Mount the sheave as close as possible to the reducer to minimize the effect of overhung load on the reducer.

See DODGE Drives Components catalog to select sheaves, bushings and belts for the appropriate belt drive.

Step- 6: Select Accessories - See Selection/Dimensions pages for description, dimensions, weights and part numbers for accessories for the TA II reducer selected:

Rod Assembly Bushing Kit Motor Mount
Cooling Fan Backstop Assembly Belt Guard
Screw Conveyor Adapter Filter Breather
Drive Shaft Adjustable Packing Kit
Vertical Breather Kit

EASY SELECTION



TORQUE-ARM II Shaft Mount Speed Reducers

Easy Selection Method (For Electric Motors) For TORQUE-ARM II Reducer And Screw Conveyor Drive Reducer Applications

NOTE: IMPORTANT INFORMATION

TA II reducers are stocked without a Torque-Arm Rod Assembly. Order a TA Rod Assembly as a separate item.

TA II reducers are shipped without oil. They must be lubricated at time of installation.

TA II reducers are suitable, from stock, for vertical or incline mounting and flange mounting; no reducer modification is required. See accessories for vertical breather kit.

TA II Backstop - For best life, select reducer gear ratios which exceed input shaft speeds required for backstop sprag lift-off. See page G1-129 for Backstop Lift-off speeds.

WARNING: Backstops are not recommended for applications involving energy absorption and shock or torque loads in excess of reducer ratings or on applications such as chair lift, amusement rides, etc., where the safety of persons or property is dependent on their function. On such applications, other safety devices should be provided.

Note: The TA II reducer has built-in auxiliary sealing which gives extra seal protection for all environments, at no additional cost to the user. See the Feature/Benefits pages for details.

Example: Easy Selection method for TORQUE-ARM II Reducers - Shaft Mount and Screw Conveyor Drive

Shaft Mount Reducer Application:

A 10 HP 1750 RPM motor is used to drive a belt conveyor moving sand at 70 RPM. The conveyor is uniformly loaded and operates 16 hours per day. The head pulley shaft diameter is 2-3/16". The user specifications call for a means of holding the conveyor from moving backwards.

Step 1: Determine Class of Service - From Table 1 on page G1-12 locate the appropriate application, "belt conveyors, uniformly loaded or fed" for over 10 hours per day. This load is classified as a Class II application.

Step 2: Determine Reducer Size - From Class II Selection, page G1-22, find the column for10 HP and read down to 70 RPM. A reducer size TA3203H25 or TA3203H15 reducer is the correct selection. See Engineering/Technical pages to compare input and output speed and overhung load application requirements with reducer ratings.

Step 3: Compare Hollow Shaft Bore of a size TA3203H25 or TA3203H15 with the head pulley shaft diameter. Per page G1-60, 2-3/16" is the maximum bore available for this size of reducer. It will work in this application. Be sure to check the driven shaft and key for strength.

Step 4: Check Dimensions and Weights -See Selection/Dimension pages for reducer dimensions, weights, part numbers and other pertinent drive dimensions, as well as information on TORQUE-ARM rod mounting positions. See Engineering/Technical pages for information on reducer mounting positions.

Step 5: Select a Belt Drive - From the Sheave Ratio information, pagesG1-125 thru G1-126, select a belt drive ratio for the conveyor speed of 70 RPM. Then select a belt drive, from the DODGE Drive components catalog, that meets the customer's needs (service factor, minimum number of belts) and preferences (belt style, bushing mounting style, etc.) The sheave diameters must not be smaller than the minimum diameters shown in the selection tables.

Step 6: Select Accessories - See Selection/Dimensions pages to pick out accessories for this application:

TA3203BS Backstop Assembly, to hold the conveyor from moving backwards

TA3203MM Motor Mount Assembly, for top mounting the motor to the reducer.

TA3203BG - Pos. B Belt Guard, to cover and protect the rotating belt drive.



TORQUE-ARM II Shaft Mount Speed Reducers

Easy Selection Method (For Electric Motors) For TORQUE-ARM II Reducer And Screw Conveyor Drive Reducer Applications

Example: Easy Selection method for TORQUE-ARM II Reducers - Shaft Mount and Screw Conveyor Drive

Screw Conveyor Drive Reducer Application:

A 5 HP 1750 RPM motor is used to drive a heavy duty screw conveyor moving at 72 RPM. The conveyor runs 10 hours per day in a local feed mill conveying grain. The user needs a reducer drive compatible with a CEMA 12" diameter screw and a 2-7/16" diameter drive shaft.

Step 1: Determine Class of Service - From Table 1 page G1-12, locate the appropriate application, "conveyors, general purpose; screw conveyor - heavy duty, not uniformly loaded" for 3 to 10 hours per day. This load is classified as a Class II application.

Step 2: Determine Reducer Size - From Class II Selection Table, page G1-22, find the column for 5 HP and read down to 72 RPM. A TA1107H25 reducer is the correct selection. See Engineering/Technical pages to compare input and output speed and overhung load application requirements with reducer ratings.

Step 3: Check Dimensions - See Selection/Dimensions pages for reducer dimensions, weights, part numbers and other pertinent drive dimensions. See Engineering/Technical pages for information on reducer mounting positions.

Step 4: Select Drive Shaft to fit screw diameter. See Selection/Dimension page G1-40. Here we verify that a 2-7/16" diameter drive shaft is compatible with a 12" diameter screw.

Step 5: Select a Belt Drive - From the Sheave Ratio information, pages G1-125 thru G1-126, select a belt drive ratio for the screw conveyor speed of 72 RPM. Then select a belt drive, from the DODGE Drive Components catalog, that meets the customer's needs (service factor, minimum number of belts) and preferences (belt style, bushing mounting style, etc.) The sheave diameters must not be smaller than the minimum diameters shown in the selection tables.

Step 6: Select Accessories - See Selection/Dimensions pages to pick out screw conveyor accessories for this application:

TA1107SCA Adapter & Hardware Kit, to mount reducer to trough end of screw conveyor.

TA1107SCP Adjustable Packing Kit, to add additional sealing protection to reducer drive.

TA1107MM Motor Mount Assembly, for top mounting of motor to the reducer.

TA1107BG-Pos. C Belt Guard, to cover and protect the rotating belt drive.

TA1107SCS X 2-7/16" Drive Shaft, to connect the reducer to the screw conveyor.



TORQUE-ARM II Shaft Mount Speed Reducers

Table 1: Application Classification And Class Numbers

Application	Class Numbers	
	3 to 10 Hrs per Day	Over 10 Hrs per Day
AGITATORS (Mixers)		
Pure Liquids	I	II
Liquids and Solids	II	II
Liquids-Variable Density	II	II
BLOWERS		
Centrifugal	I	II
Lobe	II	II
Vane	II	II
BREWING AND DISTILLING		
Bottling Machinery	I	II
Brew Kettles-Continuous Duty	II	II
Cookers-Continuous Duty	II	II
Mash Tubs-Continuous Duty	II	II
Scale Hopper-Frequent Starts	II	II
CAN FILLING MACHINES	I	II
CAR DUMPERS	III	III
CAR PULLERS	II	II
CLARIFIERS	I	II
CLASSIFIERS	II	II
CLAY WORKING MACHINERY	III	III
Brick Press	III	III
Briquette Machine	II	II
Pug Mill		
COMPACTORS	★	★
COMPRESSORS		
Centrifugal	I	II
Lobe	II	II
Reciprocating, Multi-Cylinder	II	III
Reciprocating, Single-Cylinder	III	III
CONVEYORS-GENERAL PURPOSE		
Includes Apron, Assembly, Belt, Bucket, Chain, Flight, Oven and Screw		
Uniformly Loaded or Fed	I	II
Heavy Duty-Not Uniformly Fed	II	II
Severe Duty-Reciprocating or Shaker	III	III
CRANES	★	★
CRUSHER		
Stone or Ore	III	III
DREDGES		
Cable Reels	II	II
Conveyors	II	II
Cutter Head Drives	III	III
Pumps	III	III
Screen Drives	III	III
Stackers	II	II
Winches	II	II
ELEVATORS		
Bucket	II	II
Centrifugal Discharge	I	II
Escalators	I	II
Freight	II	II
Gravity Discharge	I	II
EXTRUDERS		
General	II	II
Plastics		

Application	Class Numbers	
	3 to 10 Hrs per Day	Over 10 Hrs per Day
EXTRUDERS (cont)		
Variable Speed Drive	III	III
Fixed Speed Drive	III	III
Rubber		
Continuous Screw Operation	III	III
Intermittent Screw Operation	III	III
FANS		
Centrifugal	I	II
Forced Draft	II	II
Induced Draft	II	II
Industrial & Mine	II	II
FEEDERS		
Apron	II	II
Belt	II	II
Disc	I	II
Reciprocating	III	III
Screw	II	II
FOOD INDUSTRY	I	II
Cereal Cooker	II	II
Dough Mixer	II	II
Meat Grinders	II	II
Slicers		
GENERATORS AND EXCITERS	II	II
HAMMER MILLS	III	III
HOISTS	★	★
LAUNDRY TUMBLERS	II	II
LAUNDRY WASHERS	II	III
LUMBER INDUSTRY		
Barkers		
Spindle Feed	II	II
Main Drive	III	III
Conveyors		
Burner	II	II
Main or Heavy Duty	II	II
Main Log	III	III
Re-saw, Merry-Go-Round	II	II
Slab	III	III
Transfer	II	II
Chains		
Floor	II	II
Green	II	III
Cut-Off Saws		
Chain	II	III
Drag	II	III
Debarking Drums	III	III
Feeds		
Edger	II	II
Gang	III	III
Trimmer	II	II
Log Deck	III	III
Log Hauls-Incline-Well Type	III	III
Log Tuning Devices	III	III
Planer Feed	II	II
Planer Tilting Hoists	II	II
Rolls-Live-off brg.- Roll Cases	III	III
Sorting Table	II	II
Triple Hoist	II	II

★ Consult DODGE for more information on class number



TORQUE-ARM II Shaft Mount Speed Reducers

Table 1: Application Classification And Class Numbers

Application	Class Numbers	
	3 to 10 Hrs per Day	Over 10 Hrs per Day
LUMBER INDUSTRY (cont)		
Transfers		
Chain	II	III
Craneway	II	III
Tray Drives	II	II
Veneer Lathe Drives	II	II
METAL MILLS		
Draw bench Carriage and Main Drive	II	II
Runout Table		
Non-Reversing		
Group Drives	III	II
Individual Drives	III	III
Reversing	II	III
Slab Pushers	III	II
Shears	II	III
Wire Drawing	II	II
Wire Winding Machine	II	II
METAL STRIP PROCESSING MACHINERY		
Bridles	II	II
Coilers & Uncoliers	I	II
Edge Trimmers	II	II
Flatteners	II	II
Loopers (Accumulators)	I	I
Pinch Rolls	II	II
Scrap Choppers	II	II
Shears	III	III
Slitters	II	II
MILLS, ROTARY TYPE		
Ball & Rod		
Spur Ring Gear	III	III
Helical Ring Gear	II	II
Direct Connected	III	III
Cement Kilns	II	II
Dryers & Coolers	II	II
MIXERS, CEMENT	II	II
PAPER MILLS		
Agitator (Mixer)	II	II
Agitator for Pure Liquors	II	II
Barking Drums	III	III
Barkers-Mechanical	III	III
Beater	II	II
Breaker Stack	II	II
Chipper	III	III
Chip Feeder	II	II
Coating Rolls	II	II
Conveyors		
Chip, Bark, Chemical	II	
Log (including Slab)	III	
Couch Rolls	II	
Cutter	III	
Cylinder Molds	II	
Embosser	II	
Extruder	II	
Fourdrinier Rolls (includes Lump		
breaker, dandy roll, wire	II	II
turning, and return rolls)	II	II

Application	Class Numbers	
	3 to 10 Hrs per Day	Over 10 Hrs per Day
PAPER MILLS (cont)		
Jordan	II	II
Kiln Drive	II	II
Mt. Hope Roll	II	II
Paper Rolls	II	II
Platter	II	II
Presses-Felt & Suction	III	III
Pulper	II	II
Pumps-Vacuum	II	II
Reel (Surface Type)		
Screens		
Chip	II	II
Rotary	II	II
Vibrating	III	III
Size Press	II	II
Thickener (AC Motor)	II	II
(DC Motor)	II	II
Washer (AC Motor)	II	II
(DC Motor)	II	II
Wind and Unwind Stand	I	I
Winders (Surface Type)	II	II
PLASTICS INDUSTRY-SECONDARY		
PROCESSING	II	II
Blow Molders	II	II
Coating	II	II
Film	II	II
Pipe	II	II
Pre-Plasticizers	II	II
Rods	II	II
Sheet	II	II
Tubing		
PULLERS-BARGE HAUL	II	II
PUMPS		
Centrifugal	I	II
Proportioning	II	II
Reciprocating		
Single Acting, 3 or more cylinders	II	II
Double Acting, 2 or more cylinders	II	II
Rotary		
Gear Type	I	II
Lobe	I	II
Vane	I	II
RUBBER AND PLASTICS INDUSTRY		
Intensive Internal Mixers	III	III
Batch Mixers	II	II
Continuous Mixers		
Mixing Mill		
2 smooth rolls	II	II
1 or 2 corrugated rolls	III	III
Batch Drop Mill - 2 smooth rolls	II	II
Cracker Warmer - 2 roll, 1 corrugated roll	III	III
Cracker-2 corrugated rolls	III	III
Holding, Feed & Blend Mill-2 rolls	II	II
Refiner-2 rolls	II	II
Calenders	II	II
SAND MULLER	II	II



TORQUE-ARM II Shaft Mount Speed Reducers

Table 1: Application Classification And Class Numbers

Application	Class Numbers	
	3 to 10 Hrs per Day	Over 10 Hrs per Day
SEWAGE DISPOSAL EQUIPMENT		
Bar Screens	II	II
Chemical Feeders	II	II
Dewatering Screens	II	II
Scum Breakers	II	II
Slow or Rapid Mixers	II	II
Sludge Collectors	II	II
Thickener	II	II
Vacuum Filters	II	II
SCREENS		
Air Washing	I	II
Rotary-Stone or Gravel	II	II
Traveling Water Intake	I	I
SCREW CONVEYORS		
Uniformly Loaded or Fed	I	II
Heavy Duty	II	II
SUGAR INDUSTRY		
Beet Slicer	III	III
Cane knives	II	II
Crushers	II	II
Mills (low speed end)	III	III

Application	Class Numbers	
	3 to 10 Hrs per Day	Over 10 Hrs per Day
TEXTILE INDUSTRY		
Batchers	II	II
Calenders	II	II
Cards	II	II
Dry Cans	II	II
Dyeing Machinery	II	II
Looms	II	II
Mangles	II	II
Nappers	II	II
Pads	II	II
Stashers	II	II
Soapers	II	II
Spinners	II	II
Tenter Frames	II	II
Washers	II	II
Winders	II	II



SELECTION

TORQUE-ARM II Shaft Mount Speed Reducers

Class I Selections ★ (SF = 1.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
1/4	4-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1/3	4	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	5-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1/2	4	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	5-7	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	8-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---

★ See Page G1-132 for lubrication for 15 RPM and slower

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
3/4	4-6	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	7-11	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	12-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1	4-5	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	6-8	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	9-15	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	16-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1-1/2	4-5	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	6-7	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	8-12	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
1-1/2 (cont)	13-23	TA1107H31	4.9	---
		TA1107H25	6.2	---
		TA1107H15	5.5	---
	24-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
2	4	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	5-6	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	7-10	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	11-16	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	17	TA1107H31	4.8	---
		TA2115H25	3.3	---
		TA1107H15	5.4	---
	18-32	TA1107H31	4.8	---
		TA1107H25	5.9	---
		TA1107H15	5.3	---
	33-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	

SELECTION

DODGE®



TORQUE-ARM II Shaft Mount Speed Reducers

Class I Selections ★ (SF = 1.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
3	4-6	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	7-10	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	11-15	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	16-26	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.2	---
	27-50	TA1107H31	4.6	---
		TA1107H25	5.7	---
		TA1107H15	5.2	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	
5	4	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	5-6	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.4	---
	7-10	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	11-16	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	17-25	TA3203H32	4.4	---
		TA3203H25	4.5	---
		TA3203H15	4.5	---
	26	TA3203H32	4.2	---
		TA2115H25	3.2	---
		TA2115H15	3.1	---
	27-46	TA2115H33	3.6	---
		TA2115H25	3.2	---
		TA2115H15	3.1	---

★ See Page G1-132 for lubrication for 15 RPM and slower

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
5 (cont)	47-50	TA1107H31	4.4	---
		TA1107H25	5.4	---
		TA1107H15	4.9	---
	51-80	TA1107H25	5.4	---
		TA1107H15	4.9	---
	81-89	TA1107H15	4.6	---
		TA1107H09	7.7	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	
7-1/2	4	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	5-6	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	7-9	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.4	---
	10-15	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	16-25	TA4207H40	4.8	---
		TA4207H25	5.4	---
		TA4207H15	7.9	---
	26-39	TA3203H32	4.2	---
		TA3203H25	4.4	---
		TA3203H15	4.4	---
	40-50	TA2115H33	3.2	---
		TA2115H25	3.1	---
		TA2115H15	3.2	---
	51-72	TA2115H25	3.1	---
		TA2115H15	3.6	---
	73-80	TA1107H25	5.2	---
		TA1107H15	4.7	---
	81-89	TA1107H15	4.6	---
		TA1107H09	7.7	---
	90-120	TA1107H15	4.6	---
		TA1107H09	7.5	---
		TA1107H05	12.5	---
	121-145	TA1107H09	7.1	---
		TA1107H05	11.2	---
	146-163	TA0107L09	4.8	---
		TA1107H05	10.3	---
	164-200	TA0107L09	4.7	---
		TA0107L05	7.4	---
	201-400	TA0107L05	6.9	

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
10	4	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---
	5	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	6-8	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	9-12	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.4	---
	13-20	TA5215H40	6.7	---
		TA5215H25	6.0	---
		TA5215H15	7.0	---
	21-32	TA4207H40	4.7	---
		TA4207H25	5.2	---
		TA4207H15	7.7	---
	34-50	TA3203H32	4.1	---
		TA3203H25	4.3	---
		TA3203H15	4.3	---
	51-55	TA3203H25	4.2	---
		TA3203H15	4.2	---
	56-80	TA2115H25	3.1	---
		TA2115H15	3.6	---
	81-89	TA2115H15	3.7	---
		TA2115H09	6.1	---
	90-100	TA2115H15	3.7	---
		TA2115H09	6.2	---
		TA2115H05	6.5	---
	101	TA1107H15	4.5	---
		TA2115H09	6.2	---
		TA2115H05	6.5	---
	102-118	TA1107H15	4.5	---
		TA1107H09	7.4	---
		TA2115H05	6.6	---
	119-120	TA1107H15	4.4	---
		TA1107H09	7.1	---
		TA1107H05	11.2	---
	121-200	TA1107H09	7.1	---
		TA1107H05	11.2	---
	201-276	TA1107H05	9.1	---
	277-400	TA0107L05	5.8	---
15	4	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	5-6	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---



TORQUE-ARM II Shaft Mount Speed Reducers

Class I Selections ★ (SF = 1.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
15 (cont)	7-8	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	9-13	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	14-18	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---
	19-32	TA5215H40	6.5	---
		TA5215H25	5.9	---
		TA5215H15	6.8	---
	33-50	TA4207H40	4.5	---
		TA4207H25	5.0	---
		TA4207H15	7.3	---
	51-53	TA4207H25	4.7	---
		TA4207H15	6.8	---
	54-80	TA3203H25	4.1	---
		TA3203H15	4.2	---
	81-89	TA3203H15	4.0	---
		TA3203H09	5.2	---
	90-92	TA3203H15	4.0	---
		TA3203H09	5.3	---
		TA3203H05	11.0	---
	93-120	TA2115H15	3.7	---
		TA2115H09	6.2	---
		TA3203H05	10.4	---
	121-143	TA2115H09	6.1	---
		TA3203H05	7.7	---
	144-200	TA2115H09	6.5	---
		TA2115H05	6.4	---
	201-400	TA2115H05	6.0	---
20	4	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	5-6	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	7-8	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---
	9-11	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	12-18	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---

★ See Page G1-132 for lubrication for 15 RPM and slower

† See page G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducers

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
20 (cont)	19-25	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---
	26-45	TA5215H40	6.4	---
		TA5215H25	5.7	---
		TA5215H15	6.7	---
	46-50	TA4207H40	4.3	---
		TA4207H25	4.7	---
		TA4207H15	7.0	---
	51-75	TA4207H25	4.7	---
		TA4207H15	6.8	---
	76-80	TA4207H25	4.4	---
		TA3203H15	4.1	---
	81-89	TA3203H15	4.0	---
		TA3203H09	5.2	---
	90-103	TA3203H15	4.0	---
		TA3203H09	5.4	---
		TA4207H05	9.9	---
	104-105	TA4207H15	6.1	---
		TA3203H09	5.4	---
		TA4207H05	9.6	---
	106-120	TA4207H15	6.1	---
		TA3203H09	5.6	---
		TA3203H05	8.6	---
	121-141	TA3203H09	5.7	---
		TA3203H05	7.7	---
	142-200	TA2115H09	6.5	---
		TA3203H05	7.2	---
	201-238	TA3203H05	7.0	---
	239-400	TA2115H05	5.7	---
25	4	TDT1425 †	15.0	---
	5	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	6-7	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	8-10	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---
	11-15	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	16-23	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	24-32	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
25 (cont)	33-50	TA5215H40	6.3	---
		TA5215H25	5.6	---
		TA5215H15	6.5	---
	51-58	TA5215H25	5.4	---
		TA5215H15	6.3	---
	59-80	TA4207H25	4.6	---
		TA4207H15	6.7	---
	81-89	TA4207H15	6.4	---
		TA4207H09	10.1	---
	90-110	TA4207H15	6.3	---
		TA4207H09	9.9	---
		TA5215H05	13.9	---
	111-120	TA4207H15	6.0	---
		TA4207H09	9.4	---
		TA4207H05	9.5	---
	121-163	TA4207H09	9.3	---
		TA4207H05	9.3	---
	164-200	TA4207H09	8.5	---
		TA3203H05	7.0	---
	201-400	TA3203H05	7.0	---
30	4-5	TDT1425 †	15.0	---
	6	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	7-9	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	10-12	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.3	---
	13-18	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	19-28	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	29-30	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---
	31-39	TA6307H40	6.2	---
		TA6307H25	6.2	---
		TA6307H15	6.3	---
	40-50	TA5215H40	6.2	---
		TA5215H25	5.5	---
		TA5215H15	6.4	---
	51-72	TA5215H25	5.4	---
		TA5215H15	6.3	---
	73-80	TA4207H25	4.4	---
		TA4207H15	6.5	---

SELECTION

TORQUE-ARM II Shaft Mount Speed Reducers

Class I Selections ⋆ (SF = 1.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
30 (cont)	81-89	TA4207H15	6.4	---
		TA4207H09	10.1	---
	90-120	TA4207H15	6.3	---
		TA4207H09	9.9	---
		TA5215H05	13.9	---
	121-132	TA4207H09	9.3	---
		TA5215H05	11.8	---
	133-200	TA4207H09	9.1	---
		TA4207H05	9.2	---
	201-215	TA4207H05	9.3	---
	216-400	TA3203H05	7.0	---
40	4	TDT1530 †	15.0	---
	5-6	TDT1425 †	15.0	---
	7	TA12608H40	17.2	---
		TDT1425 †	15.0	---
	8	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	9-12	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	13-17	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.5	---
	18-25	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	26-38	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	39-50	TA6307H40	6.2	---
		TA6307H25	6.2	---
		TA6307H15	6.2	---
	51-54	TA6307H25	6.2	---
		TA6307H15	6.2	---
	55-80	TA5215H25	5.4	---
		TA5215H15	6.3	---
	81-89	TA5215H15	6.0	---
		TA5215H09	9.1	---
	90-102	TA5215H15	5.7	---
		TA5215H09	8.9	---
		TA5215H05	13.9	---

* See Page G1-132 for lubrication for 15 RPM and slower

† See page G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducers

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
40 (cont)	103-107	TA4207H15	6.1	---
		TA5215H09	8.6	---
		TA5215H05	12.9	---
	108-120	TA4207H15	6.0	---
		TA4207H09	9.5	---
		TA5215H05	12.6	---
	121-182	TA4207H09	9.3	---
		TA5215H05	11.8	---
	183-185	TA4207H09	8.1	---
		TA4207H05	9.1	---
	186-200	TA4207H09	8.0	---
		TA4207H05	9.2	---
	201-400	TA4207H05	9.8	---
50	4-5	TDT1530 †	15.0	---
	6-8	TDT1425 †	15.0	---
	9-10	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	11-15	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	16-17	TA9415H40	8.0	Fan
		TA9415H25	8.0	---
		TA9415H15	10.5	---
	18-21	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.7	---
	22-27	TA8407H40	6.2	Fan
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	28-32	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	33-49	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	50	TA6307H40	6.2	Fan
		TA6307H25	6.2	---
		TA6307H15	6.2	---
	51-69	TA6307H25	6.2	---
		TA6307H15	6.2	---
	70-80	TA5215H25	5.3	Fan
		TA5215H15	6.1	---
	81-89	TA5215H15	6.0	---
		TA5215H09	9.1	---
	90-93	TA5215H15	5.7	---
		TA5215H09	8.9	---
		TA6307H05	15.1	---

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
50 (cont)	94-120	TA5215H15	5.6	---
		TA5215H09	8.8	---
		TA5215H05	13.6	---
	121-144	TA5215H09	8.3	---
		TA5215H05	11.8	---
	145-200	TA4207H09	8.9	---
		TA5215H05	11.2	---
	201-242	TA5215H05	9.9	---
	243-400	TA4207H05	9.7	---
60	4-6	TDT1530 †	15.0	---
	7-10	TDT1425 †	15.0	---
	11-13	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.9	---
	14-18	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	19	TA9415H40	8.0	Fan
		TA9415H25	8.0	Fan
		TA9415H15	10.7	---
	20-26	TA9415H40	8.0	Fan
		TA9415H25	8.0	---
		TA9415H15	10.8	---
	27-30	TA8407H40	6.2	Fan
		TA8407H25	6.2	Fan
		TA8407H15	6.2	---
	31-39	TA8407H40	6.2	Fan
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	40-50	TA7315H40	6.2	Fan
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	51-60	TA7315H25	6.2	---
		TA7315H15	6.2	---
	61-80	TA6307H25	6.2	---
		TA6307H15	6.2	---
	81-88	TA6307H15	6.3	---
		TA6307H09	9.9	---
	89	TA5215H15	5.7	Fan
		TA6307H09	9.9	---
	90-93	TA5215H15	5.7	---
		TA6307H09	10.1	---
		TA6307H05	15.1	---
	94-115	TA5215H15	5.6	---
		TA5215H09	8.8	---
	116-120	TA5215H15	5.1	Fan
		TA5215H09	8.4	---
	121-131	TA5215H09	8.3	---
		TA6307H05	14.5	---



TORQUE-ARM II Shaft Mount Speed Reducers

Class I Selections ★ (SF = 1.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
60 (cont)	132-200	TA5215H09	7.9	---
		TA5215H05	11.4	---
	201-400	TA5215H05	9.9	---
75	5-8	TDT1530 †	15.0	---
	9-13	TDT1425 †	15.0	---
	14-16	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	14.2	---
	17-23	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	24-33	TA9415H40	8.0	Fan
		TA9415H25	8.0	Fan
		TA9415H15	10.8	---
	34-37	TA8407H40	6.2	Fan
		TA8407H25	6.2	Fan
		TA8407H15	6.2	Fan
	38-49	TA8407H40	6.2	Fan
		TA8407H25	6.2	Fan
		TA8407H15	6.2	---
	50	TA7315H40	6.2	Fan
		TA7315H25	6.2	Fan
		TA7315H15	6.2	---
	51-77	TA7315H25	6.2	Fan
		TA7315H15	6.2	---
	78-80	TA6307H25	6.2	Fan
		TA6307H15	6.2	Fan
	81-89	TA6307H15	6.3	Fan
		TA6307H09	9.9	Fan
	90-101	TA6307H15	6.5	Fan
		TA6307H09	10.3	Fan
		TA7315H05	14.8	---
	102-120	TA6307H15	6.7	Fan
		TA6307H09	10.8	Fan
		TA6307H05	15.1	---
	121-129	TA6307H09	10.8	Fan
		TA6307H05	14.5	---
	130-196	TA5215H09	7.9	---
		TA6307H05	14.4	---
	197-200	TA5215H09	5.9	Fan
		TA6307H05	13.9	---
	201-208	TA6307H05	13.8	---
	209-400	TA5215H05	9.7	---

* See Page G1-132 for lubrication for 15 RPM and slower

† See page G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducers

P&C (Pump & Coolers) - Use the DODGE Speed Reducer auxiliary cooling package, part number 014148

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
100	6-11	TDT1530 †	15.0	---
	12-17	TDT1425 †	15.0	---
	18-19	TA12608H40	17.1	Fan
		TA12608H25	9.5	---
		TA12608H15	14.4	---
	20-22	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	14.6	---
	23-26	TA10507H40	8.5	Fan
		TA10507H25	8.5	Fan
		TA10507H15	10.7	---
	27-31	TA10507H40	8.5	Fan
		TA10507H25	8.5	---
		TA10507H15	10.6	---
	32-46	TA9415H40	8.0	Fan
		TA9415H25	8.0	Fan
		TA9415H15	10.8	Fan
	47-50	TA8407H40	6.2	Fan
		TA8407H25	6.2	Fan
		TA8407H15	6.2	Fan
	51-68	TA8407H25	6.2	Fan
		TA8407H15	7.0	Fan
	69-80	TA7315H25	6.2	Fan
		TA7315H15	6.2	Fan
	81-110	TA7315H15	6.2	Fan
		TA7315H09	8.5	Fan
	111	TA6307H15	6.6	Fan
		TA6307H09	10.5	Fan
	112-120	TA6307H15	6.7	Fan
		TA6307H09	10.8	Fan
		TA7315H05	13.2	---
	121-157	TA6307H09	10.9	Fan
		TA7315H05	12.8	---
	158-200	TA6307H09	10.9	Fan
		TA6307H05	14.2	---
	201-400	TA6307H05	13.8	---
125	8-14	TDT1530 †	15.0	---
	15-21	TDT1425 †	15.0	---
	22-26	TA12608H40	17.1	Fan
		TA12608H25	9.5	Fan
		TA12608H15	14.8	Fan
	27-28	TA12608H40	17.1	Fan
		TA12608H25	9.5	Fan
		TA12608H15	14.9	---
	29	TA10507H40	8.5	Fan
		TA12608H25	9.5	Fan
		TA12608H15	14.9	---
	30-40	TA10507H40	8.5	Fan
		TA10507H25	8.5	Fan
		TA10507H15	10.8	Fan

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
125 (cont)	41-50	TA9415H40	8.0	P&C
		TA9415H25	8.0	P&C
		TA9415H15	10.8	Fan
	51-59	TA9415H25	8.0	P&C
		TA9415H15	10.8	Fan
	60-80	TA8407H25	6.2	P&C
		TA8407H15	7.5	Fan
	81-88	TA8407H15	7.8	Fan
	89-90	TA7315H15	6.2	Fan
	91-120	TA7315H15	6.2	Fan
		TA7315H09	8.5	Fan
	121-149	TA7315H09	8.6	Fan
	150-160	TA6307H09	10.9	Fan
	161-200	TA6307H09	10.8	Fan
		TA7315H05	11.9	---
	201-225	TA7315H05	11.7	---
	226-368	TA6307H05	12.8	---
	369-400	TA6307H05	10.9	Fan
150	9-17	TDT1530 †	15.0	---
	18-26	TDT1425 †	15.0	---
	27-34	TA12608H40	17.1	P&C
		TA12608H25	9.5	Fan
		TA12608H15	15.1	Fan
	35-36	TA10507H40	8.5	P&C
		TA12608H25	9.5	Fan
		TA12608H15	15.2	Fan
	37-49	TA10507H40	8.5	P&C
		TA10507H25	8.5	Fan
		TA10507H15	11.3	---
	50	TA9415H40	8.0	P&C
		TA9415H25	8.0	P&C
		TA9415H15	10.8	Fan
	51-72	TA9415H25	8.0	P&C
		TA9415H15	10.8	Fan
	73-80	TA8407H25	6.2	P&C
		TA8407H15	7.5	Fan
	81-112	TA8407H15	8.6	Fan
	113	TA7315H15	6.2	Fan
	114-120	TA7315H15	6.2	Fan
		TA7315H09	8.5	Fan
	121-200	TA7315H09	8.6	Fan
	213-400	TA7315H05	11.5	---
200	12-23	TDT1530 †	15.0	---
	24-35	TDT1425 †	15.0	---
	36-47	TA12608H40	17.1	P&C
		TA12608H25	9.5	P&C
		TA12608H15	15.6	Fan
	48-50	TA10507H40	8.5	P&C
		TA12608H25	9.5	P&C
		TA12608H15	15.7	Fan

SELECTION



TORQUE-ARM II Shaft Mount Speed Reducers

Class I Selections ⋆ (SF = 1.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
200 (cont)	51	TA12608H25	9.6	P&C
		TA12608H15	15.7	Fan
	52-67	TA10507H25	8.8	P&C
		TA10507H15	12.4	Fan
	68	TA9415H25	8.0	P&C
		TA10507H15	12.5	Fan
	69-80	TA9415H25	8.0	P&C
		TA9415H15	10.7	P&C
	81-100	TA9415H15	10.5	P&C
	101-120	TA8407H15	8.7	P&C
	172-200	TA7315H09	8.4	P&C
	331-400	TA7315H05	10.8	Fan
250	16-30	TDT1530 †	15.0	---
	31-43	TDT1425 †	15.0	Fan
	44-50	TA12608H40	17.1	P&C
		TA12608H25	9.5	P&C
		TA12608H15	15.7	P&C
	51-67	TA12608H25	10.4	P&C
		TA12608H15	16.1	P&C
	68-75	TA10507H25	9.2	P&C
		TA10507H15	13.0	P&C
	76-80	TA10507H25	9.4	P&C
		TA10507H15	13.4	P&C
	81-90	TA10507H15	13.6	P&C
	91-120	TA9415H15	10.3	P&C
300	19-36	TDT1530 †	15.0	---
	37-52	TDT1425 †	15.0	P&C
	53-80	TA12608H25	10.7	P&C
		TA12608H15	16.1	P&C
	81-83	TA12608H15	15.6	P&C
	84-115	TA10507H15	13.6	P&C
	116-120	TA9415H15	10.2	P&C
350	23-42	TDT1530 †	15.0	Fan
	43-61	TDT1425 †	15.0	P&C
	62-80	TA12608H25	10.7	P&C
		TA12608H15	16.1	P&C
	81-103	TA12608H15	15.6	P&C
	104-120	TA10507H15	13.5	P&C
400	27-50	TDT1530 †	15.0	Fan
	51-70	TDT1425 †	15.0	P&C
	71-80	TA12608H25	10.7	P&C
		TA12608H15	16.1	P&C
	81-120	TA12608H15	15.6	P&C
450	30-31	TDT1530 †	15.0	P&C
	32-57	TDT1530 †	15.0	Fan
	59-75	TDT1425 †	15.0	P&C
	84-120	TA12608H15	15.5	P&C
500	34-57	TDT1530 †	15.0	P&C
	66-75	TDT1425 †	15.0	P&C
	97-120	TA12608H15	15.1	P&C
600	41-57	TDT1530 †	15.0	P&C
700	50-57	TDT1530 †	15.0	P&C

* See Page G1-132 for lubrication for 15 RPM and slower

† See page G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducers

P&C (Pump & Coolers) - Use the DODGE Speed Reducer auxiliary cooling package, part number 014148



SELECTION

TORQUE-ARM II Shaft Mount Speed Reducers

Class Ii Selections * (SF = 1.4)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
1/4	4-5	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	6-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1/3	4-6	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	7-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1/2	4-5	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	6-10	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	11-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
3/4	4-5	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---

* See Page G1-132 for lubrication for 15 RPM and slower

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
3/4 (cont)	6-8	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	9-16	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	17-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1	4	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	5-7	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	8-11	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	12-21	TA1107H31	4.9	---
		TA1107H25	6.3	---
		TA1107H15	5.5	---
	22-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1-1/2	4	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	5-7	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	8-10	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	11-17	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
1-1/2 (cont)	18-34	TA1107H31	4.8	---
		TA1107H25	5.9	---
		TA1107H15	5.3	---
	35-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
2	4-5	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	6-9	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	10-14	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	15-24	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	25-46	TA1107H31	4.7	---
		TA1107H25	5.7	---
		TA1107H15	5.2	---
	47-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
3	4-5	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.4	---
	6-8	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	9-14	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	15-21	TA3203H32	4.5	---
		TA3203H25	4.5	---
		TA3203H15	4.5	---

SELECTION

TORQUE-ARM II Shaft Mount Speed Reducers

Class II Selections ★ (SF = 1.4)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
3 (cont)	22-38	TA2115H33	3.6	---
		TA2115H25	3.3	---
		TA2115H15	3.2	---
	39-50	TA1107H31	4.5	---
		TA1107H25	5.5	---
		TA1107H15	5.0	---
	51-73	TA1107H25	5.4	---
		TA1107H15	4.9	---
	74-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
5	4	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	5-6	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	7-8	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.4	---
	9-14	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	15-23	TA4207H40	4.9	---
		TA4207H25	5.4	---
		TA4207H15	7.9	---
	24-36	TA3203H32	4.3	---
		TA3203H25	4.4	---
		TA3203H15	4.4	---
	37-50	TA2115H33	3.3	---
		TA2115H25	3.1	---
		TA2115H15	3.2	---
	51-67	TA2115H25	3.1	---
		TA2115H15	3.5	---
	68-80	TA1107H25	5.2	---
		TA1107H15	4.7	---
	81-89	TA1107H15	4.6	---
		TA1107H09	7.7	---
	90-120	TA1107H15	4.6	---
		TA1107H09	7.5	---
		TA1107H05	12.5	---
	121-131	TA1107H09	7.1	---
		TA1107H05	11.2	---
	132-146	TA0107L09	5.0	---
		TA1107H05	10.8	---
	147-200	TA0107L09	4.8	---
		TA0107L05	7.7	---
	201-400	TA0107L05	6.9	---

* See Page G1-132 for lubrication for 15 RPM and slower

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
7-1/2	4	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---
	5-6	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	7-9	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	10-13	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.4	---
	14-21	TA5215H40	6.7	---
		TA5215H25	6.0	---
		TA5215H15	7.0	---
	22-35	TA4207H40	4.7	---
		TA4207H25	5.2	---
		TA4207H15	7.7	---
	36-50	TA3203H32	4.1	---
		TA3203H25	4.3	---
		TA3203H15	4.3	---
	51-58	TA3203H25	4.2	---
		TA3203H15	4.2	---
	59-80	TA2115H25	3.1	---
		TA2115H15	3.6	---
	81-89	TA2115H15	3.7	---
		TA2115H09	6.1	---
	90-105	TA2115H15	3.7	---
		TA2115H09	6.2	---
		TA2115H05	6.5	---
	106-108	TA1107H15	4.5	---
		TA2115H09	6.2	---
		TA2115H05	6.5	---
	109-120	TA1107H15	4.5	---
		TA1107H09	7.3	---
		TA2115H05	6.6	---
	121-127	TA1107H09	7.1	---
		TA2115H05	6.6	---
	128-200	TA1107H09	7.0	---
		TA1107H05	10.9	---
	201-306	TA1107H05	9.1	---
	307-400	TA0107L05	5.5	---
10	4	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	5	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---
	6-8	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	9-12	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	13-17	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
10 (cont)	18-29	TA5215H40	6.6	---
		TA5215H25	5.9	---
		TA5215H15	6.8	---
	30-49	TA4207H40	4.5	---
		TA4207H25	5.0	---
		TA4207H15	7.4	---
	50	TA3203H32	4.0	---
		TA3203H25	4.2	---
		TA3203H15	4.2	---
	51-80	TA3203H25	4.2	---
		TA3203H15	4.2	---
	81-84	TA3203H15	4.0	---
		TA3203H09	5.1	---
	85-89	TA2115H15	3.7	---
		TA2115H09	6.1	---
	90-120	TA2115H15	3.7	---
		TA2115H09	6.2	---
		TA3203H05	11.0	---
	121-127	TA2115H09	6.1	---
		TA3203H05	7.7	---
	128-162	TA2115H09	6.2	---
		TA2115H05	6.5	---
	163-200	TA1107H09	6.5	---
		TA2115H05	6.3	---
	201-209	TA2115H05	6.0	---
	210-400	TA1107H05	8.9	---
15	4	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	5-6	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	7-8	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---
	9-12	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	13-19	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	20-26	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---
	27-47	TA5215H40	6.4	---
		TA5215H25	5.7	---
		TA5215H15	6.6	---
	48-50	TA4207H40	4.2	---
		TA4207H25	4.7	---
		TA4207H15	6.9	---
	51-80	TA4207H25	4.7	---
		TA4207H15	6.8	---
	81	TA3203H15	4.0	---
		TA4207H09	10.1	---
	82-89	TA3203H15	4.0	---
		TA3203H09	5.2	---



TORQUE-ARM II Shaft Mount Speed Reducers

Class II Selections ⋆ (SF = 1.4)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
15 (cont)	90-92	TA3203H15	4.0	---
		TA3203H09	5.3	---
		TA5215H05	13.9	---
	93-118	TA3203H15	4.0	---
		TA3203H09	5.5	---
		TA4207H05	9.8	---
	119-120	TA3203H15	4.0	---
		TA3203H09	5.6	---
		TA3203H05	7.7	---
	121-149	TA3203H09	5.7	---
		TA3203H05	7.7	---
	150-200	TA2115H09	6.5	---
		TA3203H05	7.0	---
	201-260	TA3203H05	7.0	---
	261-400	TA2115H05	5.6	---
20	4	TDT1425 †	15.0	---
	5	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	6-8	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	9-11	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.3	---
	12-17	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	18-26	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	27-36	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---
	37-50	TA5215H40	6.2	---
		TA5215H25	5.6	---
		TA5215H15	6.5	---
	51-67	TA5215H25	5.4	---
		TA5215H15	6.3	---
	68-80	TA4207H25	4.5	---
		TA4207H15	6.6	---
	81-89	TA4207H15	6.4	---
		TA4207H09	10.1	---
	90-115	TA4207H15	6.3	---
		TA4207H09	9.9	---
		TA5215H05	13.9	---
	116-120	TA4207H15	5.9	---
		TA3203H09	5.6	---
		TA5215H05	12.1	---
	121-123	TA3203H09	5.6	---
		TA5215H05	11.8	---
	124-194	TA3203H09	5.7	---
		TA4207H05	9.3	---
20 (cont)	195-200	TA3203H09	5.5	---
		TA3203H05	7.0	---
	201-400	TA3203H05	7.0	---
25	4-6	TDT1425 †	15.0	---
	7	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	8-10	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	11-14	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.4	---
	15-21	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	22-33	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	34-46	TA6307H40	6.2	---
		TA6307H25	6.2	---
		TA6307H15	6.2	---
	47-50	TA5215H40	6.1	---
		TA5215H25	5.5	---
		TA5215H15	6.3	---
	51-80	TA5215H25	5.4	---
		TA5215H15	6.3	---
	81-87	TA5215H15	6.0	---
		TA5215H09	9.1	---
	88-89	TA4207H15	6.3	---
		TA5215H09	8.9	---
	90-91	TA4207H15	6.3	---
		TA5215H09	8.9	---
		TA5215H05	13.9	---
	92-120	TA4207H15	6.3	---
		TA4207H09	9.8	---
		TA5215H05	13.7	---
	121-154	TA4207H09	9.3	---
		TA5215H05	11.8	---
	155-200	TA4207H09	8.7	---
		TA4207H05	9.2	---
	201-269	TA4207H05	9.8	---
	270-400	TA3203H05	7.0	---
30	4	TDT1530 †	15.0	---
	5-7	TDT1425 †	15.0	---
	8	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	9-12	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	13-18	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.6	---
	19-26	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
30 (cont)	27-41	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	42-50	TA6307H40	6.2	---
		TA6307H25	6.2	---
		TA6307H15	6.2	---
	51-56	TA6307H25	6.2	---
		TA6307H15	6.2	---
	57-80	TA5215H25	5.4	---
		TA5215H15	6.2	---
	81-89	TA5215H15	6.0	---
		TA5215H09	9.1	---
	90-110	TA5215H15	5.7	---
		TA5215H09	8.9	---
		TA5215H05	13.9	---
	111-114	TA4207H15	6.0	---
		TA5215H09	8.5	---
		TA5215H05	12.4	---
	115-120	TA4207H15	5.9	---
		TA4207H09	9.4	---
		TA5215H05	12.1	---
	121-195	TA4207H09	9.3	---
		TA5215H05	11.8	---
	196-200	TA4207H09	7.8	---
		TA4207H05	9.2	---
	201-348	TA4207H05	9.8	---
	349-400	TA3203H05	7.0	---
40	4-6	TDT1530 †	15.0	---
	7-9	TDT1425 †	15.0	---
	10-12	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.9	---
	13-17	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	18-24	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.7	---
	25-36	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	37-50	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	51-56	TA7315H25	6.2	---
		TA7315H15	6.2	---
	57-78	TA6307H25	6.2	---
		TA6307H15	6.2	---
	79-80	TA5215H25	5.2	---
		TA5215H15	6.0	---
	81-85	TA5215H15	6.0	---
		TA6307H09	9.8	---
	86-89	TA5215H15	5.8	---
		TA5215H09	9.0	---
	90-112	TA5215H15	5.7	---
		TA5215H09	8.9	---
		TA6307H05	15.1	---

* See Page G1-132 for lubrication for 15 RPM and slower

† See Pages G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducers

SELECTION

TORQUE-ARM II Shaft Mount Speed Reducers

Class II Selections ★ (SF = 1.4)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
40 (cont)	113-120	TA5215H15	5.1	---
		TA5215H09	8.4	---
		TA5215H05	12.3	---
	121-173	TA5215H09	8.3	---
		TA5215H05	11.8	---
	174-200	TA4207H09	8.2	---
		TA5215H05	10.4	---
	201-299	TA5215H05	9.9	---
	300-400	TA4207H05	8.8	---
50	5-8	TDT1530 †	15.0	---
	9-12	TDT1425 †	15.0	---
	13-15	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	14.1	---
	16-21	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	22-31	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.8	---
	32-43	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	44-46	TA8407H40	6.2	Fan
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	47-50	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	51-71	TA7315H25	6.2	---
		TA7315H15	6.2	---
	72-80	TA6307H25	6.2	---
		TA6307H15	6.2	---
	81-89	TA6307H15	6.3	---
		TA6307H09	9.9	---
	90-91	TA6307H15	6.3	---
		TA6307H09	10.0	---
		TA7315H05	14.8	---
	92-114	TA6307H15	6.6	---
		TA6307H09	10.6	---
		TA6307H05	15.1	---
	115-116	TA6307H15	6.7	---
		TA5215H09	8.4	---
		TA6307H05	14.7	---
	117-120	TA5215H15	5.1	---
		TA5215H09	8.4	---
		TA6307H05	14.6	---
	121-177	TA5215H09	8.3	---
		TA6307H05	14.5	---
	178-200	TA5215H09	6.3	---
		TA5215H05	10.4	---
	201-400	TA5215H05	9.9	---
60	5-9	TDT1530 †	15.0	---
	10-14	TDT1425 †	15.0	---
	15-18	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	14.3	---
	19-26	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	27-38	TA9415H40	8.0	Fan
		TA9415H25	8.0	---
		TA9415H15	10.8	---
	39-50	TA8407H40	6.2	Fan
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	51-56	TA8407H25	6.2	---
		TA8407H15	6.5	---
	57-80	TA7315H25	6.2	---
		TA7315H15	6.2	---
	81-89	TA7315H15	6.2	---
		TA7315H09	8.1	---
	90-120	TA6307H15	6.7	---
		TA6307H09	10.8	---
		TA7315H05	14.8	---
	121	TA6307H09	10.8	---
		TA7315H05	12.8	---
	122-195	TA6307H09	10.9	---
		TA6307H05	14.5	---
	196-199	TA6307H09	10.1	Fan
		TA6307H05	13.9	---
	200	TA5215H09	5.8	---
		TA6307H05	13.8	---
	201-282	TA6307H05	13.8	---
	283-400	TA5215H05	8.4	---
75	7-12	TDT1530 †	15.0	---
	13-18	TDT1425 †	15.0	---
	19-23	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	14.6	---
	24	TA10507H40	8.5	---
		TA12608H25	9.5	---
		TA12608H15	14.7	---
	25-33	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.7	---
	34-48	TA9415H40	8.0	Fan
		TA9415H25	8.0	Fan
		TA9415H15	10.8	---
	49	TA8407H40	6.2	Fan
		TA8407H25	6.2	Fan
		TA9415H15	10.8	---
	50	TA8407H40	6.2	Fan
		TA8407H25	6.2	Fan
		TA8407H15	6.2	---
	51-72	TA8407H25	6.2	Fan
		TA8407H15	7.2	---
	73-80	TA7315H25	6.2	Fan
		TA7315H15	6.2	---
75 (cont)	81-111	TA7315H15	6.2	---
		TA7315H09	8.5	---
	112-117	TA7315H15	6.2	---
		TA7315H09	8.5	---
	118-120	TA6307H15	6.7	Fan
		TA6307H09	10.8	Fan
	121-169	TA6307H09	10.9	Fan
		TA7315H05	12.8	---
	170-200	TA6307H09	10.7	Fan
		TA6307H05	14.0	---
	201-400	TA6307H05	13.8	---
100	8-16	TDT1530 †	15.0	---
	17-24	TDT1425 †	15.0	---
	25-32	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	15.1	---
	33	TA10507H40	8.5	Fan
		TA12608H25	9.5	---
		TA12608H15	15.1	---
	34-45	TA10507H40	8.5	Fan
		TA10507H25	8.5	---
		TA10507H15	11.1	---
	46-50	TA9415H40	8.0	Fan
		TA9415H25	8.0	Fan
		TA9415H15	10.8	Fan
	51-67	TA9415H25	8.0	Fan
		TA9415H15	10.8	Fan
	68-80	TA8407H25	6.2	Fan
		TA8407H15	7.5	Fan
	81-102	TA8407H15	8.3	Fan
	103	TA7315H15	6.2	Fan
	104-120	TA7315H15	6.2	Fan
		TA7315H09	8.5	Fan
	121-180	TA7315H09	8.6	Fan
	181-190	TA6307H09	10.4	Fan
	191-200	TA6307H09	10.2	Fan
		TA7315H05	11.7	---
	201-274	TA7315H05	11.7	---
	275-400	TA6307H05	12.0	---
125	11-20	TDT1530 †	15.0	---
	21-30	TDT1425 †	15.0	---
	31-41	TA12608H40	17.1	Fan
		TA12608H25	9.5	---
		TA12608H15	15.4	---
	42-43	TA10507H40	8.5	Fan
		TA12608H25	9.5	---
		TA12608H15	15.5	---
	44-50	TA10507H40	8.5	Fan
		TA10507H25	8.5	Fan
		TA10507H15	11.3	Fan
	51-58	TA10507H25	8.5	Fan
		TA10507H15	11.8	Fan
	59-80	TA9415H25	8.0	Fan
		TA9415H15	10.8	Fan
	81-85	TA9415H15	10.5	Fan
	86-120	TA8407H15	8.7	Fan
	141-200	TA7315H09	8.6	Fan
	272-400	TA7315H05	10.9	---

* See Page G1-132 for lubrication for 15 RPM and slower

† See page G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducers



TORQUE-ARM II Shaft Mount Speed Reducers

Class II Selections ⋆ (SF = 1.4)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
150	13-25	TDT1530 †	15.0	---
	26-36	TDT1425 †	15.0	---
	37-50	TA12608H40	17.1	P&C
		TA12608H25	9.5	Fan
		TA12608H15	15.7	Fan
	51-54	TA12608H25	9.6	Fan
		TA12608H15	15.8	Fan
	55-71	TA10507H25	9.0	Fan
		TA10507H15	12.7	Fan
	72	TA9415H25	8.0	P&C
		TA10507H15	12.8	Fan
	73-80	TA9415H25	8.0	P&C
		TA9415H15	10.6	Fan
	81-105	TA9415H15	10.5	Fan
	106-120	TA8407H15	8.7	Fan
	189-200	TA7315H09	8.2	Fan
	368-400	TA7315H05	10.1	---
200	18-33	TDT1530 †	15.0	---
	34-49	TDT1425 †	15.0	Fan
	50	TA12608H40	17.1	P&C
		TA12608H25	9.5	P&C
		TA12608H15	15.7	Fan
	51-76	TA12608H25	10.7	P&C
		TA12608H15	16.1	Fan
	77-80	TA10507H25	9.4	P&C
		TA10507H15	13.4	Fan
	81-105	TA10507H15	13.6	Fan
	106-120	TA9415H15	10.2	P&C
250	23-42	TDT1530 †	15.0	---
	43-61	TDT1425 †	15.0	P&C
	62-80	TA12608H25	10.7	P&C
		TA12608H15	16.1	P&C
	81-103	TA12608H15	15.6	P&C
	104-120	TA10507H15	13.5	P&C
300	28-53	TDT1530 †	15.0	---
	54-75	TDT1425 †	15.0	P&C
	76-80	TA12608H25	10.7	P&C
		TA12608H15	15.8	P&C
	81-120	TA12608H15	15.6	P&C
350	33-57	TDT1530 †	15.0	---
	66-75	TDT1425 †	15.0	P&C
	94-120	TA12608H15	15.2	P&C
400	38-57	TDT1530 †	15.0	Fan
	114-120	TA12608H15	15.1	P&C
450	43-57	TDT1530 †	15.0	Fan
500	50-57	TDT1530 †	15.0	Fan

* See Page G1-132 for lubrication for 15 RPM and slower

† See Pages G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducers

P&C (Pump & Coolers) - Use the DODGE Speed Reducer Auxiliary cooling package, part number 014148

SELECTION

TORQUE-ARM II Shaft Mount Speed Reducers

Class III Selections ★ (SF = 2.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
1/4	4	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	5-7	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	8-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1/3	4-5	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	6-9	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	10-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1/2	4-5	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	6-8	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	9-15	TA1107H31	5.0	---
		TA1107H25	6.4	---
		TA1107H15	5.5	---
	16-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---

* See Page G1-132 for lubrication for 15 RPM and slower

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
1/2 (cont)	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
3/4	4-5	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	6-7	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	8-12	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	13-23	TA1107H31	4.9	---
		TA1107H25	6.2	---
		TA1107H15	5.5	---
	24-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1	4	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	5-6	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	7-10	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	11-16	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.3	---
	17	TA1107H31	4.8	---
		TA2115H25	3.3	---
		TA1107H15	5.4	---
	18-32	TA1107H31	4.8	---
		TA1107H25	5.9	---
		TA1107H15	5.3	---
	33-50	TA0107L31	4.0	---
		TA0107L25	4.0	---
		TA0107L15	4.0	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
1 (cont)	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
1-1/2	4-6	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	7-10	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	11-15	TA3203H32	4.6	---
		TA3203H25	4.6	---
		TA3203H15	4.6	---
	16-26	TA2115H33	3.7	---
		TA2115H25	3.3	---
		TA2115H15	3.2	---
	27-50	TA1107H31	4.6	---
		TA1107H25	5.7	---
		TA1107H15	5.2	---
	51-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---
	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
2	4-5	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.4	---
	6-8	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	9-13	TA4207H40	5.0	---
		TA4207H25	5.5	---
		TA4207H15	8.1	---
	14-20	TA3203H32	4.5	---
		TA3203H25	4.5	---
		TA3203H15	4.6	---
	21-36	TA2115H33	3.6	---
		TA2115H25	3.3	---
		TA2115H15	3.2	---
	37-50	TA1107H31	4.5	---
		TA1107H25	5.6	---
		TA1107H15	5.0	---
	51-69	TA1107H25	5.4	---
		TA1107H15	4.9	---
	70-80	TA0107L25	4.0	---
		TA0107L15	4.0	---
	81-89	TA0107L15	4.0	---
		TA0107L09	5.3	---

TORQUE-ARM II Shaft Mount Speed Reducers

Class III Selections ★ (SF = 2.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
2 (cont)	90-120	TA0107L15	4.0	---
		TA0107L09	5.2	---
		TA0107L05	9.2	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
3	4-5	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	6-7	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.4	---
	8-12	TA5215H40	6.8	---
		TA5215H25	6.1	---
		TA5215H15	7.1	---
	13-20	TA4207H40	4.9	---
		TA4207H25	5.5	---
		TA4207H15	8.0	---
	21-30	TA3203H32	4.3	---
		TA3203H25	4.4	---
		TA3203H15	4.4	---
	31	TA3203H32	4.1	---
		TA2115H25	3.1	---
		TA2115H15	3.1	---
	32-50	TA2115H33	3.5	---
		TA2115H25	3.1	---
		TA2115H15	3.2	---
	51-56	TA2115H25	3.1	---
		TA2115H15	3.3	---
	57-80	TA1107H25	5.3	---
		TA1107H15	4.8	---
	81-89	TA1107H15	4.6	---
		TA1107H09	7.7	---
	90-109	TA1107H15	4.6	---
		TA1107H09	7.5	---
		TA1107H05	12.5	---
	110-113	TA1107H15	4.5	---
		TA0107L09	5.1	---
		TA1107H05	11.6	---
	114	TA0107L15	4.0	---
		TA0107L09	5.1	---
		TA1107H05	11.4	---
	115-120	TA0107L15	4.0	---
		TA0107L09	5.1	---
		TA0107L05	8.4	---
	121-200	TA0107L09	5.0	---
		TA0107L05	8.3	---
	201-400	TA0107L05	6.9	---
5	4	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---
	5	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---

* See Page G1-132 for lubrication for 15 RPM and slower

† See Pages G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducer

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
5 (cont)	6-8	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	9-12	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.4	---
	13-20	TA5215H40	6.7	---
		TA5215H25	6.0	---
		TA5215H15	7.0	---
	21-33	TA4207H40	4.7	---
		TA4207H25	5.2	---
		TA4207H15	7.7	---
	34-50	TA3203H32	4.1	---
		TA3203H25	4.3	---
		TA3203H15	4.3	---
	51-55	TA3203H25	4.2	---
		TA3203H15	4.2	---
	56-80	TA2115H25	3.1	---
		TA2115H15	3.6	---
	81-89	TA2115H15	3.7	---
		TA2115H09	6.1	---
	90-100	TA2115H15	3.7	---
		TA2115H09	6.2	---
		TA2115H05	6.5	---
	101	TA1107H15	4.5	---
		TA2115H09	6.2	---
		TA2115H05	6.5	---
	102-118	TA1107H15	4.5	---
		TA1107H09	7.4	---
		TA2115H05	6.6	---
	119-120	TA1107H15	4.4	---
		TA1107H09	7.1	---
		TA1107H05	11.2	---
	121-200	TA1107H09	7.1	---
		TA1107H05	11.2	---
	201-276	TA1107H05	9.1	---
	277-400	TA0107L05	5.8	---
7-1/2	4	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	5-6	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---
	7-8	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	9-13	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	14-18	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---
	19-32	TA5215H40	6.5	---
		TA5215H25	5.9	---
		TA5215H15	6.8	---

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
7-1/2 (cont)	33-50	TA4207H40	4.5	---
		TA4207H25	5.0	---
		TA4207H15	7.3	---
	51-53	TA4207H25	4.7	---
		TA4207H15	6.8	---
	54-80	TA3203H25	4.1	---
		TA3203H15	4.2	---
	81-89	TA3203H15	4.0	---
		TA3203H09	5.2	---
	90-92	TA3203H15	4.0	---
		TA3203H09	5.3	---
		TA3203H05	11.0	---
	93-120	TA2115H15	3.7	---
		TA2115H09	6.2	---
		TA3203H05	10.4	---
	121-143	TA2115H09	6.1	---
		TA3203H05	7.7	---
	144-181	TA2115H09	6.3	---
		TA2115H05	6.4	---
	182-200	TA1107H09	6.2	---
		TA2115H05	6.2	---
	201-237	TA2115H05	6.0	---
	238-400	TA1107H05	8.4	---
10	4	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	5-6	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	7-8	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.2	---
	9-11	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	12-18	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	19-25	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---
	26-45	TA5215H40	6.4	---
		TA5215H25	5.7	---
		TA5215H15	6.7	---
	46-50	TA4207H40	4.3	---
		TA4207H25	4.7	---
		TA4207H15	7.0	---
	51-75	TA4207H25	4.7	---
		TA4207H15	6.8	---
	76-80	TA3203H25	4.0	---
		TA3203H15	4.1	---
	81-89	TA3203H15	4.0	---
		TA3203H09	5.2	---
	90-105	TA3203H15	4.0	---
		TA3203H09	5.4	---
		TA4207H05	9.9	---

SELECTION

TORQUE-ARM II Shaft Mount Speed Reducers

Class III Selections ★ (SF = 2.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
10 (cont)	106-120	TA3203H15	4.0	---
		TA3203H09	5.6	---
		TA3203H05	8.6	---
	121-141	TA3203H09	5.7	---
		TA3203H05	7.7	---
	142-200	TA2115H09	6.5	---
		TA3203H05	7.2	---
	201-238	TA3203H05	7.0	---
	239-400	TA2115H05	5.7	---
15	4-5	TDT1425 †	15.0	---
	6	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	7-9	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	10-12	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.3	---
	13-18	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	19-28	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	29-39	TA6307H40	6.3	---
		TA6307H25	6.3	---
		TA6307H15	6.3	---
	40-50	TA5215H40	6.2	---
		TA5215H25	5.5	---
		TA5215H15	6.4	---
	51-72	TA5215H25	5.4	---
		TA5215H15	6.3	---
	73-80	TA4207H25	4.4	---
		TA4207H15	6.5	---
	81-89	TA4207H15	6.4	---
		TA4207H09	10.1	---
	90-120	TA4207H15	6.3	---
		TA4207H09	9.9	---
		TA5215H05	13.9	---
	121-125	TA4207H09	9.3	---
		TA5215H05	11.8	---
	126-132	TA3203H09	5.7	---
		TA5215H05	11.6	---
	133-200	TA3203H09	5.7	---
		TA4207H05	9.2	---
	201-215	TA4207H05	9.3	---
	216-400	TA3203H05	7.0	---
20	4	TDT1530 †	15.0	---
	5-6	TDT1425 †	15.0	---
	7	TA12608H40	17.2	---
		TDT1425 †	15.0	---
20 (cont)	8	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	9-12	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	13-17	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.5	---
	18-25	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	26-38	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	39-50	TA6307H40	6.2	---
		TA6307H25	6.2	---
		TA6307H15	6.2	---
	51-54	TA6307H25	6.2	---
		TA6307H15	6.2	---
	55-80	TA5215H25	5.4	---
		TA5215H15	6.3	---
	81-89	TA5215H15	6.0	---
		TA5215H09	9.1	---
	90-102	TA5215H15	5.7	---
		TA5215H09	8.9	---
		TA5215H05	13.9	---
	103-107	TA4207H15	6.1	---
		TA5215H09	8.6	---
		TA5215H05	12.9	---
	108-120	TA4207H15	6.0	---
		TA4207H09	9.5	---
		TA5215H05	12.6	---
	121-182	TA4207H09	9.3	---
		TA5215H05	11.8	---
	183-200	TA4207H09	8.1	---
		TA4207H05	9.2	---
	201-324	TA4207H05	9.8	---
	325-400	TA3203H05	7.0	---
25	4-5	TDT1530 †	15.0	---
	6-8	TDT1425 †	15.0	---
	9-10	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.7	---
	11-15	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	16-21	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.7	---
	22-32	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	33-49	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
25 (cont)	50	TA6307H40	6.2	---
		TA6307H25	6.2	---
		TA6307H15	6.2	---
	51-69	TA6307H25	6.2	---
		TA6307H15	6.2	---
	70-80	TA5215H25	5.3	---
		TA5215H15	6.1	---
	81-89	TA5215H15	6.0	---
		TA5215H09	9.1	---
	90-93	TA5215H15	5.7	---
		TA5215H09	8.9	---
		TA6307H05	15.1	---
	94-120	TA5215H15	5.6	---
		TA5215H09	8.8	---
		TA5215H05	13.6	---
	121-144	TA5215H09	8.3	---
		TA5215H05	11.8	---
	145-200	TA4207H09	8.9	---
		TA5215H05	11.2	---
	201-242	TA5215H05	9.9	---
	243-400	TA4207H05	9.7	---
30	4-6	TDT1530 †	15.0	---
	7-10	TDT1425 †	15.0	---
	11-13	TA12608H40	17.2	---
		TA12608H25	9.5	---
		TA12608H15	13.9	---
	14-18	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	19-26	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.8	---
	27-39	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	40-50	TA7315H40	6.2	---
		TA7315H25	6.2	---
		TA7315H15	6.2	---
	51-60	TA7315H25	6.2	---
		TA7315H15	6.2	---
	61-80	TA6307H25	6.2	---
		TA6307H15	6.2	---
	81-88	TA6307H15	6.3	---
		TA6307H09	9.9	---
	89	TA5215H15	5.7	---
		TA6307H09	9.9	---
	90-93	TA5215H15	5.7	---
		TA6307H09	10.1	---
		TA6307H05	15.1	---
	94-120	TA5215H15	5.6	---
		TA5215H09	8.8	---
		TA6307H05	15.1	---
	121-131	TA5215H09	8.3	---
		TA6307H05	14.5	---
	132-196	TA5215H09	7.9	---
		TA5215H05	11.4	---

* See Page G1-132 for lubrication for 15 RPM and slower

† See Pages G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducer



TORQUE-ARM II Shaft Mount Speed Reducers

Class III Selections ★ (SF = 2.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
30 (cont)	197-200	TA4207H09	7.8	---
		TA5215H05	10.0	---
	201-344	TA5215H05	9.9	---
	345-400	TA4207H05	8.2	---
40	5-9	TDT1530 †	15.0	---
	10-13	TDT1425 †	15.0	---
	14	TA12608H40	17.1	---
		TDT1425 †	15.0	---
	15-17	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	14.3	---
	18-25	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.8	---
	26-36	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.8	---
	37-50	TA8407H40	6.2	---
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	51-53	TA8407H25	6.2	---
		TA8407H15	6.3	---
	54-80	TA7315H25	6.2	---
		TA7315H15	6.2	---
	81-84	TA7315H15	6.2	---
		TA7315H09	8.0	---
	85-89	TA6307H15	6.3	---
		TA6307H09	9.9	---
	90-112	TA6307H15	6.6	---
		TA6307H09	10.6	---
		TA7315H05	14.8	---
	113-120	TA6307H15	6.7	---
		TA6307H09	10.8	---
		TA6307H05	14.7	---
	121-160	TA6307H09	10.9	---
		TA6307H05	14.5	---
	161-200	TA5215H09	6.8	---
		TA6307H05	14.1	---
	201-246	TA6307H05	13.8	---
	247-400	TA5215H05	9.0	---
50	6-11	TDT1530 †	15.0	---
	12-17	TDT1425 †	15.0	---
	18-22	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	14.6	---
	23-31	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.7	---
	32-37	TA9415H40	8.0	---
		TA9415H25	8.0	---
		TA9415H15	10.8	---
	38-46	TA9415H40	8.0	Fan
		TA9415H25	8.0	---
		TA9415H15	10.8	---
50 (cont)	47-50	TA8407H40	6.2	Fan
		TA8407H25	6.2	---
		TA8407H15	6.2	---
	51-68	TA8407H25	6.2	---
		TA8407H15	7.0	---
	69-80	TA7315H25	6.2	---
		TA7315H15	6.2	---
	81-110	TA7315H15	6.2	---
		TA7315H09	8.5	---
	111	TA6307H15	6.6	---
		TA6307H09	10.5	---
	112-120	TA6307H15	6.7	---
		TA6307H09	10.8	---
		TA7315H05	13.2	---
	121-157	TA6307H09	10.9	---
		TA7315H05	12.8	---
	158-200	TA6307H09	10.9	---
		TA6307H05	14.2	---
	201-400	TA6307H05	13.8	---
60	7-14	TDT1530 †	15.0	---
	15-20	TDT1425 †	15.0	---
	21	TA12608H40	17.1	---
		TDT1425 †	15.0	---
	22-27	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	14.8	---
	28	TA10507H40	8.5	---
		TA12608H25	9.5	---
		TA12608H15	14.9	---
	29-38	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	10.7	---
	39-45	TA9415H40	8.0	Fan
		TA9415H25	8.0	---
		TA9415H15	10.8	---
	46-50	TA9415H40	8.0	Fan
		TA9415H25	8.0	---
		TA9415H15	10.8	---
	51-56	TA9415H25	8.0	---
		TA9415H15	10.8	---
	57-71	TA8407H25	6.2	---
		TA8407H15	7.1	---
	72-80	TA8407H25	6.2	Fan
		TA8407H15	7.5	---
	81-83	TA8407H15	7.7	---
	84-85	TA7315H15	6.2	---
	86-120	TA7315H15	6.2	---
		TA7315H09	8.5	---
	121-141	TA7315H09	8.6	---
	142-150	TA6307H09	10.9	---
	151-195	TA6307H09	10.9	---
		TA7315H05	12.1	---
	196-200	TA6307H09	10.1	Fan
		TA7315H05	11.7	---
	201-208	TA7315H05	11.7	---
	209-400	TA6307H05	13.5	---
75	9-17	TDT1530 †	15.0	---
	18-26	TDT1425 †	15.0	---
	27-34	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	15.1	---
	35-36	TA10507H40	8.5	---
		TA12608H25	9.5	---
		TA12608H15	15.2	---
	37-49	TA10507H40	8.5	---
		TA10507H25	8.5	---
		TA10507H15	11.3	---
	50	TA9415H40	8.0	Fan
		TA9415H25	8.0	Fan
		TA9415H15	10.8	---
	51-72	TA9415H25	8.0	Fan
		TA9415H15	10.8	---
	73-80	TA8407H25	6.2	Fan
		TA8407H15	7.5	---
	81-112	TA8407H15	8.6	---
	113	TA7315H15	6.2	---
	114-120	TA7315H15	6.2	---
		TA7315H09	8.5	---
	121-156	TA7315H09	8.6	---
	157- 200	TA7315H09	8.5	Fan
	213-306	TA7315H05	11.5	---
	307-400	TA6307H05	11.7	---
100	12-23	TDT1530 †	15.0	---
	24-35	TDT1425 †	15.0	---
	36-47	TA12608H40	17.1	---
		TA12608H25	9.5	---
		TA12608H15	15.6	---
	48-50	TA10507H40	8.5	Fan
		TA12608H25	9.5	---
		TA12608H15	15.7	---
	51	TA12608H25	9.6	---
		TA12608H15	15.7	---
	52-56	TA10507H25	8.5	---
		TA10507H15	11.8	---
	57-67	TA10507H25	8.8	Fan
		TA10507H15	12.4	---
	68	TA9415H25	8.0	Fan
		TA10507H15	12.5	---
	69-80	TA9415H25	8.0	Fan
		TA9415H15	10.7	Fan
	81-100	TA9415H15	10.5	Fan
	101-120	TA8407H15	8.7	Fan
	172-200	TA7315H09	8.4	Fan
	331-400	TA7315H05	10.8	---
125	16-30	TDT1530 †	15.0	---
	31-43	TDT1425 †	15.0	---
	44-50	TA12608H40	17.1	Fan
		TA12608H25	9.5	---
		TA12608H15	15.7	---
	51-58	TA12608H25	9.6	---
		TA12608H15	15.9	---
	59-67	TA12608H25	10.4	Fan
		TA12608H15	16.1	---

* See Page G1-132 for lubrication for 15 RPM and slower

† See Pages G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducer

SELECTION



TORQUE-ARM II Shaft Mount Speed Reducers

Class III Selections * (SF = 2.0)

Motor HP	Output RPM	Reducer Selection	Min. Sheave Dia. P.D.	Cooling Method
125 (cont)	68-80	TA10507H25	9.4	Fan
		TA10507H15	13.4	Fan
	81-90	TA10507H15	13.6	Fan
	91-120	TA9415H15	10.3	Fan
150	19-36	TDT1530 †	15.0	---
	37-41	TDT1425 †	15.0	---
	42-52	TDT1425 †	15.0	Fan
	53-80	TA12608H25	10.7	Fan
		TA12608H15	16.1	Fan
	81-83	TA12608H15	15.6	Fan
	84-115	TA10507H15	13.6	Fan
	116-120	TA9415H15	10.2	Fan
200	27-50	TDT1530 †	15.0	---
	51-70	TDT1425 †	15.0	P&C
	71-80	TA12608H25	10.7	P&C
		TA12608H15	16.1	Fan
	81-98	TA12608H15	15.6	Fan
	99-120	TA12608H15	15.1	P&C
250	34-57	TDT1530 †	15.0	---
	66-75	TDT1425 †	15.0	P&C
	97-120	TA12608H15	15.1	P&C
300	41-57	TDT1530 †	15.0	---
350	50-57	TDT1530 †	15.0	---

* See Page G1-132 for lubrication for 15 RPM and slower

† See page G2-68 and G2-69 for information on TDT1425 and TDT1530 Reducers

P&C (Pump & Coolers) - Use the DODGE Speed Reducer auxiliary cooling package, part number 014148



TORQUE-ARM II Shaft Mount Speed Reducers

SELECTION GUIDE: TA II TORQUE-ARM SHAFT MOUNT REDUCERS AND SCREW CONVEYOR DRIVES

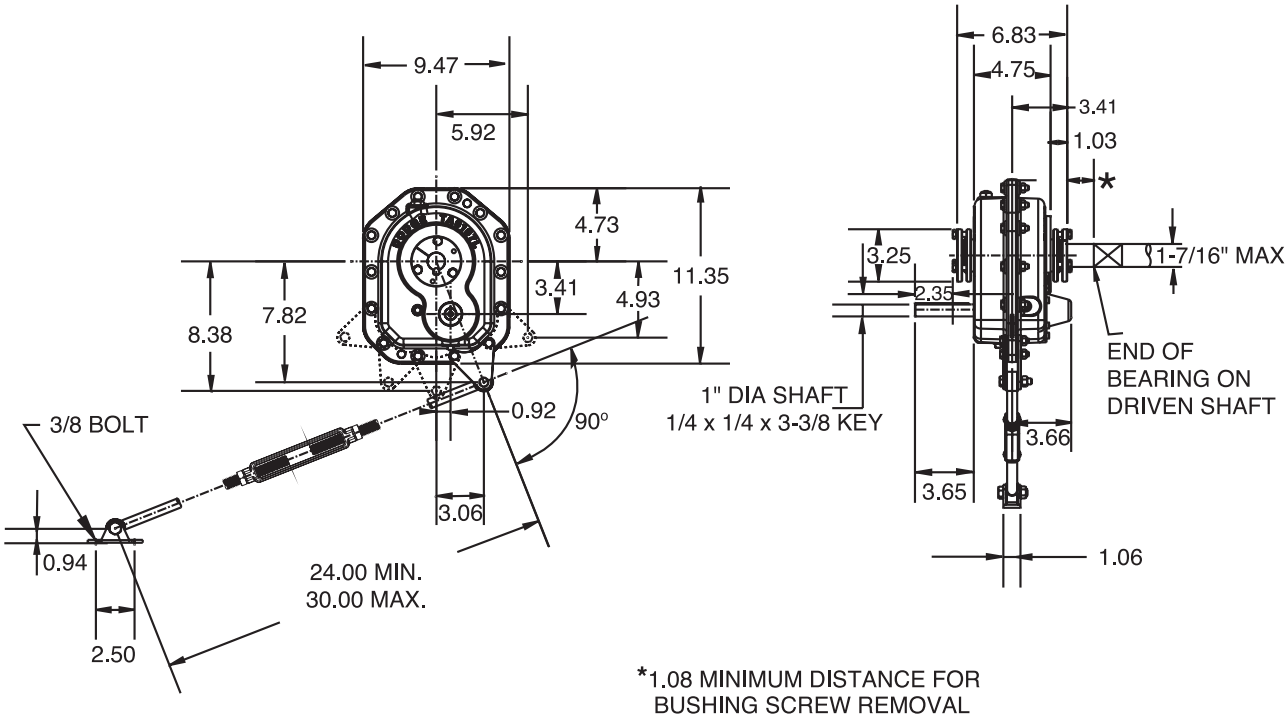
This is a reference sheet for quick selection and specification on DODGE TA II Shaft Mount Reducers. Use it to identify information needed to make an accurate selection with a step-by-step selection format for choosing a reducer, accessories and belt drive.

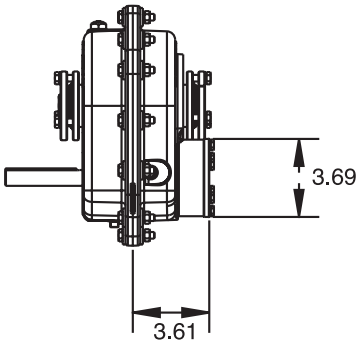
Name		Company Name		
Phone Number		Fax No.	e-mail Address:	
Application Data:				
Driven Equipment				
Type		RPM	Shaft Size	
Hours of service/day			Class of Service	
Type of Load:		Uniform	Moderate	Shock
Screw Conveyor Applications:				
Screw Diameter			Drive shaft diameter	
Motor	HP	RPM	Frame Size	Shaft Size
Type of reducer mounting:		Horizontal	Vertical - Input up	
Vertical - Input down		Incline (degree of)	Flange Mounting	
Unusual ambient temperature:				
Other important application characteristics (reversing duty, start/stop cycles				
Reducer Drive Selection:				
Step 1 - Determine class of service				
Step 2 - From Class of Service Table, select reducer type, size and ratio that meets Application HP and Driven RPM requirements				
Twin Taper Bushed		Screw Conveyor		
Step 3 - Select reducer accessories required for application:				
Twin Taper Bushing Kit:		Standard Shaft	Short Shaft	
Rod Assembly		Backstop	Cooling Fan	
Motor Mount		Belt Guard	Adapter & Hardware Kit	
Adjustable Packing Kit		Drive Shaft	Stainless Drive Shaft	
Other				
Belt Drive Specification:				
Service Factor	Belt Type	Center Distance	Sheave Ratio	
Driver: Shaft Diameter	Sheave	Bushing	Belt Size & Qty	
Driven: Shaft Diameter	Sheave	Bushing	Belt Size & Qty	

SELECTION/DIMENSIONS

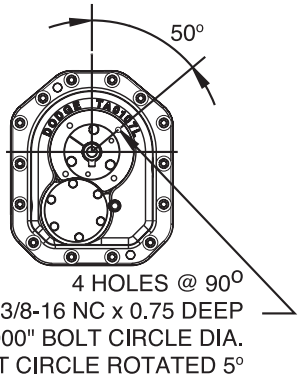
TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - Ta0107l, Single And Double Reductions





REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA0107L, Single And Double Reductions

TA0107L Taper Bushed Reducers (1) ●

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA0107L05	**900004**	107S05	5.20	39.6
TA0107L09	**900003**	107D09	9.00	41.2
TA0107L15	**900002**	107D15	14.93	41.1
TA0107L25	**900001**	107D25	25.09	41.0
TA0107L31	**900000**	107D31	30.94	41.2

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting.
Rod assembly is not included with reducer.
Order as a separate part number.

● TA0107L Reducer = Light duty, best value

\+ Rod assembly mounting locations are limited to positions shown in drawing.

TA0107L Accessories

Description	Part Number	Weight lbs.
TA0107RA Rod Assembly (1) +	**900109**	4.5
TA1107/0107L BS Backstop Assembly (2)	**901102**	3.9
TA0107MM Motor Mount Assembly (56-215T) (3)	**900090**	35.4
TA0107BG Belt Guard - Pos. B (56-215T)	**900096**	40.6
TA0107BG Belt Guard - Pos. C (56-215T) (4)	**900097**	42.2
TA0107BG Belt Guard - Pos. D (56-215T)	**900099**	39.0
TA0-TA3 Vertical Breather Kit	**900112**	2.0
TA0107L V-Ring Kit	**900249**	0.1
Filter Breather Plug	**430048**	0.2
TA0107L Lube Kit	**LUBEKITTA0107**	4.6

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off.

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions.

(4) Use Position-C belt guard for TA II reducer in screw conveyor drive applications.

TA0107L Tapered Bushing Kits (5) (6)

Bushing Size Standard Shaft Bushing Kit	Part Number (7)	Weight lbs.	Shaft Keyseat Required (9) (10)	Bushing Size Short Shaft Bushing Kit (8)	Part Number	Weight lbs.	Shaft Keyseat Required (9) (10)
TA0107TB x 1-7/16 ▲	**900020**	1.5	3/8 x 3/16 x 6.83	---	**---**	---	---
TA0107TB x 1-3/8	**900021**	1.6	5/16 x 5/32 x 6.83	---	**---**	---	---
TA0107TB x 1-5/16	**900022**	1.8	5/16 x 5/32 x 6.83	---	**---**	---	---
TA0107TB x 1-1/4	**900023**	1.9	1/4 x 1/8 x 6.83	---	**---**	---	---
TA0107TB x 1-3/16	**900024**	2.0	1/4 x 1/8 x 6.83	TA0107TBS x 1-3/16	**900027**	2.1	1/4 x 1/8 x 4.35
TA0107TB x 1-1/8	**900025**	2.1	1/4 x 1/8 x 6.83	TA0107TBS x 1-1/8	**900028**	2.3	1/4 x 1/8 x 4.35
TA0107TB x 1	**900026**	2.4	1/4 x 1/8 x 6.83	TA0107TBS x 1	**900029**	2.6	1/4 x 1/8 x 4.35

▲ AGMA maximum bore size

(5) Bushing kit required to mount TA II reducer to driven shaft

(6) Bushing kit is not required to mount TA II reducer on SCS Drive Shaft in a screw conveyor application

(7) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(8) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

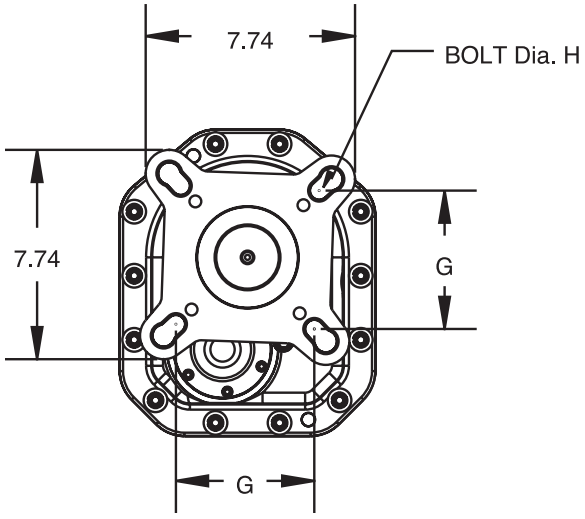
(9) Minimum keyseat and shaft length required to mount reducer with bushing kit

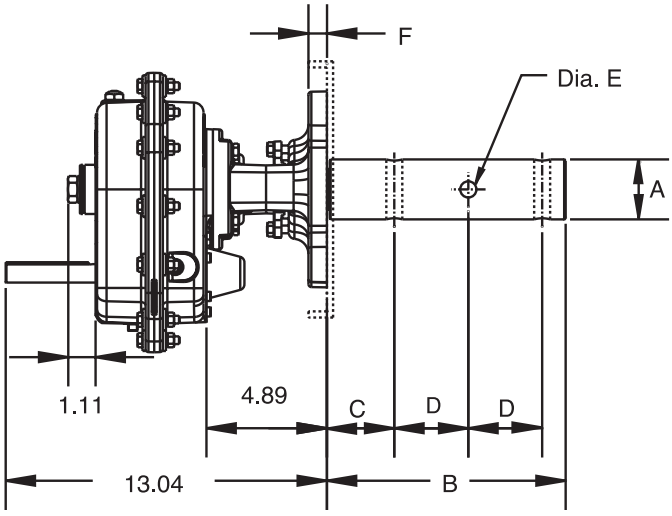
(10) Always check the driven shaft and key for strength

SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA0107L, Single And Double Reductions







TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA0107L, Single And Double Reductions

TA0107L Screw Conveyor Drive Dimensions

Screw Dia	Drive Shaft Dia A	Dimensions						
		B	C	D	Hole Dia E	F	G	Bolt Dia H
6, 9	1-1/2	9.00	2.13	3.00	17/32	0.75	4.00	1/2-13
9, 12	2	9.00	2.13	3.00	21/32	0.75	5.13	5/8
12, 14	2-7/16	9.69	2.75	3.00	21/32	0.75	5.63	5/8
12, 14, 16, 18, 20	3	9.88	2.88	3.00	25/32	0.75	6.00	3/4

TA0107L Accessories for Screw Conveyor Drives (1) (4) (5)

Description	Part Number	Weight lbs.
TA0107SCA Adapter & Hardware Kit (2)	**900070**	14.7
TA0107SCP Adjustable Packing Kit (3)	**900071**	0.9
TA0107SCS x 1-1/2 Drive Shaft	**900072**	8.8
TA0107SCS x 2 Drive Shaft	**900073**	12.0
TA0107SCS x 2-7/16 Drive Shaft	**900074**	16.5
TA0107SCS x 3 Drive Shaft	**900075**	22.8
TA0107SCS x 1-1/2 Stainless Steel Drive Shaft	**900080**	8.8
TA0107SCS x 2 Stainless Steel Drive Shaft	**900081**	12.0
TA0107SCS x 2-7/16 Stainless Steel Drive Shaft	**900082**	16.5
TA0107SCS x 3 Stainless Steel Drive Shaft	**900083**	22.8

(1) See page G1-35 for Belt Guard for Screw Conveyor Drive applications

(2) SCA Adapter & Hardware Kit includes adapter, mounting wedge, keeper plate, key, seals and hardware

(3) SCP Adjustable Packing Kit consists of flange, mounting hardware and braided packing seals

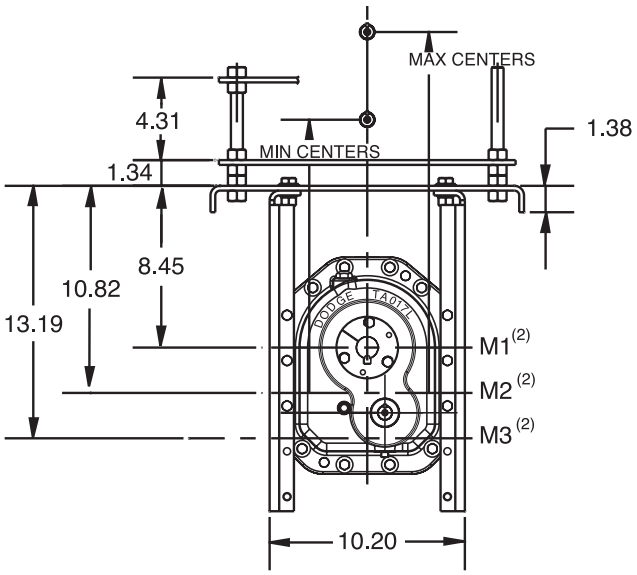
(4) SCS Drive Shaft is a shaft only. Hardware is stocked with the adapter & hardware kit

(5) A complete TA II Screw Conveyor Drive includes a TA II Reducer, SCA Adapter & Hardware Kit and SCS Drive Shaft. The SCP Adjustable Packing Kit is an optional accessory.

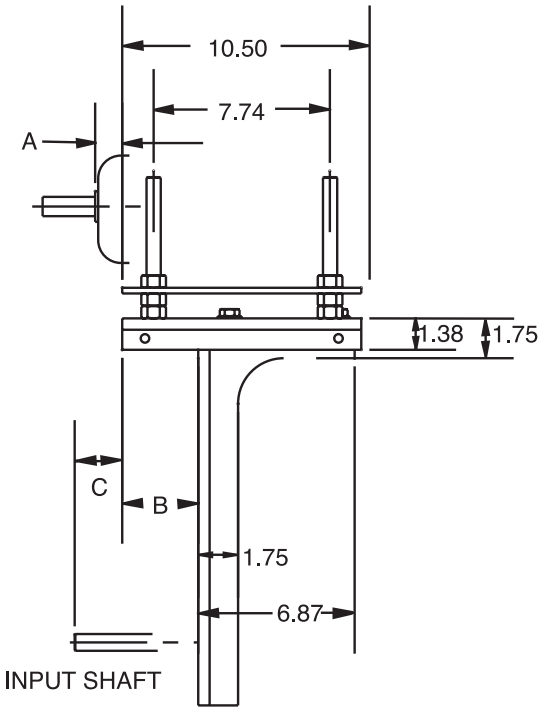
SELECTION/DIMENSIONS

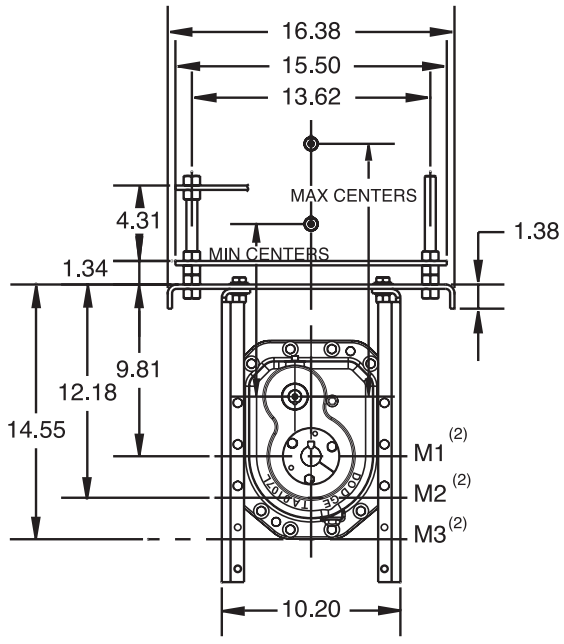
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA0107L, Position B & D



POSITION B





POSITION D



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA0107L, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						56			143T & 145T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position B	-0.09	3.33	2.10	5.52	M1	0.78	17.2	21.0	1.22	17.2	21.0
					M2		19.6	23.4		19.6	23.4
					M3		22.0	25.8		22.0	25.8
Position D	-0.09	3.33	2.10	5.52	M1	0.78	11.8	15.6	1.22	11.8	15.6
					M2		14.1	17.9		14.1	17.9
					M3		16.5	20.3		16.5	20.3

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						182T & 184T			213T & 215T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position B	-0.09	3.33	2.10	5.52	M1	1.37	18.2	22.0	1.55	19.0	22.8
					M2		20.6	24.4		21.3	25.1
					M3		23.0	26.8		23.7	27.5
Position D	-0.09	3.33	2.10	5.52	M1	1.37	12.8	16.6	1.55	13.5	17.3
					M2		15.1	18.9		15.9	19.7
					M3		17.5	21.3		18.3	22.1

Note:

Minimum centers contains 0.5" to allow for belt assembly

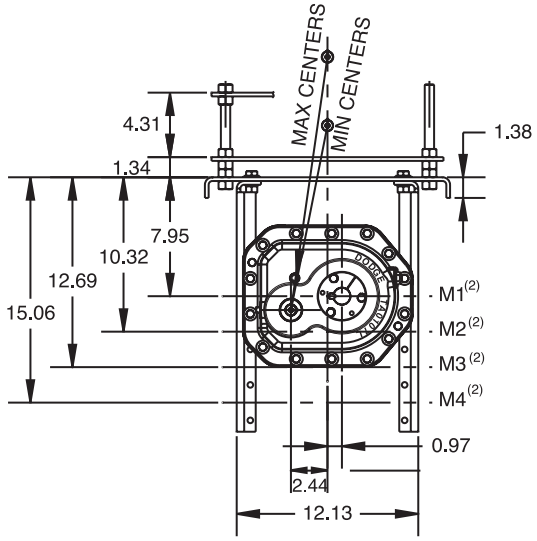
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3 go through output shaft centerline

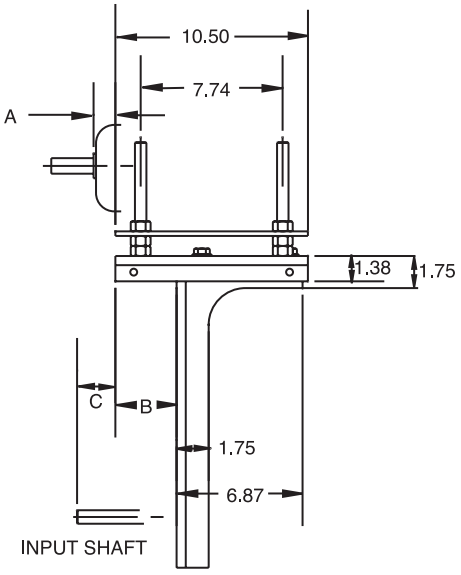
SELECTION/DIMENSIONS

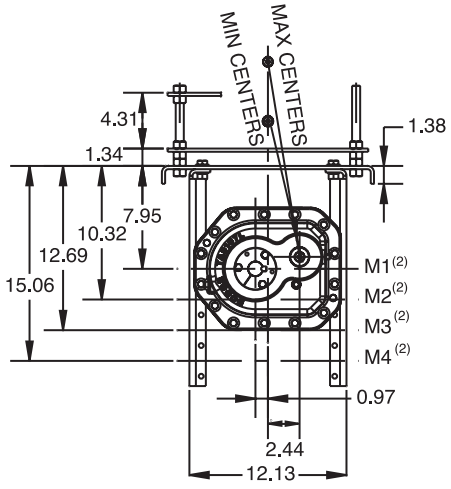
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA0107L, Position A & C



POSITION A





POSITION C



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA0107L, Position A & C (1) (3)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						56			143T & 145T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position A	-0.09	3.33	3.05	6.47	M1	0.78	14.4	18.2	1.22	14.4	18.2
					M2		16.8	20.5		16.8	20.5
					M3		19.1	22.9		19.1	22.9
					M4		21.5	25.2		21.5	25.2
Position C	-0.09	3.33	3.05	6.47	M1	0.78	12.6	16.4	1.22	12.6	16.4
					M2		14.9	18.7		14.9	18.7
					M3		17.3	21.1		17.3	21.1
					M4		19.6	23.4		19.6	23.4

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						182T & 184T			213T & 215T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position A	-0.09	3.33	3.05	6.47	M1	1.37	15.4	19.2	1.55	16.2	19.9
					M2		17.8	21.5		18.5	22.3
					M3		20.1	23.9		20.8	24.6
					M4		22.5	26.2		23.2	27.0
Position C	-0.09	3.33	3.05	6.47	M1	1.37	13.6	17.4	1.55	14.3	18.1
					M2		15.9	19.7		16.7	20.4
					M3		18.3	22.1		19.0	22.8
					M4		20.6	24.4		21.4	25.2

Note:

Minimum centers contain 0.5” to allow for belt assembly

(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3, M4 go through output shaft centerline

(3) See Table A, below, for minimum “M” mounting position required for specific screw diameter and reducer size

Table A - Screw Conveyor Motor Mount Minimum “M” Mounting Positions (1)

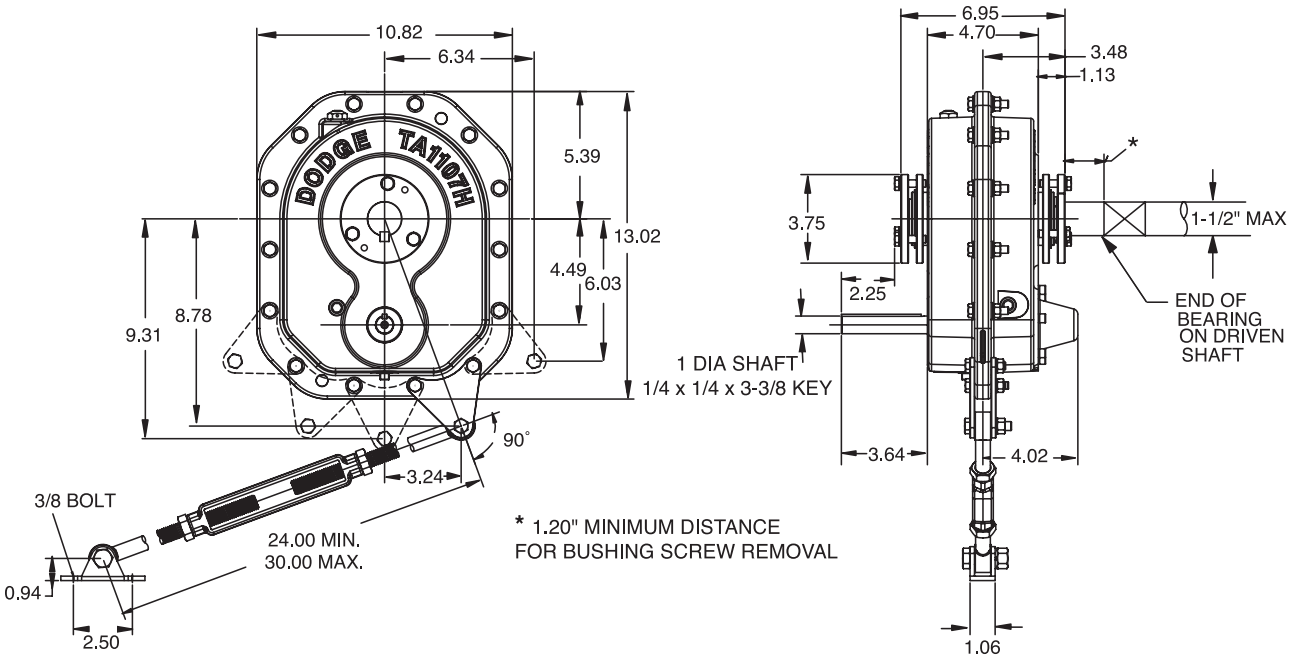
Nominal Screw Dia	Trough Height Dim	Minimum Mounting Position							
		TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H
6	7.00	M2	M3	M2	M2	M2	M1	M1	M1
9	9.00	M3	M4	M3	M3	M2	M2	M2	M1
12	10.00	M4	M4	M3	M3	M2	M2	M2	M1
14	11.00	M4	M4	M4	M3	M3	M2	M2	M2
16	11.50	M4	***	M4	M4	M3	M2	M2	M2
18	12.13	***	***	M4	M4	M3	M3	M2	M2
20	13.50	***	***	M4	M4	M3	M3	M3	M2
24	16.50	***	***	***	***	M4	M3	M3	M3

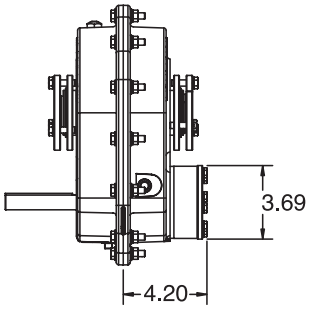
(1) For U Or Flared Trough Ends Per CEMA 300-014

SELECTION/DIMENSIONS

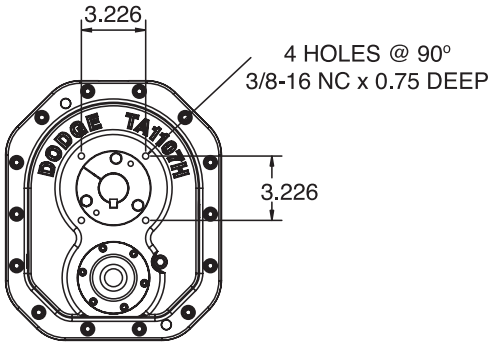
TORQUE-ARM II Shaft Mount Speed Reducers

Tapered Bushed Reducers - TA1107H, Single And Double Reduction





REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Tapered Bushed Reducers - TA1107H, Single And Double Reduction

TA1107H Taper Bushed Reducers (1) ● ■

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA1107H05	**901004**	107S05	5.00	55.4
TA1107H09	**901003**	107D09	8.99	56.8
TA1107H15	**901002**	107D15	14.91	56.7
TA1107H25	**901001**	107D25	25.06	56.7
TA1107H31	**901000**	107D31	30.91	56.8

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

● TA1107H Reducer - Heavy duty, extended value

■ See page G1-122 for Maximum Bore Straight Bore TA II Reducers

\+ Rod Assembly mounting locations are limited to positions show in drawing.

TA1107H Accessories

Description	Part Number	Weight lbs.
TA1107RA Rod Assembly (1) +	**901109**	4.5
TA1107H/0107L BS Backstop Assembly (2)	**901102**	3.9
TA1107MM Motor Mount Assembly (56-254T) (3)	**901090**	39.5
TA1107BG Belt Guard - Pos. B (56-254T)	**901096**	40.6
TA1107BG Belt Guard - Pos. C (56-254T) (4)	**901097**	43.1
TA1107BG Belt Guard - Pos D (56-254T)	**901099**	43.0
TA0-TA3 - Vertical Breather Kit	**900112**	2.0
TA1107H - V-Ring Kit	**901249**	0.1
Filter Breather Plug	**430048**	0.2
TA1107H Lube Kit	**LUBEKITTA1107**	4.6

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

(4) Use Position-C belt guard for TA II reducer in screw conveyor drive applications

TA1107H Tapered Bushing Kits (5) (6)

Bushing Size Standard Shaft Bushing Kit	Part Number (7)	Weight lbs.	Shaft Keyseat Required (9) (10)	Bushing Size Short Shaft Bushing Kit (8)	Part Number	Weight lbs.	Shaft Keyseat Required (9) (10)
TA1107TB x 1-1/2	**901020**	3.3	3/8 x 3/16 x 6.95	---	**---**	---	---
TA1107TB x 1-7/16 ▲	**901021**	3.6	3/8 x 3/16 x 6.95	TA1107TBS x 1-7/16	**901030**	3.7	3/8 x 3/16 x 4.43
TA1107TB x 1-3/8	**901022**	3.5	5/16 x 5/32 x 6.95	TA1107TBS x 1-3/8	**901031**	3.8	5/16 x 5/32 x 4.43
TA1107TB x 1-5/16	**901023**	3.8	5/16 x 5/32 x 6.95	TA1107TBS x 1-5/16	**901032**	4	5/16 x 5/32 x 4.43
TA1107TB x 1-1/4	**901024**	3.7	1/4 x 1/8 x 6.95	TA1107TBS x 1-1/4	**901033**	4.1	1/4 x 1/8 x 4.43
TA1107TB x 1-3/16	**901025**	3.8	1/4 x 1/8 x 6.95	TA1107TBS x 1-3/16	**901034**	4.2	1/4 x 1/8 x 4.43
TA1107TB x 1-1/8	**901026**	4.0	1/4 x 1/8 x 6.95	TA1107TBS x 1-1/8	**901035**	4.4	1/4 x 1/8 x 4.43
TA1107TB x 1-1/16	**901027**	4.0	1/4 x 1/8 x 6.95	TA1107TBS x 1-1/16	**901036**	4.5	1/4 x 1/8 x 4.43
TA1107TB x 1	**901028**	4.2	1/4 x 1/8 x 6.95	TA1107TBS x 1	**901037**	4.7	1/4 x 1/8 x 4.43

▲ AGMA maximum bore size

(5) Bushing kit required to mount TA II reducer to driven shaft

(6) Bushing kit is not required to mount TA II reducer on SCS Drive Shaft in a screw conveyor application

(7) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key.

(8) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

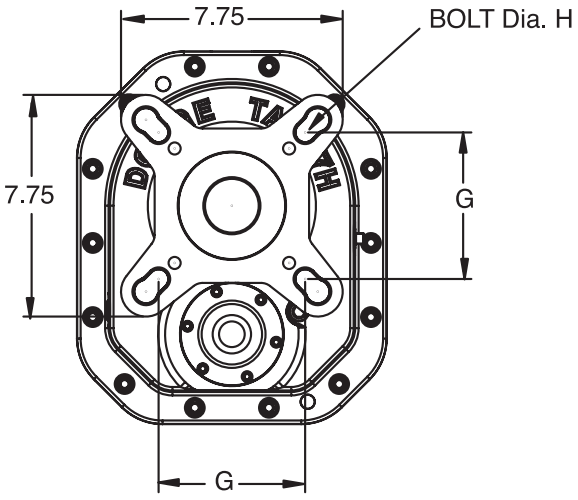
(9) Minimum keyseat and shaft length required to mount reducer with bushing kit

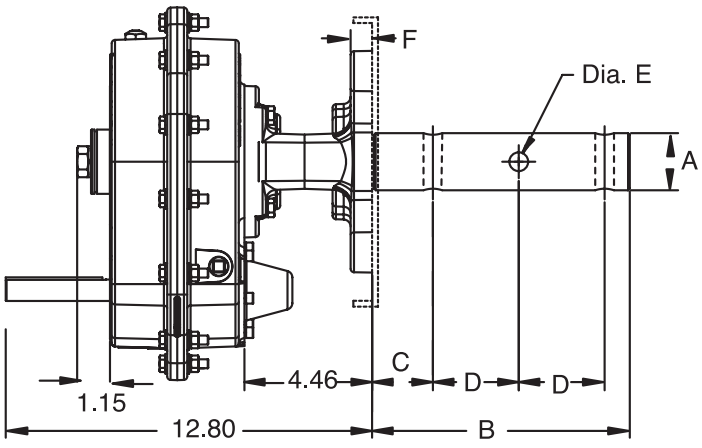
(10) Always check the driven shaft and key for strength

SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - Ta1107h, Single And Double Reduction







TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA1107H, Single And Double Reduction

TA1107H Screw Conveyor Drive Dimensions

Screw Dia	Drive Shaft Dia A	Dimensions						
		B	C	D	Hole Dia E	F	G	Bolt Dia H
6, 9	1-1/2	9.00	2.13	3.00	17/32	0.75	4.00	1/2-13
9, 12	2	9.00	2.13	3.00	21/32	0.75	5.13	5/8
12, 14	2-7/16	9.69	2.75	3.00	21/32	0.75	5.63	5/8
12, 14, 16, 18, 20	3	9.88	2.88	3.00	25/32	0.75	6.00	3/4

TA1107H Accessories for Screw Conveyor Drives (1) (4) (5)

Description	Part Number	Weight lbs.
TA1107SCA Adapter & Hardware Kit (2)	**901070**	15.2
TA1107SCP Adjustable Packing Kit (3)	**901071**	0.8
TA1107SCS x 1-1/2 Drive Shaft	**901072**	10.3
TA1107SCS x 2 Drive Shaft	**901073**	13.5
TA1107SCS x 2-7/16 Drive Shaft	**901074**	18.1
TA1107SCS x 3 Drive Shaft	**901075**	24.4
TA1107SCS x 1-1/2 Stainless Steel Drive Shaft	**901080**	10.3
TA1107SCS x 2 Stainless Steel Drive Shaft	**901081**	13.5
TA1107SCS x 2-7/16 Stainless Steel Drive Shaft	**901082**	18.1
TA1107SCS x 3 Stainless Steel Drive Shaft	**901083**	24.4

(1) See page G1-43 for Belt Guard for Screw Conveyor Drive applications

(2) SCA Adapter & Hardware Kit includes adapter, mounting wedge, keeper plate, key, seals and hardware

(3) SCP Adjustable Packing Kit consists of flange, mounting hardware and braided packing seals

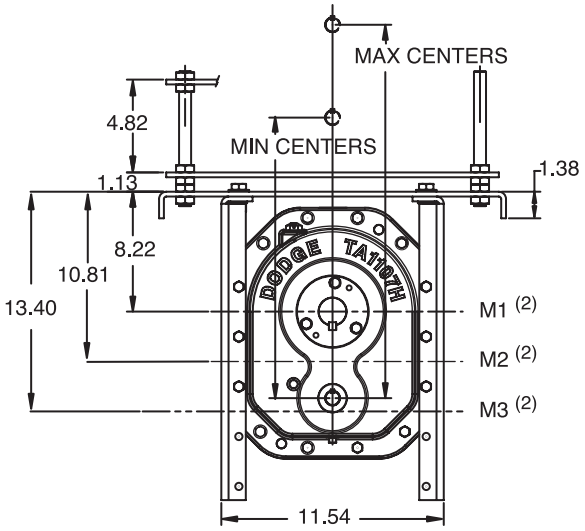
(4) SCS Drive Shaft is a shaft only. Hardware is stocked with the adapter & hardware kit

(5) A complete TA II Screw Conveyor Drive includes a TA II Reducer, SCA Adapter & Hardware Kit and SCS Drive Shaft. The SCP Adjustable Packing Kit is an optional accessory.

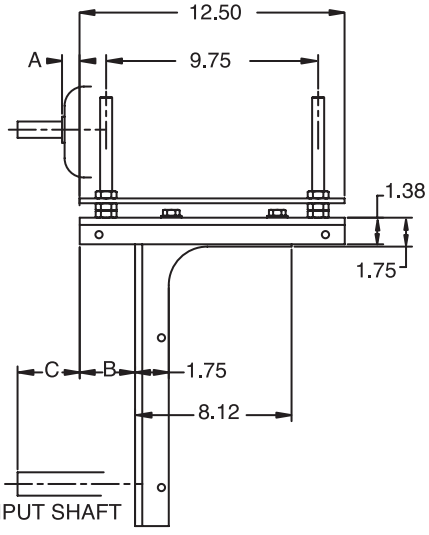
SELECTION/DIMENSIONS

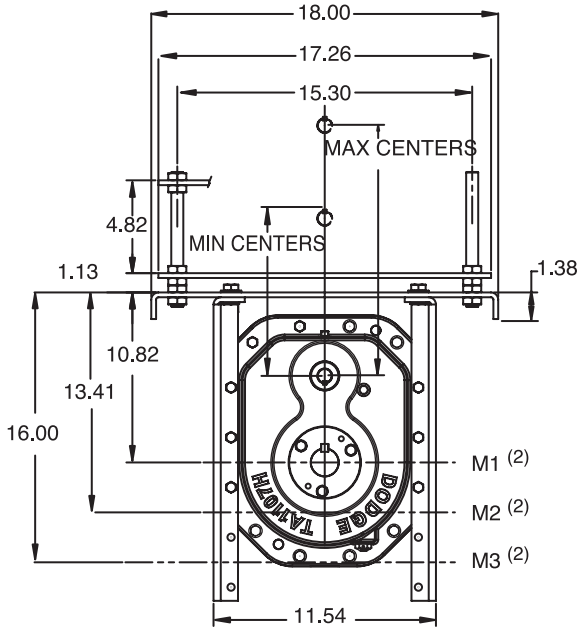
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA1107H, Position B & D



POSITION B





POSITION D



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA1107H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						56			143T & 145T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position B	-0.09	3.33	2.06	5.48	M1	0.78	17.7	22.0	1.22	17.7	22.0
					M2		20.3	24.6		20.3	24.6
					M3		22.9	27.2		22.9	27.2
Position D	-0.09	3.33	2.06	5.48	M1	0.78	11.3	15.7	1.22	11.3	15.7
					M2		13.9	18.2		13.9	18.2
					M3		16.5	20.8		16.5	20.8

Mounting	Motor Mount Height (2)	Motor Frame								
		182T & 184T			213T & 215T			254T		
		A	Centers		A	Centers		A	Centers	
			Min	Max		Min	Max		Min	Max
Position B	M1	1.37	18.7	23.0	1.55	19.5	23.8	1.56	20.5	24.8
	M2		21.3	25.6		22.1	26.4		23.1	27.4
	M3		23.9	28.2		24.6	29.0		25.6	30.0
Position D	M1	1.37	12.3	16.7	1.55	13.1	17.4	1.56	14.1	18.4
	M2		14.9	19.2		15.7	20.0		16.7	21.0
	M3		17.5	21.8		18.3	22.6		19.3	23.6

Note:

Minimum centers contains 0.5” to allow for belt assembly

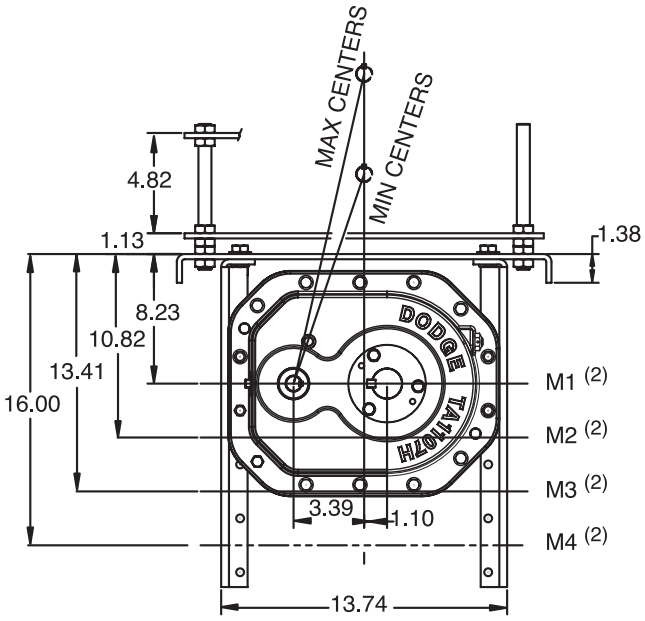
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3 go through output shaft centerline

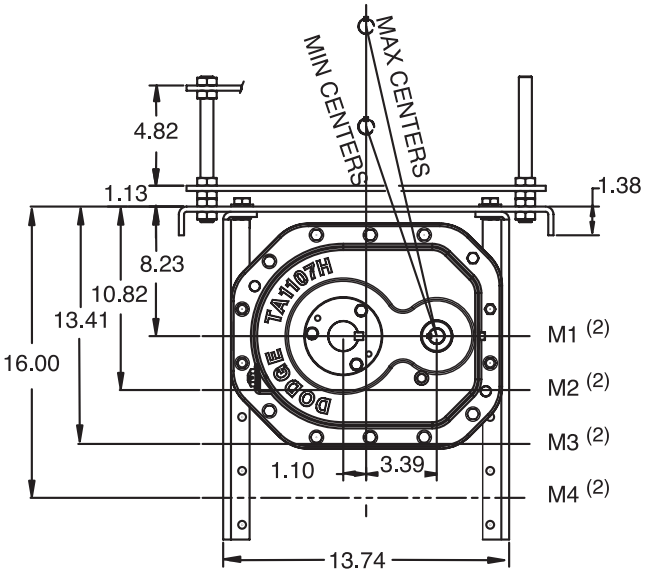
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

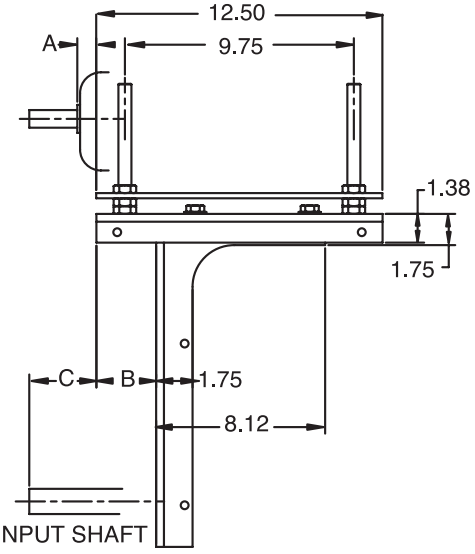
Motor Mount Dimensions - TA1107H, Position A & C



POSITION A



POSITION C





TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA1107H, Position A & C (1) (3)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						56			143T & 145T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position A	-0.09	3.33	3.01	6.43	M1	0.78	13.8	17.9	1.22	13.8	17.9
					M2		16.2	20.5		16.2	20.5
					M3		18.8	23.0		18.8	23.0
					M4		21.3	25.6		21.3	25.6
Position C	-0.09	3.33	3.01	6.43	M1	0.78	13.8	17.9	1.22	13.8	17.9
					M2		16.2	20.5		16.2	20.5
					M3		18.8	23.0		18.8	23.0
					M4		21.3	25.6		21.3	25.6

Mounting	Motor Mount Height (2)	Motor Frame								
		182T & 184T			213T & 215T			254T		
		A	Centers		A	Centers		A	Centers	
			Min	Max		Min	Max		Min	Max
Position A	M1	1.37	14.7	18.9	1.55	15.4	19.6	1.56	16.4	20.6
	M2		17.2	21.4		17.9	22.2		18.9	23.2
	M3		19.7	24.0		20.5	24.7		21.5	25.7
	M4		22.3	26.6		23.0	27.3		24.0	28.3
Position C	M1	1.37	14.7	18.9	1.55	15.4	19.6	1.56	16.4	20.6
	M2		17.2	21.4		17.9	22.2		18.9	23.2
	M3		19.7	24.0		20.5	24.7		21.5	25.7
	M4		22.3	26.6		23.0	27.3		24.0	28.3

Note:

Minimum centers contains 0.5” to allow for belt assembly

(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3, M4 go through output shaft centerline

(3) See Table A, below, for minimum “M” mounting position required for specific screw diameter and reducer size

Table A - Screw Conveyor Motor Mount Minimum “M” Mounting Positions (1)

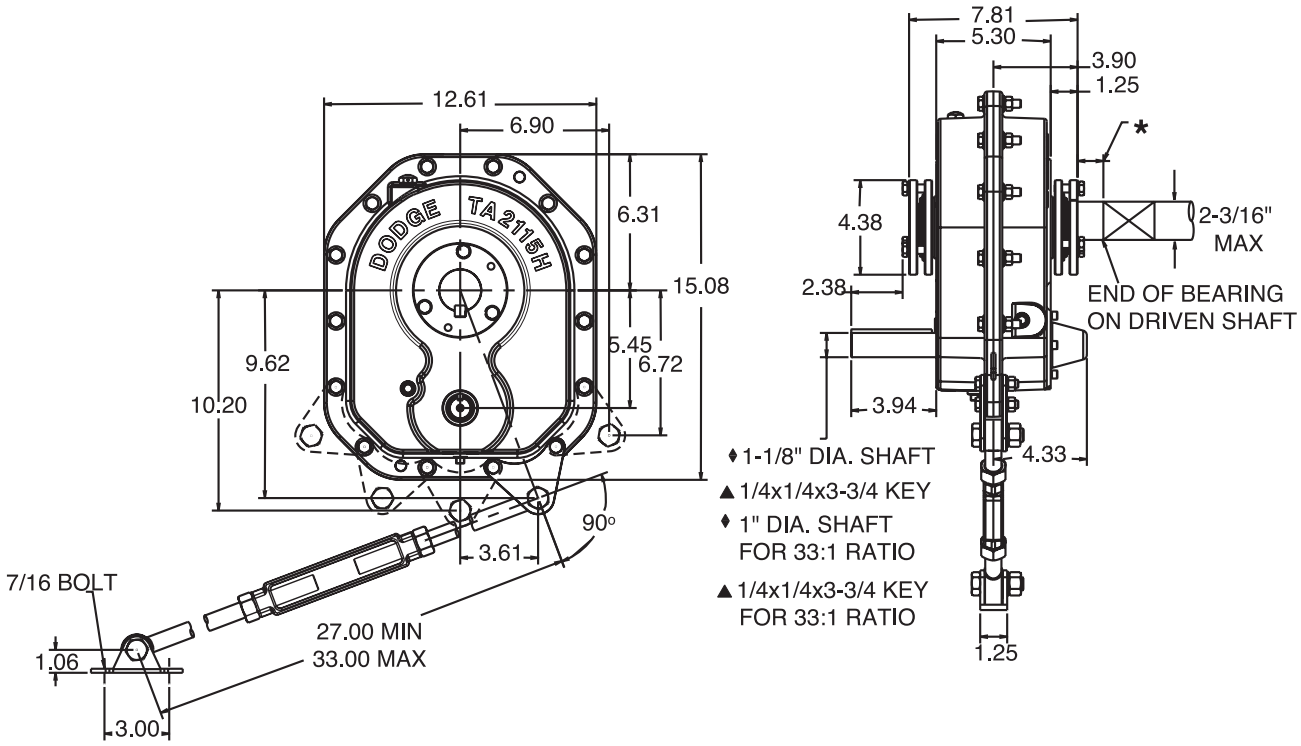
Nominal Screw Dia	Trough Height Dim	Minimum Mounting Position							
		TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H
6	7.00	M2	M3	M2	M2	M2	M1	M1	M1
9	9.00	M3	M4	M3	M3	M2	M2	M2	M1
12	10.00	M4	M4	M3	M3	M2	M2	M2	M1
14	11.00	M4	M4	M4	M3	M3	M2	M2	M2
16	11.50	M4	***	M4	M4	M3	M2	M2	M2
18	12.13	***	***	M4	M4	M3	M3	M2	M2
20	13.50	***	***	M4	M4	M3	M3	M3	M2
24	16.50	***	***	***	***	M4	M3	M3	M3

(1) For U Or Flared Trough Ends Per CEMA 300-014

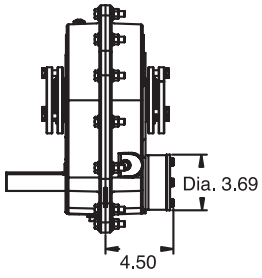
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

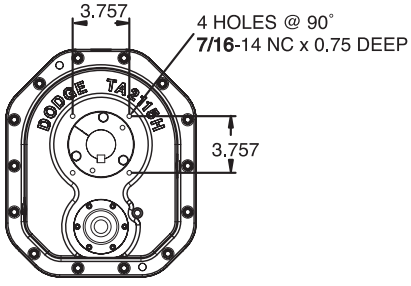
Taper Bushed Reducer - TA2115H, Single And Double Reduction



* 1.20" MINIMUM DISTANCE FOR BUSHING SCREW REMOVAL



REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducer - TA2115H, Single And Double Reduction

TA2115H Taper Bushed Reducers (1)

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA2115H05	**902004**	115S05	5.20	84.2
TA2115H09	**902003**	115D09	9.10	86.5
TA2115H15	**902002**	115D15	15.62	86.3
TA2115H25	**902001**	115D25	25.07	86.1
TA2115H33	**902000**	115D33	33.33	85.7

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

\+ Rod Assembly mounting locations are limited to positions shown in drawing

TA2115H Accessories

Description	Part Number	Weight lbs.
TA2115RA Rod Assembly (1) +	**902109**	6.9
TA2115BS Backstop Assembly (2)	**902102**	3.9
TA2115MM Motor Mount Assembly (56-256T) (3)	**902090**	52.6
TA2115BG Belt Guard - Pos. B (56-256T)	**902096**	47.7
TA2115BG Belt Guard - Pos. C (56-256T) (4)	**902097**	52.1
TA2115BG Belt Guard - Pos. D (56-256T)	**902099**	51.0
TA0-TA3 Vertical Breather Kit	**900112**	2.0
TA2115H V-Ring Kit	**902249**	0.2
Filter Breather Plug	**430048**	0.2
TA2115H Lube Kit	**LUBEKITTA2115**	8.1

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

(4) Use Position-C belt guard for TA II reducer in screw conveyor drive applications

TA2115H Tapered Bushing Kits (5) (6)

Bushing Size Standard Shaft Bushing Kit	Part Number (7)	Weight lbs.	Shaft Keyseat Required (9) (10)	Bushing Size Short Shaft Bushing Kit (8)	Part Number	Weight lbs.	Shaft Keyseat Required (9) (10)
TA2115TB x 2-3/16	**902020**	4.7	1/2 x 1/4 x 7.80	---	**---**	---	---
TA2115TB x 2	**902022**	5.2	1/2 x 1/4 x 7.80	---	**---**	---	---
TA2115TB x 1-15/16 ▲	**902023**	5.4	1/2 x 1/4 x 7.80	TA2115TBS x 1-15/16	**902030**	5.6	1/2 x 1/4 x 4.80
TA2115TB x 1-7/8	**902024**	5.6	1/2 x 1/4 x 7.80	TA2115TBS x 1-7/8	**902031**	5.9	1/2 x 1/4 x 4.80
TA2115TB x 1-3/4	**902025**	5.8	3/8 x 3/16 x 7.80	TA2115TBS x 1-3/4	**902032**	6	3/8 x 3/16 x 4.80
TA2115TB x 1-11/16	**902026**	6.1	3/8 x 3/16 x 7.80	TA2115TBS x 1-11/16	**902033**	6.6	3/8 x 3/16 x 4.80
TA2115TB x 1-5/8	**902027**	6.0	3/8 x 3/16 x 7.80	TA2115TBS x 1-5/8	**902034**	6.8	3/8 x 3/16 x 4.80
TA2115TB x 1-1/2	**902028**	6.4	3/8 x 3/16 x 7.80	TA2115TBS x 1-1/2	**902035**	7.3	3/8 x 3/16 x 4.80
TA2115TB x 1-7/16	**902029**	6.4	3/8 x 3/16 x 7.80	TA2115TBS x 1-7/16	**902036**	7.4	3/8 x 3/16 x 4.80
TA2115TB x 1-3/8	**902060**	6.5	5/16 x 5/32 x 7.80	TA2115TBS x 1-3/8	**902037**	7.6	5/16 x 5/32 x 4.80
TA2115TB x 1-5/16	**902061**	6.7	5/16 x 5/32 x 7.80	TA2115TBS x 1-5/16	**902038**	7.8	5/16 x 5/32 x 4.80

▲ AGMA maximum bore size

(5) Bushing kit required to mount TA II reducer to driven shaft

(6) Bushing kit is not required to mount TA II reducer on SCS Drive Shaft in a screw conveyor application

(7) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(8) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

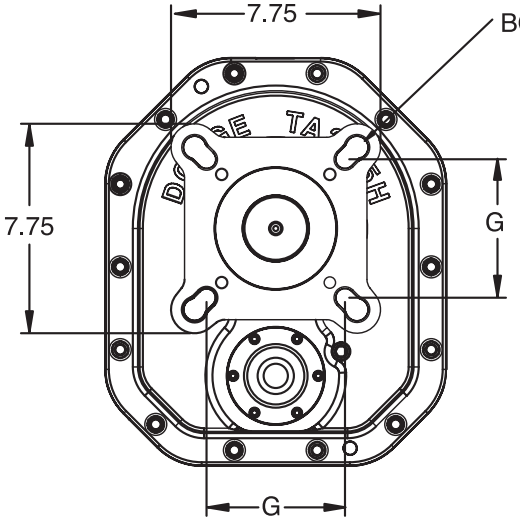
(9) Minimum keyseat and shaft length required to mount reducer with bushing kit

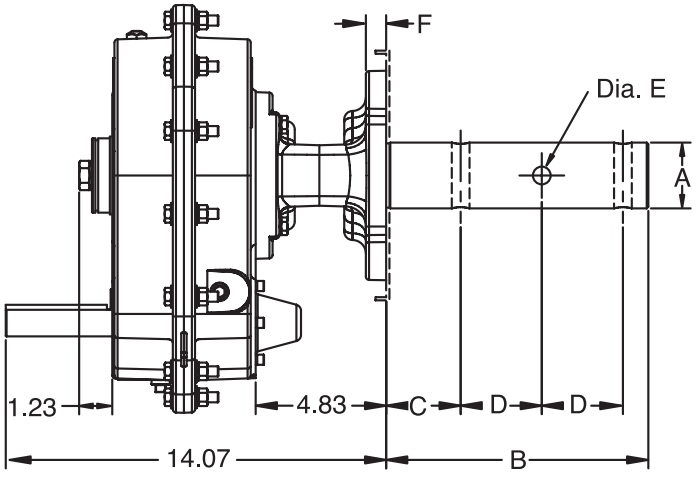
(10) Always check the driven shaft and key for strength

SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA2115H, Single And Double Reduction







TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA2115H, Single And Double Reduction

TA2115H Screw Conveyor Drive Dimensions

Screw Dia	Drive Shaft Dia A	Dimensions						
		B	C	D	Hole Dia E	F	G	Bolt Dia H
6, 9	1-1/2	9.00	2.13	3.00	17/32	0.75	4.00	1/2-13
9, 12	2	9.00	2.13	3.00	21/32	0.75	5.13	5/8
12, 14	2-7/16	9.69	2.75	3.00	21/32	0.75	5.63	5/8
12, 14, 16, 18, 20	3	9.88	2.88	3.00	25/32	0.75	6.00	3/4

TA2115H Accessories for Screw Conveyor Drives (1) (4) (5)

Description	Part Number	Weight lbs.
TA2115SCA Adapter & Hardware Kit (2)	**902070**	19.2
TA2115SCP Adjustable Packing Kit (3)	**902071**	1.2
TA2115SCS x 1-1/2 Drive Shaft	**902072**	15.4
TA2115SCS x 2 Drive Shaft	**902073**	18.6
TA2115SCS x 2-7/16 Drive Shaft	**902074**	23.3
TA2115SCS x 3 Drive Shaft	**902075**	29.5
TA2115SCS x 1-1/2 Stainless Steel Drive Shaft	**902080**	15.4
TA2115SCS x 2 Stainless Steel Drive Shaft	**902081**	18.6
TA2115SCS x 2-7/16 Stainless Steel Drive Shaft	**902082**	23.3
TA2115SCS x 3 Stainless Steel Drive Shaft	**902083**	29.5

(1) See page G1-51 for Belt Guard for Screw Conveyor Drive applications

(2) SCA Adapter & Hardware Kit includes adapter, mounting wedge, keeper plate, key, seals and hardware

(3) SCP Adjustable Packing Kit consists of flange, mounting hardware and braided packing seals

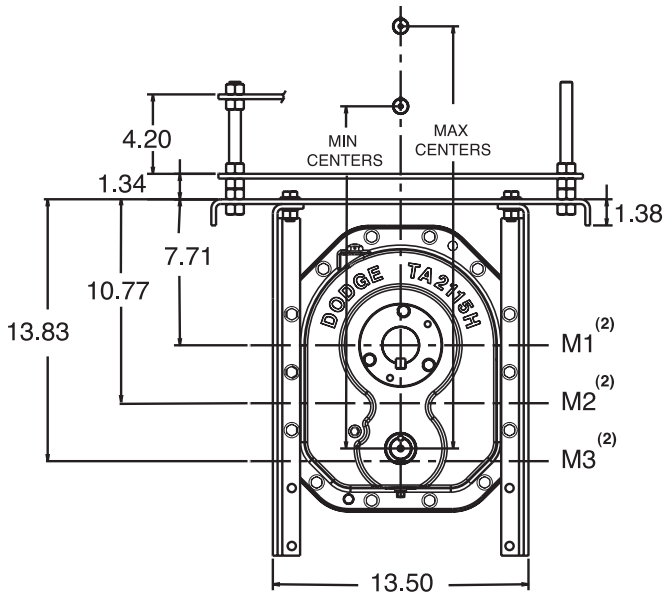
(4) SCS Drive Shaft is a shaft only. Hardware is stocked with the adapter & hardware kit

(5) A complete TA II Screw Conveyor Drive includes a TA II Reducer, SCA Adapter & Hardware Kit and SCS Drive Shaft. The SCP Adjustable Packing Kit is an optional accessory.

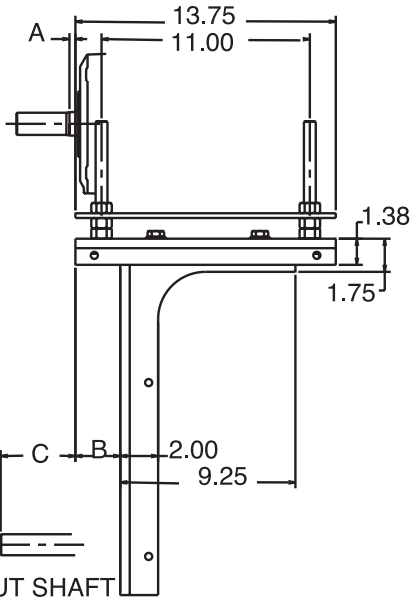
SELECTION/DIMENSIONS

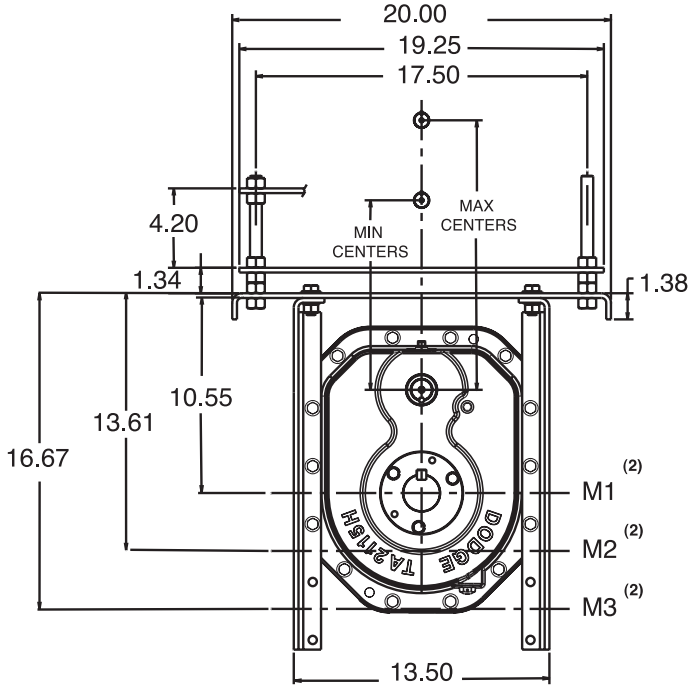
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA2115H, Position B & D



POSITION B





POSITION D



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA2115H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						56			143T & 145T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position B	0.19	3.61	2.32	5.74	M1	0.78	18.5	22.2	1.22	18.5	22.2
					M2		21.6	25.3		21.6	25.3
					M3		24.6	28.3		24.6	28.3
Position D	0.19	3.61	2.32	5.74	M1	0.78	10.4	14.1	1.22	10.4	14.1
					M2		13.5	17.2		13.5	17.2
					M3		16.6	20.3		16.6	20.3

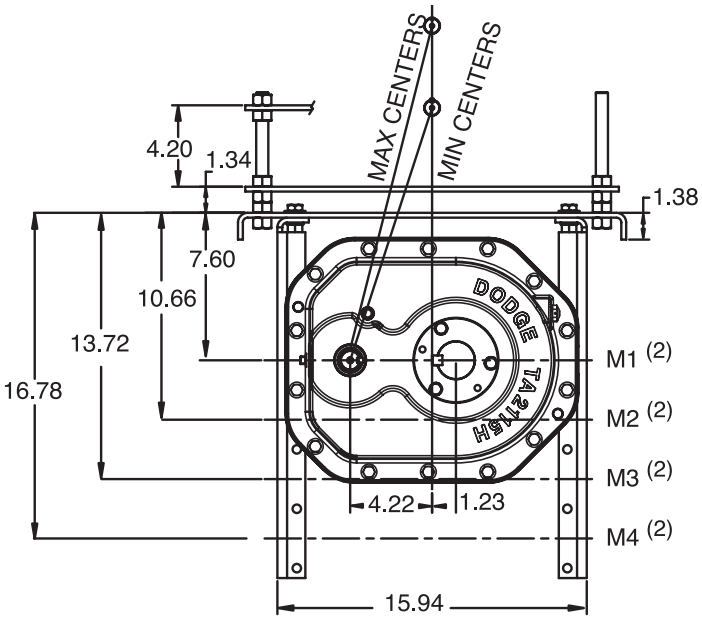
Mounting	Motor Mount Height (2)	Motor Frame								
		182T & 184T			213T & 215T			254T & 256T		
		A	Centers		A	Centers		A	Centers	
			Min	Max		Min	Max		Min	Max
Position B	M1	1.37	19.5	23.2	1.55	20.3	24.0	1.56	21.3	25.0
	M2		22.6	26.3		23.3	27.0		24.3	28.0
	M3		25.6	29.3		26.4	30.1		27.4	31.1
Position D	M1	1.37	11.4	15.1	1.55	12.2	15.9	1.56	13.2	16.9
	M2		14.5	18.2		15.3	19.0		16.3	20.0
	M3		17.6	21.3		18.3	22.0		19.3	23.0

Note:
Minimum centers contain 0.5” to allow for belt assembly
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions
(2) M1, M2, M3 go through output shaft centerline

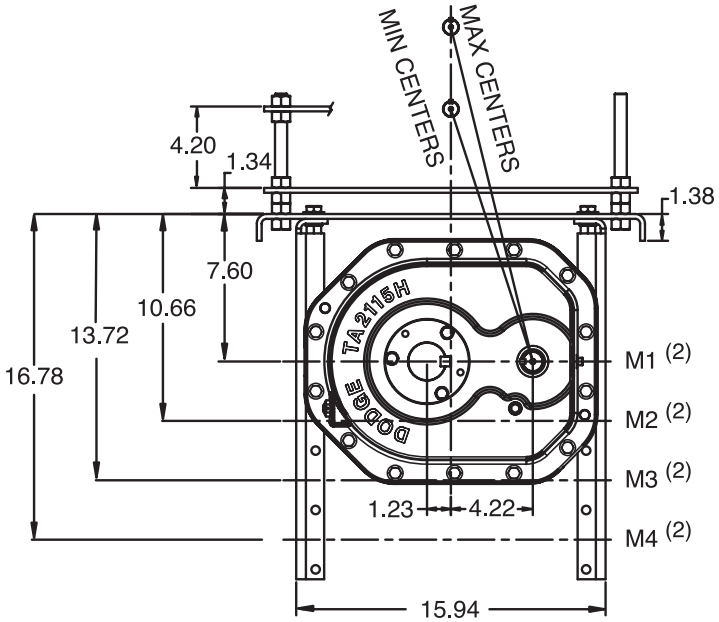
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

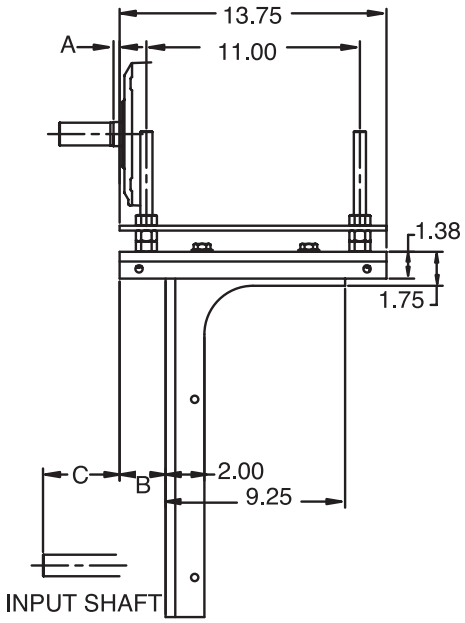
Motor Mount Dimensions - TA2115H, Position A & C



POSITION A



POSITION C





TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA2115H, Position A & C (1) (3)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						56			143T & 145T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position A	0.19	3.61	3.39	6.81	M1	0.78	13.6	17.2	1.22	13.6	17.2
					M2		16.6	20.1		16.6	20.1
					M3		19.5	23.1		19.5	23.1
					M4		22.5	26.2		22.5	26.2
Position C	0.19	3.61	3.39	6.81	M1	0.78	13.6	17.2	1.22	13.6	17.2
					M2		16.6	20.1		16.6	20.1
					M3		19.5	23.1		19.5	23.1
					M4		22.5	26.2		22.5	26.2

Mounting	Motor Mount Height (2)	Motor Frame								
		182T & 184T			213T & 215T			254T & 256T		
		A	Centers		A	Centers		A	Centers	
			Min	Max		Min	Max		Min	Max
Position A	M1	1.37	14.6	18.1	1.55	15.3	18.9	1.56	16.3	19.8
	M2		17.5	21.1		18.3	21.9		19.2	22.8
	M3		20.5	24.1		21.2	24.9		22.2	25.9
	M4		23.5	27.1		24.2	27.9		25.2	28.9
Position C	M1	1.37	14.6	18.1	1.55	15.3	18.9	1.56	16.3	19.8
	M2		17.5	21.1		18.3	21.9		19.2	22.8
	M3		20.5	24.1		21.2	24.9		22.2	25.9
	M4		23.5	27.1		24.2	27.9		25.2	28.9

Note:
Minimum centers contain 0.5” to allow for belt assembly
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions
(2) M1, M2, M3, M4 go through output shaft centerline
(3) See Table A, below, for minimum “M” mounting position required for specific screw diameter and reducer size

Table A - Screw Conveyor Motor Mount Minimum “M” Mounting Positions (1)

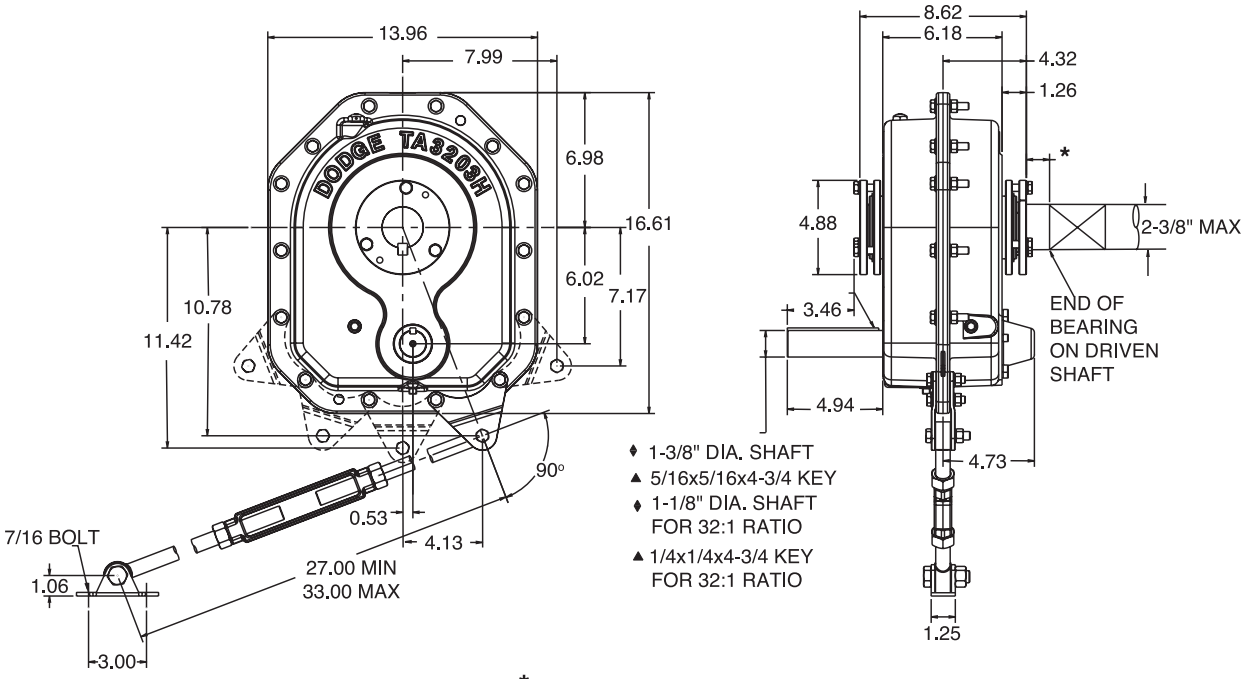
Nominal Screw Dia	Trough Height Dim	Minimum Mounting Position							
		TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H
6	7.00	M2	M3	M2	M2	M2	M1	M1	M1
9	9.00	M3	M4	M3	M3	M2	M2	M2	M1
12	10.00	M4	M4	M3	M3	M2	M2	M2	M1
14	11.00	M4	M4	M4	M3	M3	M2	M2	M2
16	11.50	M4	***	M4	M4	M3	M2	M2	M2
18	12.13	***	***	M4	M4	M3	M3	M2	M2
20	13.50	***	***	M4	M4	M3	M3	M3	M2
24	16.50	***	***	***	***	M4	M3	M3	M3

(1) For U Or Flared Trough Ends Per CEMA 300-014

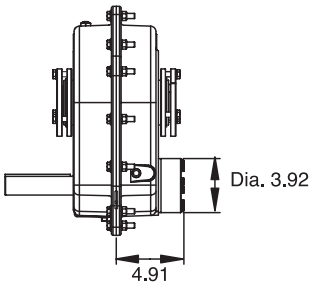
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

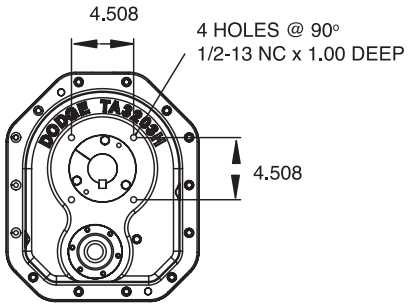
Taper Bushed Reducer - TA3203H, Single And Double Reduction



*1.20 MINIMUM DISTANCE FOR BUSHING SCREW REMOVAL



REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducer - TA3203H, Single And Double Reduction

TA3203H Taper Bushed Reducers (1) ■

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA3203H05	**903004**	203S05	4.91	107.9
TA3203H09	**903003**	203D09	9.23	112.0
TA3203H15	**903002**	203D15	15.07	111.8
TA3203H25	**903001**	203D25	24.95	111.4
TA3203H32	**903000**	203D32	32.45	110.3

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

■ See page G1-122 for Maximum Bore Straight Bore TA II Reducers

\+ Rod Assembly mounting locations are limited to positions shown in drawing.

TA3203H Accessories

Description	Part Number	Weight Lbs
TA3203RA Rod Assembly (1) +	**903109**	6.9
TA3203BS Backstop Assembly (2)	**903102**	4.7
TA3203MM Motor Mount Assembly (143-286T) (3)	**903090**	86.7
TA3203BG Belt Guard - Pos. B (143-286T)	**903096**	65.5
TA3203BG Belt Guard - Pos. C (143-286T) (4)	**903097**	67.9
TA3203BG Belt Guard - Pos. D (143-286T)	**903099**	67.0
TA0-TA3 Vertical Breather Kit	**900112**	2.0
TA3203H V-Ring Kit	**903249**	0.2
Filter Breather Plug	**430048**	0.2
TA3203H Lube Kit	**LUBEKITTA3203**	10.4

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

(4) Use Position-C belt guard for TA II reducer in screw conveyor drive applications

TA3203H Tapered Bushing Kits (5) (6)

Bushing Size Standard Shaft Bushing Kit	Part Number (7)	Weight lbs.	Shaft Keyseat Required (9) (10)	Bushing Size Short Driven Shaft Bushing Kit (8)	Part Number	Weight lbs.	Shaft Keyseat Required (9) (10)
TA3203TB x 2-3/8	**903020**	6.1	5/8 x 5/16 x 8.55	---	**---**	---	---
TA3203TB x 2-1/4	**903021**	6.2	1/2 x 1/4 x 8.55	...	**...**	...	...
TA3203TB x 2-3/16 ▲	**903022**	6.8	1/2 x 1/4 x 8.55	TA3203TBS x 2-3/16	**903030**	7.0	1/2 x 1/4 x 5.46
TA3203TB x 2-1/8	**903023**	7.0	1/2 x 1/4 x 8.55	TA3203TBS x 2-1/8	**903031**	7.4	1/2 x 1/4 x 5.46
TA3203TB x 2	**903024**	7.5	1/2 x 1/4 x 8.55	TA3203TBS x 2	**903032**	8.0	1/2 x 1/4 x 5.46
TA3203TB x 1-15/16	**903025**	7.8	1/2 x 1/4 x 8.55	TA3203TBS x 1-15/16	**903033**	8.4	1/2 x 1/4 x 5.46
TA3203TB x 1-7/8	**903026**	8.0	1/2 x 1/4 x 8.55	TA3203TBS x 1-7/8	**903034**	8.7	1/2 x 1/4 x 5.46
TA3203TB x 1-3/4	**903027**	8.0	3/8 x 3/16 x 8.55	TA3203TBS x 1-3/4	**903035**	9.0	3/8 x 3/16 x 5.46
TA3203TB x 1-11/16	**903028**	8.2	3/8 x 3/16 x 8.55	TA3203TBS x 1-11/16	**903036**	9.3	3/8 x 3/16 x 5.46
TA3203TB x 1-5/8	**903029**	8.4	3/8 x 3/16 x 8.55	TA3023TBS x 1-5/8	**903037**	9.6	3/8 x 3/16 x 5.46
TA3203TB x 1-1/2	**903060**	8.8	3/8 x 3/16 x 8.55	TA3203TBS x 1-1/2	**903038**	9.9	3/8 x 3/16 x 5.46
TA3203TB x 1-7/16	**903061**	8.8	3/8 x 3/16 x 8.55	TA3203TBS x 1-7/16	**903039**	10.0	3/8 x 3/16 x 5.46

▲ AGMA maximum bore size

(5) Bushing kit required to mount TA II reducer to driven shaft

(6) Bushing kit is not required to mount TA II reducer on SCS Drive Shaft in a screw conveyor application

(7) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(8) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

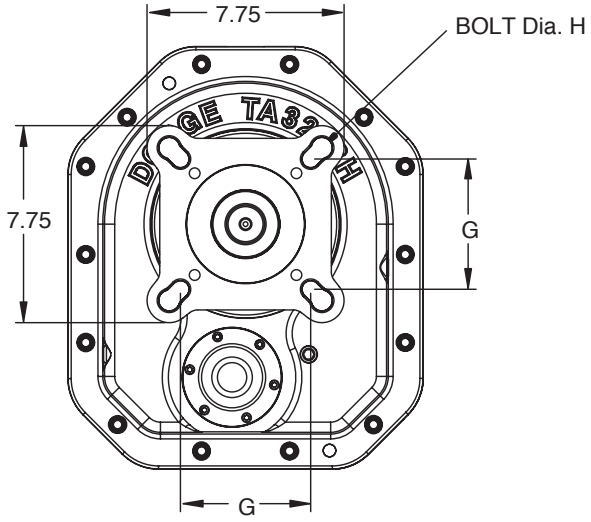
(9) Minimum keyseat and shaft length required to mount reducer with bushing kit

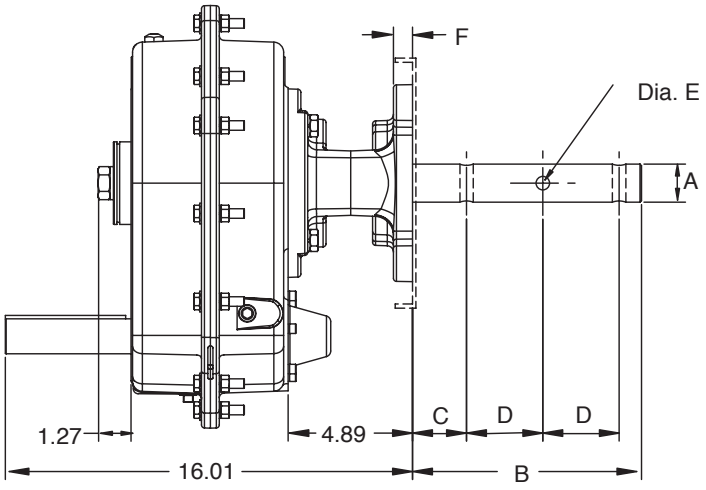
(10) Always check the driven shaft and key for strength

SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA3203H, Single And Double Reduction







TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA3203H, Single And Double Reduction

TA3203H Screw Conveyor Drive Dimensions

Screw Dia	Drive Shaft Dia A	Dimensions						
		B	C	D	Hole Dia E	F	G	Bolt Dia H
6, 9	1-1/2	9.00	2.13	3.00	17/32	0.75	4.00	1/2-13
9, 12	2	9.00	2.13	3.00	21/32	0.75	5.13	5/8
12, 14	2-7/16	9.69	2.75	3.00	21/32	0.75	5.63	5/8
12, 14, 16, 18, 20	3	9.88	2.88	3.00	25/32	0.75	6.00	3/4
18, 20, 24	3-7/16	13.13	3.88	4.00	29/32	.75	6.75	3/4

TA3203H Accessories for Screw Conveyor Drives (1) (4) (5)

Description	Part Number	Weight lbs.
TA3203SCA Adapter & Hardware Kit (2)	**903070**	22.0
TA3203SCP Adjustable Packing Kit (3)	**903071**	1.4
TA3203SCS x 1-1/2 Drive Shaft	**903072**	19.3
TA3203SCS x 2 Drive Shaft	**903073**	22.6
TA3203SCS x 2-7/16 Drive Shaft	**903074**	27.2
TA3203SCS x 3 Drive Shaft	**903075**	33.6
TA3203SCS x 3-7/16 Drive Shaft	**903076**	44.8
TA3203SCS x 1-1/2 Stainless Steel Drive Shaft	**903080**	19.3
TA3203SCS x 2 Stainless Steel Drive Shaft	**903081**	22.6
TA3203SCS x 2-7/16 Stainless Steel Drive Shaft	**903082**	27.2
TA3203SCS x 3 Stainless Steel Drive Shaft	**903083**	33.6
TA3203SCS x 3-7/16 Stainless Steel Drive Shaft	**903084**	44.8

(1) See page G1-59 for Belt Guard for Screw Conveyor Drive applications

(2) SCA Adapter & Hardware Kit includes adapter, mounting wedge, keeper plate, key, seals and hardware

(3) SCP Adjustable Packing Kit consists of flange, mounting hardware and braided packing seals

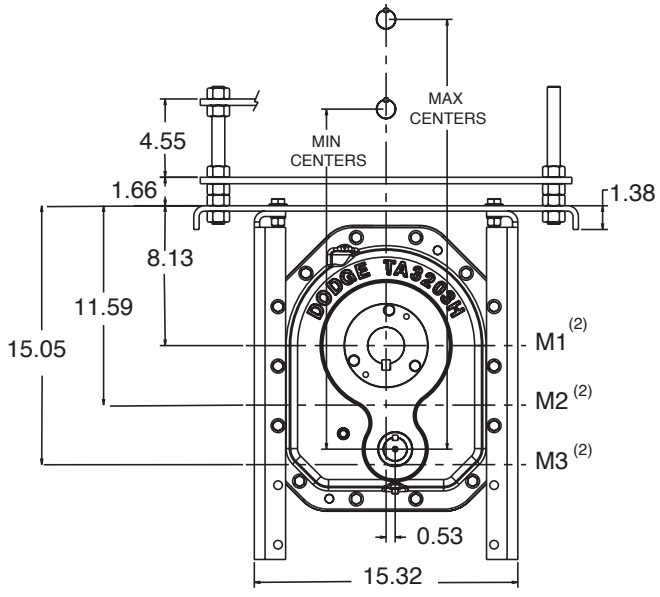
(4) SCS Drive Shaft is a shaft only. Hardware is stocked with the adapter & hardware kit

(5) A complete TA II Screw Conveyor Drive includes a TA II Reducer, SCA Adapter & Hardware Kit and SCS Drive Shaft. The SCP Adjustable Packing Kit is an optional accessory.

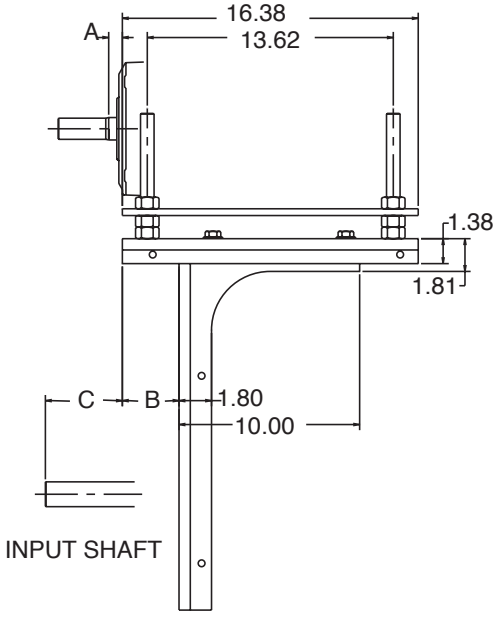
SELECTION/DIMENSIONS

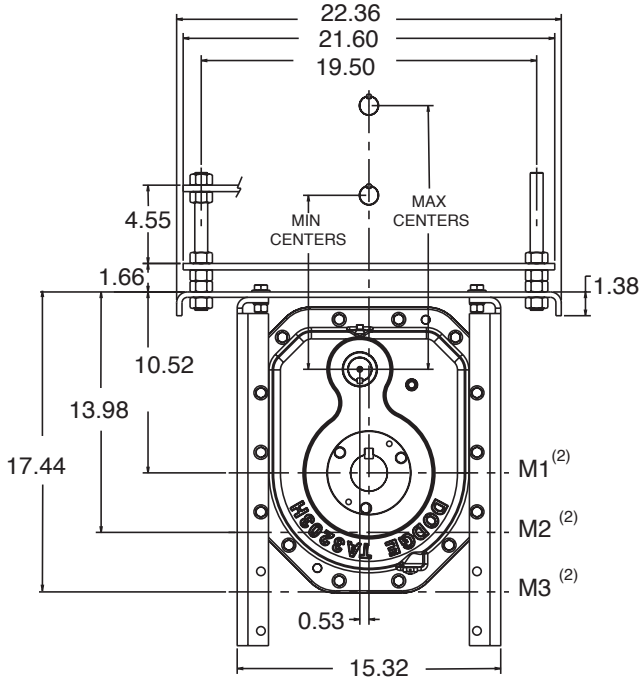
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA3203H, Position B & D



POSITION B





POSITION D



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA3203H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						143T & 145T			182T & 184T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position B	0.04	5.34	2.06	7.36	M1	1.22	19.8	23.9	1.37	20.8	24.9
					M2		23.3	27.3		24.3	28.3
					M3		26.7	30.8		27.7	31.8
Position D	0.04	5.34	2.06	7.36	M1	1.22	10.2	14.2	1.37	11.2	15.2
					M2		13.6	17.7		14.6	18.7
					M3		17.1	21.1		18.1	22.1

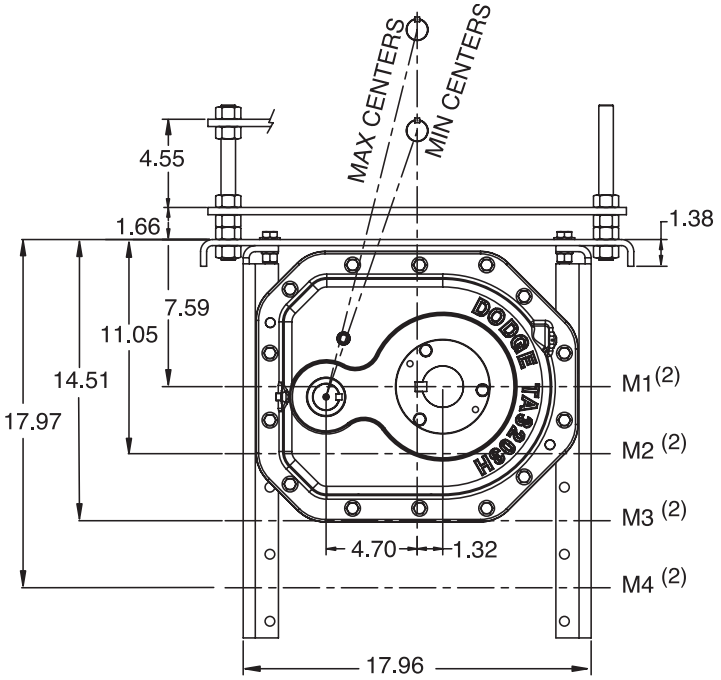
Mounting	Motor Mount Height (2)	Motor Frame								
		213T & 215T			254T & 256T			284T & 286T		
		A	Centers		A	Centers		A	Centers	
			Min	Max		Min	Max		Min	Max
Position B	M1	1.55	21.6	25.6	1.56	22.6	26.6	1.16	23.3	27.4
	M2		25.0	29.1		26.0	30.1		26.8	30.8
	M3		28.5	32.5		29.5	33.5		30.2	34.3
Position D	M1	1.55	11.9	16.0	1.56	12.9	17.0	1.16	13.7	17.7
	M2		15.4	19.4		16.4	20.4		17.1	21.2
	M3		18.8	22.9		19.8	23.9		20.6	24.6

Note:
Minimum centers contain 0.5” to allow for belt assembly
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions
(2) M1, M2, M3 go through output shaft centerline

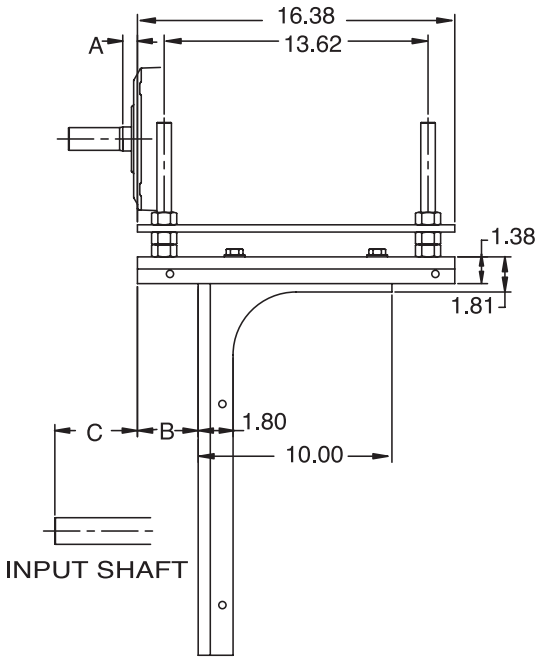
SELECTION/DIMENSIONS

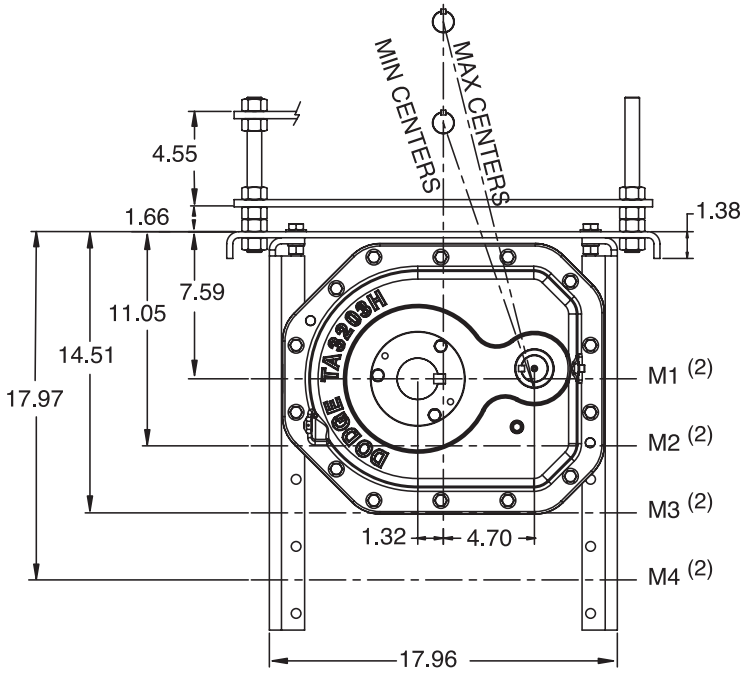
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA3203H, Position A & C



POSITION A





POSITION C



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA3203H, Position A & C (1) (3)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame					
						143T & 145T			182T & 184T		
						A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max
Position A	0.04	5.34	3.07	8.37	M1	1.22	14.6	18.4	1.37	15.5	19.4
					M2		17.9	21.8		18.9	22.8
					M3		21.2	25.2		22.2	26.2
					M4		24.6	28.6		25.6	29.6
Position C	0.04	5.34	3.07	8.37	M1	1.22	13.6	17.4	1.37	14.5	18.4
					M2		16.9	20.8		17.8	21.7
					M3		20.2	24.2		21.2	25.1
					M4		23.6	27.6		24.6	28.5

Mounting	Motor Mount Height (2)	Motor Frame								
		213T & 215T			254T & 256T			284T & 286T		
		A	Centers		A	Centers		A	Centers	
			Min	Max		Min	Max		Min	Max
Position A	M1	1.55	16.2	20.1	1.56	17.2	21.1	1.16	17.9	21.8
	M2		19.6	23.5		20.5	24.5		21.3	25.2
	M3		22.9	26.9		23.9	27.9		24.7	28.6
	M4		26.3	30.3		27.3	31.3		28.1	32.1
Position C	M1	1.55	15.2	19.1	1.56	16.2	20.1	1.16	16.9	20.8
	M2		18.6	22.5		19.5	23.5		20.2	24.2
	M3		21.9	25.9		22.9	26.9		23.6	27.6
	M4		25.3	29.3		26.3	30.3		27.0	31.0

Note:

Minimum centers contain 0.5” to allow for belt assembly

(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3, M4 go through output shaft centerline

(3) See Table A, below, for minimum “M” mounting position required for specific screw diameter and reducer size

Table A - Screw Conveyor Motor Mount Minimum “M” Mounting Positions (1)

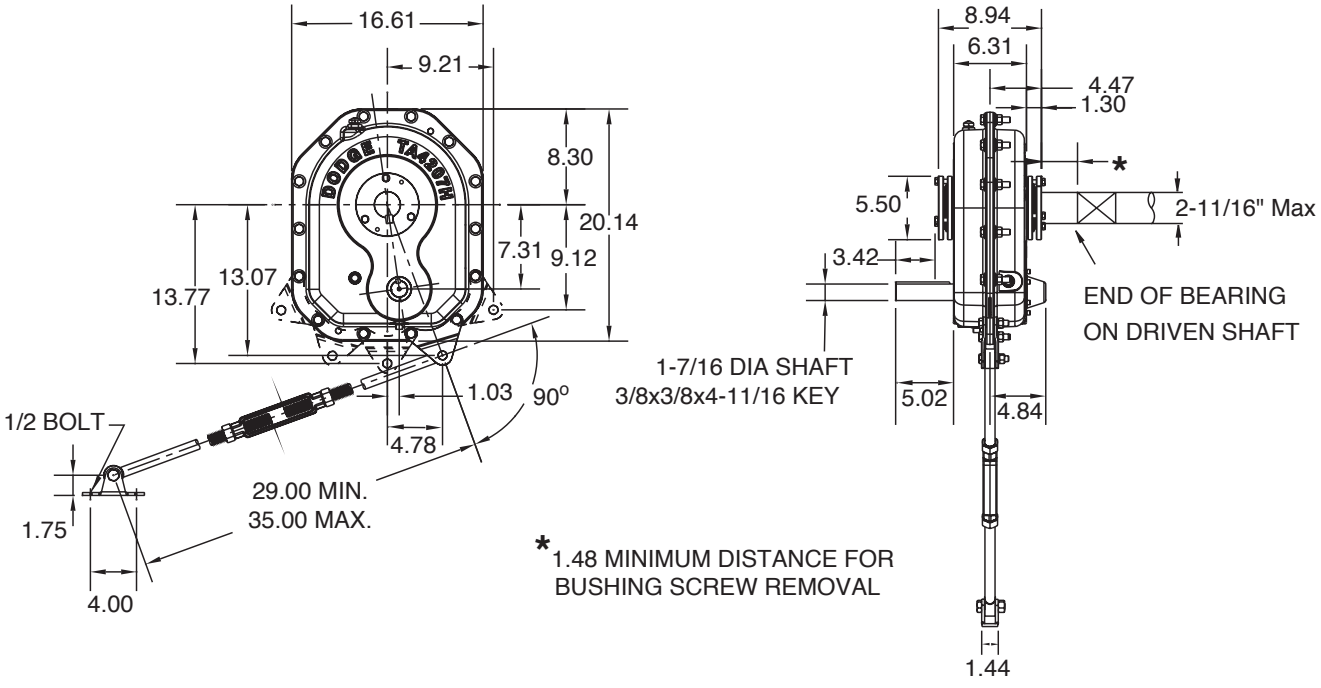
Nominal Screw Dia	Trough Height Dim	Minimum Mounting Position							
		TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H
6	7.00	M2	M3	M2	M2	M2	M1	M1	M1
9	9.00	M3	M4	M3	M3	M2	M2	M2	M1
12	10.00	M4	M4	M3	M3	M2	M2	M2	M1
14	11.00	M4	M4	M4	M3	M3	M2	M2	M2
16	11.50	M4	***	M4	M4	M3	M2	M2	M2
18	12.13	***	***	M4	M4	M3	M3	M2	M2
20	13.50	***	***	M4	M4	M3	M3	M3	M2
24	16.50	***	***	***	***	M4	M3	M3	M3

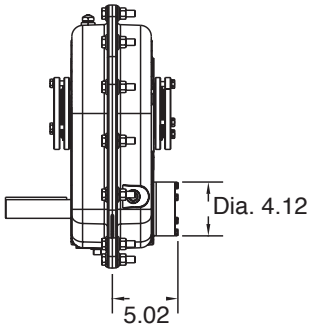
(1) For U Or Flared Trough Ends Per CEMA 300-014

SELECTION/DIMENSIONS

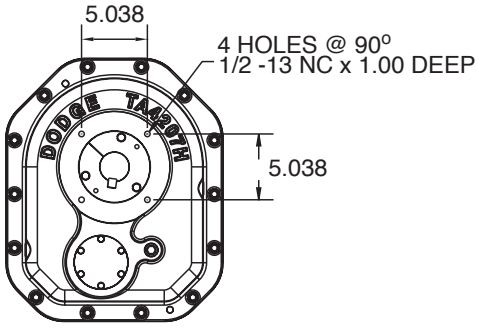
TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA4207H, Single And Double Reduction





REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA4207H, Single And Double Reduction

TA4207H Taper Bushed Reducers (1) ■

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA4207H05	**904004**	207S05	5.00	178.5
TA4207H09	**904003**	207D09	9.23	187.1
TA4207H15	**904002**	207D15	15.00	186.7
TA4207H25	**904001**	207D25	25.13	186.0
TA4207H40	**904000**	207D40	39.11	185.4

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

■ See page G1-122 for Maximum Bore Straight Bore TA II Reducers

\+ Rod Assembly mounting locations are limited to positions shown in drawing

TA4207H Accessories

Description	Part Number	Weight lbs.
TA4207RA Rod Assembly (1) +	**904109**	10.6
TA4207BS Backstop Assembly (2)	**904102**	5.2
TA4207BS 40:1 Backstop Assembly (2)	**904103**	5.2
TA4207MM Motor Mount Assembly (143-326T) (3)	**904090**	114.3
TA4207BG Belt Guard - Pos. B (143-326T)	**904096**	79.6
TA4207BG Belt Guard - Pos. C (143-326T) (4)	**904097**	82.7
TA4207BG Belt Guard - Pos. D (143-326T)	**904099**	80.6
TA4207CF Cooling Fan Assembly ●	**904106**	2.0
TA4-TA12 Vertical Breather Kit	**904112**	3.0
TA4207H V-Ring Kit	**904249**	0.3
Filter Breather Assy	**430049**	0.2
TA4207H Lube Kit	**LUBEKITTA4207**	16.2

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

(4) Use Position-C belt guard for TA II reducer in screw conveyor drive applications

● See page G1-120 for cooling fan dimensions

TA4207H Tapered Bushing Kits (5) (6)

Bushing Size Standard Shaft Bushing Kit	Part Number (7)	Weight lbs.	Shaft Keyseat Required (9) (10)	Bushing Size Short Shaft Bushing Kit (8)	Part Number	Weight lbs.	Shaft Keyseat Required (9) (10)
TA4207TB x 2-11/16	**904020**	9.4	5/8 x 5/16 x 8.93	---	**---**	---	---
TA4207TB x 2-1/2	**904021**	10.6	5/8 x 5/16 x 8.93	---	**---**	---	---
TA4207TB x 2-7/16 ▲	**904022**	10.8	5/8 x 5/16 x 8.93	TA4207TBS x 2-7/16	**904032**	11.3	5/8 x 5/16 x 5.65
TA4207TB x 2-3/8	**904023**	11.3	5/8 x 5/16 x 8.93	TA4207TBS x 2-3/8	**904033**	11.8	5/8 x 5/16 x 5.65
TA4207TB x 2-1/4	**904024**	11.5	1/2 x 1/4 x 8.93	TA4207TBS x 2-1/4	**904034**	12.4	1/2 x 1/4 x 5.65
TA4207TB x 2-3/16	**904025**	11.8	1/2 x 1/4 x 8.93	TA4207TBS x 2-3/16	**904035**	10.8	1/2 x 1/4 x 5.65
TA4207TB x 2-1/8	**904026**	12.2	1/2 x 1/4 x 8.93	TA4207TBS x 2-1/8	**904036**	13.3	1/2 x 1/4 x 5.65
TA4207TB x 2	**904027**	12.6	1/2 x 1/4 x 8.93	TA4207TBS x 2	**904037**	13.9	1/2 x 1/4 x 5.65
TA4207TB x 1-15/16	**904028**	13.0	1/2 x 1/4 x 8.93	TA4207TBS x 1-15/16	**904038**	14.3	1/2 x 1/4 x 5.65
TA4207TB x 1-7/8	**904029**	13.2	1/2 x 1/4 x 8.93	TA4207TBS x 1-7/8	**904039**	14.6	1/2 x 1/4 x 5.65
TA4207TB x 1-3/4	**904030**	13.3	3/8 x 3/16 x 8.93	TA4207TBS x 1-3/4	**904040**	15.0	3/8 x 3/16 x 5.65
TA4207TB x 1-11/16	**904031**	13.5	3/8 x 3/16 x 8.93	TA4207TBS x 1-11/16	**904041**	15.3	3/8 x 3/16 x 5.65

▲ AGMA maximum bore size

(5) Bushing kit required to mount TA II reducer to driven shaft

(6) Bushing kit is not required to mount TA II reducer on SCS Drive Shaft in a screw conveyor application

(7) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(8) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

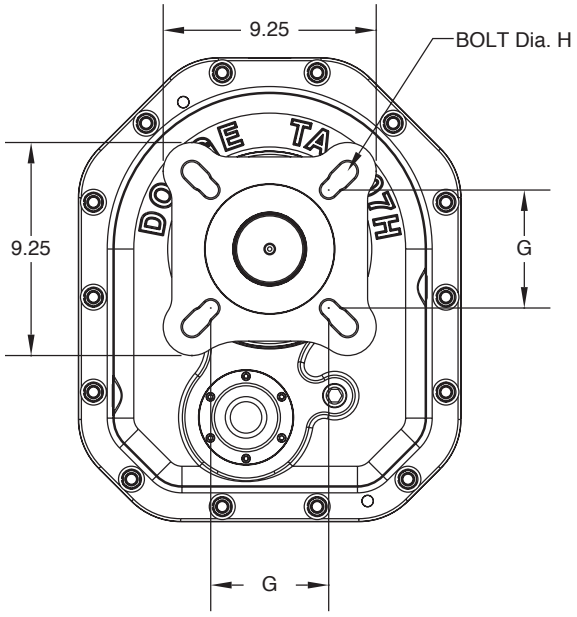
(9) Minimum keyseat and shaft length required to mount reducer with bushing kit

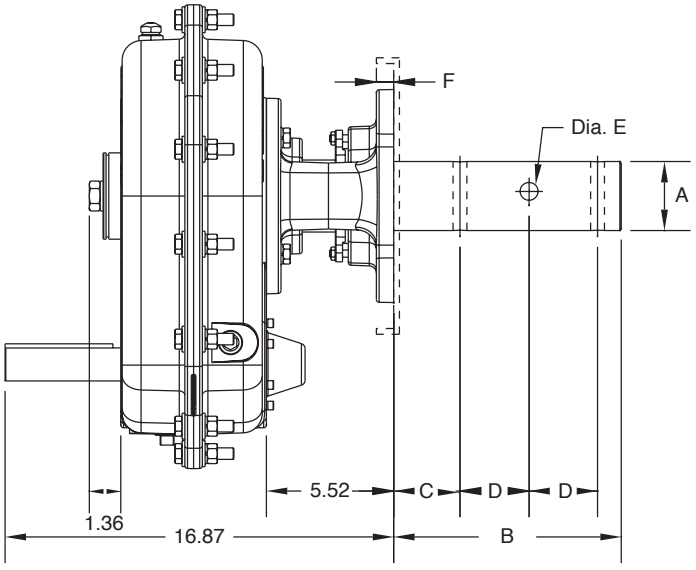
(10) Always check the driven shaft and key for strength

SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA4207H, Single And Double Reduction







TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA4207H, Single And Double Reduction

TA4207H Screw Conveyor Drive Dimensions

Screw Dia	Drive Shaft Dia A	Dimensions						
		B	C	D	Hole Dia E	F	G	Bolt Dia H
9, 12	2	9.00	2.13	3.00	21/32	0.75	5.13	5/8
12, 14	2-7/16	9.69	2.75	3.00	21/32	0.75	5.63	5/8
12, 14, 16, 18, 20	3	9.88	2.88	3.00	25/32	0.75	6.00	3/4
18, 20, 24	3-7/16	13.13	3.88	4.00	29/32	0.75	6.75	3/4

TA4207H Accessories for Screw Conveyor Drives (1) (4) (5)

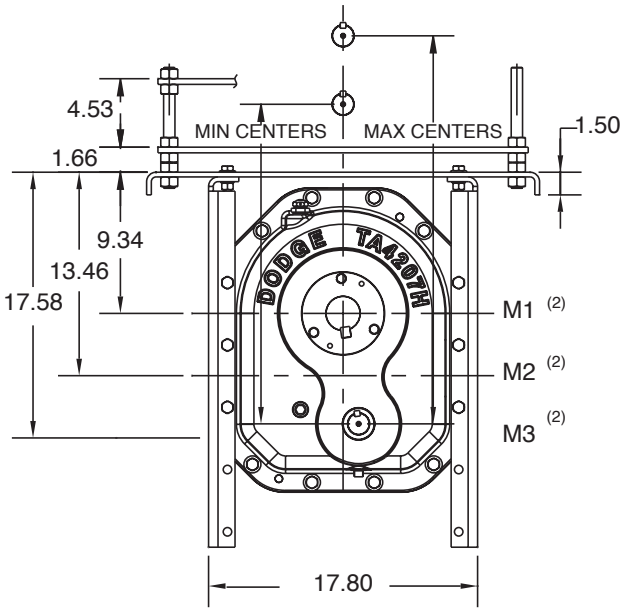
Description	Part Number	Weight lbs.
TA4207SCA Adapter & Hardware Kit (2)	**904070**	33.6
TA4207SCP Adjustable Packing Kit (3)	**904071**	2.1
TA4207SCS x 2 Drive Shaft	**904073**	29.8
TA4207SCS x 2-7/16 Drive Shaft	**904074**	34.5
TA4207SCS x 3 Drive Shaft	**904075**	40.9
TA4207SCS x 3-7/16 Drive Shaft	**904076**	54.7
TA4207SCS x 2 Stainless Steel Drive Shaft	**904081**	29.8
TA4207SCS x 2-7/16 Stainless Steel Drive Shaft	**904082**	34.5
TA4207SCS x 3 Stainless Steel Drive Shaft	**904083**	40.9
TA4207SCS x 3-7/16 Stainless Steel Drive Shaft	**904084**	54.7

(1) See page G1-67 for Belt Guard for Screw Conveyor Drive applications
(2) SCA Adapter & Hardware Kit includes adapter, mounting wedge, keeper plate, key, seals and hardware
(3) SCP Adjustable Packing Kit consists of flange, mounting hardware and braided packing seals
(4) SCS Drive Shaft is a shaft only. Hardware is stocked with the adapter & hardware kit
(5) A complete TA II Screw Conveyor Drive includes a TA II Reducer, SCA Adapter & Hardware Kit and SCS Drive Shaft. The SCP Adjustable Packing Kit is an optional accessory.

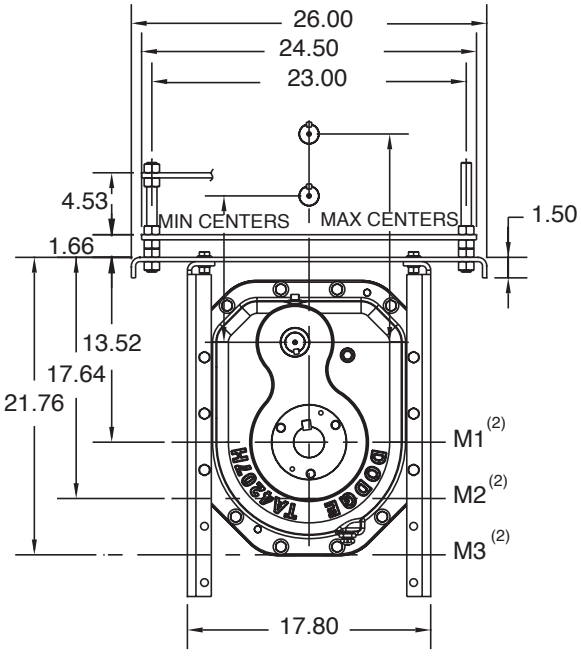
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

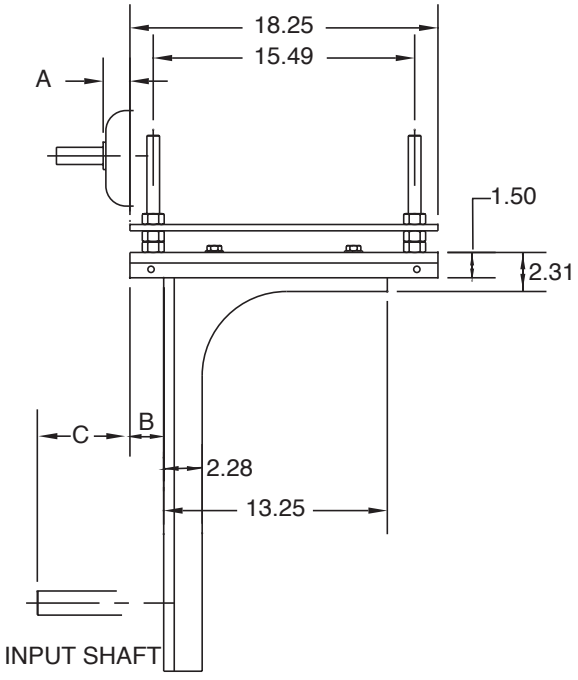
Motor Mount Dimensions - TA4207H, Position B & D



POSITION B



POSITION D





TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA4207H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						143T & 145T			182T & 184T			213T & 215T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	-0.21	4.21	3.28	7.70	M1	1.22	22.6	26.7	1.37	23.6	27.7	1.55	24.4	28.4
					M2		26.8	30.8		27.8	31.8		28.5	32.5
					M3		30.9	34.9		31.9	35.9		32.6	36.7
Position D	-0.21	4.21	3.28	7.70	M1	1.22	12.2	16.2	1.37	13.2	17.2	1.55	14.0	18.0
					M2		16.3	20.4		17.3	21.4		18.1	22.1
					M3		20.4	24.5		21.4	25.5		22.2	26.2

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						254T & 256T			284T & 286T			324T & 326T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	-0.21	4.21	3.28	7.70	M1	1.56	25.4	29.4	1.16	26.1	30.2	0.38	27.1	31.2
					M2		29.5	33.5		30.3	34.3		31.3	35.3
					M3		33.6	37.7		34.4	38.4		35.4	39.4
Position D	-0.21	4.21	3.28	7.70	M1	1.56	15.0	19.0	1.16	15.7	19.7	0.38	16.7	20.7
					M2		19.1	23.1		19.8	23.9		20.8	24.9
					M3		23.2	27.2		23.9	28.0		24.9	29.0

Notes:

Minimum centers contains 0.5” to allow for belt assembly

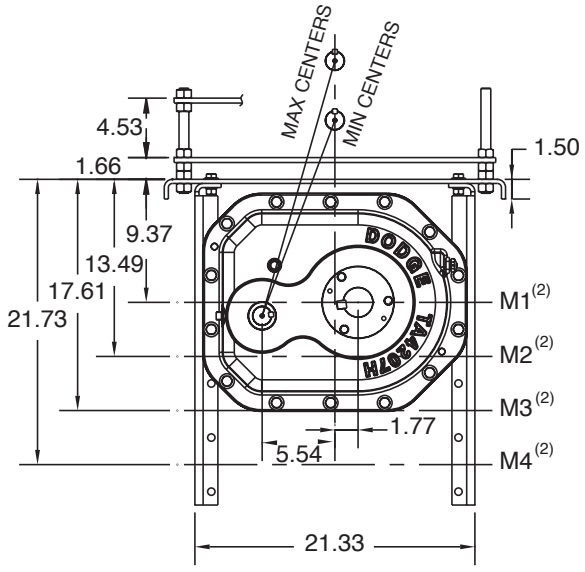
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3 go through output shaft centerline

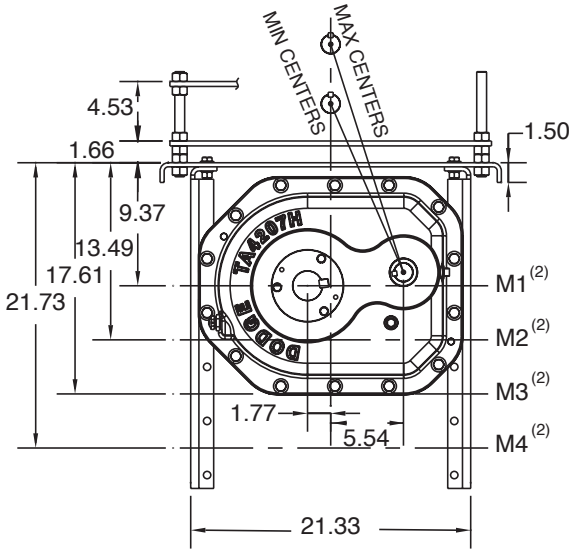
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

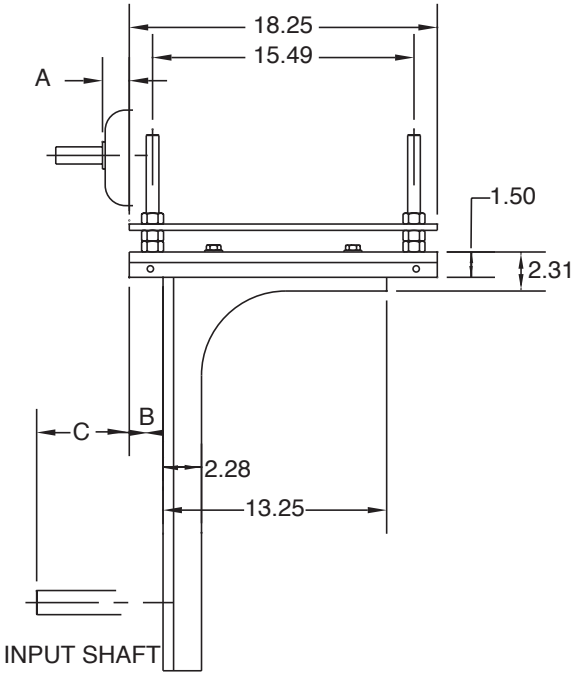
Motor Mount Dimensions - TA4207H, Position A & C



POSITION A



POSITION C





TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA4207H, Position A & C (1) (3)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						143T & 145T			182T & 184T			213T & 215T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position A	-0.21	4.21	4.35	8.77	M1	1.22	17.3	21.1	1.37	18.3	22.1	1.55	19.0	22.8
					M2		21.2	25.1		22.2	26.1		22.9	26.8
					M3		25.2	29.2		26.2	30.2		26.9	30.9
					M4		29.3	33.2		30.2	34.2		31.0	34.9
Position C	-0.21	4.21	4.35	8.77	M1	1.22	15.4	19.2	1.37	16.3	20.1	1.55	17.0	20.8
					M2		19.3	23.1		20.2	24.1		20.9	24.8
					M3		23.2	27.2		24.2	28.1		24.9	28.9
					M4		27.3	31.2		28.2	32.2		29.0	32.9

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						254T & 256T			284T & 286T			324T & 326T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position A	-0.21	4.21	4.35	8.77	M1	1.56	19.9	23.8	1.16	20.6	24.5	0.38	21.6	25.5
					M2		23.9	27.8		24.6	28.6		25.6	29.5
					M3		27.9	31.9		28.7	32.6		29.6	33.6
					M4		32.0	35.9		32.7	36.7		33.7	37.7
Position C	-0.21	4.21	4.35	8.77	M1	1.56	18.0	21.8	1.16	18.7	22.5	0.38	19.6	23.5
					M2		21.9	25.8		22.6	26.5		23.6	27.5
					M3		25.9	29.9		26.6	30.6		27.6	31.6
					M4		29.9	33.9		30.7	34.6		31.7	35.6

Notes:

Minimum centers contains 0.5” to allow for belt assembly

(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3, M4 go through output shaft centerline

(3) See Table A, below, for minimum “M” mounting position required for specific screw diameter and reducer size

Table A - Screw Conveyor Motor Mount Minimum “M” Mounting Positions (1)

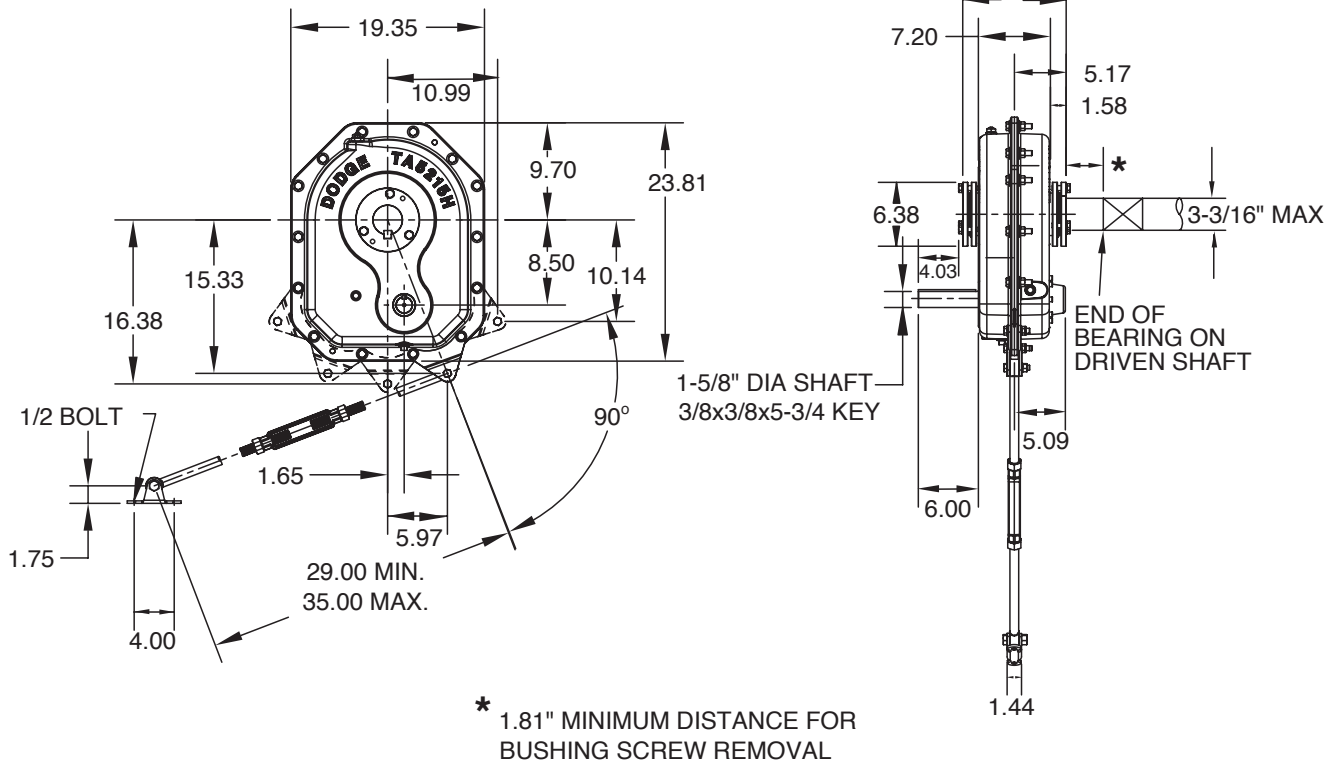
Nominal Screw Dia	Trough Height Dim	Minimum Mounting Position							
		TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H
6	7.00	M2	M3	M2	M2	M2	M1	M1	M1
9	9.00	M3	M4	M3	M3	M2	M2	M2	M1
12	10.00	M4	M4	M3	M3	M2	M2	M2	M1
14	11.00	M4	M4	M4	M3	M3	M2	M2	M2
16	11.50	M4	***	M4	M4	M3	M2	M2	M2
18	12.13	***	***	M4	M4	M3	M3	M2	M2
20	13.50	***	***	M4	M4	M3	M3	M3	M2
24	16.50	***	***	***	***	M4	M3	M3	M3

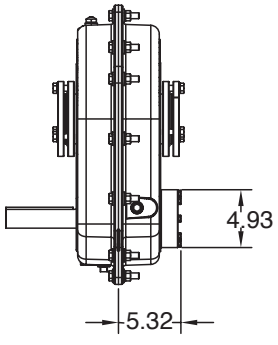
(1) For U Or Flared Trough Ends Per CEMA 300-014

SELECTION/DIMENSIONS

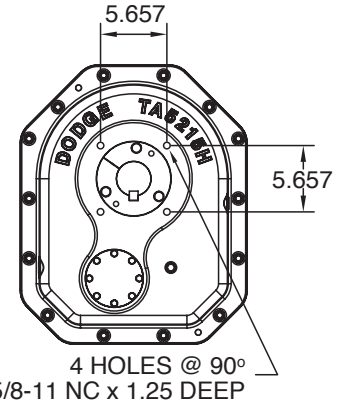
TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA5215H, Single And Double Reduction





REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA5215H, Single And Double Reduction

TA5215H Taper Bushed Reducers (1) ■

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA5215H05	**905004**	215S05	5.11	259.8
TA5215H09	**905003**	215D09	9.18	274.4
TA5215H15	**905002**	215D15	14.92	273.9
TA5215H25	**905001**	215D25	25.00	272.9
TA5215H40	**905000**	215D40	38.91	272.1

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

■ See page G1-122 for Maximum Bore Straight Bore TA II Reducers

\+ Rod Assembly mounting locations are limited to positions shown in drawing.

TA5215H Accessories

Description	Part Number	Weight lbs.
TA5215RA Rod Assembly (1) +	**905109**	11.0
TA5215BS Backstop Assembly (2)	**905102**	8.3
TA521BS 40:1 Backstop Assembly (2)	**905103**	8.3
TA5215MM Motor Mount Assembly (182-365T) (3)	**905090**	124.8
TA5215BG Belt Guard - Pos. B (182-365T)	**905096**	101.5
TA5215BG Belt Guard - Pos. C (182-365T) (4)	**905097**	105.5
TA5215BG Belt Guard - Pos. D (182-365T)	**905099**	105.0
TA5215CF Cooling Fan Assembly ●	**905106**	3.0
TA4-TA12 Vertical Breather Kit	**904112**	3.0
TA5215H V-Ring Kit	**905249**	0.3
Filter Breather Kit	**430049**	0.2
TA5215H Lube Kit	**LUBEKITTA5215**	28.9

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off.

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions.

(4) Use Position C belt guard for TA II reducer in screw conveyor drive applications.

● See page G1-120 for cooling fan dimensions

TA5215H Tapered Bushing Kits (5) (6)

Bushing Size Standard Shaft Bushing Kit	Part Number (7)	Weight lbs.	Shaft Keyseat Required (9) (10)	Bushing Size Short Shaft Bushing Kit (8)	Part Number	Weight lbs.	Shaft Keyseat Required (9) (10)
TA5215TB x 3-3/16	**905020**	13.7	3/4 x 3/8 x 10.34	---	**---**	---	---
TA5215TB x 3	**905021**	15.1	3/4 x 3/8 x 10.34	---	**---**	---	---
TA5215TB x 2-15/16 ▲	**905022**	15.6	3/4 x 3/8 x 10.34	TA5215TBS x 2-15/16	**905033**	16.2	3/4 x 3/8 x 6.36
TA5215TB x 2-7/8	**905023**	16.1	3/4 x 3/8 x 10.34	TA5215TBS x 2-7/8	**905034**	16.9	3/4 x 3/8 x 6.36
TA5215TB x 2-11/16	**905024**	16.7	5/8 x 5/16 x 10.34	TA5215TBS x 2-11/16	**905035**	18.1	5/8 x 5/16 x 6.36
TA5215TB x 2-1/2	**905025**	17.9	5/8 x 5/16 x 10.34	TA5215TBS x 2-1/2	**905036**	19.7	5/8 x 5/16 x 6.36
TA5215TB x 2-7/16	**905026**	18.1	5/8 x 5/16 x 10.34	TA5215TBS x 2-7/16	**905037**	20.1	5/8 x 5/16 x 6.36
TA5215TB x 2-3/8	**905027**	18.3	5/8 x 5/16 x 10.34	TA5215TBS x 2-3/8	**905038**	20.5	5/8 x 5/16 x 6.36
TA5215TB x 2-1/4	**905028**	18.9	1/2 x 1/4 x 10.34	TA5215TBS x 2-1/4	**905039**	21.4	1/2 x 1/4 x 6.36
TA5215TB x 2-3/16	**905029**	19.1	1/2 x 1/4 x 10.34	TA5215TBS x 2-3/16	**905040**	21.8	1/2 x 1/4 x 6.36
TA5215TB x 2-1/8	**905030**	19.3	1/2 x 1/4 x 10.34	TA5215TBS x 2-1/8	**905041**	22.2	1/2 x 1/4 x 6.36
TA5215TB x 2	**905031**	19.9	1/2 x 1/4 x 10.34	TA5215TBS x 2	**905042**	23.0	1/2 x 1/4 x 6.36
TA5215TB x 1-15/16	**905032**	20.1	1/2 x 1/4 x 10.34	TA5215TBS x 1-15/16	**905043**	23.4	1/2 x 1/4 x 6.36

▲ AGMA maximum bore size

(5) Bushing kit required to mount TA II reducer to driven shaft

(6) Bushing kit is not required to mount TA II reducer on SCS Drive Shaft in a screw conveyor application

(7) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(8) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

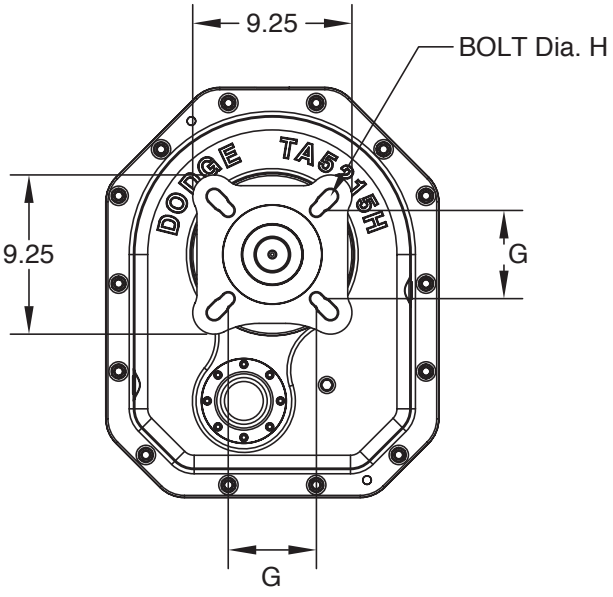
(9) Minimum keyseat and shaft length required to mount reducer with bushing kit

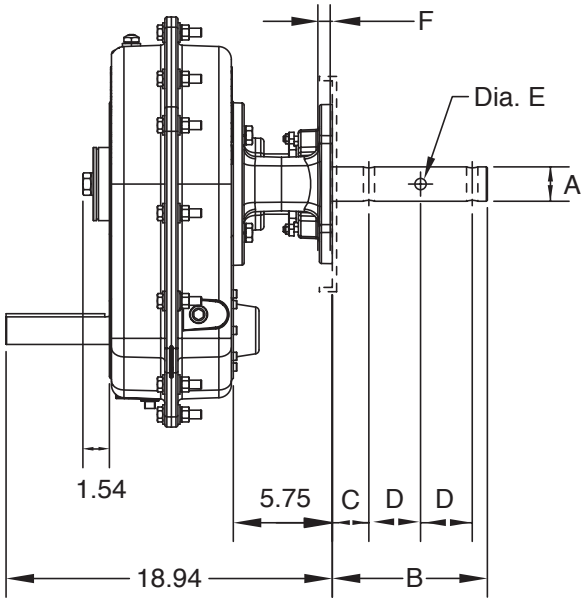
(10) Always check the driven shaft and key for strength

SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA5215H, Single And Double Reduction







TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA5215H, Single And Double Reduction

TA5215H Screw Conveyor Drive Dimensions

Screw Dia	Drive Shaft Dia A	Dimensions						
		B	C	D	Hole Dia E	F	G	Bolt Dia H
9, 12	2	9.00	2.13	3.00	21/32	0.75	5.13	5/8
12, 14	2-7/16	9.69	2.75	3.00	21/32	0.75	5.63	5/8
12, 14, 16, 18, 20	3	9.88	2.88	3.00	25/32	0.75	6.00	3/4
18, 20, 24	3-7/16	13.13	3.88	4.00	29/32	0.75	6.75	3/4

TA5215H Accessories for Screw Conveyor Drives (1) (4) (5)

Description	Part Number	Weight lbs.
TA5215SCA Adapter & Hardware Kit (2)	**905070**	38.4
TA5215SCP Adjustable Packing Kit (3)	**905071**	2.1
TA5215SCS x 2 Drive Shaft	**905073**	39.0
TA5215SCS x 2-7/16 Drive Shaft	**905074**	43.6
TA5215SCS x 3 Drive Shaft	**905075**	50.0
TA5215SCS x 3-7/16Drive Shaft	**905076**	63.9
TA5215SCS x 2 Stainless Steel Drive Shaft	**905081**	39.0
TA5215SCS x 2-7/16 Stainless Steel Drive Shaft	**905082**	43.6
TA5215SCS x 3 Stainless Steel Drive Shaft	**905083**	50.0
TA5215SCS x 3 -7/16 Stainless Steel Drive Shaft	**905084**	63.9

(1) See page G1-75 for Belt Guard for Screw Conveyor Drive applications

(2) SCA Adapter & Hardware Kit includes adapter, mounting wedge, keeper plate, key, seals and hardware

(3) SCP Adjustable Packing Kit consists of flange, mounting hardware and braided packing seals

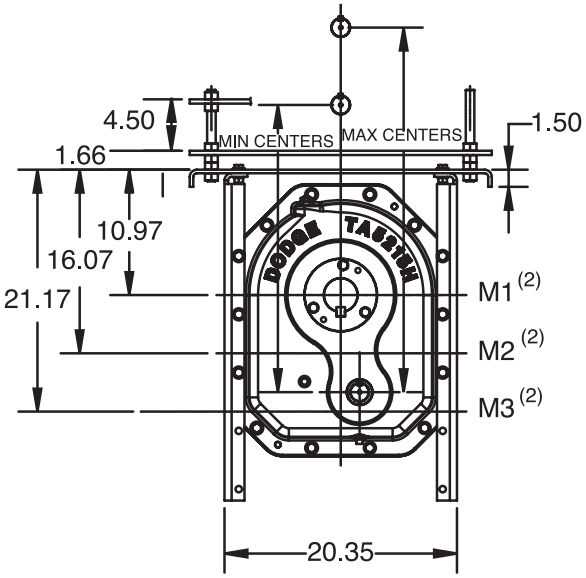
(4) SCS Drive Shaft is a shaft only. Hardware is stocked with the adapter & hardware kit

(5) A complete TA II Screw Conveyor Drive includes a TA II Reducer, SCA Adapter & Hardware Kit and SCS Drive Shaft. The SCP Adjustable Packing Kit is an optional accessory.

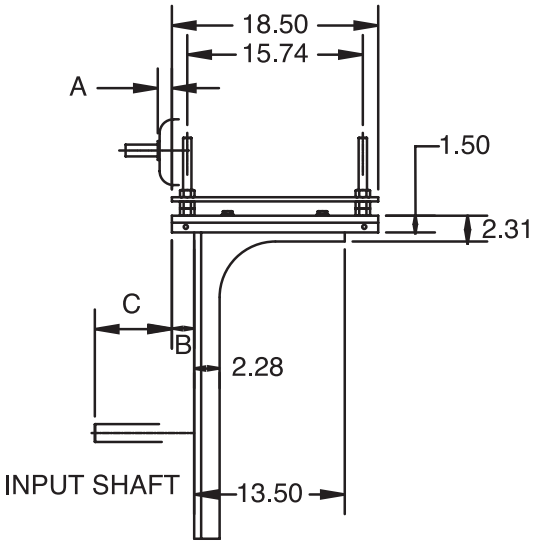
SELECTION/DIMENSIONS

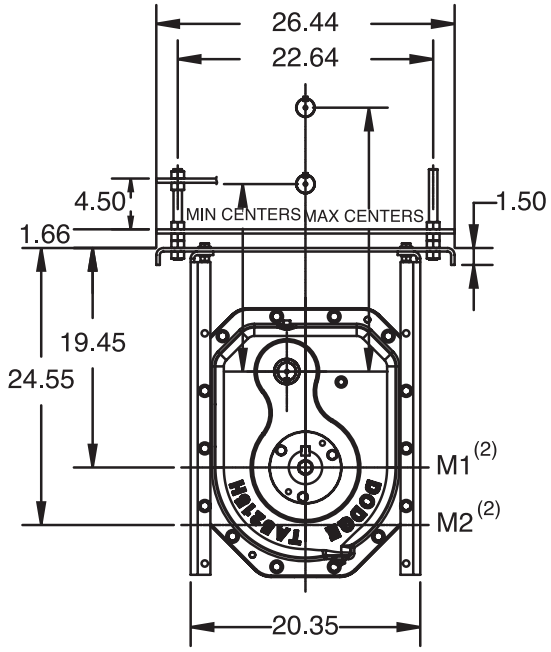
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA5215H, Position B & D



POSITION B





POSITION D



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA5215H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						182T & 184T			213T & 215T			254T & 256T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	-0.21	4.21	4.70	9.12	M1	1.37	26.2	30.3	1.55	26.9	31.1	1.56	27.9	32.1
					M2		31.2	35.3		31.9	36.1		32.9	37.1
					M3		36.2	40.3		36.9	41.1		37.9	42.1
Position D	-0.21	4.21	4.70	9.12	M1	1.37	17.7	21.8	1.55	18.4	22.6	1.56	19.4	23.6
					M2		22.7	26.8		23.4	27.6		24.4	28.6

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						284T & 286T			324T & 326T			364T & 365T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	-0.21	4.21	4.70	9.12	M1	1.16	28.7	32.8	0.38	29.7	33.8	1.01	30.7	34.8
					M2		33.7	37.8		34.7	38.8		35.7	39.8
					M3		38.7	42.8		39.7	43.8		40.7	44.8
Position D	-0.21	4.21	4.70	9.12	M1	1.16	20.2	24.3	0.38	21.2	25.3	1.01	22.2	26.3
					M2		25.2	29.3		26.2	30.3		27.2	31.3

Notes:

Minimum centers contains 0.5” to allow for belt assembly

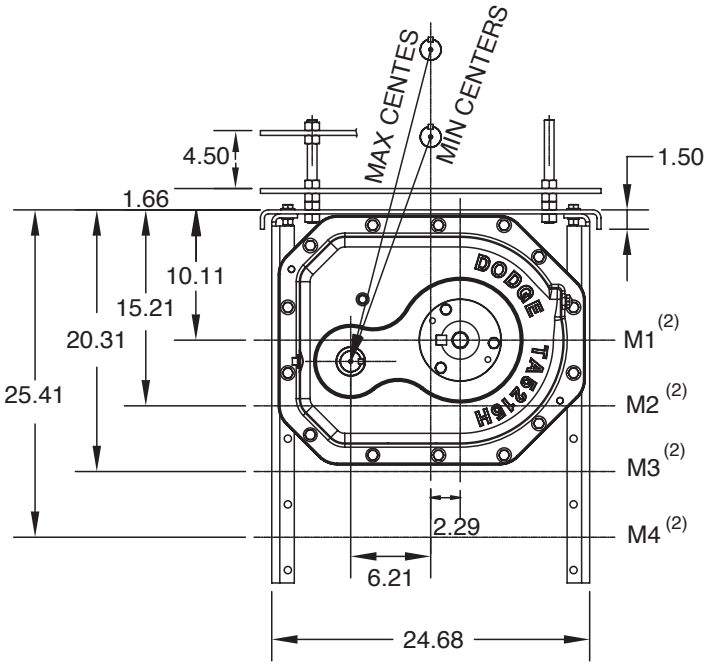
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3 go through output shaft centerline

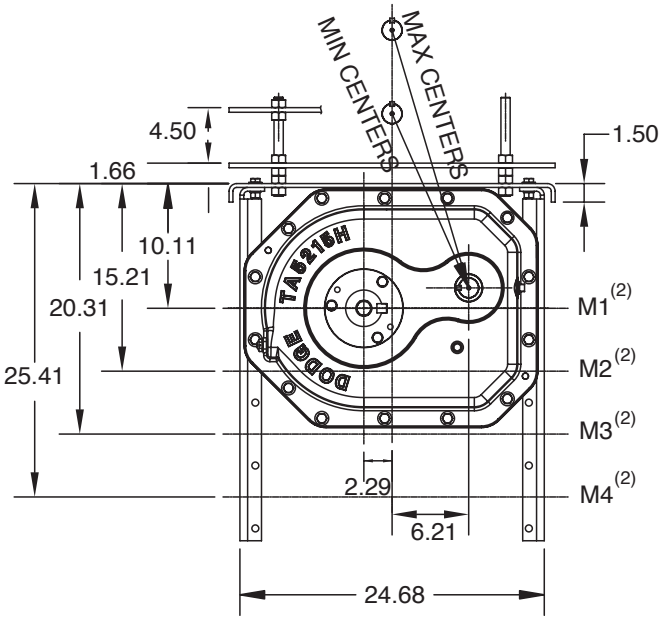
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

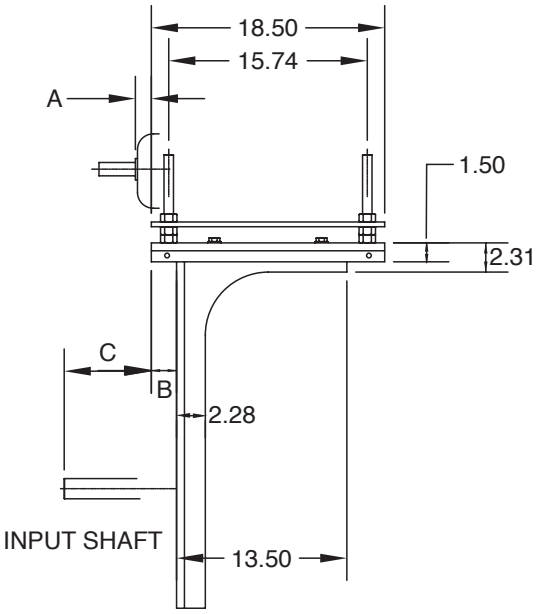
Motor Mount Dimensions - TA5215H, Position A & C



POSITION A



POSITION C





TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA5215H, Position A & C (1) (3)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						182T & 184T			213T & 215T			254T & 256T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position A	-0.21	4.21	5.77	10.19	M1	1.37	19.5	23.4	1.55	20.2	24.1	1.56	21.1	25.1
					M2		24.2	28.3		25.0	29.0		25.9	30.0
					M3		29.1	33.2		29.8	33.9		30.8	34.9
					M4		34.0	38.1		34.7	38.8		35.7	39.8
Position C	-0.21	4.21	5.77	10.19	M1	1.37	16.4	20.3	1.55	17.1	21.0	1.56	18.0	21.9
					M2		21.1	25.1		21.8	25.8		22.8	26.8
					M3		25.9	29.9		26.6	30.7		27.6	31.6
					M4		30.8	34.8		31.5	35.6		32.5	36.6

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						284T & 286T			324T & 326T			364T & 365T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position A	-0.21	4.21	5.77	10.19	M1	1.16	21.8	25.8	0.38	22.8	26.8	1.01	23.8	27.8
					M2		26.7	30.7		27.6	31.7		28.6	32.7
					M3		31.5	35.6		32.5	36.6		33.5	37.6
					M4		36.5	40.6		37.4	41.5		38.4	42.5
Position C	-0.21	4.21	5.77	10.19	M1	1.16	18.7	22.6	0.38	19.7	23.6	1.01	20.6	24.6
					M2		23.5	27.5		24.4	28.5		25.4	29.4
					M3		28.3	32.4		29.3	33.4		30.3	34.3
					M4		33.2	37.3		34.2	38.3		35.2	39.3

Notes:

Minimum centers contains 0.5” to allow for belt assembly

(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3, M4 go through output shaft centerline

(3) See Table A, below, for minimum “M” mounting position required for specific screw diameter and reducer size

Table A - Screw Conveyor Motor Mount Minimum “M” Mounting Positions (1)

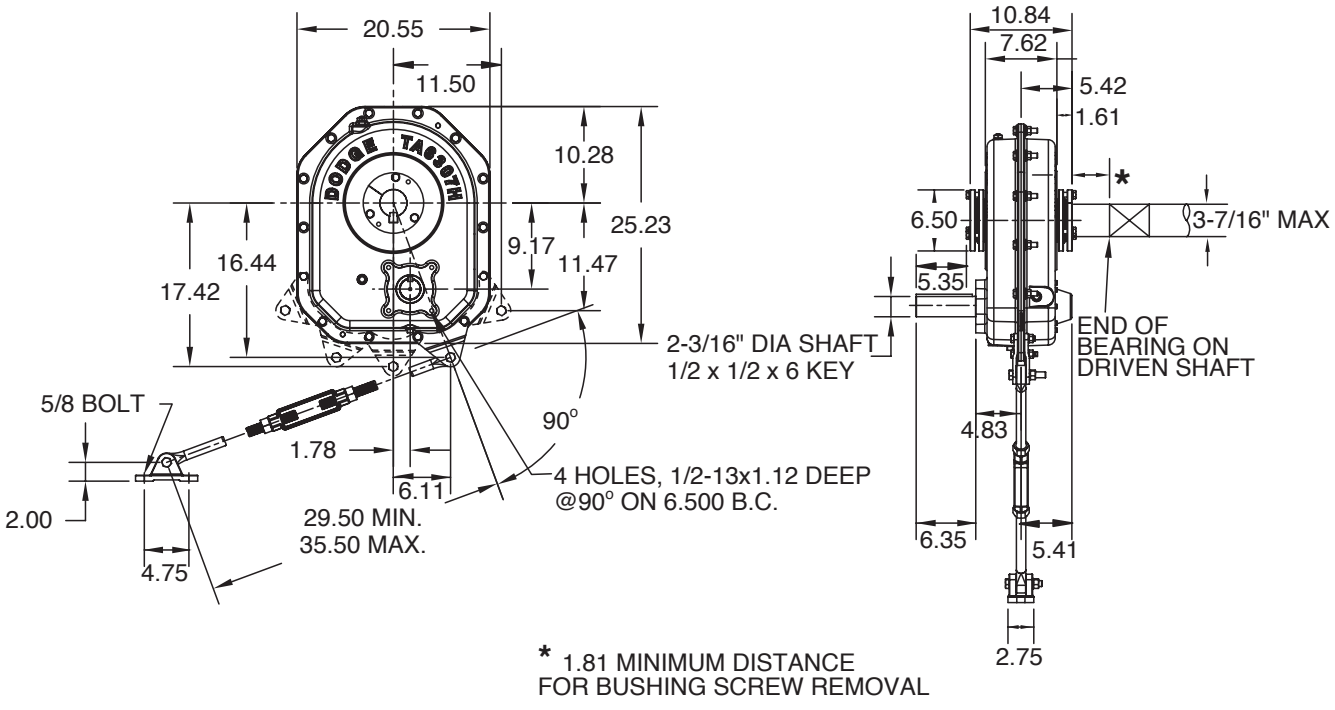
Nominal Screw Dia	Trough Height Dim	Minimum Mounting Position							
		TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H
6	7.00	M2	M3	M2	M2	M2	M1	M1	M1
9	9.00	M3	M4	M3	M3	M2	M2	M2	M1
12	10.00	M4	M4	M3	M3	M2	M2	M2	M1
14	11.00	M4	M4	M4	M3	M3	M2	M2	M2
16	11.50	M4	***	M4	M4	M3	M2	M2	M2
18	12.13	***	***	M4	M4	M3	M3	M2	M2
20	13.50	***	***	M4	M4	M3	M3	M3	M2
24	16.50	***	***	***	***	M4	M3	M3	M3

(1) For U Or Flared Trough Ends Per CEMA 300-014

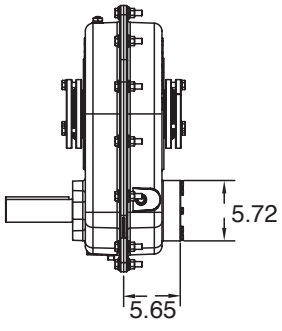
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

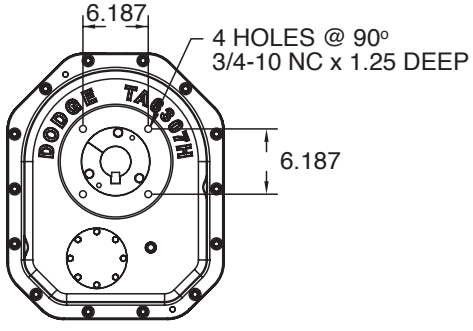
Taper Bushed Reducers - TA6307H, Single And Double Reduction



* 1.81 MINIMUM DISTANCE
FOR BUSHING SCREW REMOVAL



REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA6307H, Single And Double Reduction

TA6307H Taper Bushed Reducers (1) ■

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA6307H05	**906004**	307S05	4.94	316.0
TA6307H09	**906003**	307D09	9.22	334.0
TA6307H15	**906002**	307D15	15.45	333.0
TA6307H25	**906001**	307D25	24.87	331.0
TA6307H40	**906000**	307D40	38.32	330.0

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

■ See page G1-122 for Maximum Bore Straight Bore TA II Reducers

\+ Rod Assembly mounting locations are limited to positions shown in drawing.

TA6307H Accessories

Description	Part Number	Weight lbs.
TA6307RA Rod Assembly (1) +	**906109**	19.9
TA6307BS Backstop Assembly (2)	**906102**	11.1
TA6307BS 25:1 & 40:1 Backstop Assembly (2)	**906103**	11.1
TA6307MM Motor Mount Assembly (182-405T) (3)	**906090**	156.7
TA6307BG Belt Guard - Pos. B (182-405T)	**906096**	121.2
TA6307BG Belt Guard - Pos. C (182-405T) (4)	**906097**	129.4
TA6307BG Belt Guard - Pos. D (182-405T)	**906099**	122.2
TA6307CF Cooling Fan Assembly ●	**906106**	10.0
TA4-TA12 Vertical Breather Kit	**904112**	3.0
TA6307H V-Ring Kit	**906249**	0.4
Filter Breather Kit	**430049**	0.2
TA6307H Lube Kit	**LUBEKITTA6307**	34.7

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

(4) Use Position-C belt guard for TA II reducer in screw conveyor drive applications

● See page G1-120 for cooling fan dimensions

TA6307H Tapered Bushing Kits (5) (6)

Bushing Size Standard Shaft Bushing Kit	Part Number (7)	Weight lbs.	Shaft Keyseat Required (9) (10)	Bushing Size Short Shaft Bushing Kit (8)	Part Number	Weight lbs.	Shaft Keyseat Required (9) (10)
TA6307TB x 3-7/16 ▲	**906020**	16.7	7/8 x 7/16 x 10.82	TA6307TBS x 3-7/16	**906031**	16.5	7/8 x 7/16 x 6.72
TA6307TB x 3-3/16	**906021**	17.7	3/4 x 3/8 x 10.82	TA6307TBS x 3-3/16	**906032**	19.0	3/4 x 3/8 x 6.72
TA6307TB x 3	**906022**	19.1	3/4 x 3/8 x 10.82	TA6307TBS x 3	**906033**	20.9	3/4 x 3/8 x 6.72
TA6307TB x 2-15/16	**906023**	19.6	3/4 x 3/8 x 10.82	TA6307TBS x 2-15/16	**906034**	21.6	3/4 x 3/8 x 6.72
TA6307TB x 2-7/8	**906024**	20.1	3/4 x 3/8 x 10.82	TA6307TBS x 2-7/8	**906035**	22.3	3/4 x 3/8 x 6.72
TA6307TB x 2-11/16	**906025**	20.9	5/8 x 5/16 x 10.82	TA6307TBS x 2-11/16	**906036**	23.7	5/8 x 5/16 x 6.72
TA6307TB x 2-1/2	**906026**	22.1	5/8 x 5/16 x 10.82	TA6307TBS x 2-1/2	**906037**	25.3	5/8 x 5/16 x 6.72
TA6307TB x 2-7/16	**906027**	22.3	5/8 x 5/16 x 10.82	TA6307TBS x 2-7/16	**906038**	25.8	5/8 x 5/16 x 6.72
TA6307TB x 2-3/8	**906028**	22.7	5/8 x 5/16 x 10.82	TA6307TBS x 2-3/8	**906039**	26.3	5/8 x 5/16 x 6.72
TA6307TB x 2-1/4	**906029**	23.1	1/2 x 1/4 x 10.82	TA6307TBS x 2-1/4	**906040**	26.7	1/2 x 1/4 x 6.72
TA6307TB x 2-3/16	**906030**	23.3	1/2 x 1/4 x 10.82	TA6307TBS x 2-3/16	**906041**	27.5	1/2 x 1/4 x 6.72

▲ AGMA maximum bore size

(5) Bushing kit required to mount TA II reducer to driven shaft

(6) Bushing kit is not required to mount TA II reducer on SCS Drive Shaft in a screw conveyor application

(7) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(8) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

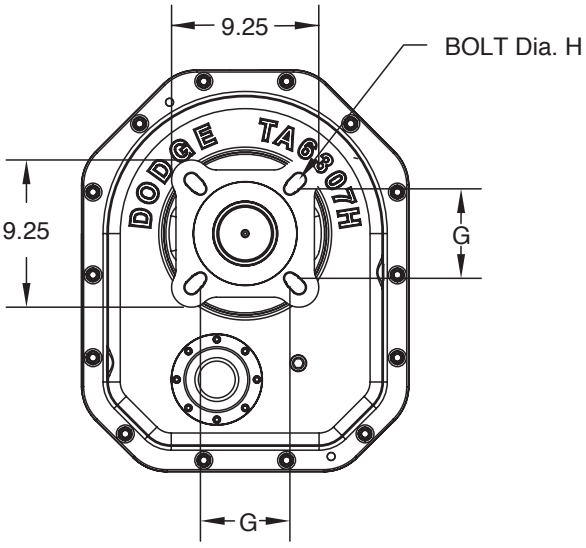
(9) Minimum keyseat and shaft length required to mount reducer with bushing kit

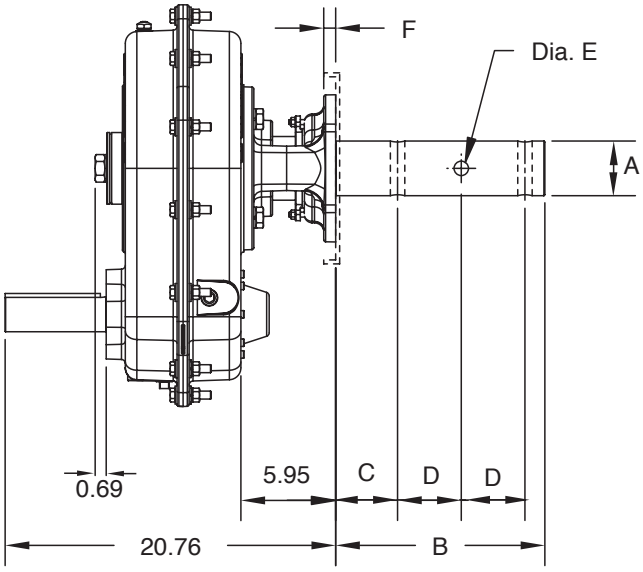
(10) Always check the driven shaft and key for strength

SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA6307H, Single And Double Reduction







TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA6307H, Single And Double Reduction

TA6307H Screw Conveyor Drive Dimensions

Screw Dia	Drive Shaft Dia A	Dimensions						
		B	C	D	Hole Dia E	F	G	Bolt Dia H
12, 14	2-7/16	9.69	2.75	3.00	21/32	0.75	5.63	5/8
12, 14, 16,18, 20	3	9.88	2.88	3.00	25/32	0.75	6.00	3/4
18, 20, 24	3-7/16	13.13	3.88	4.00	29/32	0.75	6.75	3/4

TA6307H Accessories for Screw Conveyor Drives (1) (4) (5)

Description	Part Number	Weight lbs.
TA6307SCA Adapter & Hardware Kit (2)	**906070**	40.0
TA6307SCP Adjustable Packing Kit (3)	**906071**	2.4
TA6307SCS x 2-7/16 Drive Shaft	**906074**	54.6
TA6307SCS x 3 Drive Shaft	**906075**	61.0
TA6307SCS x 3-7/16 Drive Shaft	**906076**	74.9
TA6307SCS x 2-7/16 Stainless Steel Drive Shaft	**906082**	54.6
TA6307SCS x 3 Stainless Steel Drive Shaft	**906083**	61.0
TA6307SCS x 3-7/16 Stainless Steel Drive Shaft	**906084**	74.9

(1) See page G1-83 for Belt Guard for Screw Conveyor Drive applications

(2) SCA Adapter & Hardware Kit includes adapter, mounting wedge, keeper plate, key, seals and hardware

(3) SCP Adjustable Packing Kit consists of flange, mounting hardware and braided packing seals

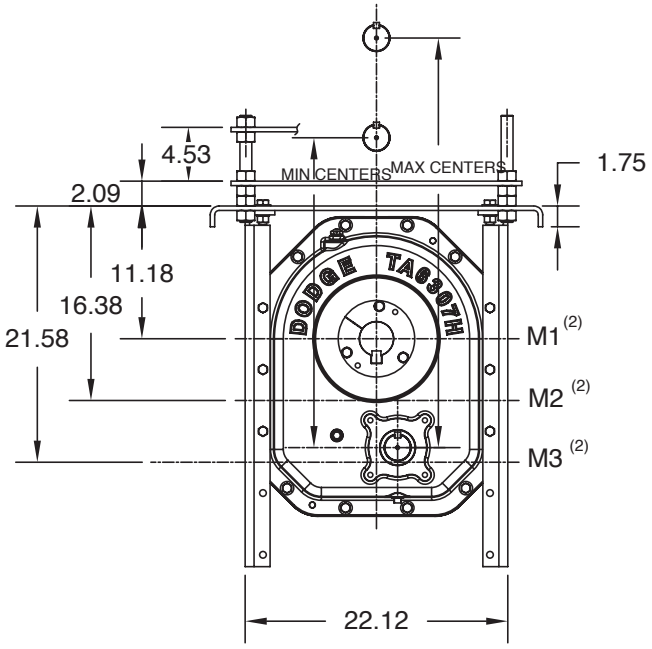
(4) SCS Drive Shaft is a shaft only. Hardware is stocked with the adapter & hardware kit

(5) A complete TA II Screw Conveyor Drive includes a TA II Reducer, SCA Adapter & Hardware Kit and SCS Drive Shaft. The SCP Adjustable Packing Kit is an optional accessory.

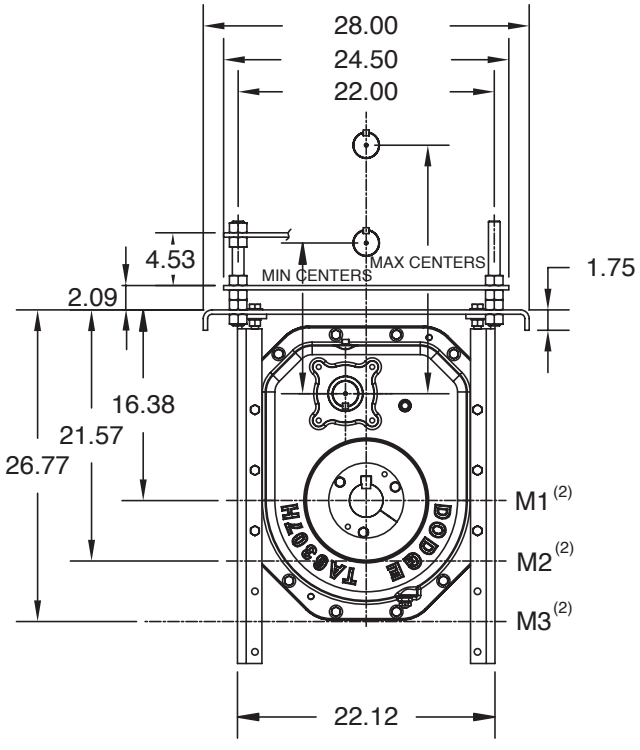
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

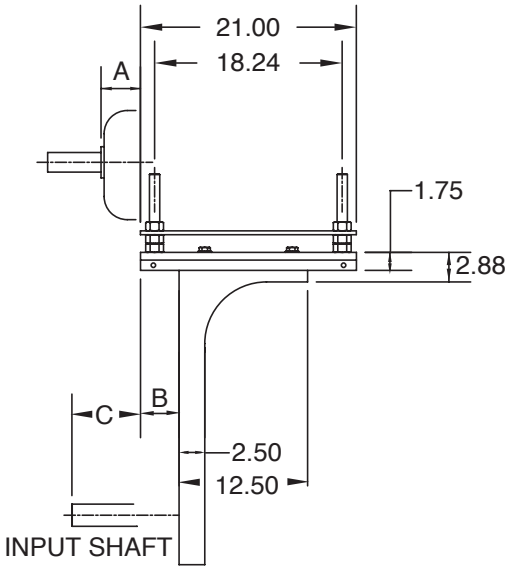
Motor Mount Dimensions - TA6307H, Position B & D



POSITION B



POSITION D





TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA6307H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame											
						182T & 184T			213T & 215T			254T & 256T			284T & 286T		
						A	Centers		A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max		Min	Max
Position B	1.59	5.91	4.51	8.83	M1	1.37	27.5	31.5	1.55	28.2	32.3	1.56	29.2	33.3	1.16	30.0	34.0
					M2		32.7	36.7		33.4	37.5		34.4	38.5		35.2	39.2
					M3		37.9	41.9		38.6	42.7		39.6	43.7		40.4	44.4
Position D	1.59	5.91	4.51	8.83	M1	1.37	14.4	18.4	1.55	15.2	19.2	1.56	16.1	20.2	1.16	16.9	20.9
					M2		19.6	23.6		20.3	24.3		21.3	25.3		22.1	26.1
					M3		24.8	28.8		25.5	29.5		26.5	30.5		27.3	31.3

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						324T & 326T			364T & 365T			404T & 405T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	1.59	5.91	4.51	8.83	M1	0.38	31.0	35.0	1.01	32.0	36.0	0.75	33.0	37.0
					M2		36.2	40.2		37.2	41.2		38.2	42.2
					M3		41.4	45.4		42.4	46.4		43.4	47.4
Position D	1.59	5.91	4.51	8.83	M1	0.38	17.9	21.9	1.01	18.9	22.9	0.75	19.9	23.9
					M2		23.1	27.1		24.1	28.1		25.1	29.1
					M3		28.3	32.3		29.3	33.3		30.2	34.3

Notes:

Minimum centers contains 0.5” to allow for belt assembly

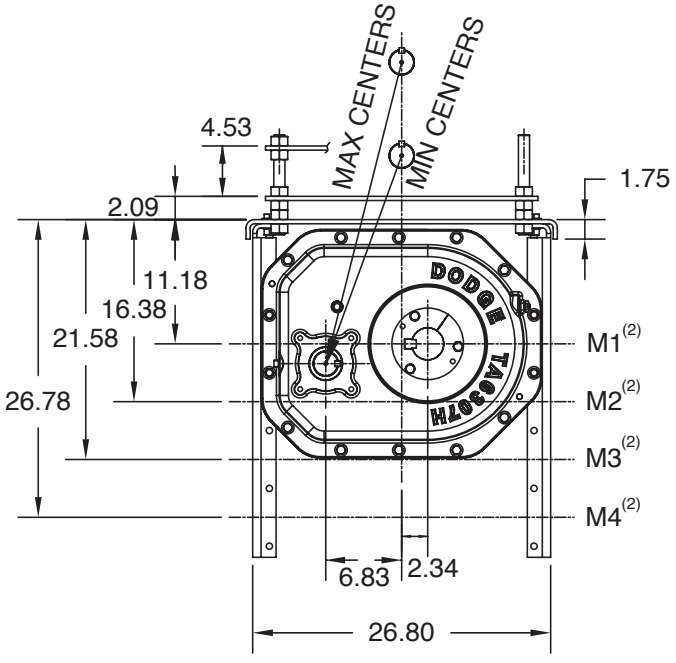
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3 go through output shaft centerline

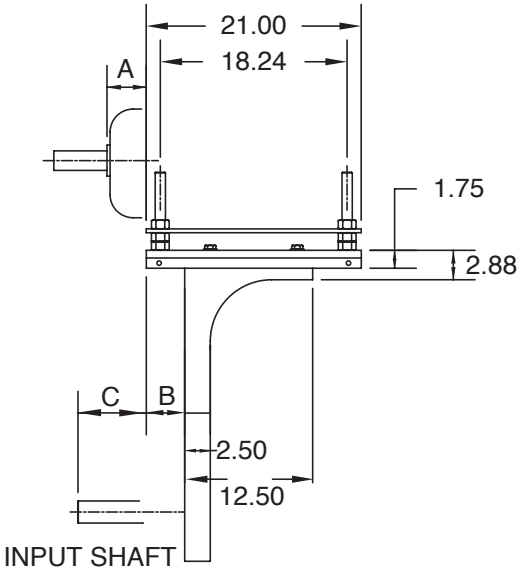
SELECTION/DIMENSIONS

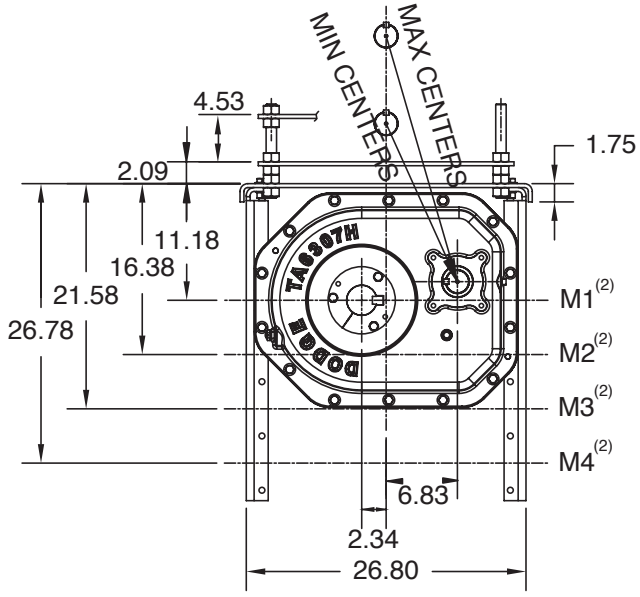
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA6307H, Position A & C



POSITION A





POSITION C



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA6307H, Position A & C (1) (3)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame											
						182T & 184T			213T & 215T			254T & 256T			284T & 286T		
						A	Centers		A	Centers		A	Centers		A	Centers	
	B Min	B Min	C Min	C Min			Min	Max		Min	Max		Min	Max		Min	Max
Position A	1.59	5.91	5.65	9.97	M1	1.37	21.2	25.0	1.55	21.9	25.8	1.56	22.9	26.7	1.16	23.6	27.4
					M2		26.2	30.1		26.9	30.8		27.9	31.8		28.6	32.5
					M3		31.2	35.1		32.0	35.9		32.9	36.9		33.7	37.6
					M4		36.3	40.3		37.0	41.0		38.0	42.0		38.8	42.7
Position C	1.59	5.91	5.65	9.97	M1	1.37	17.9	21.6	1.55	18.6	22.3	1.56	19.5	23.3	1.16	20.2	24.0
					M2		22.8	26.6		23.5	27.3		24.4	28.3		25.2	29.0
					M3		27.8	31.7		28.5	32.4		29.5	33.4		30.2	34.1
					M4		32.8	36.8		33.5	37.5		34.5	38.5		35.3	39.2

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						324T & 326T			364T & 365T			404T & 405T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position A	1.59	5.91	5.65	9.97	M1	0.38	24.5	28.4	1.01	25.5	29.4	0.75	26.5	30.4
					M2		29.6	33.5		30.5	34.5		31.5	35.4
					M3		34.6	38.6		35.6	39.6		36.6	40.6
					M4		39.7	43.7		40.7	44.7		41.7	45.7
Position C	1.59	5.91	5.65	9.97	M1	0.38	21.1	25.0	1.01	22.1	25.9	0.75	23.0	26.9
					M2		26.1	30.0		27.1	31.0		28.0	32.0
					M3		31.2	35.1		32.1	36.1		33.1	37.1
					M4		36.2	40.2		37.2	41.2		38.2	42.2

Notes:

Minimum centers contains 0.5” to allow for belt assembly

(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3, M4 go through output shaft centerline

(3) See Table A, below, for minimum “M” mounting position required for specific screw diameter and reducer size

Table A - Screw Conveyor Motor Mount Minimum “M” Mounting Positions (1)

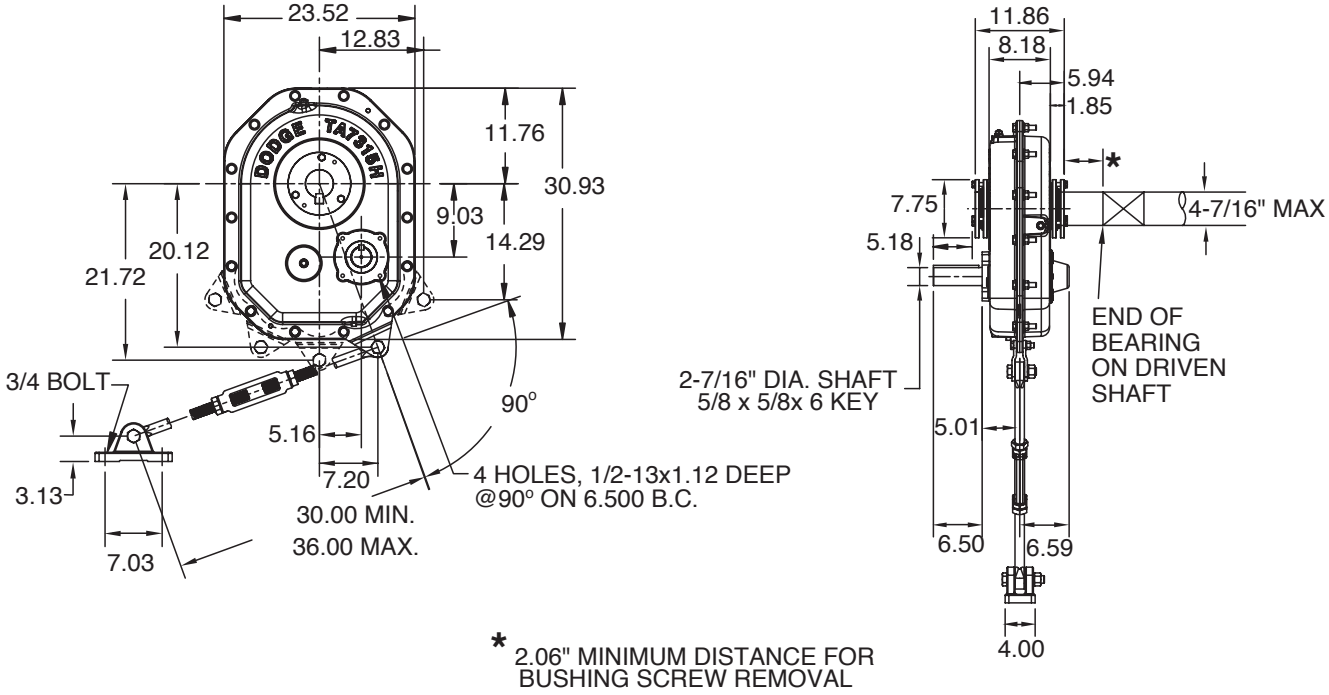
Nominal Screw Dia	Trough Height Dim	Minimum Mounting Position							
		TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H
6	7.00	M2	M3	M2	M2	M2	M1	M1	M1
9	9.00	M3	M4	M3	M3	M2	M2	M2	M1
12	10.00	M4	M4	M3	M3	M2	M2	M2	M1
14	11.00	M4	M4	M4	M3	M3	M2	M2	M2
16	11.50	M4	***	M4	M4	M3	M2	M2	M2
18	12.13	***	***	M4	M4	M3	M3	M2	M2
20	13.50	***	***	M4	M4	M3	M3	M3	M2
24	16.50	***	***	***	***	M4	M3	M3	M3

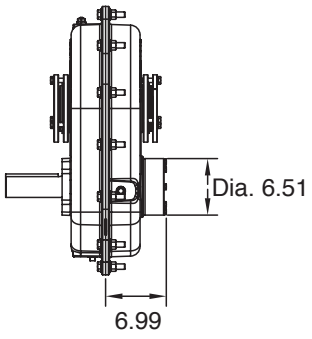
(1) For U Or Flared Trough Ends Per CEMA 300-014

SELECTION/DIMENSIONS

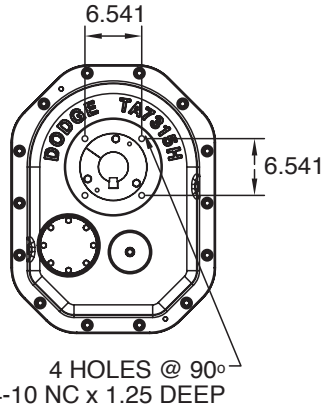
TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA7315H, Single And Double Reduction





REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA7315H, Single And Double Reduction

TA7315H Taper Bushed Reducers (1)

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA7315H05	**907004**	315S05	5.19	449.0
TA7315H09	**907003**	315D09	9.72	494.0
TA7315H15	**907002**	315D15	14.91	493.0
TA7315H25	**907001**	315D25	24.84	494.0
TA7315H40	**907000**	315D40	39.66	492.0

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

\+ Rod Assembly mounting locations are limited to positions shown in drawing.

TA7315H Accessories

Description	Part Number	Weight lbs.
TA7315/8407RA Rod Assembly (1) +	**907109**	43.2
TA7315BS Backstop Assembly (2)	**907102**	20.0
TA7315/9415BS 40:1 Backstop Assembly (2)	**907103**	21.0
TA7315/8407MM Motor Mount Assembly (213-405T) (3)	**907090**	183.3
TA7315/8407BG Belt Guard - Pos. B (213-405T)	**907096**	147.2
TA7315/8407BG Belt Guard - Pos. C (213-405T) (4)	**907097**	152.7
TA7315/8407BG Belt Guard - Pos. D (213-405T)	**907099**	148.2
TA7315/8407CF Cooling Fan Assembly ●	**907106**	10.0
TA4-TA12 Vertical Breather Kit	**904112**	3.0
TA7315/8407H V-Ring Kit	**907249**	0.4
Filter Breather Kit	**430049**	0.2
TA7315H Lube Kit	**LUBEKITTA7315**	53.2

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

(4) Use Position-C belt guard for TA II reducer in screw conveyor drive applications

● See page G1-120 for cooling fan dimensions

TA7315H Tapered Bushing Kits (5) (6)

Bushing Size Standard Shaft Bushing Kit	Part Number (7)	Weight lbs.	Shaft Keyseat Required (10)	Bushing Size Short Shaft Bushing Kit (8)	Part Number	Weight lbs.	Shaft Keyseat Required (9) (10)
TA7315TB x 4-7/16	**907019**	20.5	1 x 1/2 x 11.87	---	---	---	---
TA7315TB x 4-3/16	**907021**	23.5	1 x 1/2 x 11.87	---	---	---	---
TA7315TB x 3-15/16 ▲	**907022**	26.3	1 x 1/2 x 11.87	TA7315TBS x 3-15/16	**907031**	26.7	1 x 1/2 x 7.62
TA7315TB x 3-7/16	**907023**	30.9	7/8 x 7/16 x 11.87	TA7315TBS x 3-7/16	**907032**	34.2	7/8 x 7/16 x 7.62
TA7315TB x 3-3/16	**907024**	32.6	3/4 x 3/8 x 11.87	TA7315TBS x 3-3/16	**907033**	36.7	3/4 x 3/8 x 7.62
TA7315TB x 3	**907025**	34.0	3/4 x 3/8 x 11.87	TA7315TBS x 3	**907034**	38.8	3/4 x 3/8 x 7.62
TA7315TB x 2-15/16	**907026**	34.6	3/4 x 3/8 x 11.87	TA7315TBS x 2-15/16	**907035**	39.6	3/4 x 3/8 x 7.62
TA7315TB x 2-7/8	**907027**	35.0	3/4 x 3/8 x 11.87	TA7315TBS x 2-7/8	**907036**	40.2	3/4 x 3/8 x 7.62
TA7315TB x 2-11/16	**907028**	35.8	5/8 x 5/16 x 11.87	TA7315TBS x 2-11/16	**907037**	41.7	5/8 x 5/16 x 7.62
TA7315TB x 2-1/2	**907029**	37.2	5/8 x 5/16 x 11.87	TA7315TBS x 2-1/2	**907038**	43.6	5/8 x 5/16 x 7.62
TA7315TB x 2-7/16	**907030**	37.4	5/8 x 5/16 x 11.87	TA7315TBS x 2-7/16	**907039**	44.1	5/8 x 5/16 x 7.62

▲ AGMA maximum bore size

(5) Bushing kit required to mount TA II reducer to driven shaft

(6) Bushing Kit is not required to mount TA II reducer on SCS Drive Shaft in a screw conveyor application

(7) Standard Shaft Bushing Kit includes two standard bushings with backup plates and snap rings; hardware and one key

(8) Short Shaft Bushing Kit includes one standard bushing; one long bushing with mounting wedge; two backup plates with snap rings; hardware and one key. This is an optional bushing for after market, short shaft mounting

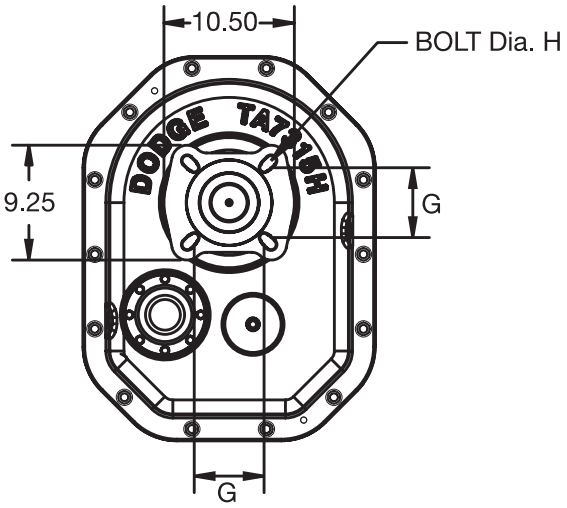
(9) Minimum keyseat and shaft length required to mount reducer with bushing kit

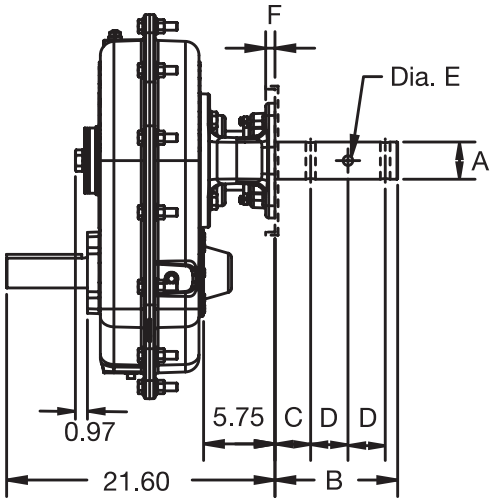
(10) Always check the driven shaft and key for strength

SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA7315H, Single And Double Reduction







TORQUE-ARM II Shaft Mount Speed Reducers

Screw Conveyor Drive - TA7315H, Single And Double Reduction

TA7315H Screw Conveyor Drive Dimensions

Screw Dia	Drive Shaft Dia A	Dimensions						
		B	C	D	Hole Dia E	F	G	Bolt Dia H
12, 14	2-7/16	9.69	2.75	3.00	21/32	0.75	5.63	5/8
12, 14, 16, 18, 20	3	9.88	2.88	3.00	25/32	0.75	6.00	3/4
18, 20, 24	3-7/16	13.13	3.88	4.00	29/32	0.75	6.75	3/4

TA7315H Accessories for Screw Conveyor Drives (1) (4) (5)

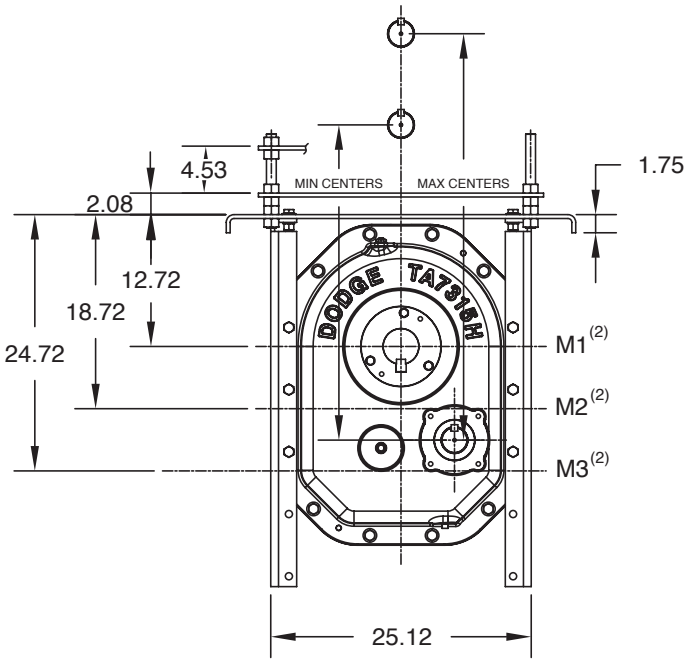
Description	Part Number	Weight lbs.
TA7315SCA Adapter & Hardware Kit (2)	**907070**	50.1
TA7315SCP Adjustable Packing Kit (3)	**907071**	2.5
TA7315SCS x 2-7/16 Drive Shaft	**907074**	77.0
TA7315SCS x 3 Drive Shaft	**907075**	83.4
TA7315SCS x 3-7/16Drive Shaft	**907076**	97.3
TA7315SCS x 2-7/16 Stainless Steel Drive Shaft	**907082**	77.0
TA7315SCS x 3 Stainless Steel Drive Shaft	**907083**	83.4
TA7315SCS x 3-7/16 Stainless Steel Drive Shaft	**907084**	97.3

(1) See page G1-91 for Belt Guard for Screw Conveyor Drive applications.
(2) SCA Adapter & Hardware Kit includes adapter, mounting wedge, keeper plate, key, seals and hardware.
(3) SCP Adjustable Packing Kit consists of flange, mounting hardware and braided packing seals.
(4) SCS Drive Shaft is a shaft only. Mounting hardware is stocked with the adapter & hardware kit.
(5) A complete TA II Screw Conveyor Drive includes a TA II Reducer, SCA Adapter & Hardware Kit, and SCS Drive Shaft. The SCP Adjustable Packing kit is an optional accessory

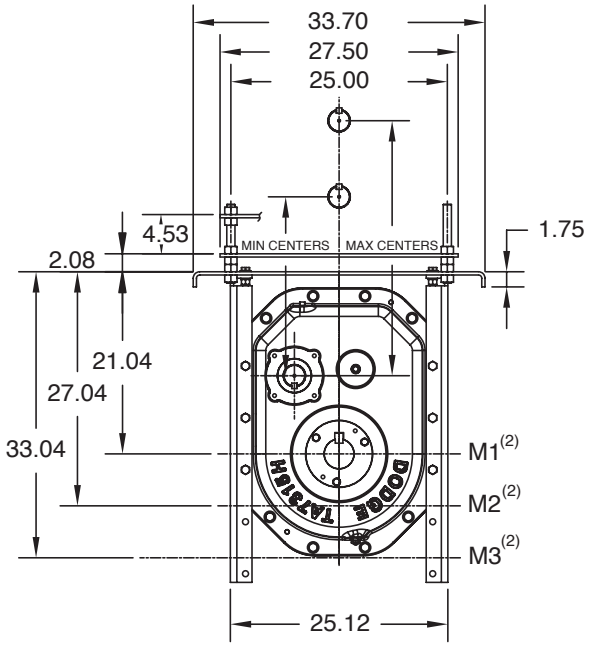
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

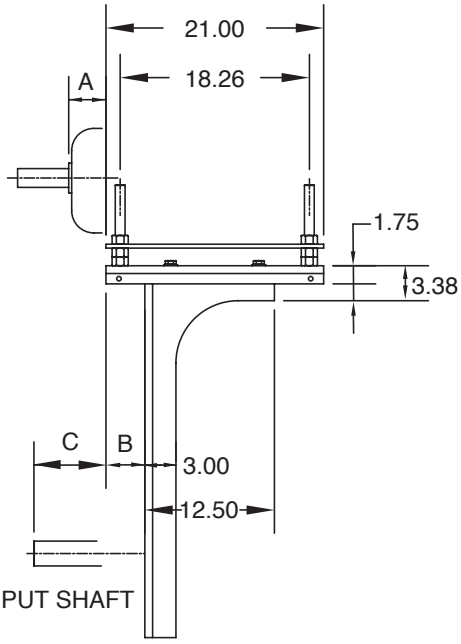
Motor Mount Dimensions - TA7315H, Position B & D



POSITION B



POSITION D





TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA7315H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						213T & 215T			254T & 256T			284T & 286T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	1.59	5.91	4.78	9.10	M1	1.55	30.0	34.0	1.56	31.0	35.0	1.16	31.8	35.7
					M2		36.0	40.0		37.0	40.9		37.7	41.7
					M3		41.9	45.9		42.9	46.9		43.6	47.6
Position D	1.59	5.91	4.78	9.10	M1	1.55	20.5	24.4	1.56	21.5	25.4	1.16	22.2	26.1
					M2		26.4	30.3		27.4	31.3		28.1	32.0
					M3		32.3	36.3		33.3	37.2		34.0	38.0

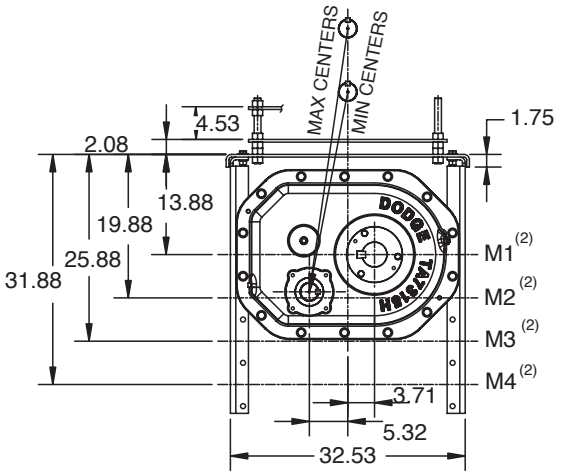
Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						324T & 326T			364T & 365T			404T & 405T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	1.59	5.91	4.78	9.10	M1	0.38	32.8	36.7	1.01	33.7	37.7	0.75	34.7	38.7
					M2		38.7	42.7		39.7	43.7		40.7	44.7
					M3		44.6	48.6		45.6	49.6		46.6	50.6
Position D	1.59	5.91	4.78	9.10	M1	0.38	23.2	27.1	1.01	24.2	28.1	0.75	25.1	29.1
					M2		29.1	33.0		30.1	34.0		31.0	35.0
					M3		35.0	39.0		36.0	40.0		37.0	41.0

Notes:
Minimum centers contains 0.5” to allow for belt assembly
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions
(2) M1, M2, M3 go through output shaft centerline

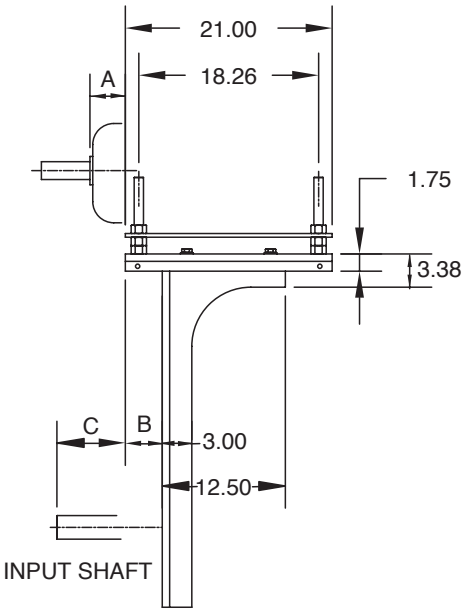
SELECTION/DIMENSIONS

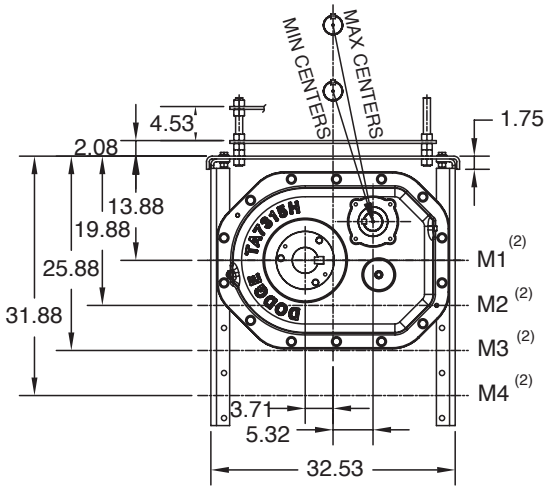
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA7315H, Position A & C



POSITION A





POSITION C



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA7315H, Position A & C (1) (3)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						213T & 215T			254T & 256T			284T & 286T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position A	1.59	5.91	6.04	10.36	M1	1.55	27.4	31.4	1.56	28.4	32.4	1.16	29.1	33.1
					M2		33.3	37.3		34.3	38.3		35.0	39.0
					M3		39.2	43.2		40.2	44.2		41.0	45.0
					M4		45.2	49.2		46.2	50.2		46.9	50.9
Position C	1.59	5.91	6.04	10.36	M1	1.55	17.4	21.3	1.56	18.4	22.2	1.16	19.1	23.0
					M2		23.2	27.1		24.2	28.1		24.9	28.8
					M3		29.1	33.0		30.0	34.0		30.8	34.7
					M4		35.0	39.0		36.0	39.9		36.7	40.7

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						324T & 326T			364T & 365T			404T & 405T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position A	1.59	5.91	6.04	10.36	M1	0.38	30.1	34.1	1.01	31.1	35.1	0.75	32.1	36.1
					M2		36.0	40.0		37.0	41.0		38.0	42.0
					M3		42.0	46.0		43.0	47.0		44.0	48.0
					M4		47.9	51.9		48.9	52.9		49.9	53.9
Position C	1.59	5.91	6.04	10.36	M1	0.38	20.0	23.9	1.01	21.0	24.9	0.75	22.0	25.9
					M2		25.9	29.8		26.9	30.8		27.8	31.8
					M3		31.8	35.7		32.8	36.7		33.7	37.7
					M4		37.7	41.7		38.7	42.7		39.7	43.7

Notes:

Minimum centers contains 0.5” to allow for belt assembly

(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3, M4 go through output shaft centerline

(3) See Table A, below, for minimum “M” mounting position required for specific screw diameter and reducer size

Table A - Screw Conveyor Motor Mount Minimum “M” Mounting Positions (1)

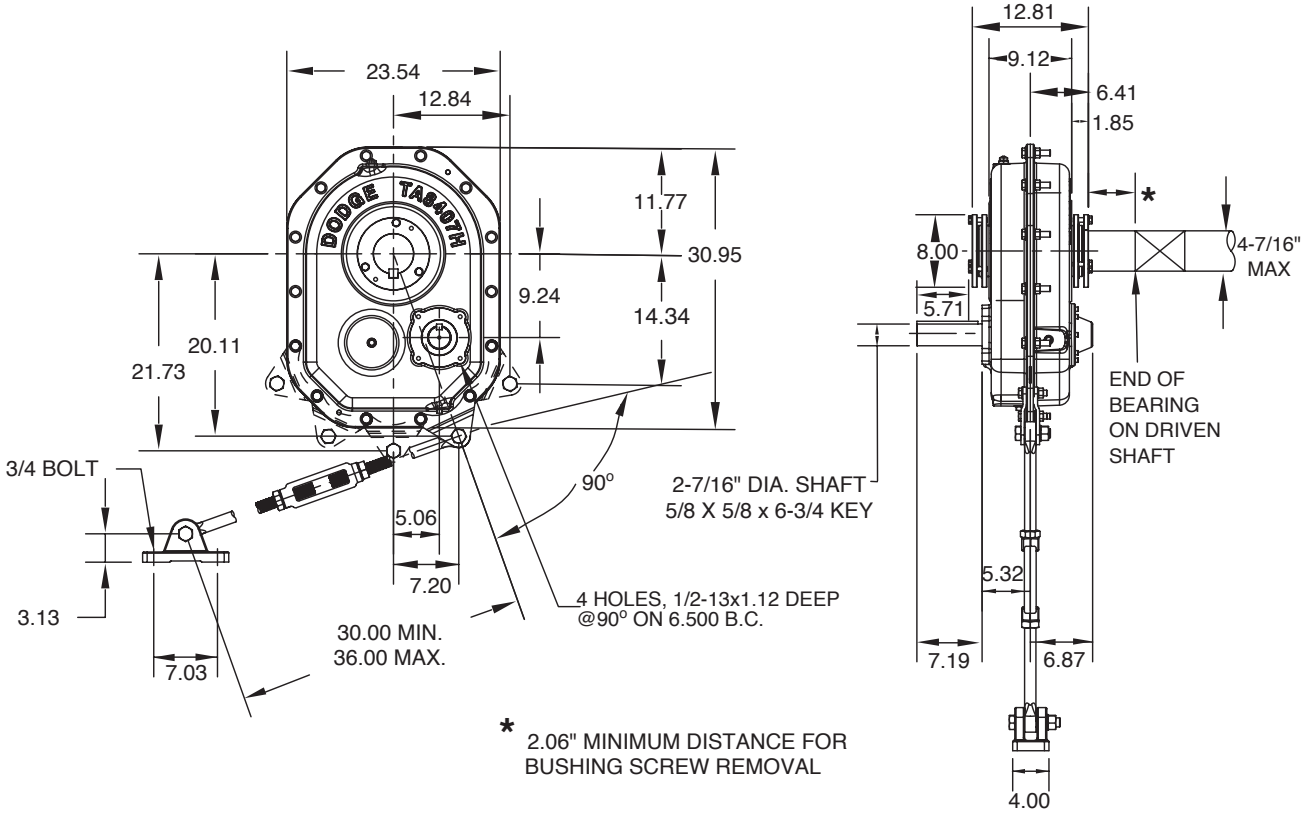
Nominal Screw Dia	Trough Height Dim	Minimum Mounting Position							
		TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H
6	7.00	M2	M3	M2	M2	M2	M1	M1	M1
9	9.00	M3	M4	M3	M3	M2	M2	M2	M1
12	10.00	M4	M4	M3	M3	M2	M2	M2	M1
14	11.00	M4	M4	M4	M3	M3	M2	M2	M2
16	11.50	M4	***	M4	M4	M3	M2	M2	M2
18	12.13	***	***	M4	M4	M3	M3	M2	M2
20	13.50	***	***	M4	M4	M3	M3	M3	M2
24	16.50	***	***	***	***	M4	M3	M3	M3

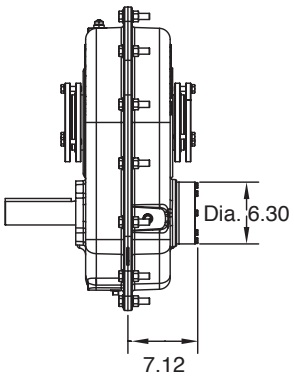
(1) For U Or Flared Trough Ends Per CEMA 300-014

SELECTION/DIMENSIONS

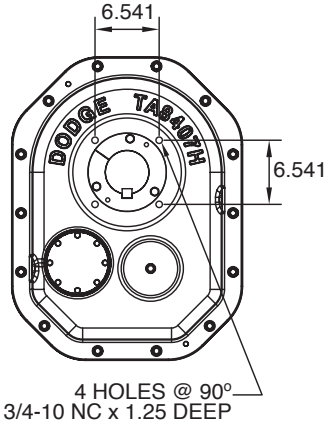
TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA8407H, Double Reduction





REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA8407H, Double Reduction

TA8407H Taper Bushed Reducers (1)

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA8407H15	**908002**	407D15	15.12	511.0
TA8407H25	**908001**	407D25	24.97	511.0
TA8407H40	**908000**	407D40	39.67	507.0

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

\+ Rod Assembly mounting locations are limited to positions shown in drawing.

TA8407H Accessories

Description	Part Number	Weight lbs.
TA7315/8407RA Rod Assembly (1) +	**907109**	43.2
TA8407BS Backstop Assembly (2)	**908102**	15.0
TA8407BS 40:1 Backstop Assembly (2)	**908103**	15.7
TA7315/8407MM Motor Mount Assembly (213-405T) (3)	**907090**	183.3
TA7315/8407BG Belt Guard - Pos. B (213-405T)	**907096**	147.2
TA7315/8407BG Belt Guard - Pos. C (213-405T)	**907097**	152.7
TA7315/8407BG Belt Guard - Pos. D (213-405T)	**907099**	148.2
TA7315/8407CF Cooling Fan Assembly ●	**907106**	10.0
TA8407SCA Adapter & Hardware Kit ◆	**908070**	55.0
TA4-TA12 Vertical Breather Kit	**904112**	3.0
TA7315/8407H V-Ring Kit	**907249**	0.4
Filter Breather Kit	**430049**	0.2
TA8407H Lube Kit	**LUBEKITTA8407**	53.2

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

● See page G1-120 for cooling fan dimensions

◆ SCA Adapter & Hardware Kit is available for TA8407H reducers as a non-stock product. Consult DODGE about SCS Drive Shafts.

TA8407H Tapered Bushing Kits (4) (5)

Bushing Size Standard Shaft Bushing Kit	Part Number (6)	Weight lbs.	Shaft Keyseat Required (8) (9)	Bushing Size Short Shaft Bushing Kit (7)	Part Number	Weight lbs.	Shaft Keyseat Required (8) (9)
TA8407TB x 4-7/16 ▲	**908020**	26.0	1 x 1/2 x 12.82	TA8407TBS x 4-7/16	**908027**	26.9	1 x 1/2 x 8.10
TA8407TB x 4-3/16	**908021**	29.0	1 x 1/2 x 12.82	TA8407TBS x 4-3/16	**908028**	31.3	1 x 1/2 x 8.10
TA8407TB x 3-15/16	**908022**	32.1	1 x 1/2 x 12.82	TA8407TBS x 3-15/16	**908029**	35.6	1 x 1/2 x 8.10
TA8407TB x 3-7/16	**908023**	36.7	7/8 x 7/16 x 12.82	TA8407TBS x 3-7/16	**908030**	42.4	7/8 x 7/16 x 8.10
TA8407TB x 3-3/16	**908024**	38.4	3/4 x 3/8 x 12.82	TA8407TBS x 3-3/16	**908031**	45.3	3/4 x 3/8 x 8.10
TA8407TB x 3	**908025**	39.8	3/4 x 3/8 x 12.82	TA8407TBS x 3	**908032**	47.5	3/4 x 3/8 x 8.10
TA8407TB x 2-15/16	**908026**	40.4	3/4 x 3/8 x 12.82	TA8407TBS x 2-15/16	**908033**	48.3	3/4 x 3/8 x 8.10

▲ AGMA maximum bore size

(4) Bushing kit required to mount TA II reducer to driven shaft

(5) Bushing kit is not required to mount TA II reducer on SCS Drive Shaft in a screw conveyor application

(6) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(7) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

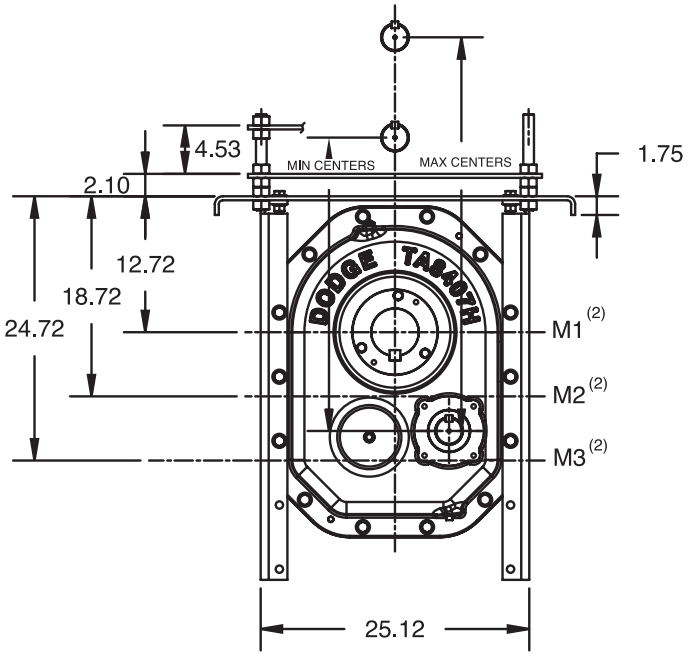
(8) Minimum keyseat and shaft length required to mount reducer with bushing kit

(9) Always check the driven shaft and key for strength

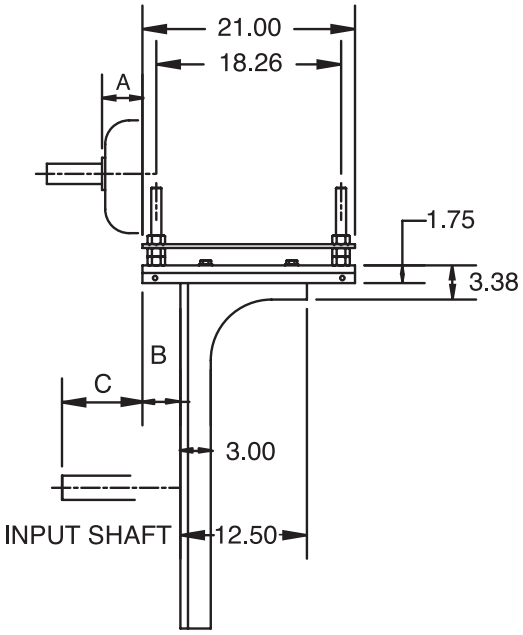
SELECTION/DIMENSIONS

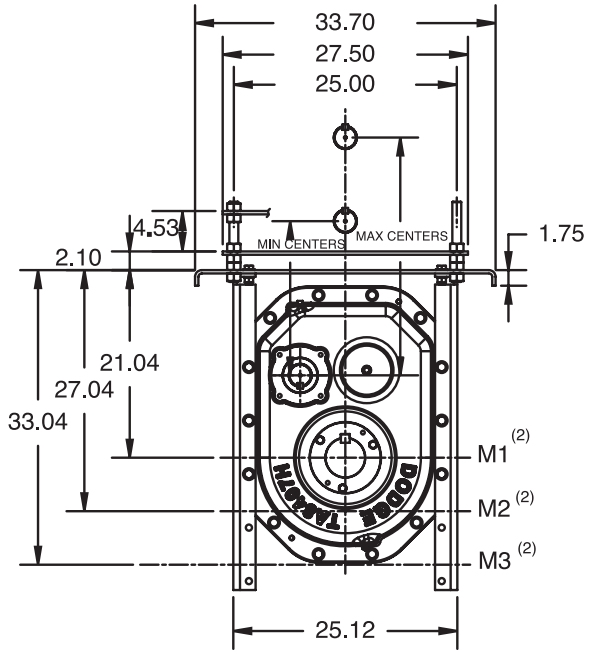
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA8407H, Position B & D



POSITION B





POSITION D



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA8407H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						213T & 215T			254T & 256T			284T & 286T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	1.59	5.91	5.78	10.10	M1	1.55	30.2	34.2	1.56	31.2	35.2	1.16	32.0	35.9
					M2		36.2	40.1		37.1	41.1		37.9	41.9
					M3		42.1	46.1		43.1	47.1		43.8	47.8
Position D	1.59	5.91	5.78	10.10	M1	1.55	20.3	24.2	1.56	21.3	25.2	1.16	22.0	25.9
					M2		26.1	30.1		27.1	31.1		27.9	31.8
					M3		32.1	36.0		33.0	37.0		33.8	37.8

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						324T & 326T			364T & 365T			404T & 405T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	1.59	5.91	5.78	10.10	M1	0.38	32.9	36.9	1.01	33.9	37.9	0.75	34.9	38.9
					M2		38.9	42.9		39.9	43.9		40.9	44.9
					M3		44.8	48.8		45.8	49.8		46.8	50.8
Position D	1.59	5.91	5.78	10.10	M1	0.38	23.0	26.9	1.01	23.9	27.9	0.75	24.9	28.9
					M2		28.8	32.8		29.8	33.8		30.8	34.8
					M3		34.8	38.8		35.8	39.7		36.7	40.7

Note:

Minimum centers contains 0.5” to allow for belt assembly

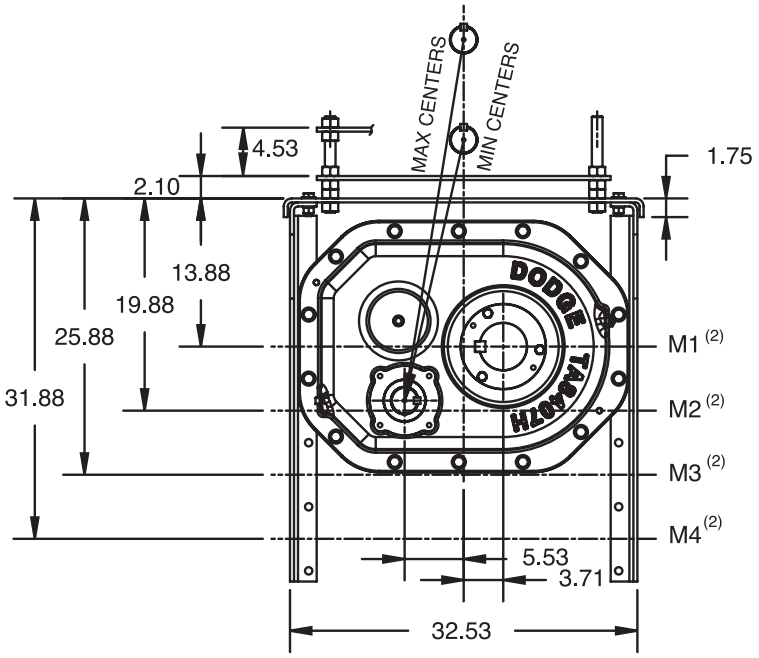
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3 go through output shaft centerline

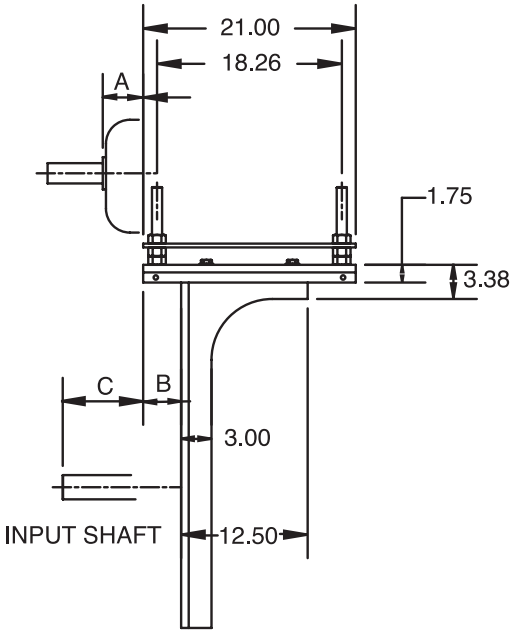
SELECTION/DIMENSIONS

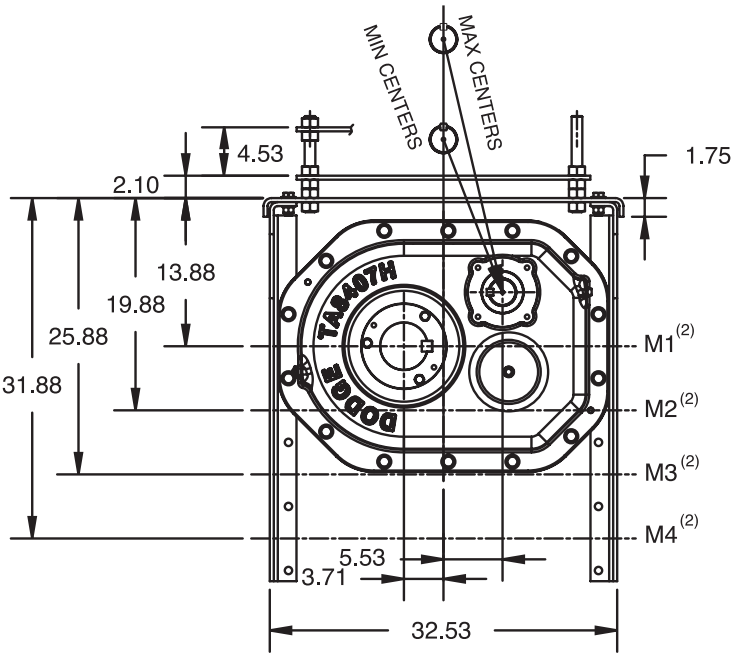
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA8407H, Position A & C



POSITION A





POSITION C



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA8407H, Position A & C (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						213T & 215T			254T & 256T			284T & 286T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position A	1.59	5.91	7.04	11.36	M1	1.55	27.4	31.3	1.56	28.3	32.3	1.16	29.1	33.0
					M2		33.2	37.2		34.2	38.2		35.0	39.0
					M3		39.2	43.2		40.2	44.2		40.9	44.9
					M4		45.1	49.1		46.1	50.1		46.9	50.9
Position C	1.59	5.91	7.04	11.36	M1	1.55	17.6	21.4	1.56	18.5	22.4	1.16	19.2	23.1
					M2		23.3	27.3		24.3	28.2		25.0	29.0
					M3		29.2	33.2		30.2	34.1		30.9	34.9
					M4		35.1	39.1		36.1	40.1		36.8	40.8

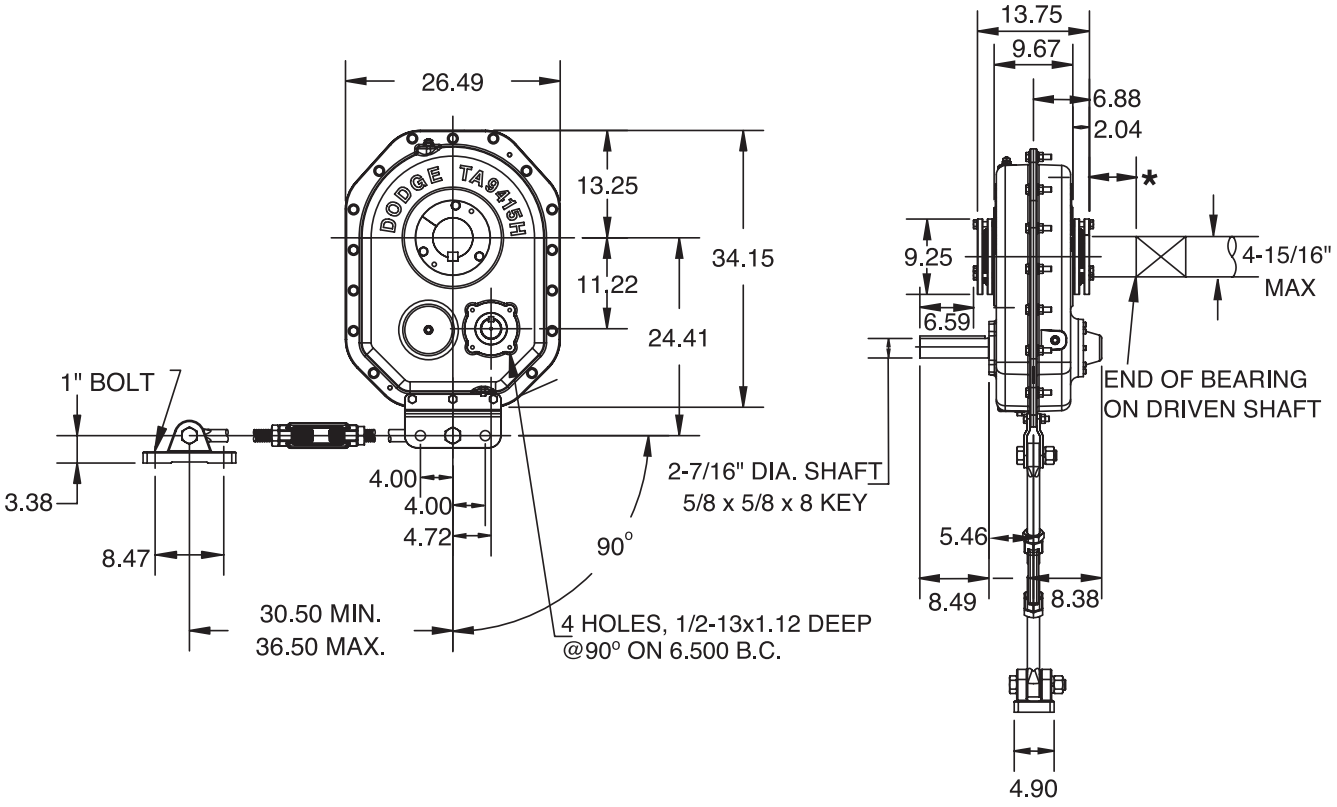
Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						324T & 326T			364T & 365T			404T & 405T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position A	1.59	5.91	7.04	11.36	M1	0.38	30.1	34.0	1.01	31.0	35.0	0.75	32.0	36.0
					M2		36.0	39.9		37.0	40.9		37.9	41.9
					M3		41.9	45.9		42.9	46.9		43.9	47.9
					M4		47.9	51.9		48.8	52.8		49.8	53.8
Position C	1.59	5.91	7.04	11.36	M1	0.38	20.2	24.1	1.01	21.2	25.1	0.75	22.1	26.0
					M2		26.0	30.0		27.0	30.9		28.0	31.9
					M3		31.9	35.9		32.9	36.9		33.9	37.8
					M4		37.8	41.8		38.8	42.8		39.8	43.8

Note:
Minimum centers contains 0.5” to allow for belt assembly
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions
(2) M1, M2, M3 go through output shaft centerline

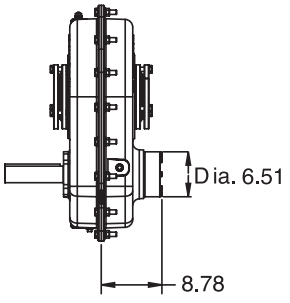
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

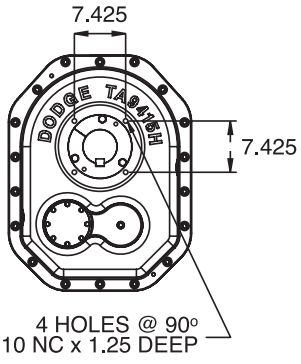
Taper Bushed Reducers - TA9415H, Double Reduction



* 2.39" MINIMUM DISTANCE FOR BUSHING SCREW REMOVAL



REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA9415H, Double Reduction

TA9415H Taper Bushed Reducers (1)

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA9415H15	**909002**	415D15	15.10	735.0
TA9415H25	**909001**	415D25	25.44	735.0
TA9415H40	**909000**	415D40	39.41	732.0

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

\+ Rod Assembly mounting locations are limited to positions shown in drawing.

TA9415H Accessories

Description	Part Number	Weight lbs.
TA9415RA Rod Assembly (1) +	**909109**	76.8
TA9415BS Backstop Assembly (2)	**909102**	20.0
TA7315/9415BS 40:1 Backstop Assembly (2)	**907103**	21.0
TA9415MM Motor Mount Assembly (254-445T) (3)	**909090**	273.7
TA9415BG Belt Guard - Pos. B (254-445T)	**909096**	158.1
TA9415BG Belt Guard - Pos. D (254-445T)	**909099**	159.1
TA9415CF Cooling Fan Assembly ●	**909106**	12.4
TA4-TA12 Vertical Breather Kit	**904112**	3.0
TA9415H V-Ring Kit	**909249**	0.5
Filter Breather Kit	**430049**	0.2
TA9415H Lube Kit	**LUBEKITTA9415**	79.8

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

● See page G1-120 for cooling fan dimensions

TA9415H Tapered Bushing Kits (4)

Bushing Size Standard Shaft Bushing Kit	Part Number (5)	Weight lbs.	Shaft Keyseat Required (7) (8)	Bushing Size Short Shaft Bushing Kit (6)	Part Number	Weight lbs.	Shaft Keyseat Required (7) (8)
TA9415TB x 4-15/16 ▲	**909020**	38.4	1-1/4 x 5/8 x 13.74	TA9415TBS x 4-15/16	**909025**	40.2	1-1/4 x 5/8 x 8.56
TA9415TB x 4-7/16	**909021**	43.4	1 x 1/2 x 13.74	TA9415TBS x 4-7/16	**909026**	48.8	1 x 1/2 x 8.56
TA9415TB x 4-3/16	**909022**	46.4	1 x 1/2 x 13.74	TA9415TBS x 4-3/16	**909027**	53.4	1 x 1/2 x 8.56
TA9415TB x 3-15/16	**909023**	49.2	1 x 1/2 x 13.74	TA9415TBS x 3-15/16	**909028**	57.7	1 x 1/2 x 8.56
TA9415TB x 3-7/16	**909024**	53.1	7/8 x 7/16 x 13.74	TA9415TBS x 3-7/16	**909029**	64.4	7/8 x 7/16 x 8.56

▲ AGMA maximum bore size

(4) Bushing kit required to mount TA II reducer to driven shaft

(5) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(6) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

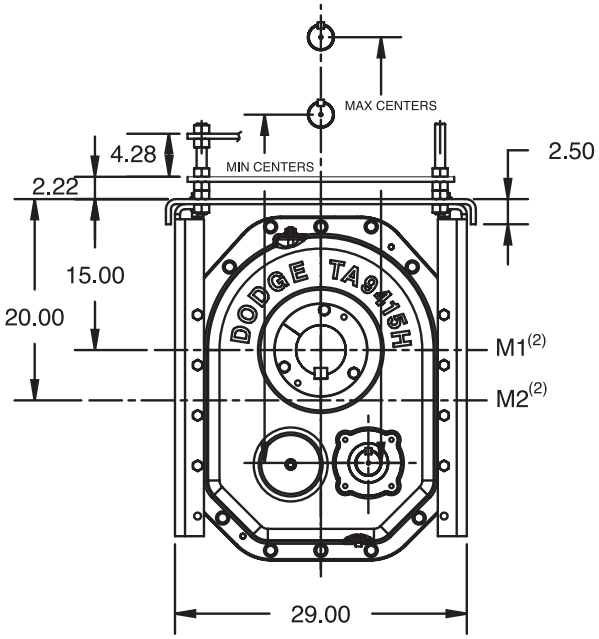
(7) Minimum keyseat and shaft length required to mount reducer with bushing kit

(8) Always check the driven shaft and key for strength

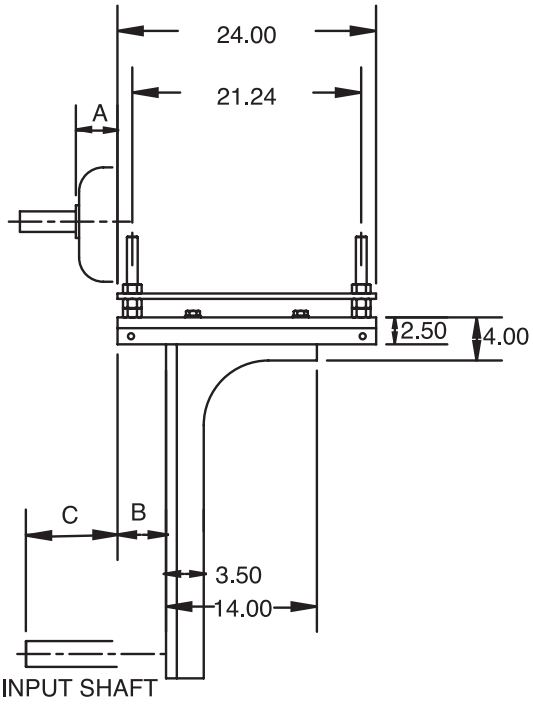
SELECTION/DIMENSIONS

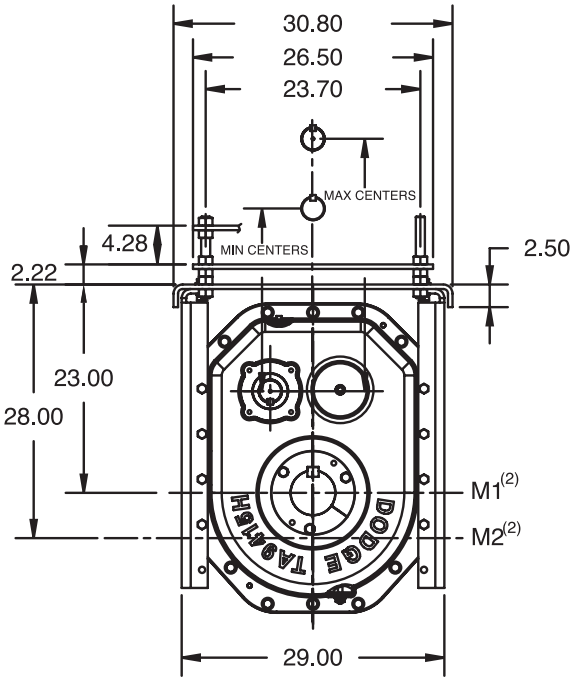
TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA9415H, Position B & D



POSITION B





POSITION D



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA9415H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						254T & 256T			284T & 286T			324T & 326T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	2.18	6.82	6.26	10.90	M1	1.56	35.5	39.2	1.16	36.2	40.0	0.38	37.2	41.0
					M2		40.5	44.2		41.2	45.0		42.2	46.0
Position D	2.18	6.82	6.26	10.90	M1	1.56	21.3	25.0	1.16	22.0	25.7	0.38	23.0	26.7
					M2		26.2	29.9		26.9	30.6		27.9	31.6

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						364T & 365T			404T & 405T			444T & 445T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	2.18	6.82	6.26	10.90	M1	1.01	38.2	42.0	0.75	39.2	43.0	1.62	40.2	44.0
					M2		43.2	47.0		44.2	47.9		45.2	48.9
Position D	2.18	6.82	6.26	10.90	M1	1.01	24.0	27.7	0.75	25.0	28.7	1.62	25.9	29.7
					M2		28.9	32.6		29.9	33.6		30.9	34.6

Note:

Minimum centers contains 0.5” to allow for belt assembly

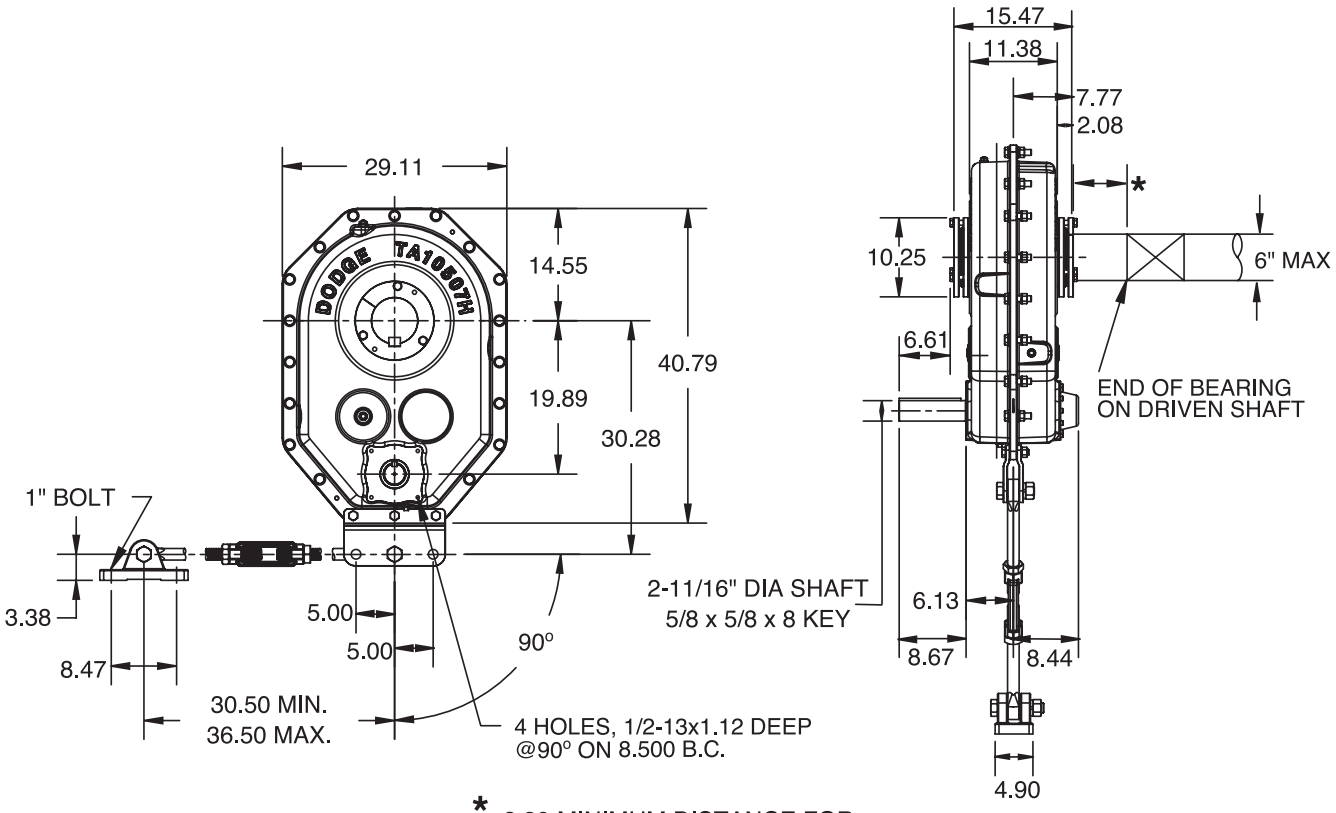
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

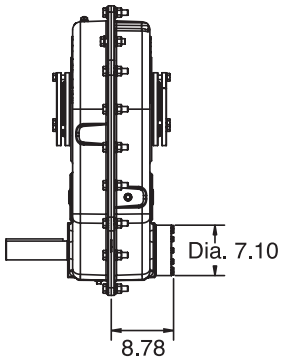
(2) M1, M2, M3 go through output shaft centerline

SELECTION/DIMENSIONS

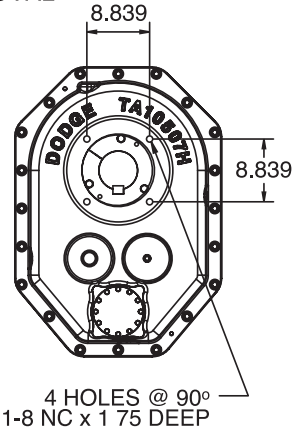
TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA10507H, Double Reduction





REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA10507H, Double Reduction

TA10507H Taper Bushed Reducers (1)

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA10507H15	**910002**	507D15	15.09	1022.0
TA10507H25	**910001**	507D25	25.18	1022.0
TA10507H40	**910000**	507D40	39.68	1018.0

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

\+ Rod Assembly mounting locations are limited to positions shown in drawing.

TA10507H Accessories

Description	Part Number	Weight lbs.
TA10507RA Rod Assembly (1) +	**910109**	87.0
TA10507BS Backstop Assembly (2)	**910102**	23.5
TA10507BS 40:1 Backstop Assembly (2)	**910103**	25.0
TA10507MM Motor Mount Assembly (254-445T) (3)	**910090**	286.7
TA10507BG Belt Guard - Pos. B (254-445T)	**910096**	158.1
TA10507BG Belt Guard - Pos. D (254-445T)	**910099**	175.0
TA10507CF Cooling Fan Assembly ●	**910106**	12.4
TA4-TA12 Vertical Breather Kit	**904112**	3.0
TA10507H V-Ring Kit	**910249**	0.8
Filter Breather Kit	**430049**	0.2
TA10507H Lube Kit	**LUBEKITTA10507**	121.5

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

● See page G1-120 for cooling fan dimensions

TA10507H Tapered Bushing Kits (4)

Bushing Size Standard Shaft Bushing Kit	Part Number (5)	Weight lbs.	Shaft Keyseat Required (7) (8)	Bushing Size Short Shaft Bushing Kit (6)	Part Number	Weight lbs.	Shaft Keyseat Required (7) (8)
TA10507TB x 6	**910020**	40.8	1-1/2 x 3/4 x 15.46	---	---	---	---
TA10507TB x 5-15/16	**910021**	43.2	1-1/2 x 3/4 x 15.46	---	---	---	---
TA10507TB x 5-7/16 ▲	**910022**	50.0	1-1/4 x 5/8 x 15.46	TA10507TBS x 5-7/16	**910027**	47.2	1-1/4 x 5/8 x 9.67
TA10507TB x 4-15/16	**910023**	57.8	1-1/4 x 5/8 x 15.46	TA10507TBS x 4-15/16	**910028**	66.9	1-1/4 x 5/8 x 9.67
TA10507TB x 4-7/16	**910024**	52.8	1 x 1/2 x 15.46	TA10507TBS x 4-7/16	**910029**	75.7	1 x 1/2 x 9.67
TA10507TB x 4-3/16	**910025**	65.6	1 x 1/2 x 15.46	TA10507TBS x 4-3/16	**910030**	80.5	1 x 1/2 x 9.67
TA10507TB x 3-15/16	**910026**	68.4	1 x 1/2 x 15.46	TA10507TBS x 3-15/16	**910031**	85.2	1 x 1/2 x 9.67

▲ AGMA maximum bore size

(4) Bushing kit required to mount TA II reducer to driven shaft

(5) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(6) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

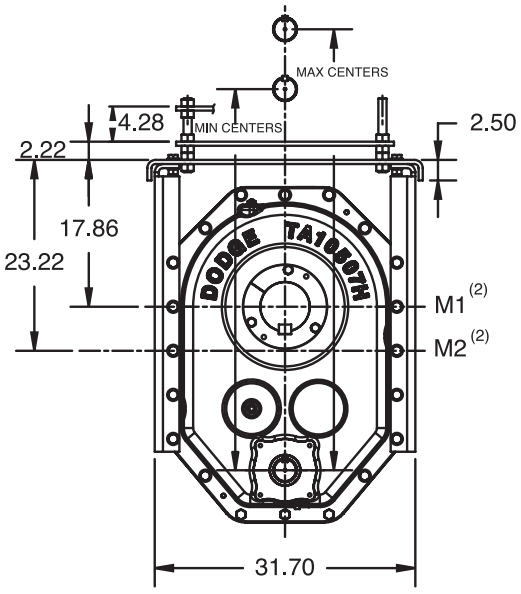
(7) Minimum keyseat and shaft length required to mount reducer with bushing kit

(8) Always check the driven shaft and key for strength

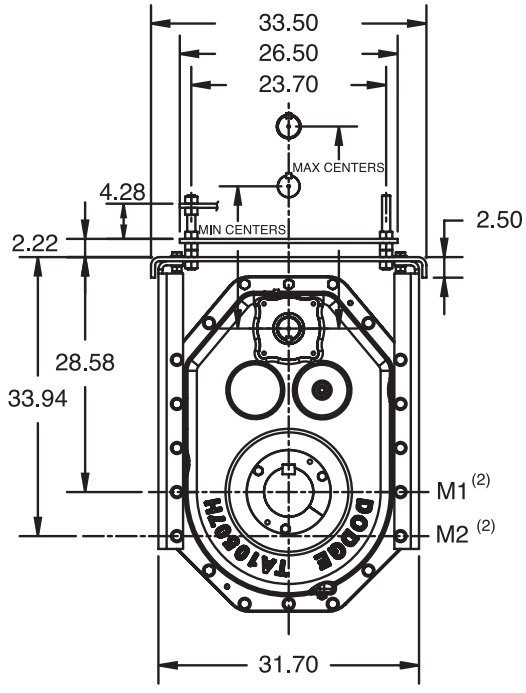
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

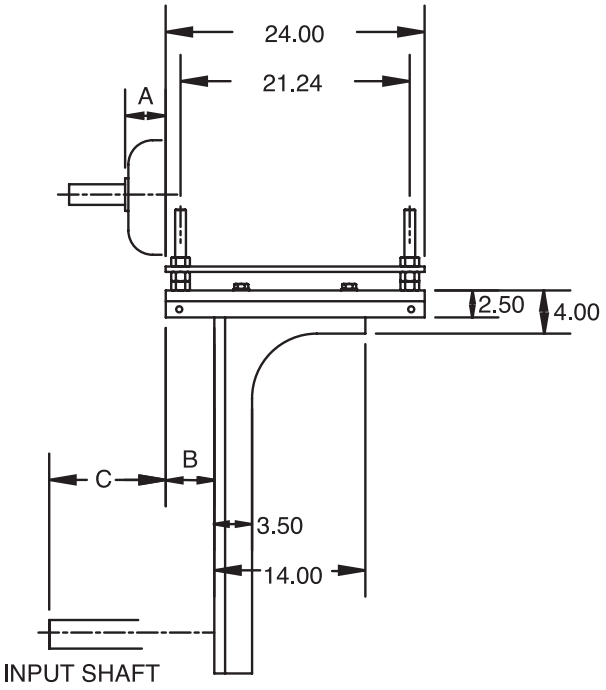
Motor Mount Dimensions - TA10507H, Position B & D



POSITION B



POSITION D





TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA10507H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						254T & 256T			284T & 286T			324T & 326T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	2.18	6.82	6.98	11.62	M1	1.56	46.7	50.5	1.16	47.5	51.2	0.38	48.5	52.2
					M2		52.1	55.9		52.8	56.6		53.8	57.6
Position D	2.18	6.82	6.98	11.62	M1	1.56	17.7	21.4	1.16	18.4	22.2	0.38	19.4	23.2
					M2		23.0	26.8		23.8	27.5		24.8	28.5

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						364T & 365T			404T & 405T			444T & 445T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	2.18	6.82	6.98	11.62	M1	1.01	49.5	53.2	0.75	50.5	54.2	1.62	51.5	55.2
					M2		54.8	58.6		55.8	59.6		56.8	60.6
Position D	2.18	6.82	6.98	11.62	M1	1.01	20.4	24.2	0.75	21.4	25.2	1.62	22.4	26.2
					M2		25.8	29.5		26.8	30.5		27.8	31.5

Note:

Minimum centers contains 0.5” to allow for belt assembly

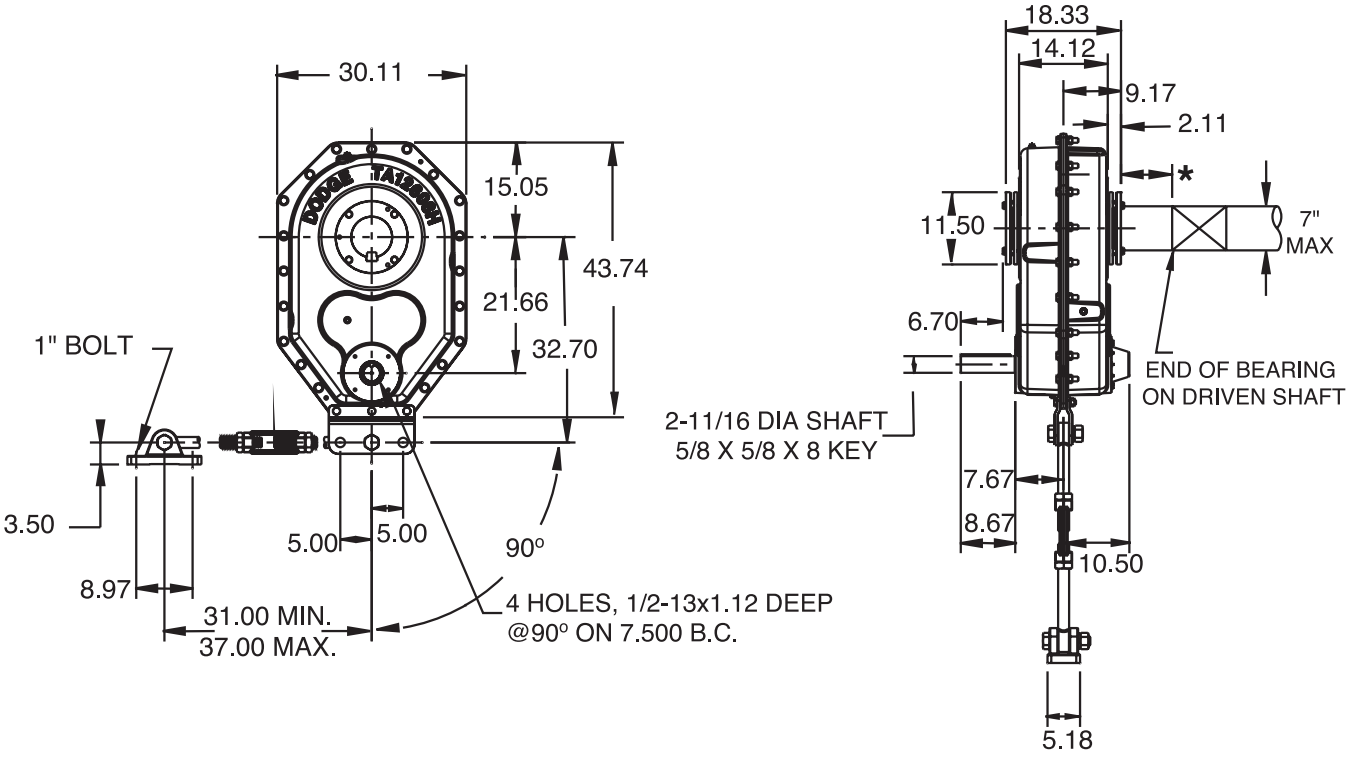
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions

(2) M1, M2, M3 go through output shaft centerline

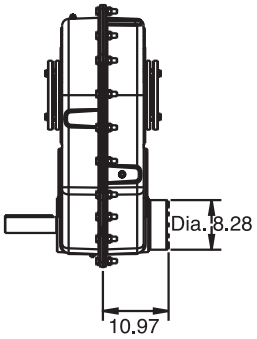
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

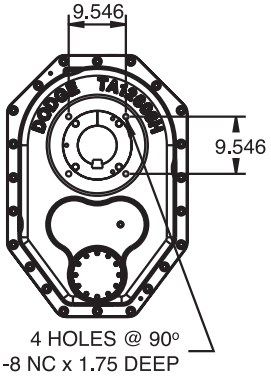
Taper Bushed Reducers - TA12608H, Double Reduction



* 2.39" MINIMUM DISTANCE
FOR BUSHING SCREW REMOVAL



REDUCER WITH BACKSTOP



FLANGE MOUNTING DIMENSIONS



TORQUE-ARM II Shaft Mount Speed Reducers

Taper Bushed Reducers - TA12608H, Double Reduction

TA12608H Taper Bushed Reducers (1)

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight lbs.
TA12608H15	**912002**	608D15	14.79	1392.0
TA12608H25	**912001**	608D25	25.03	1395.0
TA12608H40	**912000**	608D40	38.19	1393.0

(1) Reducers are supplied from stock ready for vertical mounting and for flange mounting. Rod assembly is not included with reducer. Order as a separate part number.

\+ Rod Assembly mounting locations are limited to positions shown in drawing.

TA12608H Accessories

Description	Part Number	Weight lbs.
TA12608RA Rod Assembly (1) +	**912109**	106.4
TA12608BS Backstop Assembly (2)	**912102**	40.0
TA12608BS 40:1 Backstop Assembly (2)	**912103**	41.1
TA12608MM Motor Mount Assembly (254-445T) (3)	**912090**	289.6
TA12608BG Belt Guard - Pos. B (254-445T)	**912096**	190.5
TA12608BG Belt Guard - Pos. D (254-445T)	**912099**	181.0
TA12608CF Cooling Fan Assembly ●	**912106**	13.7
TA4-TA12 Vertical Breather Kit	**904112**	3.0
TA12608H V-Ring Kit	**912249**	.08
Filter Breather Kit	**430049**	0.2
TA12608H Lube Kit	**LUBEKITTA12608**	170.1

(2) See page G1-128 for input shaft speed necessary for backstop sprag lift-off

(3) Motor Mount will fit NEMA and IEC frame motors; however hardware are inch dimensions

● See page G1-120 for cooling fan dimensions

TA12608H Tapered Bushing Kits (4)

Bushing Size Standard Shaft Bushing Kit	Part Number (5)	Weight lbs.	Shaft Keyseat Required (7) (8)	Bushing Size Short Shaft Bushing Kit (6)	Part Number	Weight lbs.	Shaft Keyseat Required (7) (8)
TA12608TB x 7	**912020**	58.2	1-3/4 x 3/4 x 18.32	---	**---**	---	---
TA12608TB x 6-1/2 ▲	**912021**	67.8	1-1/2 x 3/4 x 18.32	TA12608TBS x 6-1/2	**912027**	73.5	1-1/2 x 3/4 x 11.60
TA12608TB x 6-7/16	**912022**	69.1	1-1/2 x 3/4 x 18.32	TA12608TBS x 6-7/16	**912028**	75.7	1-1/2 x 3/4 x 11.60
TA12608TB x 6	**912023**	78.1	1-1/2 x 3/4 x 18.32	TA12608TBS x 6	**912029**	90.5	1-1/2 x 3/4 x 11.60
TA12608TB x 5-15/16	**912024**	79.4	1-1/2 x 3/4 x 18.32	TA12608TBS x 5-15/16	**912030**	92.6	1-1/2 x 3/4 x 11.60
TA12608TB x 5-7/16	**912025**	86.7	1-1/4 x 5/8 x 18.32	TA12608TBS x 5-7/16	**912031**	106.1	1-1/4 x 5/8 x 11.60
TA12608TB x 4-15/16	**912026**	94.6	1-1/4 x 5/8 x 18.32	TA12608TBS x 4-15/16	**912032**	119.3	1-1/4 x 5/8 x 11.60

▲ AGMA maximum bore size

(4) Bushing kit required to mount TA II reducer to driven shaft

(5) Standard Shaft Bushing Kit includes two standard bushings with back-up plates and snap rings; hardware, and key

(6) Short Shaft Bushing Kit includes one standard bushing, one long bushing with insertable wedge; two back-up plates with snap rings; hardware and key. This is an optional bushing for after market, short shaft mounting.

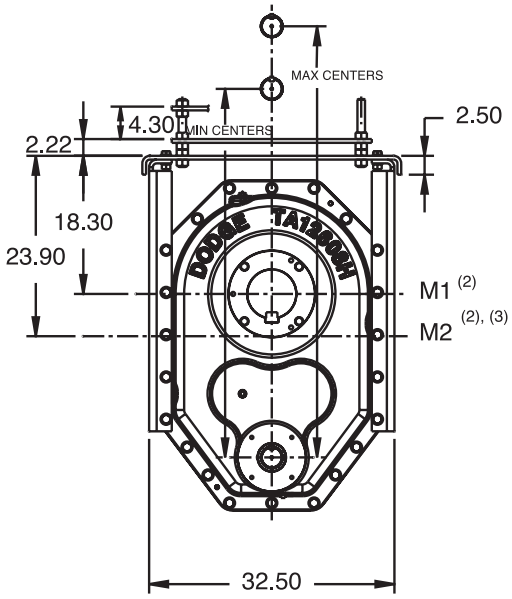
(7) Minimum keyseat and shaft length required to mount reducer with bushing kit

(8) Always check the driven shaft and key for strength

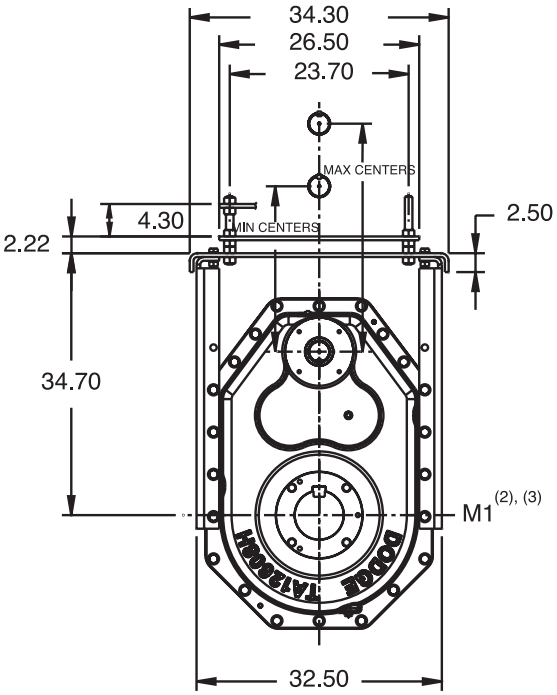
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

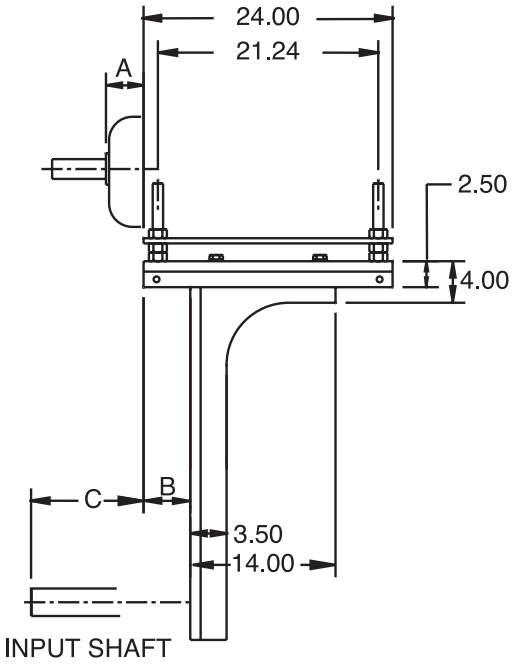
Motor Mount Dimensions - TA12608H, Position B & D



POSITION B



POSITION D



INPUT SHAFT



TORQUE-ARM II Shaft Mount Speed Reducers

Motor Mount Dimensions - TA12608H, Position B & D (1)

Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						254T & 256T			284T & 286T			324T & 326T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	1.68	7.32	8.02	13.66	M1	1.56	48.9	52.7	1.16	49.7	53.5	0.38	50.7	54.5
					M2		54.5	58.3		55.3	59.1		56.3	60.1
Position D	1.68	7.32	8.02	13.66	M1	1.56	22.0	25.8	1.16	22.8	26.6	0.38	23.8	27.6

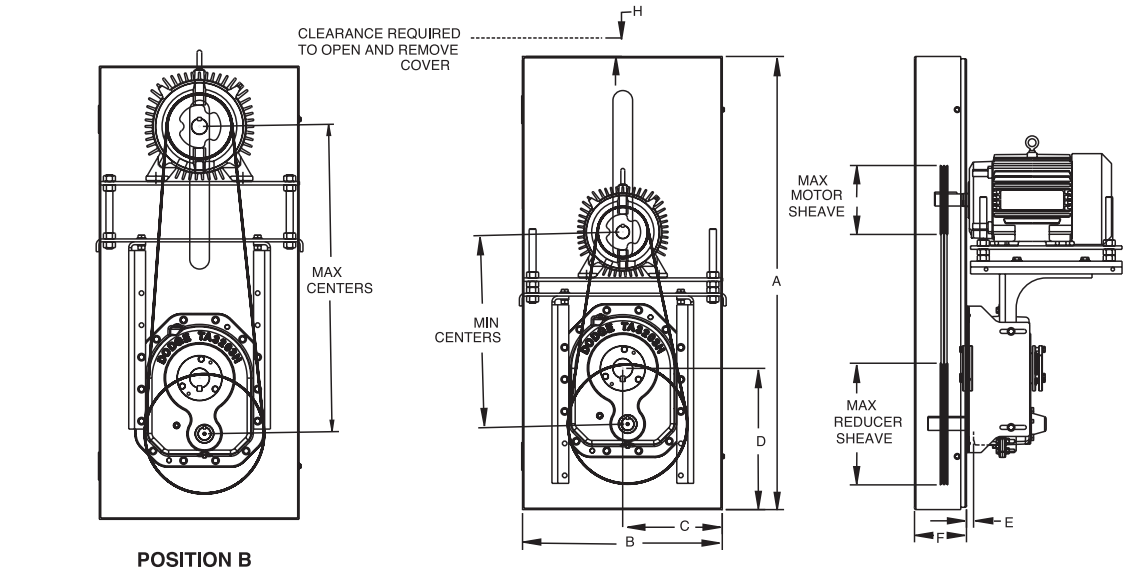
Mounting	Lateral Adjustment				Motor Mount Height (2)	Motor Frame								
						364T & 365T			404T & 405T			444T & 445T		
						A	Centers		A	Centers		A	Centers	
	B Min	B Max	C Min	C Max			Min	Max		Min	Max		Min	Max
Position B	1.68	7.32	8.02	13.66	M1	1.01	51.7	55.5	0.75	52.7	56.5	1.62	53.7	57.5
					M2		57.3	61.1		58.3	62.1		59.3	63.1
Position D	1.68	7.32	8.02	13.66	M1	1.01	24.8	28.6	0.75	25.8	29.6	1.62	26.8	30.6

Note:
Minimum centers contains 0.5” to allow for belt assembly
(1) Motor mount will fit NEMA and IEC frame motors; hardware are inch dimensions
(2) M1, M2, M3 go through output shaft centerline

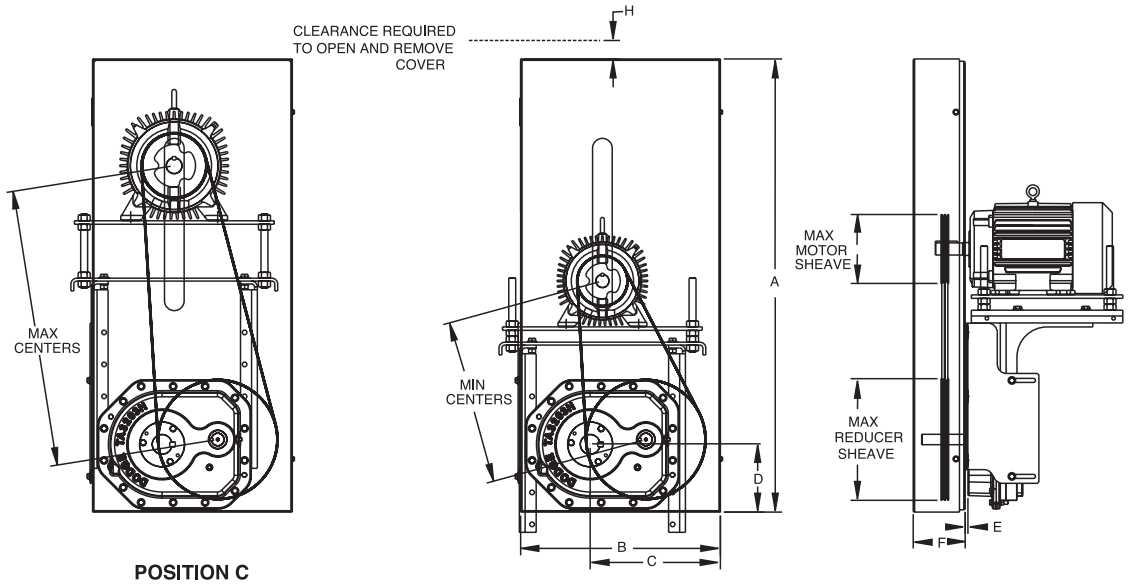
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Belt Guard Dimensions, TA0107L - TA5215H



POSITION B



POSITION C



TORQUE-ARM II Shaft Mount Speed Reducers

Belt Guard Dimensions, TA0107L - TA5215H

Case Size	Mounting Position	Centers		Max Sheave Dia.		A	B	C
		Min	Max	Motor	Reducer			
TA0107L	B	16.7	26.9	11.0	12.4	41.50	16.00	8.00
	C	14.4	25.5	11.4	12.3	41.50	16.00	10.43
TA1107H	B	16.0	28.0	10.8	12.8	41.50	16.00	8.00
	C	16.0	26.3	9.4	9.4	41.50	16.00	11.55
TA2115H	B	17.8	31.1	8.6	12.8	43.50	19.25	9.62
	C	16.8	28.9	9.3	12.3	43.50	19.25	13.07
TA3203H	B	18.9	34.3	9.2	16.8	49.00	21.60	10.80
	C	15.0	31.0	15.8	14.0	49.00	21.60	14.12
TA4207H	B	21.8	38.3	10.3	16.9	53.50	24.60	12.30
	C	22.4	35.5	16.5	15.9	53.50	24.60	16.11
TA5215H	B	25.7	44.1	11.8	17.8	60.50	27.60	13.80
	C	25.6	39.6	18.6	16.9	60.50	27.60	17.85

Case Size	Mounting Position	D	E		F	H	J
			Min	Max			
TA0107L	B	11.74	0.04	1.66	4.23	2.00	4.22
	C	7.33	0.04	1.66	4.23	2.00	4.22
TA1107H	B	11.74	0.00	1.57	4.23	2.00	4.22
	C	5.50	0.00	1.62	4.23	2.00	4.22
TA2115H	B	12.70	0.19	1.60	4.23	2.00	4.22
	C	7.00	0.19	1.56	4.23	2.00	4.22
TA3203H	B	15.27	0.04	2.54	5.62	2.00	5.59
	C	7.32	0.09	2.66	5.62	2.00	5.59
TA4207H	B	16.56	0.00	2.50	5.62	2.00	5.59
	C	8.32	0.13	2.70	5.62	2.00	5.59
TA5215H	B	18.25	0.00	2.44	6.37	2.00	6.09
	C	9.60	0.08	2.64	6.37	2.00	6.09

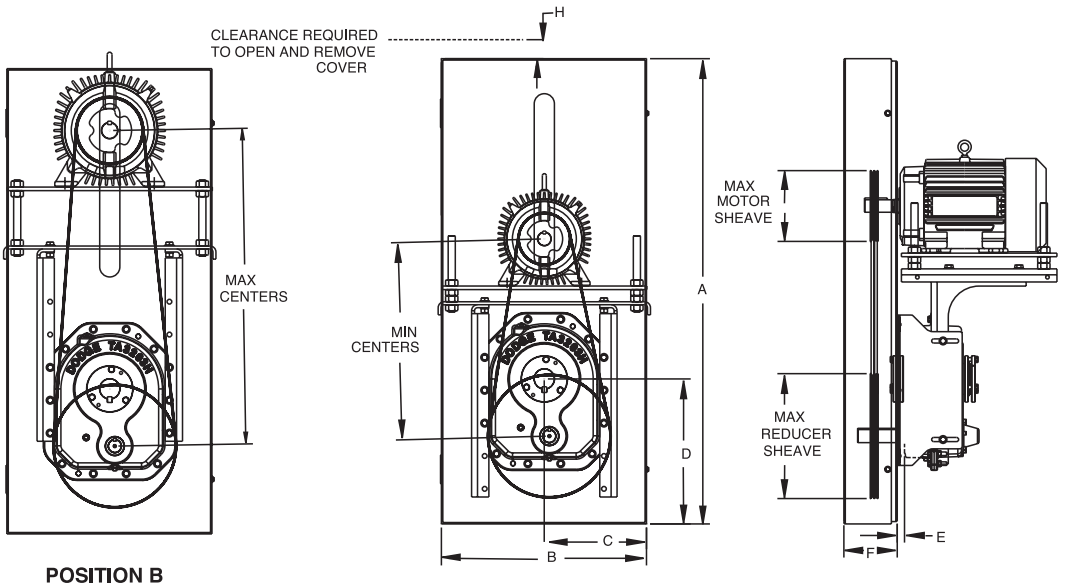
Notes:

1. Minimum centers allow 0.5” for belt assembly
2. Maximum sheave diameters allow 0.5” clearance for belt assembly
3. Range of center distances on belt guard may be less than the full range of center distances available on the motor mount
4. Belt guard cover is lift-off cover construction
5 Belt guard attaches to motor mount brackets
6. “E” maximum dimension allows clearance for cooling fan
7. Stock Position-B Belt Guards cannot be used with TA II Reducers mounted in ‘D’ position. Use a Position-D Belt Guard
8. Stock Position-C Belt Guards cannot be used with TA II Reducers mounted in ‘A’ position. A special belt guard is required. Consult DODGE for price and delivery.

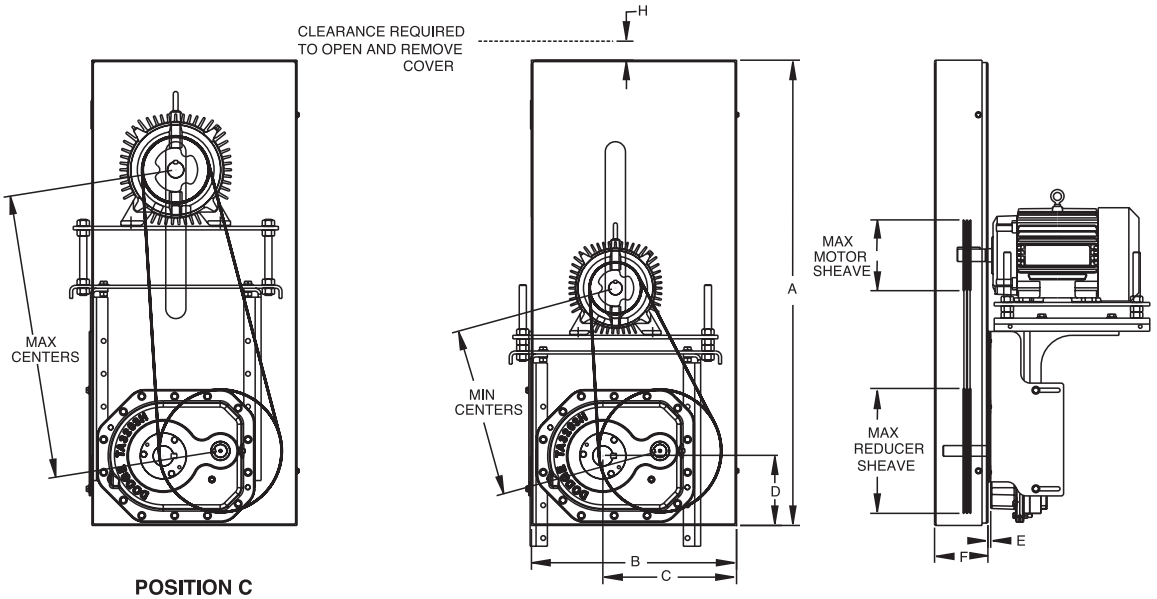
SELECTION/DIMENSIONS

TORQUE-ARM II Shaft Mount Speed Reducers

Belt Guard Dimensions, TA6307H - TA12608H



POSITION B



POSITION C



TORQUE-ARM II Shaft Mount Speed Reducers

Belt Guard Dimensions, TA6307H - TA12608H

Case Size	Mounting Position	Centers		Max Sheave Dias.		A	B	C
		Min	Max	Motor	Reducer			
TA6307H	B	26.6	46.5	12.8	19.9	64.50	29.10	14.15
	C	26.8	40.9	21.0	20.0	64.50	29.10	17.94
TA7315H	B	29.5	50.6	12.0	25.0	71.50	30.60	18.51
	C	28.6	43.6	22.0	25.0	71.50	30.60	22.39
TA8407H	B	29.7	50.8	12.0	25.2	71.50	30.60	13.45
	C	28.7	43.8	22.0	24.6	71.50	30.60	22.39
TA9415H	B	35.0	49.2	15.4	28.0	72.50	31.60	19.57
TA10507H	B	46.2	60.8	23.2	30.8	89.50	32.60	16.30
TA12608H	B	48.4	63.3	18.2	30.8	89.50	32.60	16.30

Case Size	Mounting Position	D	E		F	H	J
			Min	Max			
TA6307H	B	19.92	0.00	3.56	6.87	2.00	6.59
	C	10.72	0.00	3.60	6.87	2.00	6.59
TA7315H	B	23.38	0.00	4.43	7.37	2.00	7.09
	C	10.25	0.00	3.17	7.37	2.00	7.09
TA8407H	B	23.38	0.00	4.12	7.37	2.00	7.09
	C	10.25	0.00	2.86	7.37	2.00	7.09
TA9415H	B	26.22	0.00	3.50	8.37	2.00	8.09
TA10507H	B	36.14	0.00	3.56	8.87	2.00	8.59
TA12608H	B	37.91	0.00	3.56	8.87	2.00	8.59

Notes:

1. Minimum centers allow 0.5” for belt assembly
2. Maximum sheave diameters allow 0.5” clearance for belt assembly
3. Range of center distances on belt guard may be less than the full range of center distances available on the motor mount
4. Belt guard cover is lift-off cover construction
5. Belt guard attaches to motor mount brackets
6. “E” maximum dimension allows clearance for cooling fan
7. Stock Position-B Belt Guards cannot be used with TA II Reducers mounted in ‘D’ position. Use a Position-D Belt Guard
8. Stock Position-C Belt Guards cannot be used with TA II Reducers mounted in ‘A’ position. A special belt guard is required. Consult DODGE for price and delivery.

TORQUE-ARM II Shaft Mount Speed Reducers

Cooling Fan Dimensions, TA4207H - TA12608H

When the thermal capacity of a TORQUE-ARM II reducer is exceeded, cooling fans provide an optional, inexpensive way of lowering the oil temperature, thus increasing the thermal horsepower capacity of the reducer. Selection tables indicate when a cooling fan is required.

The computer designed fan assembly, which fastens to the input shaft, is compact enough to allow installation of the V-drive originally designed for the reducer. The fan assemblies are designed to allow free circulation of air at the back of the housing as well as through the front of the unit. The fan blade offers a radial streamline airflow, which means smaller fans yet a more efficient movement of air. See Figure 1 and Table 1 for cooling fan installation dimensions.

For thermal capacities beyond the range of cooling fans, pump and cooler auxiliary cooling packages may be used.

Note: See page G1-127 for maximum input shaft speeds.

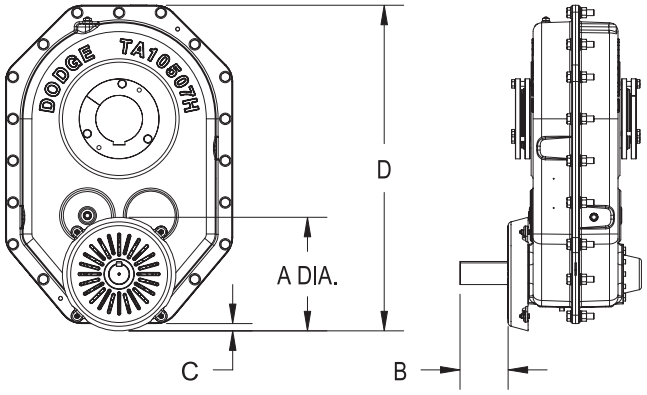


Figure 1 - Cooling Fan Assembly

Table 1 - Cooling Fan Installation Dimensions ●

Reducer	A Dia.	B	C	D
TA4207H	9.00	3.77	---	---
TA5215H	10.75	4.63	---	---
TA6307H	11.85	4.00	0.14	25.37
TA7315H	11.85	4.10	---	---
TA8407H	11.85	4.79	---	---
TA9415H	14.55	5.98	---	---
TA10507H	14.55	6.16	0.93	41.72
TA12608H	14.55	6.16	0.25	43.98

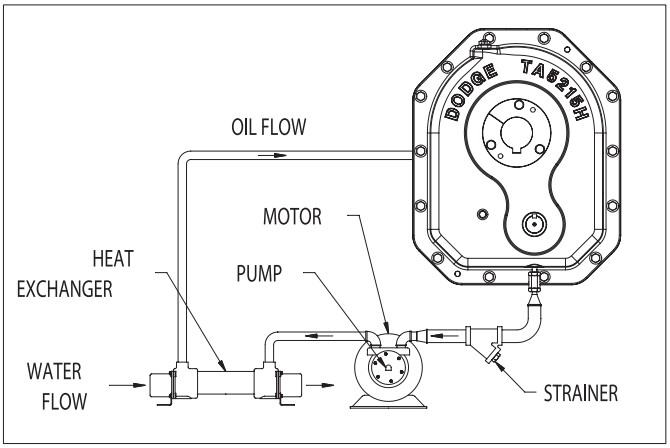
● See individual reducer pages for cooling fan part numbers

Reducer Pump and Auxiliary Cooling Package

For thermal capacities beyond the range of cooling fans, an optional pump and cooler auxiliary cooling package is available to prevent overheating the reducer and allow the use of full mechanical HP rating by lowering the oil temperature to an acceptable level.

Specifications for the heat exchanger are as follows: 1/2 HP, 60 Hz, 3 PH. 230/460 Volt, TEFC, 56 Frame. Maximum coolant (water) flow is 3 G.P.M. based upon a maximum water temperature of 80 degrees F. Minimum oil temperature for operation is 60 degrees F.

Figure 2 - Pump and Auxiliary Cooling Package, Part Number 014148



TORQUE-ARM II Shaft Mount Speed Reducers
Harsh Duty Accessories

XT Safety & Sealing And XT Hostile Environment

Metal End Covers (1) (2)

Reducer Size	End Cover Part Numbers			Weight
	Closed	Weight	Split	
TA0107L	**900114**	0.3	**900115**	0.3
TA1107H	**901114**	0.5	**901115**	0.4
TA2115H	**902114**	0.6	**902115**	0.5
TA3203H	**903114**	1.0	**903115**	0.6
TA4207H	**904114**	1.2	**904115**	1.0
TA5215H	**905114**	1.3	**905115**	1.3
TA6307H	**906114**	1.0	**906115**	1.5
TA7315H	**907114**	1.2	**907115**	1.5
TA8407H	**908114**	2.5	**908115**	2.5
TA9415H	**909114**	4.0	**909115**	1.7
TA10507H	**910114**	4.6	**910115**	3.9
TA12608H	**912114**	4.8	**912115**	4.1

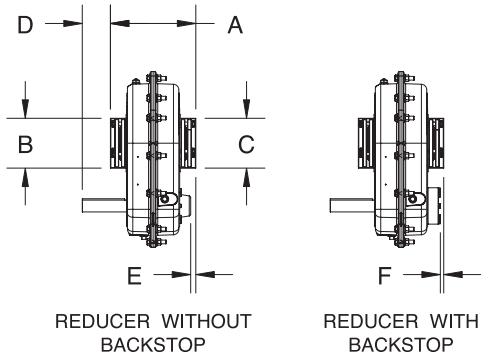
(1) End covers fit both the input side and back stop side of TA II reducer. See Drawing A and Table 3 for dimensions.

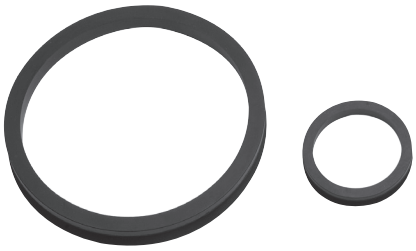
(2) If a TA II Belt Guard is used, an end cover for the input side of the reducer is not needed and will not fit.

Table 3

Reducer Size	A	B	C	D	E	F
TA0107L	7.77	3.63	3.63	2.14	0.22	0.05
TA1107H	7.95	4.13	4.13	2.02	-0.05	-0.22
TA2115H	8.80	4.75	4.75	2.19	0.07	-0.10
TA3203H	9.68	5.25	5.25	3.19	0.08	-0.10
TA4207H	9.95	5.88	5.88	3.21	0.14	-0.04
TA5215H	11.57	6.75	6.75	3.81	0.70	0.46
TA6307H	12.12	6.88	6.88	5.12	0.66	0.41
TA7315H	13.18	8.13	8.13	4.92	0.00	-0.41
TA8407H	14.12	8.38	8.38	5.45	0.19	-0.06
TA9415H	15.17	9.63	9.63	6.37	-0.79	-1.20
TA10507H	16.88	10.63	10.63	6.36	0.00	-0.34
TA12608H	19.75	11.88	11.88	6.47	-0.63	-1.09

Drawing A - Metal End Cover





Optional V-Ring Flinger Seal Kit For Harsh Duty Environments (1)

Reducer Size	Part Number	Weight
TA0107L	**900249**	0.1
TA1107H	**901249**	0.1
TA2115H	**902249**	0.2
TA3203H	**903249**	0.2
TA4207H	**904249**	0.3
TA5215H	**905249**	0.3
TA6307H	**906249**	0.4
TA7315H	**907249**	0.4
TA8407H	**907249**	0.4
TA9415H	**909249**	0.5
TA10507H	**910249**	0.8
TA12608H	**912249**	0.8

(1) Consists of 1 input and 2 output V-ring seals which fit in seal OD of housing; provides additional sealing protection for keeping contaminants out of reducer.

Metal End Covers



RELATED PRODUCTS

TORQUE-ARM II Shaft Mount Speed Reducers
Harsh Duty Accessories



Enclosed Breather Chamber

Reducer Size	Part Number
TA0-TA9	**240050**
TA10-TA12	**240051**

Filter Breather (1)

Reducer Size	Part Number
TA0-TA3	**430048**
TA4-TA12	**430049**

(1) 40 micron mesh opening in filter allows reducer to breathe, yet keep dust out, under the most extreme conditions.



Filter Breather



Oil Sump Heater

Oil Sump Immersion Heaters (2) (3)

Reducer Size	Part Number
TA0 - TA1	**Not Available**
TA2-TA3	**241103 (2)**
TA4-TA5	**241104 (2)**
TA6-TA12	**Consult DODGE (2)**

(2) 110 volt, single phase, AC cartridge heater, threads into special tapped housing hole. Provides for approximately 70 degrees (F) temperature rise in one hour for cold climates. Simple time phased on/off construction without thermostat.

(3) All TA II reducers have to be factory modified to allow installation of sump heater. Reducer mounting position will determine modification requirement. Consult DODGE.

TORQUE-ARM II Shaft Mount Speed Reducers

TDNC Coated Tapered Bushings (Thin Dense Nickel Chrome)



- TDNC coated for maximum corrosion resistance with minimum premium cost adder
- TDNC bushings, backing plates and snap rings
- Corrosion resistant bolts and lock washers
- TA II has the highest average HP ratings per case size in its class
- Meets or exceeds AGMA standards
- 36 / 18 month warranty



TORQUE-ARM II Shaft Mount Speed Reducers

Maximum Bore Straight Bore TA II Reducers (1) (2) (3)

Reducer Size	Max. Bore	TA II Reducer									
		5:1		9:1		15:1		25:1		31:1 - 40:1	
		Part No.	Weight	Part No.	Weight	Part No.	Weight	Part No.	Weight	Part No.	Weight
TA1107H	1-11/16"	**901149**	56.6	**901148**	58.0	**901147**	57.9	**901146**	57.9	**901145**	58.0
TA3203H	2-7/16"	**903149**	109.2	**903148**	113.3	**903147**	113.1	**903146**	112.8	**903145**	112.0
TA4207H	2-15/16"	**904149**	182.0	**904148**	190.7	**904147**	190.3	**904146**	189.6	**904145**	189.0
TA5215H	3-7/16"	**905149**	262.4	**905148**	277.0	**905147**	276.5	**905146**	275.5	**905145**	274.7
TA6307H	3-15/16"	**906149**	316.0	**906148**	334.0	**906147**	333.0	**906146**	331.0	**906145**	330.0

(1) See individual reducer catalog pages for accessories for above reducers

(2) Non-stock, made-to-order reducers

(3) See Drawing B and Table 4 for catalog dimensions for Maximum Bore Straight Bore TA II Reducers

Drawing B - Maximum Bore Straight Bore Reducers

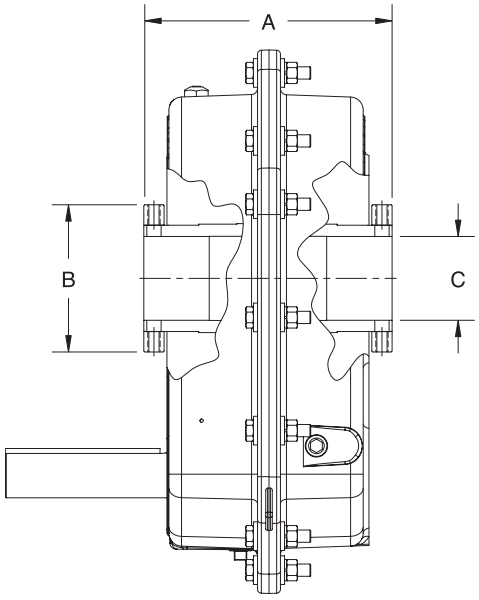


Table 4 (4)

Reducer Size	A	B	C Bore	Shaft Keyseat Required (5)
TA1107H	5.82	3.50	1-11/16"	3/8 x 3/16 x 5.81
TA3203H	7.59	4.50	2-7/16"	5/8 x 5/16 x 7.58
TA4207H	8.02	5.00	2-15/16"	3/4 x 3/8 x 8.01
TA5215H	8.97	5.50	3-7/16"	7/8 x 7/16 x 8.96
TA6307H	9.40	5.75	3-15/16"	1 x 1/2 x 9.39

(4) Always check the driven shaft and key for strength

(5) Minimum keyset and shaft length required to mount reducer

RELATED PRODUCTS

TORQUE-ARM II Shaft Mount Speed Reducers

Nominal Sheave Ratios Required For Dodge TORQUE-ARM II Reducers - 5:1, 9:1, 15:1

Reducer Output RPM	5:1 Nominal Reducer Ratio Motor Speed 1750	1450	1170	Reducer Output RPM	9:1 Nominal Reducer Ratio Motor Speed 1750	1450	1170	Reducer Output RPM	15:1 Nominal Reducer Ratio Motor Speed 1750	1450	1170
400	**1.14**	**1.38**	**1.71**	200	**1.03**	**1.24**	**1.54**	120	**1.03**	**1.24**	**1.54**
395	**1.13**	**1.36**	**1.69**	198	**1.02**	**1.23**	**1.52**	118	**1.01**	**1.22**	**1.51**
390	**1.11**	**1.34**	**1.67**	196	**1.01**	**1.22**	**1.51**	116	1.01	**1.20**	**1.49**
385	**1.10**	**1.33**	**1.65**	194	1.00	**1.20**	**1.49**	114	1.02	**1.18**	**1.46**
380	**1.09**	**1.31**	**1.62**	192	1.01	**1.19**	**1.48**	112	1.04	**1.16**	**1.44**
375	**1.07**	**1.29**	**1.60**	190	1.02	**1.18**	**1.46**	110	1.06	**1.14**	**1.41**
370	**1.06**	**1.28**	**1.58**	188	1.03	**1.17**	**1.45**	108	1.08	**1.12**	**1.38**
365	**1.04**	**1.26**	**1.56**	186	1.05	**1.15**	**1.43**	106	1.10	**1.10**	**1.36**
360	**1.03**	**1.24**	**1.54**	184	1.06	**1.14**	**1.42**	104	1.12	**1.08**	**1.33**
355	**1.01**	**1.22**	**1.52**	182	1.07	**1.13**	**1.40**	102	1.14	**1.06**	**1.31**
350	1.00	**1.21**	**1.50**	180	1.08	**1.12**	**1.38**	100	1.17	**1.03**	**1.28**
345	1.01	**1.19**	**1.47**	178	1.09	**1.10**	**1.37**	98	1.19	**1.01**	**1.26**
340	1.03	**1.17**	**1.45**	176	1.10	**1.09**	**1.35**	96	1.22	1.01	**1.23**
335	1.04	**1.16**	**1.43**	174	1.12	**1.08**	**1.34**	94	1.24	1.03	**1.21**
330	1.06	**1.14**	**1.41**	172	1.13	**1.07**	**1.32**	92	1.27	1.05	**1.18**
325	1.08	**1.12**	**1.39**	170	1.14	**1.06**	**1.31**	90	1.30	1.07	**1.15**
320	1.09	**1.10**	**1.37**	168	1.16	**1.04**	**1.29**	88	1.33	1.10	**1.13**
315	1.11	**1.09**	**1.35**	166	1.17	**1.03**	**1.28**	86	1.36	1.12	**1.10**
310	1.13	**1.07**	**1.32**	164	1.19	**1.02**	**1.26**	84	1.39	1.15	**1.08**
305	1.15	**1.05**	**1.30**	162	1.20	**1.01**	**1.25**	82	1.42	1.18	**1.05**
300	1.17	**1.03**	**1.28**	160	1.22	1.01	**1.23**	80	1.46	1.21	**1.03**
295	1.19	**1.02**	**1.26**	158	1.23	1.02	**1.22**	78	1.50	1.24	1.00
290	1.21	1.00	**1.24**	156	1.25	1.03	**1.20**	76	1.54	1.27	1.03
285	1.23	1.02	**1.22**	154	1.26	1.05	**1.18**	74	1.58	1.31	1.05
280	1.25	1.04	**1.20**	152	1.28	1.06	**1.17**	72	1.62	1.34	1.08
275	1.27	1.05	**1.18**	150	1.30	1.07	**1.15**	70	1.67	1.38	1.11
270	1.30	1.07	**1.15**	148	1.31	1.09	**1.14**	68	1.72	1.42	1.15
265	1.32	1.09	**1.13**	146	1.33	1.10	**1.12**	66	1.77	1.46	1.18
260	1.35	1.12	**1.11**	144	1.35	1.12	**1.11**	64	1.82	1.51	1.22
255	1.37	1.14	**1.09**	142	1.37	1.13	**1.09**	62	1.88	1.56	1.26
250	1.40	1.16	**1.07**	140	1.39	1.15	**1.08**	60	1.94	1.61	1.30
245	1.43	1.18	**1.05**	138	1.41	1.17	**1.06**	58	2.01	1.67	1.34
240	1.46	1.21	**1.03**	136	1.43	1.18	**1.05**	56	2.08	1.73	1.39
235	1.49	1.23	1.00	134	1.45	1.20	**1.03**	54	2.16	1.79	1.44
230	1.52	1.26	1.02	132	1.47	1.22	**1.02**	52	2.24	1.86	1.50
225	1.56	1.29	1.04	130	1.50	1.24	1.00	50	2.33	1.93	1.56
220	1.59	1.32	1.06	128	1.52	1.26	1.02	48	2.43	2.01	1.63
215	1.63	1.35	1.09	126	1.54	1.28	1.03	46	2.54	2.10	1.70
210	1.67	1.38	1.11	124	1.57	1.30	1.05	44	2.65	2.20	1.77
205	1.71	1.41	1.14	122	1.59	1.32	1.07	42	2.78	2.30	1.86
200	1.75	1.45	1.17	120	1.62	1.34	1.08	40	2.92	2.42	1.95
195	1.79	1.49	1.20	118	1.65	1.37	1.10	38	3.07	2.54	2.05
190	1.84	1.53	1.23	116	1.68	1.39	1.12	36	3.24	2.69	2.17
185	1.89	1.57	1.26	114	1.71	1.41	1.14	34	3.43	2.84	2.29
180	1.94	1.61	1.30	112	1.74	1.44	1.16	32	3.65	3.02	2.44
175	2.00	1.66	1.34	110	1.77	1.46	1.18	30	3.89	3.22	2.60
170	2.06	1.71	1.38	108	1.80	1.49	1.20	28	4.17	3.45	2.79
165	2.12	1.76	1.42	106	1.83	1.52	1.23	26	4.49	3.72	3.00
160	2.19	1.81	1.46	104	1.87	1.55	1.25	24	4.86	4.03	3.25
155	2.26	1.87	1.51	102	1.91	1.58	1.27	22	5.30	4.39	3.55
150	2.33	1.93	1.56	100	1.94	1.61	1.30	20	5.83	4.83	3.90
145	2.41	2.00	1.61					18	6.48	5.37	4.33
140	2.50	2.07	1.67					16	7.29	6.04	4.88
135	2.59	2.15	1.73					14	8.33	6.90	5.57
130	2.69	2.23	1.80					12	9.72	8.06	6.50
125	2.80	2.32	1.87					10	11.67	9.67	7.80
120	2.92	2.42	1.95								
115	3.04	2.52	2.03								
110	3.18	2.64	2.13								
105	3.33	2.76	2.23								
100	3.50	2.90	2.34								

Note: Speed increase ratios are shown in bold type

DODGE®



TORQUE-ARM II Shaft Mount Speed Reducers

Nominal Sheave Ratios Required For Dodge TORQUE-ARM II Reducers - 25:1, 31-33:1, 40:1

Reducer Output RPM	25:1 Nominal Reducer Ratio			Reducer Output RPM	31:1, 32:1 and 33:1 Nominal Reducer Ratios			Reducer Output RPM	40:1 Nominal Reducer Ratio		
	Motor Speed				Motor Speed				Motor Speed		
	1750	1450	1170		1750	1450	1170		1750	1450	1170
80	**1.14**	**1.38**	**1.71**	50	1.09	**1.10**	**1.37**	50	**1.14**	**1.38**	**1.71**
78	**1.11**	**1.34**	**1.67**	48	1.14	**1.06**	**1.31**	48	**1.10**	**1.32**	**1.64**
76	**1.09**	**1.31**	**1.62**	46	1.19	**1.02**	**1.26**	46	**1.05**	**1.27**	**1.57**
74	**1.06**	**1.28**	**1.58**	44	1.24	1.03	**1.20**	44	**1.01**	**1.21**	**1.50**
72	**1.03**	**1.24**	**1.54**	42	1.30	1.08	**1.15**	42	1.04	**1.16**	**1.44**
70	1.00	**1.21**	**1.50**	40	1.37	1.13	**1.09**	40	1.09	**1.10**	**1.37**
68	1.03	**1.17**	**1.45**	38	1.44	1.19	**1.04**	38	1.15	**1.05**	**1.30**
66	1.06	**1.14**	**1.41**	36	1.52	1.26	1.02	36	1.22	1.01	**1.23**
64	1.09	**1.10**	**1.37**	34	1.61	1.33	1.08	34	1.29	1.07	**1.16**
62	1.13	**1.07**	**1.32**	32	1.71	1.42	1.14	32	1.37	1.13	**1.09**
60	1.17	**1.03**	**1.28**	30	1.82	1.51	1.22	30	1.46	1.21	**1.03**
58	1.21	1.00	**1.24**	28	1.95	1.62	1.31	28	1.56	1.29	1.04
56	1.25	1.04	**1.20**	26	2.10	1.74	1.41	26	1.68	1.39	1.13
54	1.30	1.07	**1.15**	24	2.28	1.89	1.52	24	1.82	1.51	1.22
52	1.35	1.12	**1.11**	22	2.49	2.06	1.66	22	1.99	1.65	1.33
50	1.40	1.16	**1.07**	20	2.73	2.27	1.83	20	2.19	1.81	1.46
48	1.46	1.21	**1.03**	18	3.04	2.52	2.03	18	2.43	2.01	1.63
46	1.52	1.26	1.02	16	3.42	2.83	2.29	16	2.73	2.27	1.83
44	1.59	1.32	1.06	14	3.91	3.24	2.61	14	3.13	2.59	2.09
42	1.67	1.38	1.11	12	4.56	3.78	3.05	12	3.65	3.02	2.44
40	1.75	1.45	1.17	10	5.47	4.53	3.66	10	4.38	3.63	2.93
38	1.84	1.53	1.23	8	6.84	5.66	4.57	8	5.47	4.53	3.66
36	1.94	1.61	1.30	6	9.11	7.55	6.09	6	7.29	6.04	4.88
34	2.06	1.71	1.38								
32	2.19	1.81	1.46								
30	2.33	1.93	1.56								
28	2.50	2.07	1.67								
26	2.69	2.23	1.80								
24	2.92	2.42	1.95								
22	3.18	2.64	2.13								
20	3.50	2.90	2.34								
18	3.89	3.22	2.60								
16	4.38	3.63	2.93								
14	5.00	4.14	3.34								
12	5.83	4.83	3.90								
10	7.00	5.80	4.68								
8	8.75	7.25	5.85								
6	11.67	9.67	7.80								

Note: Speed increase ratios are shown in bold type

RELATED PRODUCTS

TORQUE-ARM II Shaft Mount Speed Reducers

Nominal Sheave Speed (RPM) At Input For Dodge Reducers - 1750 Motor

Reducer Output RPM	5:1 Nominal Reducer Ratio	Reducer Output RPM	9:1 Nominal Reducer Ratio	Reducer Output RPM	15:1 Nominal Reducer Ratio	Reducer Output RPM	25:1 Nominal Reducer Ratio	Reducer Output RPM	31:1, 32:1 and 33:1 Nominal Reducer Ratio	Reducer Output RPM	40:1 Nominal Reducer Ratio
400	2000	200	1800	120	1800	80	2000	50	1600	50	2000
395	1975	198	1782	118	1770	78	1950	48	1536	48	1920
390	1950	196	1764	116	1740	76	1900	46	1472	46	1840
385	1925	194	1746	114	1710	74	1850	44	1408	44	1760
380	1900	192	1728	112	1680	72	1800	42	1344	42	1680
375	1875	190	1710	110	1650	70	1750	40	1280	40	1600
370	1850	188	1692	108	1620	68	1700	38	1216	38	1520
365	1825	186	1674	106	1590	66	1650	36	1152	36	1440
360	1800	184	1656	104	1560	64	1600	34	1088	34	1360
355	1775	182	1638	102	1530	62	1550	32	1024	32	1280
350	1750	180	1620	100	1500	60	1500	30	960	30	1200
345	1725	178	1602	98	1470	58	1450	28	896	28	1120
340	1700	176	1584	96	1440	56	1400	26	832	26	1040
335	1675	174	1566	94	1410	54	1350	24	768	24	960
330	1650	172	1548	92	1380	52	1300	22	704	22	880
325	1625	170	1530	90	1350	50	1250	20	640	20	800
320	1600	168	1512	88	1320	48	1200	18	576	18	720
315	1575	166	1494	86	1290	46	1150	16	512	16	640
310	1550	164	1476	84	1260	44	1100	14	448	14	560
305	1525	162	1458	82	1230	42	1050	12	384	12	480
300	1500	160	1440	80	1200	40	1000	10	320	10	400
295	1475	158	1422	78	1170	38	950	8	256	8	320
290	1450	156	1404	76	1140	36	900	6	192	6	240
285	1425	154	1386	74	1110	34	850				
280	1400	152	1368	72	1080	32	800				
275	1375	150	1350	70	1050	30	750				
270	1350	148	1332	68	1020	28	700				
265	1325	146	1314	66	990	26	650				
260	1300	144	1296	64	960	24	600				
255	1275	142	1278	62	930	22	550				
250	1250	140	1260	60	900	20	500				
245	1225	138	1242	58	870	18	450				
240	1200	136	1224	56	840	16	400				
235	1175	134	1206	54	810	14	350				
230	1150	132	1188	52	780	12	300				
225	1125	130	1170	50	750	10	250				
220	1100	128	1152	48	720	8	200				
215	1075	126	1134	46	690	6	150				
210	1050	124	1116	44	660						
205	1025	122	1098	42	630						
200	1000	120	1080	40	600						
195	975	118	1062	38	570						
190	950	116	1044	36	540						
185	925	114	1026	34	510						
180	900	112	1008	32	480						
175	875	110	990	30	450						
170	850	108	972	28	420						
165	825	106	954	26	390						
160	800	104	936	24	360						
155	775	102	918	22	330						
150	750	100	900	20	300						
145	725			18	270						
140	700			16	240						
135	675			14	210						
130	650			12	180						
125	625			10	150						
120	600										
115	575										
110	550										
105	525										
100	500										



TORQUE-ARM II Shaft Mount Speed Reducers

Renewal Parts For TA II Reducers

TORQUE-ARM II Bearing Kits (1)

Size	Ratio	Kit P/N	Size	Ratio	Kit P/N
TA0107L	5:1	**900128**	TA6307H	5:1	**906128**
TA0107L	9:1 - 40:1	**900129**	TA6307H	9:1 - 15:1	**906129**
TA1107H	5:1	**901128**	TA6307H	25:1 - 40:1	**906130**
TA1107H	9:1 - 15:1	**901129**	TA7315H	5:1	**907128**
TA1107H	25:1 - 40:1	**901130**	TA7315H	9:1 - 25:1	**907129**
TA2115H	5:1	**902128**	TA7315H	40:1	**907130**
TA2115H	9:1 - 25:1	**902129**	TA8407H	15:1 - 25:1	**908129**
TA2115H	40:1	**902130**	TA8407H	40:1	**908130**
TA3203H	5:1	**903128**	TA9415H	15:1 - 25:1	**909129**
TA3203H	9:1 - 25:1	**903129**	TA9415H	40:1	**909130**
TA3203H	40:1	**903130**	TA10507H	15:1 - 25:1	**910129**
TA4207H	5:1	**904128**	TA10507H	40:1	**910130**
TA4207H	9:1 - 25:1	**904129**	TA12608H	15:1 - 25:1	**912129**
TA4207H	40:1	**904130**	TA12608H	40:1	**912130**
TA5215H	5:1	**905128**			
TA5215H	9:1 - 15:1	**905129**			
TA5215H	25:1	**905130**			
TA5215H	40:1	**905131**			

(1) Kit contains complete set of bearings for reducer size and ratio indicated.

TORQUE-ARM II Seal Kits (2)

Size	Ratio	Kit P/N
TA0107L	All	**900126**
TA1107H	All	**901126**
TA2115H	5:1 - 25:1	**902126**
TA2115H	40:1	**902127**
TA3203H	5:1-25:1	**903126**
TA3203H	40:1	**903127**
TA4207H	All	**904126**
TA5215H	All	**905126**
TA6307H	All	**906126**
TA7315H	All	**907126**
TA8407H	All	**908126**
TA9415H	All	**909126**
TA10507	All	**910126**
TA12608	All	**912126**

(2) Kit includes input & output seals, backstop cover gasket and RTV sealant for reducer size and ratio indicated

TORQUE-ARM II Level 1 Rebuild Kits (3)

Size	Ratio	Kit P/N	Size	Ratio	Kit P/N
TA0107L	5:1	**900135**	TA6307H	5:1	**906135**
TA0107L	9:1 - 40:1	**900136**	TA6307H	9:1 - 15:1	**906136**
TA1107H	5:1	**901135**	TA6307H	25:1 - 40:1	**906137**
TA1107H	9:1 - 15:1	**901136**	TA7315H	5:1	**907135**
TA1107H	25:1 - 40:1	**901137**	TA7315H	9:1 - 25:1	**907136**
TA2115H	5:1	**902135**	TA7315H	40:1	**907137**
TA2115H	9:1 - 25:1	**902136**	TA8407H	15:1 - 25:1	**908136**
TA2115H	40:1	**902137**	TA8407H	40:1	**908137**
TA3203H	5:1	**903135**	TA9415H	15:1 - 25:1	**909136**
TA3203H	9:1 - 25:1	**903136**	TA9415H	40:1	**909137**
TA3203H	40:1	**903137**	TA10507H	15:1 - 25:1	**910136**
TA4207H	5:1	**904135**	TA10507H	40:1	**910137**
TA4207H	9:1 - 25:1	**904136**	TA12608H	15:1 - 25:1	**912136**
TA4207H	40:1	**904137**	TA12608H	40:1	**912137**
TA5215H	5:1	**905135**			
TA5215H	9:1 - 15:1	**905136**			
TA5215H	25:1	**905137**			
TA5215H	40:1	**905138**			

(3) Level 1 Rebuild Kit includes input & output seals, all bearings, shims and sealant for reducer size and ratio indicated. See Instruction Manual # MN1601 for gearing part numbers.

TORQUE-ARM II Super Shim Kits (4)

Size	Kit P/N
TA0107L	**900180**
TA1107H	**901180**
TA2115H	**902180**
TA3203H	**903180**
TA4207H	**904180**
TA5215H	**905180**
TA6307H	**906180**
TA7315H	**907180**
TA8407H	**908180**
TA9415H	**909180**
TA10507H	**910180**
TA12608H	**912180**

(4) Kit contains complete set of shims for reducer size. TA II shims are not color coded.

RENEWAL PARTS



TORQUE-ARM II Shaft Mount Speed Reducers

Renewal Parts For TA II Reducers

TORQUE-ARM II Lube Kits (5)

Size	Kit P/N
TA0107L	**LUBEKITTA0107**
TA1107H	**LUBEKITTA1107**
TA2115H	**LUBEKITTA2115**
TA3203H	**LUBEKITTA3203**
TA4207H	**LUBEKITTA4207**
TA5215H	**LUBEKITTA5215**
TA6307H	**LUBEKITTA6307**
TA7315H	**LUBEKITTA7315**
TA8407H	**LUBEKITTA8407**
TA9415H	**LUBEKITTA9415**
TA10507H	**LUBEKITTA10507**
TA12608H	**LUBEKITTA12608**

(5) Kit contains factory recommended mineral oil ISO220 in volumes sufficient for all recommended mounting positions.

TORQUE-ARM II Level 2 Rebuild Kits (6)

Size	Ratio	Kit P/N
TA0107L	5:1	**9001355**
	9:1	**9001369**
	15:1	**90013615**
	25:1	**90013625**
	40:1	**90013640**
TA1107H	5:1	**9011355**
	9:1	**9011369**
	15:1	**90113615**
	25:1	**90113725**
	40:1	**90113740**
TA2115H	5:1	**9021355**
	9:1	**9021369**
	15:1	**90213615**
	25:1	**90213625**
	40:1	**90213740**
TA3203H	5:1	**9031355**
	9:1	**9031369**
	15:1	**90313615**
	25:1	**90313625**
	40:1	**90313740**
TA4207H	5:1	**9041355**
	9:1	**9041369**
	15:1	**90413615**
	25:1	**90413625**
	40:1	**90413740**
TA5215H	5:1	**9051355**
	9:1	**9051369**
	15:1	**90513615**
	25:1	**90513725**
	40:1	**90513840**
TA6307H	5:1	**9061355**
	9:1	**9061369**
	15:1	**90613615**
	25:1	**90613725**
	40:1	**90613740**
TA7315H	5:1	**9071355**
	9:1	**9071369**
	15:1	**90713615**
	25:1	**90713625**
	40:1	**90713740**
TA8407H	15:1	**90813615**
	25:1	**90813625**
	40:1	**90814740**
TA9415H	15:1	**90913615**
	25:1	**90913625**
	40:1	**90913740**
TA10507H	15:1	**91013615**
	25:1	**91013625**
	40:1	**91013740**
TA12608H	15:1	**91213615**
	25:1	**91213625**
	40:1	**91213740**

(6) Level 2 Rebuild Kit includes all items in Level 1 Kit plus high speed input pinion and mating 1st stage gear. Provides maximum protection against downtime. Part number is Level 1 Kit part number + ratio.

TORQUE-ARM II Shaft Mount Speed Reducers



Table 1: NEMA Motor Information (1750 RPM)

Horsepower	NEMA Motor Frame	Shaft Diameter
1	143T	7/8
1-1/2	145T	7/8
2	145T	7/8
3	182T	1-1/8
5	184T	1-1/8
7-1/2	213T	1-3/8
10	215T	1-3/8
15	254T	1-5/8
20	256T	1-5/8
25	284T	1-7/8
30	286T	1-7/8
40	324T	2-1/8
50	326T	2-1/8
60	364T	2-3/8
75	365T	2-3/8
100	+405T	2-7/8
125	+444T	3-3/8
150	+445T	3-3/8
200	+447T	3-3/8

+ Energy Efficient (TEFC-XE) Frame

Table 2: TORQUE-ARM II Reducer Information

TA II Reducer	Ratio	Input Shaft Diameter	Minimum Sheave Diameter
TA0107L	All	1”	See Class I, II and III Selection Tables for minimum reducer sheave recommendations
TA1107H	All	1”	
TA2115H	5:1 - 25:1	1-1/8”	
	33:1	1”	
TA3203H	5:1 - 25:1	1-3/8”	
	32:1	1-1/8”	
TA4207H	All	1-7/16”	
TA5215H	All	1-5/8”	
TA6307H	All	2-3/16”	
TA7315H	All	2-7/16”	
TA8407H	All	2-7/16”	
TA9415H	All	2-7/16”	
TA10507H	All	2-11/16”	
TA12608H	All	2-11/16”	

Table 3: TORQUE-ARM II Backstop Lift-off Speed (1)

TA II Reducer	Minimum Input Shaft RPM
TA0107L	875
TA1107H	875
TA2115H	875
TA3203H	825
TA4207H	780
TA5215H	720
TA6307H	610
TA7315H	490
TA8407H	610
TA9415H	490
TA10507H	480
TA12608H	450

(1) For best results, select reducer ratios which exceed input shaft speeds required for backstop sprag lift-off.

ENGINEERING/TECHNICAL



TORQUE-ARM II Shaft Mount Speed Reducers

Maximum Input Speed - RPM

Case Size	Nominal Ratio				
	05	09	15	25	32/40
TA0107L	2080	1800	1791	2007	1750
TA1107H	2000	1798	1789	2005	1750
TA2115H	2080	1821	1874	2005	1750
TA3203H	1965	1847	1808	1996	1750
TA4207H	2000	1846	1800	2010	1955
TA5215H	2042	1837	1791	2000	1945
TA6307H	1978	1843	1854	1989	1916
TA7315H	2075	1943	1790	1987	1983
TA8407H	N/A	N/A	1814	1997	1983
TA9415H	N/A	N/A	1812	2035	1970
TA10507H	N/A	N/A	1811	2015	1984
TA12608H	N/A	N/A	1775	2002	1909

Maximum Output Speed - RPM

Case Size	Nominal Ratio				
	05	09	15	25	32/40
TA0107L	400	200	120	80	57
TA1107H	400	200	120	80	57
TA2115H	400	200	120	80	53
TA3203H	400	200	120	80	54
TA4207H	400	200	120	80	50
TA5215H	400	200	120	80	50
TA6307H	400	200	120	80	50
TA7315H	400	200	120	80	50
TA8407H	N/A	N/A	120	80	50
TA9415H	N/A	N/A	120	80	50
TA10507H	N/A	N/A	120	80	50
TA12608H	N/A	N/A	120	80	50

TORQUE-ARM II Shaft Mount Speed Reducers



Thrust Capacity for Screw Conveyor Drives (Pounds)

Case Size	Output Speed (RPM) Single Reduction Reducers (05:1)						
	100	150	200	250	300	350	400
TA0107L	2568	2288	2092	2000	1922	1855	1798
TA1107H	3106	2835	2626	2505	2396	2309	2232
TA2115H	5373	4771	4417	4186	4015	3885	3785
TA3203H	6000	5834	5387	5053	4783	4561	4386
TA4207H	6000	6000	6000	6000	6000	5776	5570
TA5215H	6000	6000	6000	6000	6000	6000	6000
TA6307H	6000	5803	5374	5202	4977	4807	4737
TA7315H	†	†	†	†	†	†	†

Thrust Capacity for Screw Conveyor Drives (Pounds)

Case Size	Output Speed (RPM) Double Reduction Reducers (09:1 thru 40:1)								
	10	25	50	75	100	125	150	175	200
TA0107L	5300	4028	3141	2730	2465	2281	2165	2071	1989
TA1107H	6000	4833	3705	3196	2865	2639	2568	2438	2315
TA2115H	6000	6000	6000	5323	4850	4550	4295	4086	3924
TA3203H	6000	6000	6000	6000	5761	5328	5020	4813	4636
TA4207H	6000	6000	6000	6000	6000	6000	6000	6000	6000
TA5215H	6000	6000	6000	6000	6000	6000	6000	6000	6000
TA6307H	6000	6000	6000	5885	5185	4706	4435	4303	4269
TA7315H	†	†	†	†	†	†	†	†	†

† Consult DODGE



TORQUE-ARM II Shaft Mount Speed Reducers

Lubrication Of TORQUE-ARM II Reducers

CAUTION: Unit is shipped without oil. Add proper amount of rust and oxidation inhibited (R & O) gear oil before operating. Follow instructions on reducer warning tags and in the instruction manual. Failure to observe these precautions could result in damage to, or destruction of, the equipment.

WARNING: To ensure that drive is not unexpectedly started, turn off and lock out or tag power source before proceeding. Remove all external loads from drive before removing or servicing drive or accessories. Failure to observe these precautions could result in bodily injury.

Lubrication is extremely important for satisfactory operation. The proper oil level as shown in Table 3 on page G1-134, showing oil level plug location, must be maintained at all times. Approximate oil quantities are shown in Table 4 on page G1-135. Frequent inspections with the unit not running and allowing sufficient time for the oil to cool and the entrapped air to settle out of the oil should be made by removing the level plug to see that the level is being maintained. If low, add the proper type and viscosity of lubricant through one of the upper openings until it comes out of the oil level hole. Replace the oil level plug securely. Refer to Tables 1 and 2 for viscosity recommendations.

After an initial operation of about two weeks, the oil should be changed. If desired, this oil may be filtered and reused. Very often, small metal particles will show up in the oil due to the wearing process. After the initial break in period, the lubricant should be drained, magnetic drain plug cleaned, gear case flushed and refilled every 2500 hours of operation under average industrial operating conditions.

CAUTION: Too much oil will cause overheating and too little will result in gear failure. Check oil level regularly.

More frequent oil changes are recommended when operating continuously or at high temperatures or under conditions of extreme dirt or dust. Use only recommended grades of lubricant listed on next page, or equivalent. Special attention should be given to checking of lubricants when any of the following conditions exist:

- High operating temperatures resulting from heavy intermittent loads causes the temperature of the gear case to rise rapidly and then cool
- Unusual ambient conditions, which may tend to cause condensation on the inside of the gearcase thereby contaminating the oil
- Operating temperatures that would cause oil to approach 200°F continually
- Subjection of reducer to unusual vapors or moist atmosphere
- Subjection of reducer to extremely dusty or dirty environment

Under these extreme operating conditions, the oil should be changed every 1 to 3 months depending on severity of conditions.

Operating Temperatures

Heating is a natural characteristic of enclosed gearing, and a maximum gear case temperature approaching 200°F is not uncommon for some units operating in normal ambient temperatures (80°F). When operating at rated capacity, no damage will result from this temperature as this was taken into consideration in the design of the gear case and in the selection of the lubricants.



TORQUE-ARM II Shaft Mount Speed Reducers

Lubrication Of TORQUE-ARM II Reducers (Cont'd)

Table 1 – Oil Recommendations

ISO Grades For Ambient Temperatures of 50°F to 125°F

Output RPM	Torque-Arm II Reducer Size											
	TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H	TA8407H	TA9415H	TA10507H	TA12608H
301 – 400	320	320	320	220	220	220	220	220	220	220	220	220
201 – 300	320	320	320	220	220	220	220	220	220	220	220	220
151 – 200	320	320	320	220	220	220	220	220	220	220	220	220
126 – 150	320	320	320	220	220	220	220	220	220	220	220	220
101 – 125	320	320	320	320	220	220	220	220	220	220	220	220
81 – 100	320	320	320	320	320	220	220	220	220	220	220	220
41 – 80	320	320	320	320	320	220	220	220	220	220	220	220
11 – 40	320	320	320	320	320	320	320	320	320	320	220	220
1 – 10	320	320	320	320	320	320	320	320	320	320	320	320

Table 2 – Oil Recommendations

ISO Grades For Ambient Temperatures of 15°F to 60°F

Output RPM	Torque-Arm II Reducer Size											
	TA0107L	TA1107H	TA2115H	TA3203H	TA4207H	TA5215H	TA6307H	TA7315H	TA8407H	TA9415H	TA10507H	TA12608H
301 – 400	220	220	220	150	150	150	150	150	150	150	150	150
201 – 300	220	220	220	150	150	150	150	150	150	150	150	150
151 – 200	220	220	220	150	150	150	150	150	150	150	150	150
126 – 150	220	220	220	150	150	150	150	150	150	150	150	150
101 – 125	220	220	220	220	150	150	150	150	150	150	150	150
81 – 100	220	220	220	220	220	150	150	150	150	150	150	150
41 – 80	220	220	220	220	220	150	150	150	150	150	150	150
11 – 40	220	220	220	220	220	220	220	220	220	220	150	150
1 – 10	220	220	220	220	220	220	220	220	220	220	220	220

NOTES:

1. Assumes auxiliary cooling where recommended in the catalog.
2. Pour point of lubricant selected should be at least 10°F lower than expected minimum ambient starting temperature.
3. Extreme pressure (EP) lubricates are not necessary for average operating conditions. When properly selected for specific applications, TORQUE-ARM II backstops are suitable for use with EP lubricants.
4. Special lubricants may be required for food and drug industry applications where contact with the product being manufactured may occur.

   Consult a lubrication manufacturer's representative for his recommendations.
5. For reducers operating in ambient temperatures between -22°F (-30°C) and 20°F (–6.6°C) use a synthetic hydrocarbon lubricant, 100 ISO grade or AGMA 3 grade (for example, Mobil SHC627). Above 125°F (51°C), consult DODGE Gear Application Engineering (864) 284-5700 for lubrication recommendation.
6. Mobil SHC630 Series oil is recommended for high ambient temperatures.

TORQUE-ARM II Shaft Mount Speed Reducers

Lubrication Of TORQUE-ARM II Reducers (Cont'd)

Lubricant Grade Equivalents*

ISO	AGMA
150	4
220	5
320	6

* See page G1-135 for complete lubricant interchange chart

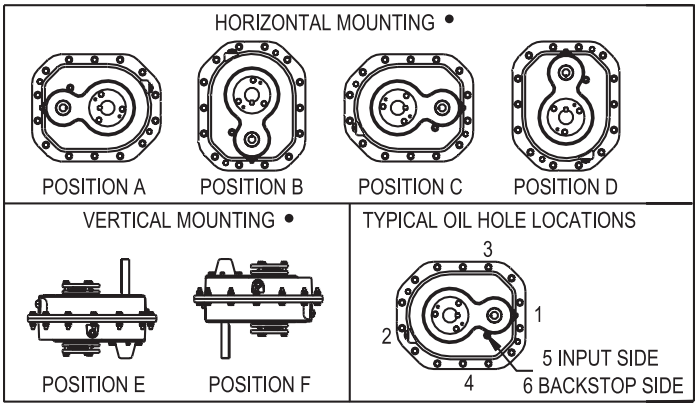
INSTALLATION

Horizontal Installations - Install the magnetic drain plug in the hole closest to the bottom of the reducer. Throw away the tape that covers the filter/ventilation plug in shipment and install plug in topmost hole. Of the 2 remaining plugs on the sides of the reducer, the lowest one is the minimum oil level plug.

Vertical Installations - Install the filter/ventilation plug in the hole provided in the upper face of the reducer housing as installed. If space is restricted on the upper face, install the vent in the highest hole on the side of the reducer per Figure 1. Install a plug in the hole in the bottom face of the reducer. Do not use this hole for the magnetic drain plug. Of the remaining holes on the sides of the reducer, use the plug in the upper housing half for the minimum oil level plug.

Mounting Position - The running position of the reducer in the horizontal application is not limited to the four positions shown in Figure 1. However, if the running position is over 20° off of position "B" or "D" or 5° off of position "A" or "C", either way from the sketches, the oil level plug cannot be used to safely check the oil level, unless during the checking, the torque arm is disconnected and the reducer is swung to within 20° for position "A" and "C" or 5° for position "B" and D" of the positions shown in Figure 1. Because of the many possible positions, of the reducer, it may be necessary or desirable to make special adaptations using the lubrication filling holes furnished along with other standard pipe fittings, stand pipes and oil level gauges as required.

Figure 1



• Below 15 RPM output speed, oil level must be adjusted to reach the highest oil level plug. If reducer position is to vary from those shown in Figure 1, either more or less oil may be required. Consult DODGE.



TORQUE-ARM II Shaft Mount Speed Reducers

Lubrication Of TORQUE-ARM II Reducers (Cont'd)

Table 3 - Vent and Plug Locations (See Figure 1, page G1-133)

Mounting Position	Output Speed Above 15 RPM						Output Speed 15 RPM and Below ●					
	Vent and Plug Locations						Vent and Plug Locations					
	1	2	3	4	5	6	1	2	3	4	5	6
Position A	Level	Plug	Drain	Vent	Plug	Plug	Plug	Level	Drain	Vent	Plug	Plug
Position B	Drain	Vent	Level	Plug	Plug	Plug	Drain	Vent	Plug	Level	Plug	Plug
Position C	Plug	Level	Vent	Drain	Plug	Plug	Level	Plug	Vent	Drain	Plug	Plug
Position D	Vent	Drain	Level	Plug	Plug	Plug	Vent	Drain	Level	Plug	Plug	Plug
Position E	Level	* Plug	Plug	Drain	Vent	Plug	Level	* Plug	Plug	Drain	Vent	Plug
Position F	Plug	Drain	Level	* Plug	Plug	Vent	Plug	Drain	Level	* Plug	Plug	Vent

* Where space constraints prevent installing the breather in vent locations 5 or 6, install vent in this location and order a vertical breather kit

● Below 15 RPM output speed, oil level must be adjusted to reach the highest oil level plug. If reducer position is to vary from those shown in Figure 1, either more or less oil may be required. Consult DODGE.

RECOMMENDED LUBRICANTS FOR TORQUE-ARM II REDUCERS +				
	Standard Oils		EP Oils	
EXXON				
150	Teresstic	150	Spartan EP	150
220		220		220
320		320		320
CHEVRON				
150	Machine	150	Gear Compound	150
220		220	EP	220
320		320		320
UNICAL				
150	Turbine Oil	150	Extra Duty HL	141
220		220	Gear Lube	207
320		320		300
MOBIL SYNTHETIC				
150	SHC	629	SHC	629
220	SHC	630	SHC	630
320	SHC	632	SHC	632
MOBIL				
150	Mobil DTE	BB	Mobil Gear	629
220	Extra Heavy	AA		630
320				632
TEXACO				
150	Regal Oil R&O	150	Meropa	150
220		220		220
320		320		320
SHELL				
150	Morlina Oil	150	Omala	150
220		220		220
320		320		320

+ Partial list. Consult DODGE or a lubricant manufacturer for further options



TORQUE-ARM II Shaft Mount Speed Reducers

Lubrication Of TORQUE-ARM II Reducers (Cont'd)

Table 4 - Oil Volumes

Case Size	Ratios	Oil Volume in Quarts † ■ ▲ ●						Oil Volume in Liters † ■ ▲ ●					
		Horizontal				Vertical		Horizontal				Vertical	
		A	B	C	D	E (Up)	F (Down)	A	B	C	D	E (Up)	F (Down)
TA0107L	Single	0.7	0.5	0.7	1.4	1.3	1.5	0.6	0.5	0.6	1.3	1.2	1.4
	Doubles	0.7	0.5	0.6	1.3	1.2	1.4	0.6	0.5	0.6	1.3	1.2	1.3
TA1107H	Single	1.3	0.7	0.7	1.7	1.5	1.9	1.3	0.7	0.6	1.6	1.4	1.8
	Doubles	1.3	0.7	0.6	1.7	1.5	1.9	1.3	0.7	0.6	1.6	1.4	1.8
TA2115H	Single	2.1	1.2	1.1	2.7	2.3	3.1	2.0	1.2	1.0	2.5	2.2	2.9
	Doubles	2.1	1.1	1.0	2.6	2.4	3.0	2.0	1.1	1.0	2.5	2.3	2.8
TA3203H	Single	2.8	1.6	1.8	4.1	3.3	4.4	2.7	1.6	1.7	3.9	3.1	4.2
	Doubles	2.8	1.5	1.7	4.0	3.4	4.2	2.7	1.4	1.6	3.8	3.3	4.0
TA4207H	Single	4.4	2.6	2.9	7.4	6.3	7.8	4.2	2.5	2.8	7.0	6.0	7.3
	Doubles	4.4	2.5	2.8	7.3	6.4	7.5	4.2	2.4	2.6	6.9	6.0	7.1
TA5215H	Single	7.4	4.9	5.8	13.2	11.6	13.1	7.0	4.7	5.5	12.5	11.0	12.4
	Doubles	7.4	4.7	5.5	12.9	11.4	12.6	7.0	4.4	5.2	12.2	10.8	11.9
TA6307H	Single	8.8	5.8	6.6	16.1	13.2	16.1	8.4	5.5	6.2	15.3	12.5	15.3
	Doubles	8.8	5.5	6.2	15.8	13.9	15.3	8.4	5.2	5.9	15.0	13.1	14.5
TA7315H	Single	8.4	11.8	13.9	22.5	22.1	25.1	8.0	11.1	13.2	21.3	20.9	23.7
	Doubles	8.4	10.8	13.2	22.0	22.4	23.1	8.0	10.3	12.5	20.9	21.2	21.8
TA8407H	Doubles	7.7	11.7	13.7	25.1	24.0	25.8	7.3	11.1	12.9	23.8	22.7	24.4
TA9415H	Doubles	17.0	16.8	18.1	33.2	33.2	38.6	16.1	15.9	17.1	31.4	31.4	36.5
TA10507H	Doubles	38.0	27.6	25.8	53.5	53.8	56.1	36.0	26.1	24.4	50.6	50.9	53.0
TA12608H	Doubles	53.0	41.5	37.1	70.7	72.2	80.4	50.2	39.3	35.1	66.9	68.3	76.1

■ Oil quantity is approximate. Service with lubricant until oil runs out of oil level hole

† Refer to Figure 1 for mounting positions

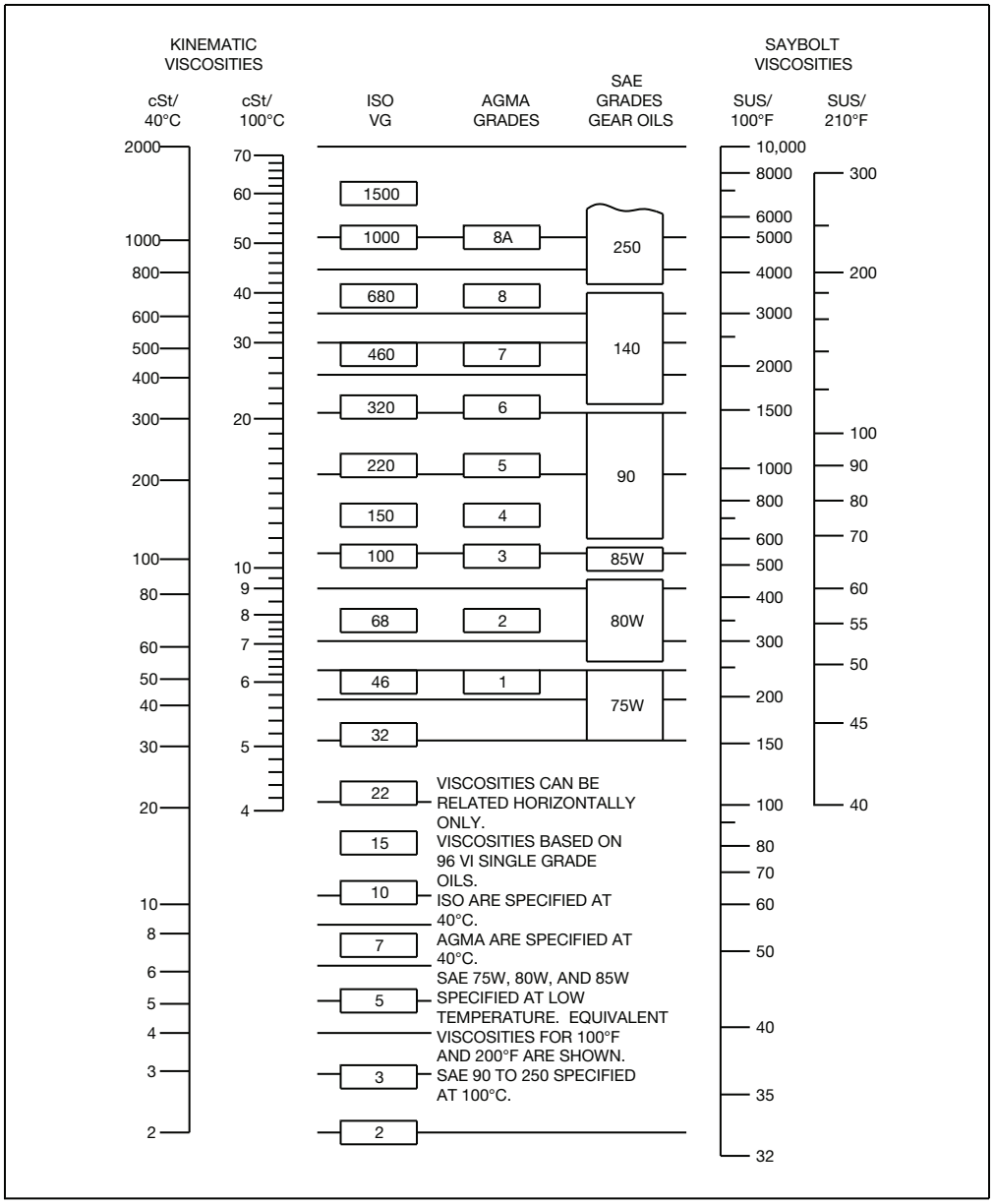
▲ US measure: 1 quart = 32 fluid ounces =.94646 liters

● Below 15 RPM output speed, oil level must be adjusted to reach the highest oil level plug. If reducer position is to vary from those shown in Figure 1, either more or less oil may be required. Consult DODGE.

TORQUE-ARM II Shaft Mount Speed Reducers

Viscosity Classification Equivalents

OIL VISCOSITY EQUIVALENCY CHART



ISO VISCOSITY CLASSIFICATION SYSTEM

All industrial oils are graded according to the ISO Viscosity Classification System, approved by the International Standards Organizations (ISO). Each ISO viscosity grade number corresponds to the mid-point of viscosity range expressed in centistokes (cSt) at 40C. For example, a lubricant with an ISO grade of 32 has a viscosity within the range of 28.80-35.2, the midpoint of which is 32.

Rule-of-Thumb: The comparable ISO grade of a competitive product whose viscosity in SUS at 1005F is known can be determined by using the following conversion formula:

SUS @ 100ºF ÷ 5 = cSt @ 40°C

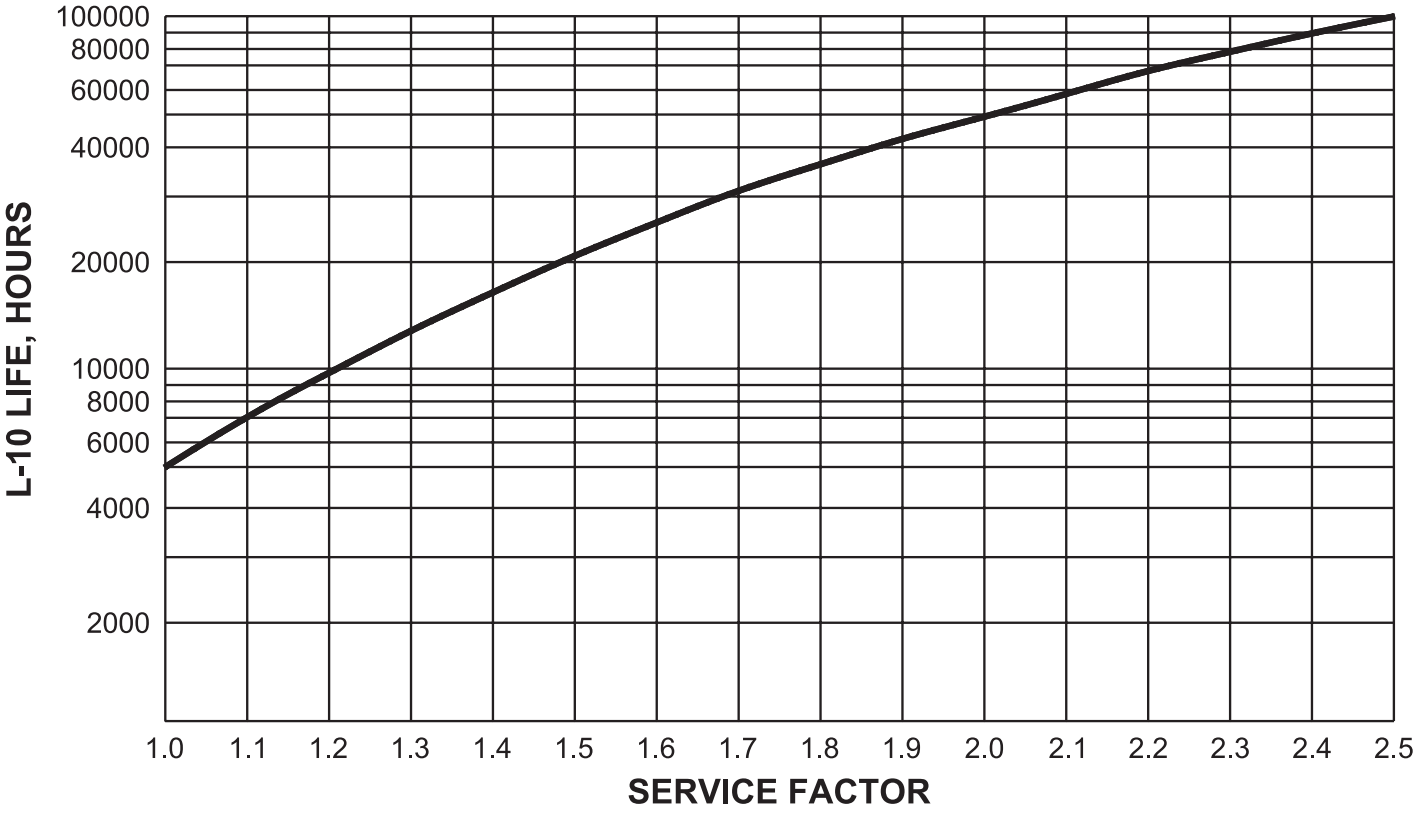
TORQUE-ARM II Shaft Mount Speed Reducers

Bearing L-10 Life As A Function Of Service Factor - AGMA Standard 6009-A00

DODGE TORQUE-ARM II Reducers are designed to provide a minimum L-10 bearing life of 5,000 hours for the most severe operating conditions. Since the probability of all maximum load conditions occurring in an application is remote, the actual L-10 life of an application is much greater.

Remember, the L-50 average life would be approximately 25,000 hours.

The graph illustrates how bearing life varies with different service factors. For example, a DODGE TORQUE-ARM II TA3203H Reducer with a 2.0 service factor has over 50,000 hours L-10 life.



1.0 Service Factor = 5,000 hours L-10 bearing life, 25,000 L-50 hours
1.4 Service Factor = 15,300 hours L-10 bearing life, 76,500 L-50 hours
2.0 Service Factor = 50,300 hours L-10 bearing life, 251,500 L-50 hours

NOTE: Average bearing life (L-50) is typically 5 times L-10 bearing life

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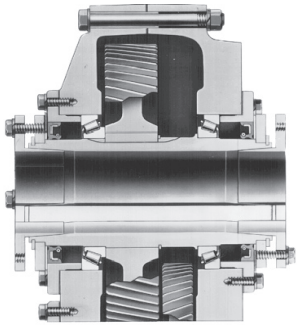
FEATURES/BENEFITS

TORQUE-ARM Shaft Mount Speed Reducers

DODGE TORQUE-ARM TWIN TAPERED BUSHINGS MAKE DODGE TORQUE-ARM THE LEADER

DODGE Twin Tapered Bushings have provided customers almost forty years of reliable and proven service. This exclusive feature revolutionized the shaft mount reducer concept and insured that TORQUE-ARM Speed Reducers would not seize to the customer's driven shaft. Another first from DODGE, the supplier of industry preferred quality speed reducers.

TORQUE-ARM Speed Reducers provide positive, easy-on, easy-off mounting for all reducer sizes from fractional to 700 HP. A tapered bore in both sides of the reducer's output hub snugs up against a matching taper on the outer surface of the bushing . . . "Twin Tapered".



Bushing mounting screws pass through the bushing flange into a mounting collar on the hub. As the screws are tightened, the bushing moves inward, gripping the driven machine's input shaft tightly and evenly around every point on its circumference.

You can now realize significant cost savings with the TXT TORQUE-ARM Speed Reducer.

And here is how:

- TXT reducers now have increased horsepower ratings which may allow you to use a smaller TORQUE-ARM reducer, while receiving the same torque at the output shaft.
- The reducer mounts directly on the driven shaft, eliminating the need for a coupling or chain drive, sliding motor base, and support structure. There's no alignment problem.

- **TXT reducers incorporate standard DODGE features**
  - Ratios up to 210:1.
  - Capacities fractional to 700 HP
  - Output speeds through 400 rpm.
  - Trouble-free maintenance.
  - Up-front installation savings.
  - Quality proven design.
  - Easier, more accurate drive alignment.

- **Rugged, cast-iron housing.** Cast, corrosion-resistant gray and ductile iron housings are precision machined for positive gear alignment. Rugged housing construction provides strong, rigid support for bearings and gearing. Additionally, internal rib design helps channel oil to all bearings for superior lubrication.
- **Efficient helical gear tooth design** produces an efficiency rating of 98.5% per gear set. Gear teeth feature a softer core to resist shock loads, combined with a case carburized surface for maximum wear resistance. Precision crown shaving produces an elliptoid tooth shape, so that teeth mesh at the stronger center area eliminating end loading. The result: uniform load distribution with no tooth-end wear.
- **Lip seals.** Metal cased lip seals keep lubricating oil in, lock dirt and contaminants out. The cavity between the inner and outer lips is filled with grease at assembly to pre lubricate the seal. A garter spring exerts a constant, gentle pressure at every point around the circumference of the shaft to insure a positive seal. All seals ride on precision ground surfaces for maximum life.
- **Dependable performance.** All DODGE TORQUE-ARM speed reducers are 100% factory noise and leak tested to assure long life and trouble-free service.
- **DODGE has a TORQUE-ARM** reducer for every application.

And all this adds up to more savings for you! The TXT reducer-the best package available to meet tough industrial requirements.

It's easy to see why DODGE TORQUE-ARM is America's #1 Shaft Mounted Speed Reducer.

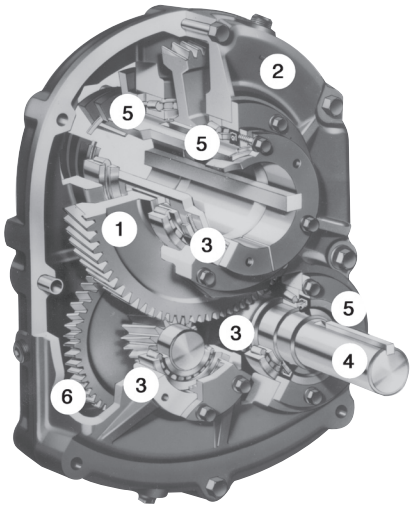


FEATURES/BENEFITS

TORQUE-ARM Shaft Mount Speed Reducers

DODGE TORQUE-ARM

THE COMPLETE SHAFT MOUNT SPEED REDUCER SYSTEM



DODGE TORQUE-ARM IS AMERICA'S LEADING SHAFT-MOUNT REDUCER BECAUSE:

- Experience-over 2,000,000 sold.
- Delivery-nearly 5,000 reducers and 20,000 accessories in stock.
- Quality-warranties of less than 1/2% of sales.
- Customer Preferred-over 60 years of proven experience.
- Twin Tapered Bushings-reliable installation and removal.
- Performance Capability-applications through 700 HP.
- Product Configurations-TORQUE-ARM, Screw Conveyor and HYDROIL.
- Accessory Package-motor mount, backstop, bushings and auxiliary seals.

PRECISION HIGH QUALITY GEARING
- Computer Designed Helical Gears
- 98.5% Efficiency Per Gear Stage
- Case Carburized for Long Life
- Strong Alloy Materials for High Load Capacity
- Crown Shaved Gear Tooth Profile for Even Load Distribution
- Smooth Quiet Operation with Several Teeth in Mesh

1. • Designed in Conformance with AGMA

MAXIMUM CAPACITY HOUSING DESIGN
- Rugged Cast Iron and Ductile Iron
- Rigid Bearing Support and Positive Gear Alignment
- High Corrosion Resistance

2. • Excellent Vibration Dampening & Shock Resistance Features

RELIABLE ANTI-FRICTION BEARINGS
- Anti-friction Bearing Manufacturers Association Bearing Ratings
- Combination Ball & Tapered Roller Designs
- Straddle Mounted Gears for Optimum Support

3. • High Thrust Capacity Screw Conveyor Drive Bearings

STRONG SHAFTS FOR SUPPORT
- Precision-Machined & Hardened for Maximum Load
- High Alloy Steel for Maximum Torsional Loads
- Generous Size Shaft Keys for Shock Loading

4. • Press or Heat-Shrunk Design for Total Reliability

PROVEN SEALS KEEP OIL IN AND CONTAMINANTS OUT
- Lip Spring-Loaded Construction
- Metal Reinforcement for Strength
- Broad Operating Range of -20°F to 225°F
- 100% Factory-Tested Before Shipment
- Smooth Ground Shaft Surfaces for Maximum Life

5. • Seal Kits Available for All Reducer Sizes

EFFICIENT SPLASH LUBRICATION SYSTEM
- Generous Oil Sump for Lubricating All Gears & Bearings
- Standard Gear Petroleum Lubricants Are Suitable
- Multiple Oil Plugs for Total Mounting Flexibility
- New Breather With Baffle And Filter

6. • Magnetic Drain Plug for Protection

DODGE has been the leader as a shaft mounted reducer manufacturer for over 60 years. Since our start in 1949, we have developed thousands of satisfied customers. The TORQUE-ARM success is due to initial design and rating conservatism and a rigid quality control program. We have recently tabulated the quantity of reducers sold. This has resulted in the kind of quality and dependability that's proven by one of the lowest percentage replacement rates in the industry-and that's with more than 2.0 million units sold. Design features built into every shaft mounted TORQUE-ARM reducer are presented in this bulletin. Remember, a speed reducer is a complete system of balanced, high quality components.

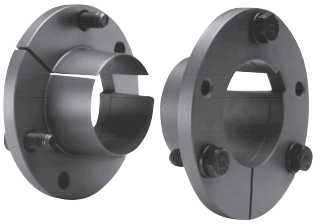
Our success as a manufacturer begins with our design features and extends to our rigid quality program which provides the highest quality and dependability that customers have grown to expect from DODGE. The TORQUE-ARM shaft mounted reducer line, consisting of many sizes and types and with capacities from fractional through 700 HP, is available from our factory warehouse stock, branch warehouse stocks, and authorized distributors located throughout the United States. No other manufacturer in the world can claim this type of coverage and back-up assistance for their products and customer.

FEATURES/BENEFITS

TORQUE-ARM Shaft Mount Speed Reducers

DODGE TORQUE-ARM ACCESSORIES

TAPERED BUSHING ASSEMBLIES



Securely mounts Taper Bushed Reducer to driven shaft

Features	Benefits
• Twin Bushings	• Reliably supports both sides of reducer.
• Full Length Shaft Key	• Maximum torque & shock load capability.
• Flanged Bushing Mount	• Fast & simple installation.
• Removal Screws	• Reliable demount of reducer.
• Fully Split Bushings	• Eliminates fretting & seizing problems.
• Ductile Iron	• Strong, shock resistant bushings.
• No Setscrews	• Eliminates driven shaft damage.
• Clamp Fit	• Reduces wobble & fits undersized shafts.

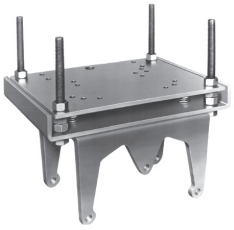
STRAIGHT BORE BUSHING ASSEMBLIES



Accommodate less than maximum bore straight bore reducer applications

Features	Benefits
• Steel or Ductile Iron	• High load capacity.
• Two Bushings	• Locking setscrews on both sides of reducer.
• Mount in Reducer Bore	• Suitable for shorter driven shafts.
• Original Design	• Equivalent to most competitive reducers.

MOTOR MOUNTS



Provide a compact and economical method of mounting electric motors on TORQUE-ARM Reducers

Features	Benefits
• All-Steel Construction	• Rigid motor support.
• Compactness	• Eliminates separate motor bases.
• Adjustable Top Plate	• Fast & easy belt tensioning.
• Pre-Drilled	• Accommodates standard NEMA Motors.
• Economical	• Low cost & eliminates alignment problems.
• Flexible Mounting	• Pre-drilled for belt guard attachment.
• Interchangeability	• Also fits screw conveyor drives.

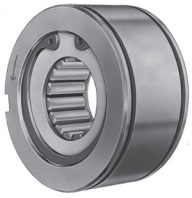
AUXILIARY SEAL KITS



Provide extra sealing on Taper Bushed Reducers

Features	Benefits
• Labyrinth Seals	• Protection from dust, dirt, & moisture.
• Economical	• Low cost reducer protection.
• Simple Installation	• Can be grease purged for protection.
• Lubrication Fittings	• Filtered air breather included.
• Air Breather	

BACKSTOPS



Prevents reverse of shaft direction

Features	Benefits
• Quick Installation	• Fits input shaft of all TORQUE-ARM Reducers
• Internally Mounted	• Sealed inside reducer for protection.
• Oil Lubricated	• No external relubrication required.
• Long Life	• Case hardened, shock resistant sprags.
• Keyed to Reducer	• High load capacity.
• Reversible	• Suitable for either direction of rotation.

TORQUE-ARM BELT GUARDS



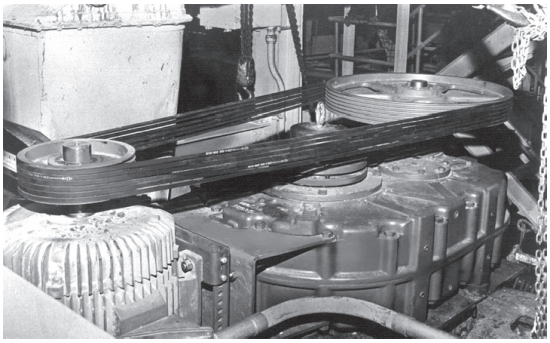
Enclose and Protect Belt Drive

Features	Benefits
• Slotted Metal Panel Construction	• Light weight, ventilated
• Yellow Paint	• Meets safety requirements
• Mounting Hardware	• Quick easy assembly
• Assembles to Reducer and Motor Mount Holes	• No machining needed
• Flexibility	• One size fits most common sheave diameters

TORQUE-ARM Shaft Mount Speed Reducers

APPLICATION FLEXIBILITY
Typical DODGE TORQUE-ARM Reducer Installations

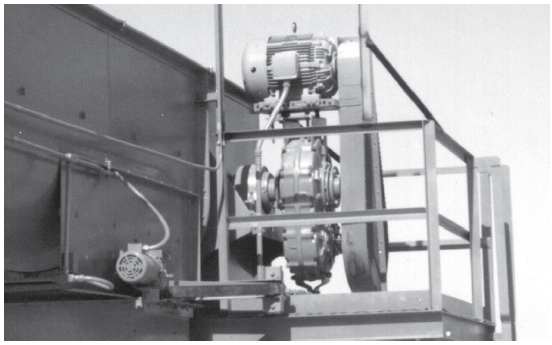
VERTICAL SHAFT APPLICATION
DODGE TORQUE-ARM TWIN TAPERED BUSHED VERTICAL SPEED REDUCER



TDT1530T

Application: 200 HP, Class III Service on vertical shaft mixer application. This TDT 1530 Vertical Tapered Bushed Speed Reducer with shock absorbing DYNA-V Belt Drive package replaced an expensive, hard-to-replace, open gear drive system. TORQUE-ARM reducers can mount in many positions, such as vertical shaft applications simply by repositioning the breather and drain plug for lubrication purposes. Another standard feature of compact and highly efficient TORQUE-ARM reducers.

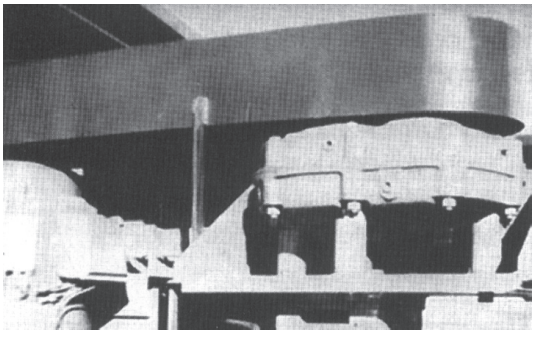
HORIZONTAL SHAFT APPLICATION
STANDARD DODGE TORQUE-ARM TWIN TAPERED BUSHED SPEED REDUCER



TXT725T X 3-15/16”

Application: 40 HP drive, Class II service, on main conveyor drive. Standard Tapered Bushed TXT 725 x 3-15/ 16” Speed Reducer package offers long life and dependability. Other user benefits on this horizontal shaft application include compactness, off-the-shelf components, flexible motor mount arrangement, and reliable easy-on, easy-off Tapered Bushings. The lowest cost installed system for moving bulk materials.

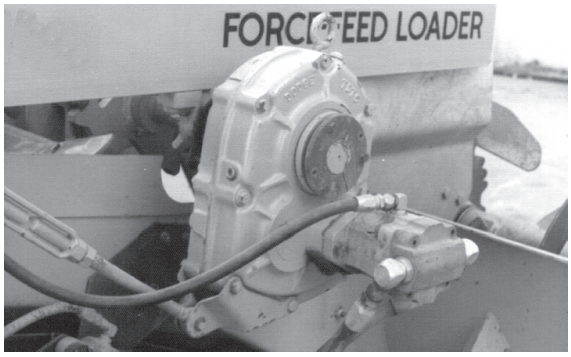
FLANGE MOUNTED APPLICATION
DODGE TORQUE-ARM FLANGE MOUNTED VERTICAL TWIN TAPER BUSHED SPEED REDUCER



TXT625T

Application: 15 HP, Class II Service, on Vertical Agitator Shaft in cement mixing system. This rugged reducer is rigidly mounted via the flange mounting pads which are standard on all TORQUE-ARM reducers. This no-charge, flange drilling option allows the reducer to support the agitator shaft and any thrust loads imposed. Flange mounted reducers do not require TORQUE-ARM rod assemblies.

HYDRAULIC REDUCER APPLICATION
DODGE HYDROIL TORQUE-ARM TWIN TAPER BUSHED SPEED REDUCER



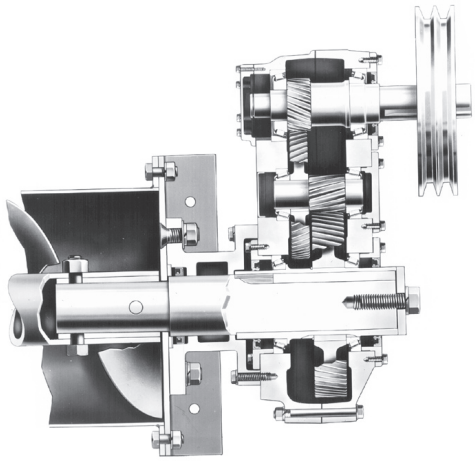
HXT525T WITH B30 MOTOR

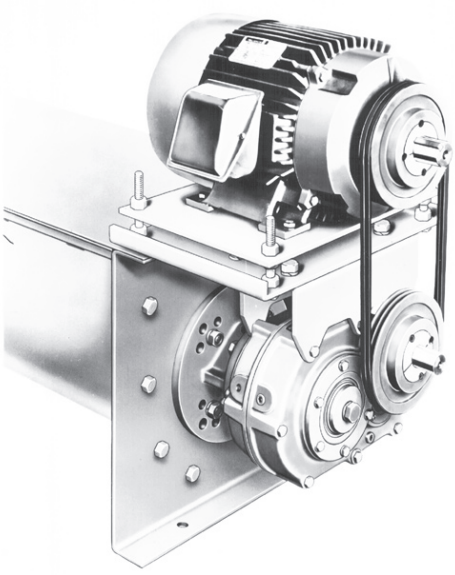
Application: Variable speed DODGE HYDROIL speed reducer with hydraulic power is another example of TORQUE-ARM reducer flexibility. This version powers a rugged, mobile brand of road construction equipment. Simply regulating the pressure and volume of fluid to the motor provides variable speed, variable torque, and even direction of rotation change.

FEATURES/BENEFITS

TORQUE-ARM Shaft Mount Speed Reducers

DODGE SCREW CONVEYOR DRIVES INDUSTRY WIDE APPLICATION





DODGE quality designed with the Screw Conveyor Industry in mind

The dependable DODGE Screw Conveyor Drives provide a rugged, competitively priced, application-engineered drive for standard CEMA screw conveyors. And the screw conveyor drive incorporates the proven reliability you have come to expect from the DODGE TORQUE-ARM reducer line.

Tapered roller bearings within the drive eliminate the need for an external thrust bearing. The bearings take thrust from the screw conveyor and make external thrust bearings unnecessary.

DODGE Screw Conveyor Drives are available in 5:1, 9:1, 15:1 and 25:1 ratios and the durable drives include:

- A compact design reducer with increased torque ratings.
- The CEMA standard drive shaft.
- A standard trough end mounting adapter with CEMA four-bolt mounting.
- Standard adapter for use with choice of lip, braided or waste pack seals.
- Optional adjustable packing adapter kit.

The DODGE complete, rugged, highly developed, screw conveyor drive mounts on the trough end of your screw conveyor. Tapered roller bearings in the reducer take the thrust from the screw conveyor. This eliminates the external thrust bearing commonly required. The drives may be mounted in any position on horizontal, inclined, or vertical shafts by relocating breather and drain plugs. For complete drive between trough and motor, specify the screw conveyor drive and the following accessories: trough end plate and motor mount.

Where V-belt drives or electric motors cannot be used, DODGE offers a screw conveyor drive powered by a hydraulic motor.

Note: Guards have been removed for photographic purposes

Typical Industry Applications

Food	Agriculture
Grain	Soaps
Aggregates	Lumber
Chemicals	Stone
Minerals	Clay
Coal	Glass
	. . . and many more

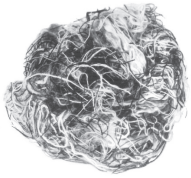
FEATURES/BENEFITS

TORQUE-ARM Shaft Mount Speed Reducers

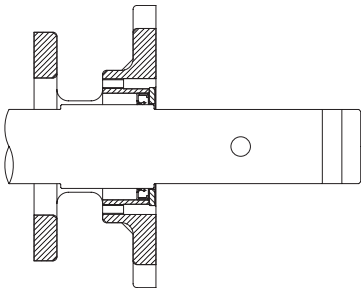
DODGE SCREW CONVEYOR DRIVES
Two alternative seals in CEMA Standard Adapter



Lip Seals.
They're pre-lubricated for protection from dust and dirt during installation and are excellent for conveying semi-solids. Metallic parts are partially coated with synthetic rubber for added protection from corrosion.

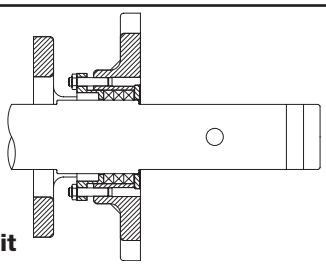


Waste Packing.
(Not supplied by DODGE)
This can be inserted in a special cavity in the adapter for added protection while operating under abrasive conditions.



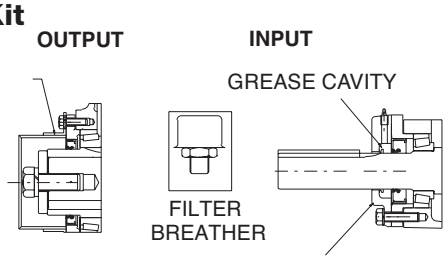
Standard CEMA Adapter

Adjustable Packing Kit
The adjustable packing kit is used with the standard CEMA adapter to allow repacking the adapter without removing it from the trough end. The adjustable packing kit is a proven sealing option for hostile environments, such as cement dust. Packing can be retightened.



Standard CEMA Adapter with Adjustable Packing Kit

Auxiliary Seal Kit

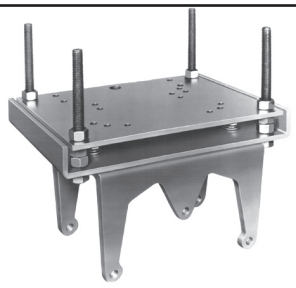


Auxiliary Seal Kits for DODGE Screw Conveyor Drives are available for SCXT Sizes 1-7 Speed Reducers. Each kit contains an input shaft auxiliary seal with cover, output shaft end cap and a filter air breather.

Belt Guard
A slotted metal panel style belt guard with mounting straps for SCXT Reducers will fit standard M series motor mounts. The belt guards are designed to fit most common sheave diameters. They mount easily with no machining required.



Motor mounts need no drilling.
Rugged, all-steel DODGE motor mounts bolt directly to the screw conveyor drive reducer. They're available in fourteen sizes, which easily fit NEMA motor frames. Since the four adjusting bolts allow easy belt tensioning, it's less time-consuming and you save on installation costs immediately.



CEMA drive shafts offer easy installation and maintenance.
This means increased production, less down-time and substantial cost savings. You can save even more because of convenience and interchangeability. Different diameter drive shafts are interchangeable within each drive, and there's a wide range of diameters from 1-1/2 to 3-7/16 inches to choose from. Stainless steel and three-hole CEMA drive shafts are available on request.



FEATURES/BENEFITS

TORQUE-ARM Shaft Mount Speed Reducers

DODGE HYDROIL™ DRIVES

Hydraulically Powered TORQUE-ARM Speed Reducers with Infinitely Adjustable Speed and Torque

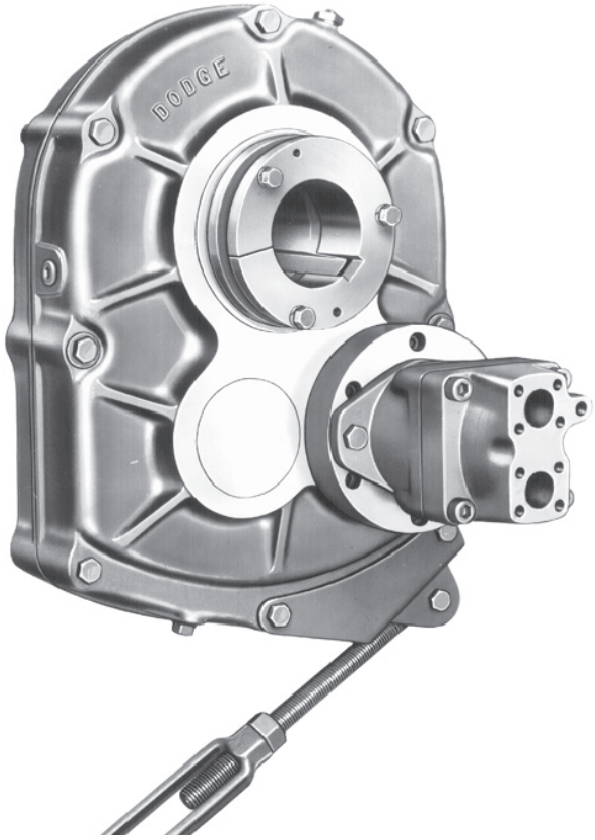
This is a modified version of the famous TORQUE-ARM speed reducer with the same quality features and ease of installation.

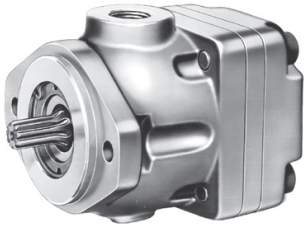
A Hydraulic motor powers the HYDROIL reducer, greatly expanding its scope of application and versatility. It has proven to be popular for locations remote from the prime mover where shafts or belt and chain drives are impractical or where electric motors are not available. Exceptional flexibility is provided in the control of the driven machine by simply regulating the pressure and volume of fluid fed to the HYDROIL motor.

Users can provide flexible control of the HYDROIL drive by selecting proper auxiliary equipment. Output speeds of the reducer are infinitely adjustable through the use of regulating valves in the hydraulic circuit. Both speed and torque can be adjusted to meet the requirements of the driven machine which can be inched or jogged. The direction of rotation is reversible.

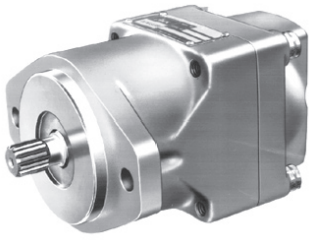
Where V-belt drives or electric motors cannot be used, DODGE offers a screw conveyor drive powered by a hydraulic motor.

Hydroil Vane Motors are a superior single stage vane type fluid motor. A series of internal ports admit oil to and carry it from the power element. Complete hydraulic balance of the assembly contributes to the mechanical efficiency and long life of these motors as well as to their unusually quiet operation. Other exclusive features assure a minimum of friction and efficient valving action regardless of operating speeds.





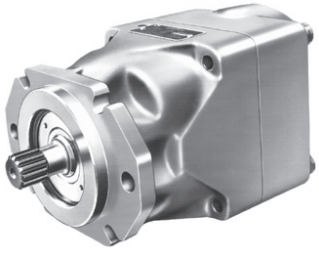
HYDROIL Vane Motors A10 and A20



HYDROIL Vane Motors B30



HYDROIL Vane Motors B40



HYDROIL Vane Motors B50



SPECIFICATIONS

TORQUE-ARM Shaft Mount Speed Reducers

General Specifications

TORQUE-ARM Speed Reducers:

The speed reducer shall be a belt driven enclosed shaft mount type unit with a single or double reduction ratio. The reducer shall mount directly on the driven shaft and utilize an adjustable torque arm that attaches from the gear case to the support structure or foundation. Optional all steel motor mount adjusts to various belt center distances and supports the motor.

The reducer housing shall be constructed of two-piece corrosion resistant, class 30 gray iron. All housings shall be doweled and precision machined to assure accurate alignment for all gear sets.

All gearing shall be of helical design, case carburized and precision finished to insure a high surface durability with a resilient tooth core for impact resistance and optimum service life. Gears shall be supported between bearings to maintain proper alignment of gear meshes, to maximize load carrying capabilities, and to eliminate overhung loads imposed on bearings. Design meets or exceeds AGMA standards.

Reducer bearings shall be of the ball or tapered roller type, and provide a 25,000 hour minimum average life, 5,000 L-10 AGMA Class I standard.

All seals shall be of the lip, spring loaded type, made of nitrile rubber or HNBR.

Reducer installation shall be accomplished by using ductile iron, fully split, two bushing system. Reducer removal shall be accomplished by providing jack screw holes in the bushing flanges to mechanically remove the tapered assembly.

Screw Conveyor Drives:

The drive shall be a belt driven enclosed, adapter mounted unit with a single or double reduction ratio. The drive shall consist of a standard speed reducer; a cast iron, bolt on, four bolt mounting adapter with double lip seals on both ends, an optional bolt on adjustable packing kit, and a drive shaft machined from a high quality alloy steel. The drive shall conform to Conveyor Equipment Manufacturers Association (CEMA) standards. Optional all steel motor mount adjusts to various belt center distances and supports the motor.

The reducer housing shall be constructed of two-piece corrosion resistant, class 30 gray iron. All housings shall be doweled and precision machined to assure accurate alignment of all gear sets.

All gearing shall be of helical design, case carburized and precision finished to insure a high surface durability with a resilient tooth core for impact resistance and optimum service life. Gears shall be supported between bearings to maintain roper alignment of gear meshes, to maximize load carrying capabilities, and to eliminate overhung loads imposed on bearings. Design meets or exceeds AGMA standards.

Reducer output bearings shall be of the tapered roller type, to absorb thrust loads from the screw conveyor. All bearings shall provide 25,000 hour minimum average life, 5,000 L-10 AGMA Class I standard.

All seals shall be of the lip, spring loaded type, made of nitrile rubber or HNBR.

HYDROIL Drives:

The speed reducer shall be a hydraulically powered enclosed shaft mount type unit with a single or double reduction ratio. The reducer shall mount directly on the driven shaft and utilize an adjustable torque arm that attaches from the gear case to the support structure or foundation.

The reducer shall be powered using a Hydroil single stage vane type fluid motor. The reducer shall be provided with a cast iron SAE mounting flange adaptor and splined input shaft to allow an integral fit with the splined hydraulic motor shaft.

The reducer housing shall be constructed of two-piece corrosion resistant, class 30 gray iron. All housings shall be doweled and precision machined to assure accurate alignment for all gear sets.

All gearing shall be of helical design, case carburized and recision finished to insure a high surface durability with a resilient tooth core for impact resistance and optimum service life. Gears shall be supported between bearings to maintain proper alignment of gear meshes, to maximize load carrying capabilities, and to eliminate overhung loads imposed on bearings. Design meets or exceeds AGMA standards.

Reducer bearings shall be of the ball or tapered roller type and provide a 25,000 hour minimum average life, 5,000 L-10 AGMA Class I standard.

All seals shall be of the lip, spring loaded type, made of nitrile rubber or HNBR.

Reducer installation shall be accomplished by using ductile iron, fully split, two bushing system. Reducer removal shall be accomplished by providing jack screw holes in the bushing flanges to mechanically remove the tapered assembly.

NOMENCLATURE

TORQUE-ARM Shaft Mount Speed Reducers

NOMENCLATURE: TORQUE-ARM REDUCERS

XXXX - X XX - x - X - XXXXX

Configuration
- TXT Standard TORQUE-ARM Reducer, 1 - 12
- TDT Large TORQUE-ARM Reducer, 13 - 15
- HXT HYDROIL TORQUE-ARM Reducer, 1 - 7

Gear Case Size

1 thru 12	TXT
13 thru 15	TDT
1 thru 7	HXT

Ratio *

5:1	Single Reduction
9, 15, 25:1	Double Reduction

Bushing Bore Size

1" - 10"	TDT Twin Tapered Bushing Assembly
1" - 5-7/16"	TAXD Straight Bore Bushing Assembly

Type of Reducer/Bushing

T	Twin Taper Bushed Reducer
S	Straight Bore Reducer

NOMENCLATURE EXAMPLE: TORQUE-ARM REDUCERS

TXT - 6 - 25 - T - x - 3-7/16"
- Standard TORQUE-ARM Shaft Mount Reducer
- Case Size 6
- 25:1 Ratio, Double Reduction
- Twin Taper Bushed Reducer
- Twin Tapered Bushing Assembly with bore to fit 3-7/16" diameter driven shaft

TXT - 2 - 05 - S - x - 1-15/16"
- Standard TORQUE-ARM Shaft Mount Reducer
- Case Size 2
- 5:1 Ratio, Single Reduction
- Straight Bore Reducer
- 1-15/16" is maximum bore for TXT2 Straight Bore Reducer; no bushing required

HXT - 1 - 25 - T - x - 1-7/16"
- HYDROIL Shaft Mount Reducer
- Case Size 1
- 25:1 Ratio, Double Reduction
- Twin Taper Bushed Reducer
- Twin Tapered Bushing Assembly with bore to kit 1-7/16" diameter driven shaft

*** Note: "A" , "B" or "C" in nomenclature after ratio denotes latest reducer design**



TORQUE-ARM Shaft Mount Speed Reducers
NOMENCLATURE: SCREW CONVEYOR DRIVE REDUCERS

XXXXX - X XX - x - XXXXX - XX - XXXXX

Configuration

SCXT	Screw Conveyor Drive Reducer
HSCXT	HYDROIL Screw Conveyor Drive Reducer

Gear Case Size

1 thru 7	SCXT
1 thru 7	HSCXT

Ratio*

5:1	Single Reduction
9, 15, 25:1	Double Reduction

Motor Mount

M	Standard Motor Mount for 6” - 20” screw
ML	Long Motor Mount for 24” screw

Adapter Style

C	Standard CEMA 4-bolt Adapter
AC	Adjustable Packing Kit

CEMA Standard Drive Shaft Diameter

Sizes	1-1/2”, 2”, 2-7/16”, 3”, 3-7/16”
	Dependent on screw diameter

NOMENCLATURE EXAMPLE: SCREW CONVEYOR DRIVE REDUCERS

SCXT - 7 25 - x - 3-7/16” - C - M724L

- SCXT — Screw Conveyor Drive Reducer
- 7 — Case Size 7
- 25 — 25:1 Ration, Double Reduction
- 3-7/16” — 3-7/16” diameter Drive Shaft
- C — Standard CEMA 4-bolt Adapter
- M724L — Long Motor Mount for 24” screw

SCXT - 5 25 - x 2-7/16” - C - M518

- SCXT — Screw Conveyor Drive Reducer
- 5 — Case Size 5
- 25 — 25:1 Ratio, Double Reduction
- 2-7/16” — 2-7/16” diameter Drive Shaft
- C — Standard CEMA 4-bolt Adapter
- M518 — Standard Motor Mount for 12” screw

HSCXT - 2 05 - x - 1-1/2” - AC

- HSCXT — HYDROIL Screw Conveyor Drive Reducer
- 2 — Case Size 2
- 05 — 5:1 Ratio, single Reduction
- 1-1/2” — 1-1/2” diameter Drive Shaft
- AC — C Adapter with Adjustable Packing Kit

*** Note: “A”, “B” or “C” in nomenclature after ratio denotes latest reducer design**

SELECTIONS

TORQUE-ARM Shaft Mount Speed Reducers

When to Use Easy Selection

The Easy Selection tables for TXT Shaft Mount reducers are for electric motor selections up to 700 horsepower with output speeds up to 400 RPM, using AGMA recommended application class numbers. For extreme shock or high energy loads which must be absorbed, as when stalling; for power source other than an electric motor; or for extreme ambient temperatures, or oversized equipment, consult DODGE Application Engineering, (864) 284-5700.

How to Select

Step 1: Determine Class of Service-See Table 1, page G2-15, to determine Load Classification for applications under normal conditions. Find the type application and duty cycle that most closely matches your specific application.

Class I Steady load not exceeding Motor HP rating and light shock loads during 10 hours a day. Moderate shock loads are allowable if operation is intermittent.

For Class I applications, the maximum value of starting and momentary peak loads should not exceed 2 x Motor HP rating. If it exceeds this amount it should be divided by 2 and the result used in the selection table instead of the Motor HP rating.

Class II Steady load not exceeding Motor HP rating for over 10 hours a day. Moderate shock loads are allowable during 10 hours a day.

For Class II applications, the maximum value of starting and momentary peak loads should not exceed 2.8 x Motor HP rating. If it exceeds this amount it should be divided by 2.8 and the result used in the selection table instead of the Motor HP rating.

Class III Moderate shock loads for over 10 hours a day. Heavy shock loads are allowable during 10 hours a day.

For Class III applications, the maximum value of starting and momentary peak loads should not exceed 4 x Motor HP rating. If it exceeds this amount it should be divided by 4 and the result used in the selection table instead of the Motor HP rating.

Step 2: Determine Reducer Size-See the Easy Selection Tables, pages G2-18 thru G2-29. From Selection Table I, II or III read the reducer size for the application horsepower and output speed. **Note:** For applications where fan cooling is unacceptable use the Easy Selection tables with an increased Class number. Where more than one reducer selection is listed, the most economical ratio is generally listed first. See Table 31, page G2-179 for maximum input and output speeds.

Step 3: Compare Hollow Shaft Bore with the size of the driven shaft. All DODGE Torque-Arm Taper Bushed reducers require bushings. Refer to reducer pages for available bushings. If the driven shaft is larger than the bore of the selected reducer, the shaft must be machined to the proper size, or select a larger reducer. Check driven shaft and key for strength.

Step 4: Check Dimensions-See Selection/Dimensions section, pages G2-30 thru G2-71 for reducer dimensions, weights and part numbers. See Engineering/Technical section, page G2-173 for reducer mounting positions. For optional Torque-Arm rod mounting positions, see page G2-176.

TORQUE-ARM Shaft Mount Speed Reducers



Step 5: Select a Belt Drive Arrangement-From the Sheave Ratio table, page G2-164 through G2-167, select the required sheave ratio for the belt drive. Be careful to select the belt drive so that the sheave mounted on the reducer shaft is not smaller than the minimum sheave diameter shown in Table 19, page G2-163. Note: Mount the sheave as close as possible to the reducer to minimize the effect of overhung load on the reducer.

Step 6: Select Accessories-See Modifications/Accessories section, pages G2-73 thru G2-81, for description, dimensions, weights, and part numbers for accessories available for the Torque-Arm reducer selected:

Motor Mounts Backstop Assemblies Belt Guards
Cooling Fans Auxiliary Seal Kits Filter Breathers
Auxiliary End Covers

NOTE: A Torque-Arm rod assembly is furnished with all TXT and HXT reducers, except for those factory-prepared for flange mounting. Torque-Arm reducers are shipped without oil.

Ratings and selections are the same for both taper bushed and straight bore reducers - standard, inclined or vertically mounted.

EXAMPLES: Easy Selection Method - TXT TORQUE-ARM Reducers

A 10 HP 1750 RPM motor is used to drive a uniformly loaded belt conveyor moving sand at 70 RPM, operating 16 hours per day. Head pulley shaft diameter is 2-7/16". Spec calls for a means of holding the conveyor from moving backwards. User needs immediately so does not have time to build his own motor mount or belt guard.

Step 1: Determine Class of Service-From Table 1, locate "belt conveyors, uniformly loaded or fed" for over 10 hours per day. This load is classified as a Class II application.

Step 2: Determine Reducer Size-From Table 3-Class II Application, page G2-23, find the column for 10 HP and read down to 70 RPM. A TXT425 reducer is the correct selection.

Step 3: Compare Hollow Shaft Bore of TXT425 with the application driven shaft diameter. Per page G2-43, 2-7/16" is the maximum bore available for this size reducer, so it will work in this application. Be sure to check driven shaft and key for strength.

Step 4: Check Dimensions and Weights-See Selection/Dimensions section, page G2-30 thru G2-71, for reducer dimensions, weights, part numbers and other pertinent drive dimensions. See Engineering/Technical section, page G2-173 for information on mounting positions.

Step 5: Select a Belt Drive Arrangement-From the Sheave Ratio table, page G2-164, select a V-drive ratio for the conveyor speed of 70 RPM. With this information, select a belt drive that meets your customer's needs - i.e. belt style preference, service factor requirements, Taper Lock or QD mounting, etc. Sheave diameter must not be less than minimum diameters shown in Table 19, page G2-163.

Step 6: Select Accessories-See Modifications/Accessories section of catalog to pick out accessories for this application:

TXT4 Backstop Assembly - to hold conveyor from moving backwards when shutdown

TXT4 Auxiliary Seal Kit - extra help to keep sand out of the TXT425 reducer

TA4M Motor Mount - to mount motor to top of TXT425 reducer

TXT4D Belt Guard - to cover and protect the rotating belt drive

DODGE®



TORQUE-ARM Shaft Mount Speed Reducers

SELECTION GUIDE: TXT TORQUE-ARM SHAFT MOUNT REDUCERS

This Is A Reference Sheet For Quick Selection And Specification Of DODGE TXT TORQUE-ARM Shaft Mount Reducers. Use It To Identify Information Needed To Make An Accurate Selection With A Step-By-Step Selection Format For Choosing Reducers, Accessories And Belt Drive.

Name_____ Company Name _____

Phone No. _____ Fax. No. _____

Application Data:

Type of Driven Equipment _____

Hours of service per day _____ Class of Service _____

Type of Load: Uniform _____ Moderate _____ Shock _____

Motor Type: HP _____ RPM _____ Frame Size _____ Shaft Size _____

RPM of Driven Equipment _____ Driven Shaft Size _____

Type of Reducer Mounting: Horizontal _____ Vertical: Input Up _____

Input Down Incline (Degree of) _____ Flange _____

Unusual Ambient Temperature

Other Pertinent Application Characteristics (i.e.-dusty Environment, Reversing Duty, Start/Stop Cycles. Etc.)

_____

Reducer Driver Selection

Step 1 - Determine Class of Service

Step 2 - From Appropriate Service Class Table, Select Reducer Size And Ration That Meets Application HP And Driven RPM Requirements:

Twin Taper Bushed _____ Straight Bore _____

Step 3 - Select Reducer Accessories Required For Application: Backstop

Motor Mount: Standard _____ Long _____ Bottom _____

Belt Guard: Standard _____ Long _____ Cooling Fan _____

Auxiliary Seal Kit _____

Other _____

Belt Drive Specification:

Service Factor _____ Belt Drive Ratio Needed _____

Belt Center Distance _____ Type of Belt Desired _____

Driver: Shaft Diameter _____ Driven: Shaft Diameter _____

Sheave _____ Sheave _____

Bushing _____ Bushing _____

Belts: Size _____ Quantity _____



TORQUE-ARM Shaft Mount Speed Reducers

Table 1 - Application Classification And Class

Application	Class Numbers 3 to 10 Hrs per Day	Class Numbers Over 10 Hrs per Day
AGITATORS (Mixers)		
Pure Liquids	I	II
Liquids and Solids	II	II
Liquids-Variable Density	II	II
BLOWERS		
Centrifugal	I	II
Lobe	II	II
Vane	II	II
BREWING AND DISTILLING		
Bottling Machinery	I	II
Brew Kettles-Continuous Duty	II	II
Cookers-Continuous Duty	II	II
Mash Tubs-Continuous Duty	II	II
Scale Hopper-Frequent Starts	II	II
CAN FILLING MACHINES	I	II
CAR DUMPERS	III	III
CAR PULLERS	II	II
CLARIFIERS	I	II
CLASSIFIERS	II	II
CLAY WORKING MACHINERY		
Brick Press	III	III
Briquette Machine	III	III
Pug Mill	II	II
COMPACTORS	★	★
COMPRESSORS		
Centrifugal	I	II
Lobe	II	II
Reciprocating, Multi-Cylinder	II	III
Reciprocating, Single-Cylinder	III	III
CONVEYORS-GENERAL PURPOSE		
Includes Apron, Assembly, belt, Bucket		
Chain, Flight, Oven and Screw		
Uniformly Loaded or Fed	I	II
Heavy Duty-Not Uniformly Fed	II	II
Severe Duty-Reciprocating or Shaker	III	III
CRANES	★	★
CRUSHER		
Stone or Ore	III	III
DREDGES		
Cable Reels	II	II
Conveyors	II	II
Cutter Head Drives	III	III
Pumps	III	III
Screen Drives	III	III
Stackers	II	II
Winches	II	II
ELEVATORS		
Bucket	II	II

Application	Class Numbers 3 to 10 Hrs per Day	Class Numbers Over 10 Hrs per Day
ELEVATOR (continued)		
Centrifugal Discharge	I	II
Escalators	I	II
Freight	II	II
Gravity Discharge	I	II
EXTRUDERS		
General	II	II
Plastics		
Variable Speed Drive	III	III
Fixed Speed Drive	III	III
Rubber		
Continuous Screw Operation	III	III
Intermittent Screw Operation	III	III
FANS		
Centrifugal	I	II
Forced Draft	II	II
Induced Draft	II	II
Industrial & Mine	II	II
Class Numbers		
FEEDERS		
Apron	II	II
Belt	II	II
Disc	I	II
Reciprocating	III	III
Screw	II	II
FOOD INDUSTRY		
Cereal Cooker	I	II
Dough Mixer	II	II
Meat Grinders	II	II
Slicers	II	II
GENERATORS AND EXCITERS	II	II
HAMMER MILLS	III	III
HOISTS	★	★
LAUNDRY TUMBLERS	II	II
LAUNDRY WASHERS	II	III
LUMBER INDUSTRY		
Bakers		
Spindle Feed	II	II
Main Drive	III	III
Conveyors		
Burner	II	II
Main or Heavy Duty	II	II
Main Log	III	III
“Re-saw, Merry-Go-Round”	II	II
Slab	III	III
Transfer	II	II
Chains		
Floor	II	II

★ Consult DODGE for more information on class number



TORQUE-ARM Shaft Mount Speed Reducers

Table 1 - Application Classification And Class

Application	Class Numbers 3 to 10 Hrs per Day	Class Numbers Over 10 Hrs per Day
LUMBER INDUSTRY (continued)		
Green	II	III
Cut-Off Saws		
Chain	II	III
Drag	II	III
Debarking Drums	III	III
Feeds		
Edger	II	II
Gang	III	III
Trimmer	II	II
Log Deck	III	III
Log Hauls-Incline-Well Type	III	III
Log Tuning Devices	III	III
Planer Feed	II	II
Planer Tilting Hoists	II	II
Rolls-Live-off brg.- Roll Cases	III	III
Sorting Table	II	II
Triple Hoist	II	II
Transfers		
Chain	II	III
Craneway	II	III
Tray Drives	II	II
Veneer Lathe Drives	II	II
METAL MILLS		
Draw bench Carriage and Main Drive	II	II
Runout Table		
Non-Reversing		
Group Drives	II	II
Individual Drives	III	III
Reversing	III	III
Slab Pushers	II	II
Shears	III	III
Wire Drawing	II	II
Wire Winding Machine	II	II
METAL STRIP PROCESSING MACHINERY		
Bridles	II	II
Coilers & Uncoilers	I	II
Edge Trimmers	II	II
Flatteners	II	II
Loopers (Accumulators)	I	I
Pinch Rolls	II	II
Scrap Choppers	II	II
Shears	III	III
Slitters	II	II
MILLS, ROTARY TYPE		
Ball & Rod		
Spur Ring Gear	III	III
MILLS, ROTARY TYPE (continued)		
Helical Ring Gear	II	II
Direct Connected	III	III
Cement Kilns	II	II
Dryers & Coolers	II	II
MIXERS, CEMENT	II	II
PAPER MILLS		
Agitator (Mixer)	II	II
Agitator for Pure Liquors	II	II
Barking Drums	III	III
Barkers-Mechanical	III	III
Beater	II	II
Breaker Stack	II	II
Chipper	III	III
Chip Feeder	II	II
Coating Rolls	II	II
Conveyors		
Chip, Bark, Chemical	II	II
Log (including Slab)	III	III
Couch Rolls	II	II
Cutter	III	III
Cylinder Molds	II	II
Embosser	II	II
Extruder	II	II
Fourdrinier Rolls (includes Lump breaker, dandy roll, wire turning, and return rolls	II	II
Jordan	II	II
Kiln Drive	II	II
Mt. Hope Roll	II	II
Paper Rolls	II	II
Platter	II	II
Presses-Felt & Suction	II	II
Pulper	III	III
Pumps-Vacuum	II	II
Reel (Surface Type)	II	II
Screens		
Chip	II	II
Rotary	II	II
Vibrating	III	III
Size Press	II	II
Thickener (AC Motor)	II	II
(DC Motor)	II	II
Washer (AC Motor)	II	II
(DC Motor)	II	II
Wind and Unwind Stand	I	I
Winders (Surface Type)	II	II



TORQUE-ARM Shaft Mount Speed Reducers

Table 1 - Application Classification And Class

Application	Class Numbers	
	3 to 10 Hrs per Day	Over 10 Hrs per Day
PLASTICS INDUSTRY-SECONDARY PROCESSING		
Blow Molders	II	II
Coating	II	II
Film	II	II
Pipe	II	II
Pre-Plasticizers	II	II
Rods	II	II
Sheet	II	II
Tubing	II	II
PULLERS-BARGE HAUL	II	II
PUMPS		
Centrifugal	I	II
Proportioning	II	II
Reciprocating		
Single Acting, 3 or more cylinders	II	II
Double Acting, 2 or more cylinders	II	II
Rotary		
Gear Type	I	II
Lobe	I	II
Vane	I	II
RUBBER AND PLASTICS INDUSTRY		
Intensive Internal Mixers		
Batch Mixers	III	III
Continuous Mixers	II	II
Mixing Mill		
2 smooth rolls	II	II
or 2 corrugated rolls	III	III
Batch Drop Mill - 2 smooth rolls	II	II
Cracker Warmer - 2 roll, 1 corrugated roll	III	III
Cracker-2 corrugated rolls	III	III
Holding, Feed & Blend Mill-2 rolls	II	III
Refiner-2 rolls	II	II
Calenders	II	II
SAND MULLER	II	II
SEWAGE DISPOSAL EQUIPMENT		
Bar Screens	II	II
Chemical Feeders	II	II
Dewatering Screens	II	II
Scum Breakers	II	II
Slow or Rapid Mixers	II	II
Sludge Collectors	II	II
Thickener	II	II
Vacuum Filters	II	II
SCREENS		
Air Washing	I	II
Rotary-Stone or Gravel	II	II
Traveling Water Intake	I	I

Application	Class Numbers	
	3 to 10 Hrs per Day	Over 10 Hrs per Day
SCREW CONVEYORS		
Uniformly Loaded or Fed	I	II
Heavy Duty	II	II
SUGAR INDUSTRY		
Beet Slicer	III	III
Cane knives	II	II
Crushers	II	II
Mills (low speed end)	III	III
TEXTILE INDUSTRY		
Batchers	II	II
Calenders	II	II
Cards	II	II
Dry Cans	II	II
Dyeing Machinery	II	II
Looms	II	II
Mangles	II	II
Nappers	II	II
Pads	I	II
Stashers	II	II
Soapers	II	II
Spinners	II	II
Tenter Frames	II	II
Washers	II	II
Winders	II	II

Reference: AGMA Standard 6021-G89 (11/89). The table of application class numbers has been developed from the experience of manufacturers and users of gear drives for use in common applications and has been found to be generally satisfactory for the listed industries when gears are rated using AGMA standards. It is recommended that class numbers for special applications be agreed upon by the user and the gear manufacturer when variations of the table may be required. Special conditions can be any special type of prime mover, starting or stopping conditions, system conditions, ambient conditions, lubrication, overloads, overspeeds, brake equipped applications, high inertia and reversing loads.

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EASY SELECTIONS



TORQUE-ARM Shaft Mount Speed Reducers

Table 2 - Class I Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
1/4	4-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
1/3	5-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
1/2	4-6		TXT225A	
	7-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
3/4	4-5		TXT325B	
	6-10		TXT225A	
	11-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
1	4-5		TXT425B	
	6-7		TXT325B	
	8-15		TXT225A	
	16-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
1-1/2	4		TXT525C	
	5-7		TXT425B	
	8-12		TXT325B	

HP	Output RPM	Reducer Selection		
		Single	Double	
1-1/2 (Continued)	13-23		TXT225A	
	24-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
2	4-6		TXT525C	
	7-10		TXT425B	
	11-17		TXT325B	
	18-32		TXT225A	TXT215A
	33-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
3	4-5		TXT625A	
	6-10		TXT525C	
	11-15		TXT425B	
	16-26		TXT325B	
	27-51		TXT225A	TXT215A
	52-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
5	5-6		TXT725A	
	7-9		TXT625A	
	10-17		TXT525C	
	18-26		TXT425B	TXT415B
	27-46		TXT325B	TXT315B
	47-70		TXT225A	TXT215A
	71-85		TXT215A	TXT225A
	86-92		TXT109A	TXT215A
	93-115		TXT115A	TXT109A
	116-119		TXT109A	TXT115A
	120-140	TXT105	TXT109A	TXT115A

★ See page G2-173 for lubrication for 15 RPM and slower

DODGE®



TORQUE-ARM Shaft Mount Speed Reducers

Table 2 - Class I Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection	
		Single	Double
5 (Continued)	141-200	TXT105	TXT109A
	201-400	TXT105	
7-1/2	4-6		TXT825A
	7-9		TXT725A
	10-15		TXT625A
	16-26		TXT525C
	27-40		TXT425B TXT415B
	41-70		TXT325B TXT315B
	71-74		TXT315B TXT325B
	75-85		TXT215A TXT225A
	86-95		TXT215A TXT209A
	96-140	TXT205	TXT209A TXT215A
	141-200	TXT205	TXT209A
	201-231	TXT205	
	232-400	TXT105	
10	5		TXT926A
	6-8		TXT825A
	9-12		TXT725A
	13-20		TXT625A
	21-36		TXT525C TXT515C
	37-56		TXT425B TXT415B
	57-70		TXT325B TXT315B
	71-85		TXT315B TXT325B
	86-103		TXT315B TXT309B
	104-115		TXT215A TXT209A
	116-140	TXT305A	TXT215A
	141-158	TXT305A	TXT309B
	159-200	TXT305A	TXT309B
	201-400	TXT205	
15	5-6		TXT1024A
	7-8		TXT926A
	9-13		TXT825A
	14-19		TXT725A
	20-32		TXT625A TXT615A
	33-56		TXT525C TXT515C
	57-70		TXT425B TXT415B
	71-85		TXT415B TXT425B
	86-93		TXT415B TXT409B
	94-115		TXT309B+ TXT315B

HP	Output RPM	Reducer Selection	
		Single	Double
15 (Continued)	116-140	TXT405A	TXT315B TXT309B+
	141-145	TXT405A	TXT309B+
	146-200	TXT305A	TXT309B+
	201-400	TXT305A	
20	4-6		TXT1225
	7-8		TXT1024A
	9-12		TXT926A
	13-18		TXT825A
	19-26		TXT725A TXT715A
	27-45		TXT625A TXT615A
	46-70		TXT525C TXT515C
	71-78		TXT515C TXT525C
	79-85		TXT415B TXT425B
	86-115		TXT415B TXT409B+
	116-140	TXT405A	TXT409B+ TXT415B+
	141-200	TXT405A	TXT309B+
	201-241	TXT405A	
	242-400	TXT305A+	
25	5-7		TXT1225
	8-10		TXT1024A
	11-15		TXT926A
	16-23		TXT825A
	24-33		TXT725A TXT715A
	34-59		TXT625A TXT615A
	60-70		TXT525C+ TXT515C+
	71-80		TXT515C+ TXT525C+
	81-101		TXT515C+ TXT509C+
	102-132	TXT505A	TXT415B+ TXT409B+
	133-140	TXT505A	TXT409B+ TXT415B+
	141-163	TXT505A	TXT409B+
	164-200	TXT405A+	TXT409B+
	201-400	TXT405A+	
30	4-5		TDT1425
	6-9		TXT1225
	10-13		TXT1024A
	14-19		TXT926A
	20-28		TXT825A TXT815A
	29-41		TXT725A TXT715A
	42-70		TXT625A TXT615A

★ See page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81.

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EASY SELECTIONS



TORQUE-ARM Shaft Mount Speed Reducers

Table 2 - Class I Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection	
		Single	Double
30 (Continued)	71-75		TXT615A TXT625A
	76-115		TXT515C+ TXT509C+
	116-125	TXT605	TXT509C+ TXT515C+
	126-131	TXT605	TXT409B+
	132-200	TXT505A	TXT409B+
	201-215	TXT505A+	
	216-400	TXT405A+	
40	5-6		TDT1425
	7		TDT1325
	8-12		TXT1225
	13-18		TXT1024A
	19-25		TXT926A TXT915A
	26-38		TXT825A TXT815A
	39-57		TXT725A TXT715A
	58-70		TXT625A TXT615A
	71-81		TXT615A+ TXT625A+
	82-114	TXT605	TXT615A+ TXT609A+
	115-125	TXT605	TXT515C+ TXT509C+
	126-200	TXT605	TXT509C+
	201-241	TXT605	
	242-400	TXT505A+	
50	3-5		TDT1530
	6-8		TDT1425
	9		TDT1325
	10-15		TXT1225
	16-22		TXT1024A
	23-32		TXT926A TXT915A
	33-49		TXT825A TXT815A
	50-70		TXT725A TXT715A
	71-74		TXT715A TXT725A
	75-125		TXT615A+ TXT709A+
	126-163	TXT605+	TXT709A+
	164-200	TXT605+	TXT609A+
	201-400	TXT605+	
60	4-6		TDT1530
	7-11		TDT1425
	12		TDT1325
	13-18		TXT1225
	19-27		TXT1024A TXT1015A

HP	Output RPM	Reducer Selection	
		Single	Double
60 (Continued)	28-39		TXT926A TXT915A
	40-60		TXT825A TXT815A
	61-70		TXT725A+ TXT715A+
	71-120		TXT715A+ TXT709A+
	121-131	TXT705	TXT709A+
	132-200	TXT605+	TXT709A+
	201-400	TXT605+	
75	5-8		TDT1530
	9-13		TDT1425
	14-15		TDT1325
	16-23		TXT1225
	24-34		TXT1024A TXT1015A
	35-50		TXT926A TXT915A
	51-70		TXT825A TXT815A
	71-78		TXT815A+
	79-120		TXT715A+ TXT709A+
	121-200	TXT705	TXT709A+
	201-210	TXT705	
	211-400	TXT605+	
100	6-11		TDT1530
	12-17		TDT1425
	18-22		TDT1325
	23-31		TXT1225 TXT1215
	32-46		TXT1024A TXT1015A
	47-69		TXT926A+ TXT915A+
	70-120		TXT815A+
	121-123	TXT805+	TXT709A+
	124-200	TXT705+	TXT709A+
	201-400	TXT705+	
125	8-14		TDT1530
	15-22		TDT1425
	23-29		TDT1325
	30-40		TXT1225 TXT1215
	41-59		TXT1024A TXT1015A
	60-70		TXT915A+ TXT926A+
	71-90		TXT915A+
	91-123		TXT815A+
	124-172	TXT805+	
	173-400	TXT705+	

★ See page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81.



TORQUE-ARM Shaft Mount Speed Reducers

Table 2 - Class I Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection	
		Single	Double
150	9-17		TDT1530
	18-27		TDT1425
	28-36		TDT1325
	37-49		TXT1225 TXT1215
	50-70		TXT1024A TXT1015A
	71-75		TXT1015A+ TXT1024A+
	76-80		TXT1015A+
	81-120		TXT915A+
	121-165	TXT905	
	166-400	TXT805+	
200	12-23		TDT1530
	24-36		TDT1425
	37-51		TDT1325+
	52-68		TXT1225✻ TXT1215✻
	69-120		TXT1015A+
	212-400	TXT905+	
250	16-30		TDT1530
	31-46		TDT1425+
	47-67		TDT1325+
	68-75		TXT1225✻ TXT1215✻
	76-120		TXT1215✻

HP	Output RPM	Reducer Selection	
		Single	Double
300	19-36		TDT1530
	37-58		TDT1425✻
	59-70		TDT1325+
	71-75		TDT1325✻
	83-120		TXT1215✻
350	23-43		TDT1530+
	44-69		TDT1425✻
	70-75		TDT1325✻
400	27-50		TDT1530+
	51-75		TDT1425✻
450	30-31		TDT1530✻
	32-57		TDT1530+
	59-75		TDT1425✻
500	34-57		TDT1530✻
	66-75		TDT1425✻
600	41-57		TDT1530✻
700	50-57		TDT1530✻

★ See page G2-173 for lubrication for 15 RPM and slower

\+ Fan cooling required - see page G2-81.

✻ Heat exchanger required - see page G2-81.

EASY SELECTIONS

TORQUE-ARM Shaft Mount Speed Reducers

Table 3 - Class II Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
1/4	5-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
1/3	4-6		TXT225A	
	7-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
1/2	4-5		TXT325B	
	6-9		TXT225A	
	10-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
3/4	4-5		TXT425B	
	6-8		TXT325B	
	9-16		TXT225A	
	17-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
1	5-7		TXT425B	
	8-11		TXT325B	
	12-22		TXT225A	
	23-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		

HP	Output RPM	Reducer Selection		
		Single	Double	
1-1/2	5-6		TXT525C	
	7-11		TXT425B	
	12-18		TXT325B	
	19-34		TXT225A	TXT215A
	35-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
2	4-5		TXT625A	
	6-9		TXT525C	
	10-14		TXT425B	
	15-24		TXT325B	TXT315B
	25-47		TXT225A	TXT215A
	48-70		TXT125A	TXT115A
	71-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
3	4-5		TXT725A	
	6-8		TXT625A	
	9-14		TXT525C	
	15-22		TXT425B	TXT415B
	23-38		TXT325B	TXT315B
	39-70		TXT225A	TXT215A
	71-75		TXT215A	TXT225A
	76-85		TXT115A	TXT125A
	86-115		TXT115A	TXT109A
	116-140	TXT105	TXT109A	TXT115A
	141-200	TXT105	TXT109A	
	201-400	TXT105		
5	4-6		TXT825A	
	7-8		TXT725A	
	9-14		TXT625A	
	15-24		TXT525C	
	25-37		TXT425B	TXT415B
	38-69		TXT325B	TXT315B

★ See page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81

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TORQUE-ARM Shaft Mount Speed Reducers

Table 3 - Class II Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
5 (Continued)	70-85		TXT215A	TXT225A
	86-89		TXT215A	TXT209A
	90-136	TXT205	TXT209A	TXT215A
	137-140	TXT205	TXT115A	TXT209A
	141-191	TXT205	TXT109A	
	192-200	TXT105	TXT109A	
	201-400	TXT105		
7-1/2	5		TXT926A	
	6-9		TXT825A	
	10-13		TXT725A	
	14-21		TXT625A	
	22-38		TXT525C	TXT515C
	39-59		TXT425B	TXT415B
	60-70		TXT325B	TXT315B
	71-85		TXT315B	TXT325B
	86-110		TXT315B	TXT309B
	111-122		TXT215A	
	123-140	TXT305A	TXT209A	TXT215A
	141-183	TXT305A	TXT209A	
	184-200	TXT205	TXT209A	
	201-400	TXT205		
10	4		TXT1225	
	5		TXT1024A	
	6-7		TXT926A	
	8-12		TXT825A	
	13-18		TXT725A	
	19-29		TXT625A	TXT615A
	30-52		TXT525C	TXT515C
	53-70		TXT425B	TXT415B
	71-84		TXT415B	TXT425B
	85-130		TXT315B	TXT309B
	131-140	TXT305A	TXT315B	TXT309B
	141-200	TXT305A	TXT309B	
	201-353	TXT305A		
	354-400	TXT205		
15	4-6		TXT1225	
	7-9		TXT1024A	
	10-12		TXT926A	
	13-19		TXT825A	

HP	Output RPM	Reducer Selection		
		Single	Double	
15 (Continued)	20-27		TXT725A	
	28-47		TXT625A	TXT615A
	48-70		TXT525C	TXT515C
	71-82		TXT515C	TXT525C
	83-117		TXT415B	TXT409B
	118-140	TXT405A	TXT409B	TXT415B
	141-150	TXT405A	TXT409B	
	151-200	TXT405A	TXT309B+	
	201-269	TXT405A		
	270-400	TXT305A		
20	5		TDT1325	
	6-8		TXT1225	
	9-12		TXT1024A	
	13-17		TXT926A	
	18-26		TXT825A	
	27-38		TXT725A	TXT715A
	39-68		TXT625A	TXT615A
	69-80		TXT515C	TXT525C
	81-89		TXT515C	
	90-117		TXT515C+	TXT509C+
	118-125	TXT505A	TXT409B+	TXT415B+
	126-200	TXT505A	TXT409B+	
	201-400	TXT405A+		
25	4-6		TDT1425	
	7-10		TXT1225	
	11-15		TXT1024A	
	16-22		TXT926A	
	23-33		TXT825A	TXT815A
	34-49		TXT725A	TXT715A
	50-80		TXT615A	TXT625A
	81-94		TXT615A	TXT609A
	95-125	TXT605	TXT509C+	TXT515C+
	126-174	TXT605	TXT509C+	
	175-200	TXT505A	TXT409B+	
	201-270	TXT505A		
	271-400	TXT405A+		
30	5-7		TDT1425	
	8		TDT1325	
	9-12		TXT1225	

★ See page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81

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EASY SELECTIONS

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TORQUE-ARM Shaft Mount Speed Reducers

Table 3 - Class II Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection	
		Single	Double
30 (Continued)	13-19		TXT1024A
	20-27		TXT926A TXT915A
	28-41		TXT825A TXT815A
	42-60		TXT725A TXT715A
	61-76		TXT625A TXT615A
	77-89		TXT615A TXT609A
	90-125	TXT605	TXT615A+ TXT609A+
	126-200	TXT605	TXT509C+
	201-233	TXT605	
	234-349	TXT505A+	
	350-400	TXT405A+	
40	4-6		TDT1530
	7-9		TDT1425
	10-11		TDT1325
	12-17		TXT1225
	18-25		TXT1024A
	26-36		TXT926A TXT915A
	37-56		TXT825A TXT815A
	57-75		TXT725A TXT715A
	76-88		TXT715A
	89-114		TXT615A+ TXT609A+
	115-120		TXT615A+ TXT609A+
	121-200	TXT605	TXT609A+
	201-347	TXT605+	
	348-400	TXT505A+	
50	5-8		TDT1530
	9-12		TDT1425
	13-14		TDT1325
	15-21		TXT1225
	22-32		TXT1024A TXT1015A
	33-46		TXT926A TXT915A
	47-70		TXT825A TXT815A
	71-72		TXT815A TXT825A
	73-95		TXT715A+
	96-110	TXT705	TXT709A TXT715A+
	111-120	TXT705	TXT709A+ TXT715A+
	121-179	TXT705	TXT709A+
	180-200	TXT605+	TXT609A+
	201-400	TXT605+	

HP	Output RPM	Reducer Selection	
		Single	Double
60	5-9		TDT1530
	10-14		TDT1425
	15-18		TDT1325
	19-26		TXT1225
	27-39		TXT1024A TXT1015A
	40-56		TXT926A TXT915A
	57-70		TXT825A TXT815A
	71-75		TXT815A TXT825A
	76-89		TXT815A
	90-120	TXT705	TXT715A+ TXT709A+
	121-200	TXT705	TXT709A+
	201-285	TXT705	
	286-400	TXT605+	
75	7-12		TDT1530
	13-18		TDT1425
	19-24		TDT1325
	25-33		TXT1225 TXT1215
	34-49		TXT1024A TXT1015A
	50-73		TXT926A TXT915A
	74-75		TXT815A TXT825A
	76-120	TXT805	TXT815A+
	121-133	TXT805	TXT709A+
	134-200	TXT705	TXT709A+
	201-400	TXT705	
100	8-16		TDT1530
	17-25		TDT1425
	26-33		TDT1325
	34-45		TXT1225 TXT1215
	46-67		TXT1024A TXT1015A
	68-75		TXT915A+ TXT926A+
	76-103		TXT915A+
	104-120	TXT905	TXT815A+
	121-149	TXT905	
	150-180	TXT805	
	181-200	TXT805	TXT709A
	201-204	TXT805	
	205-246	TXT705	
	247-400	TXT705+	

★ See page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81
✻ Heat exchange required - see page G2-81



TORQUE-ARM Shaft Mount Speed Reducers

Table 3 - Class II Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection	
		Single	Double
125	11-20		TDT1530
	21-31		TDT1425
	32-43		TDT1325
	44-58		TXT1225 TXT1215
	59-75		TXT1024A TXT1015A
	76-85		TXT1015A
	86-120		TXT915A+
	145-209	TXT905	
	210-303	TXT805+	
	304-400	TXT705+	
150	13-25		TDT1530
	26-38		TDT1425
	39-54		TDT1325
	55-72		TXT1225+ TXT1215+
	73-75		TXT1015A+ TXT1024A+
	76-120		TXT1015A+
	184-279	TXT905+	
	280-400	TXT805+	

HP	Output RPM	Reducer Selection	
		Single	Double
200	18-33		TDT1530
	34-53		TDT1425+
	54-75		TDT1325+
	77-120		TXT1215✻
250	23-42		TDT1530
	43-46		TDT1425+
	47-69		TDT1425✻
	70-75		TDT1325+
300	28-53		TDT1530
	54-75		TDT1425✻
350	33-57		TDT1530
	66-75		TDT1425✻
400	38-57		TDT1530+
450	43-57		TDT1530+
500	50-57		TDT1530+

★ See page G2-173 for lubrication for 15 RPM and slower

\+ Fan cooling required - see page G2-81.

✻ Heat exchanger required - see page G2-81.

EASY SELECTIONS



TORQUE-ARM Shaft Mount Speed Reducers

Table 4 - Class Iii Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection	
		Single	Double
1/4	4-6		TXT225A
	7-70		TXT125A TXT115A
	71-85		TXT115A TXT125A
	86-89		TXT115A TXT109A
	90-115		TXT115A TXT109A
	116-140	TXT105	TXT109A TXT115A
	141-200	TXT105	TXT109A
	201-400	TXT105	
1/3	5-9		TXT225A
	10-70		TXT125A TXT115A
	71-85		TXT115A TXT125A
	86-115		TXT115A TXT109A
	116-140	TXT105	TXT109A TXT115A
	141-200	TXT105	TXT109A
	201-400	TXT105	
1/2	4-5		TXT425B
	6-7		TXT325B
	8-15		TXT225A
	16-70		TXT125A TXT115A
	71-85		TXT115A TXT125A
	86-115		TXT115A TXT109A
	116-140	TXT105	TXT109A TXT115A
	141-200	TXT105	TXT109A
	201-400	TXT105	
3/4	4		TXT525C
	5-7		TXT425B
	8-12		TXT325B
	13-23		TXT225A
	24-70		TXT125A TXT115A
	71-85		TXT115A TXT125A
	86-115		TXT115A TXT109A
	116-140	TXT105	TXT109A TXT115A
	141-200	TXT105	TXT109A
	201-400	TXT105	
1	4-6		TXT525C
	7-10		TXT425B
	11-17		TXT325B
	18-32		TXT225A
	33-70		TXT125A TXT115A
1 (Continued)	71-85		TXT115A TXT125A
	86-115		TXT115A TXT109A
	116-140	TXT105	TXT109A TXT115A
	141-200	TXT105	TXT109A
	201-400	TXT105	
1-1/2	4-5		TXT625A
	6-10		TXT525C
	11-15		TXT425B
	16-26		TXT325B
	27-51		TXT225A TXT215A
	52-70		TXT125A TXT115A
	71-85		TXT115A TXT125A
	86-115		TXT115A TXT109A
	116-140	TXT105	TXT109A TXT115A
	141-200	TXT105	TXT109A
	201-400	TXT105	
2	5-7		TXT625A
	8-13		TXT525C
	14-21		TXT425B
	22-36		TXT325B TXT315B
	37-71		TXT225A TXT215A
	72-85		TXT115A TXT125A
	86-115		TXT115A TXT109A
	116-140	TXT105	TXT109A TXT115A
	141-200	TXT105	TXT109A
	201-400	TXT105	
3	4-5		TXT825A
	6-7		TXT725A
	8-12		TXT625A
	13-20		TXT525C
	21-32		TXT425B TXT415B
	33-57		TXT325B TXT315B
	58-70		TXT225A TXT215A
	71-85		TXT215A TXT225A
	86-89		TXT215A TXT209A
	90-113	TXT205	TXT215A TXT209A
	114-140	TXT205	TXT109A TXT115A
	141-155	TXT205	TXT109A
	156-200	TXT105	TXT109A
	201-400	TXT105	

★ See page G2-173 for lubrication for 15 RPM and slower



EASY SELECTIONS

TORQUE-ARM Shaft Mount Speed Reducers

Table 4 - Class IIi Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
5	5		TXT926A	
	6-8		TXT825A	
	9-12		TXT725A	
	13-20		TXT625A	
	21-36		TXT525C	TXT515C
	37-56		TXT425B	TXT415B
	57-70		TXT325B	TXT315B
	71-85		TXT315B	TXT325B
	86-103		TXT315B	TXT309B
	104-114	TXT305A	TXT215A	TXT309B
	115-140	TXT305A	TXT209A	TXT215A
	141-167	TXT305A	TXT209A	
	168-200	TXT205	TXT209A	
	201-400	TXT205		
7-1/2	5-6		TXT1024A	
	7-8		TXT926A	
	9-13		TXT825A	
	14-19		TXT725A	
	20-32		TXT625A	TXT615A
	33-56		TXT525C	TXT515C
	57-70		TXT425B	TXT415B
	71-85		TXT415B	TXT425B
	86-93		TXT415B	TXT409B
	94-140	TXT405A	TXT309B	TXT315B
	141-144	TXT405A	TXT309B	
	145-200	TXT305A	TXT309B	
	201-400	TXT305A		
10	4-6		TXT1225	
	7-8		TXT1024A	
	9-12		TXT926A	
	13-18		TXT825A	
	19-26		TXT725A	TXT715A
	27-45		TXT625A	TXT615A
	46-70		TXT525C	TXT515C
	71-78		TXT515C	TXT525C
	79-92		TXT415B	
	93-105		TXT415B	TXT409B
	106-141	TXT405A	TXT409B	TXT415B
	142-200	TXT405A	TXT309B	

HP	Output RPM	Reducer Selection		
		Single	Double	
10 (Continued)	201-241	TXT405A		
	242-400	TXT305A		
15	4-5		TDT1425	
	6-9		TXT1225	
	10-13		TXT1024A	
	14-19		TXT926A	
	20-28		TXT825A	TXT815A
	29-41		TXT725A	TXT715A
	42-70		TXT625A	TXT615A
	71-75		TXT615A	TXT625A
	76-93		TXT515C	
	94-115		TXT515C	TXT509C
	116-125	TXT605	TXT509C	TXT515C
	126-131	TXT605	TXT509C	
	132-200	TXT505A	TXT409B	
	201-215	TXT505A		
	216-400	TXT405A		
20	5-6		TDT1425	
	7		TDT1325	
	8-12		TXT1225	
	13-18		TXT1024A	
	19-25		TXT926A	TXT915A
	26-38		TXT825A	TXT815A
	39-57		TXT725A	TXT715A
	58-70		TXT625A	TXT615A
	71-114		TXT615A	TXT609A
	115-125	TXT605	TXT509C+	TXT515C+
	126-200	TXT605	TXT509C+	
	201-218	TXT605		
	219-324	TXT505A		
	325-400	TXT405A+		
25	4-5		TDT1530	
	6-8		TDT1425	
	9		TDT1325	
	10-15		TXT1225	
	16-22		TXT1024A	
	23-32		TXT926A	TXT915A
	33-49		TXT825A	TXT815A
	50-70		TXT725A	TXT715A

★ See page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	MODIFICATION/ACCESSORIES PAGE G2-71	RELATED PRODUCTS PAGE G2-152

EASY SELECTIONS



TORQUE-ARM Shaft Mount Speed Reducers

Table 4 - Class Iii Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
25 (Continued)	71-74		TXT715A	TXT725A
	75-104		TXT615A	TXT609A
	105-113		TXT615A+	TXT609A
	114-125	TXT605	TXT615A+	TXT609A+
	126-200	TXT605	TXT609A+	
	201-294	TXT605		
	295-400	TXT505A+		
30	4-6		TDT1530	
	7-10		TDT1425	
	11-12		TDT1325	
	13-18		TXT1225	
	19-27		TXT1024A	TXT1015A
	28-39		TXT926A	TXT915A
	40-60		TXT825A	TXT815A
	61-70		TXT725A	TXT715A
	71-98		TXT715A	
	99-125		TXT615A+	TXT609A+
	126-131	TXT705	TXT609A+	
	132-200	TXT605	TXT609A+	
	201-381	TXT605		
	382-400	TXT505A+		
40	5-9		TDT1530	
	10-14		TDT1425	
	15-17		TDT1325	
	18-25		TXT1225	
	26-37		TXT1024A	TXT1015A
	38-53		TXT926A	TXT915A
	54-70		TXT825A	TXT815A
	71-84		TXT815A	
	85-89		TXT715A	TXT709A
	90-120	TXT705	TXT715A+	TXT709A
	121-200	TXT705	TXT709A+	
	201-249	TXT705		
	250-400	TXT605+		
50	6-11		TDT1530	
	12-17		TDT1425	
	18-22		TDT1325	
	23-31		TXT1225	TXT1215
	32-46		TXT1024A	TXT1015A

HP	Output RPM	Reducer Selection		
		Single	Double	
50 (Continued)	47-69		TXT926A	TXT915A
	70-75		TXT815A	TXT825A
	76-110		TXT815A	
	111-120		TXT715A+	TXT709A+
	121-123	TXT805	TXT709A+	
	124-200	TXT705	TXT709A+	
	201-400	TXT705		
60	7-14		TDT1530	
	15-21		TDT1425	
	22-28		TDT1325	
	29-38		TXT1225	TXT1215
	39-56		TXT1024A	TXT1015A
	57-75		TXT926A	TXT915A
	76-85		TXT915A	
	86-115		TXT815A	
	116-141	TXT805		
	142-161	TXT805	TXT709A+	
	162-200	TXT705	TXT709A+	
	201-400	TXT705		
75	9-17		TDT1530	
	18-26		TDT1425	
	27-36		TDT1325	
	37-49		TXT1225	TXT1215
	50-72		TXT1024A	TXT1015A
	73-75		TXT915A+	TXT926A+
	76-120		TXT915A+	
	121-165	TXT905		
	166-234	TXT805		
	235-400	TXT705		
100	12-23		TDT1530	
	24-36		TDT1425	
	37-51		TDT1325	
	52-68		TXT1225+	TXT1215+
	69-120		TXT1015A	
	175-259	TXT905		
	260-387	TXT805+		
	388-400	TXT705+		
125	16-30		TDT1530	
	31-43		TDT1425	

★ See page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81



TORQUE-ARM Shaft Mount Speed Reducers

Table 4 - Class III Selection Table TXT Reducers ★

HP	Output RPM	Reducer Selection	
		Single	Double
125 (Continued)	44-46		TDT1425+
	47-67		TDT1325
	68-70		TXT1225+ TXT1215+
	71-75		TXT1215+ TXT1225+
	76-90		TXT1215+
	91-120		TXT1015A+
150	19-36		TDT1530
	37-41		TDT1425
	42-58		TDT1425+
	59-75		TDT1325+
	83-110		TXT1215✻

HP	Output RPM	Reducer Selection	
		Single	Double
200	27-50		TDT1530
	51-75		TDT1425✻
250	34-57		TDT1530
	66-75		TDT1425✻
300	41-57		TDT1530
350	50-57		TDT1530

\+ Fan cooling required - see page G2-81.

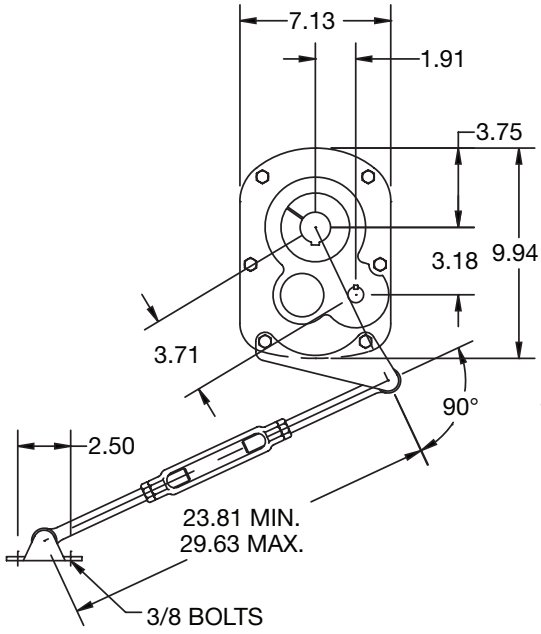
★ See page G2-173 for lubrication for 15 RPM and slower

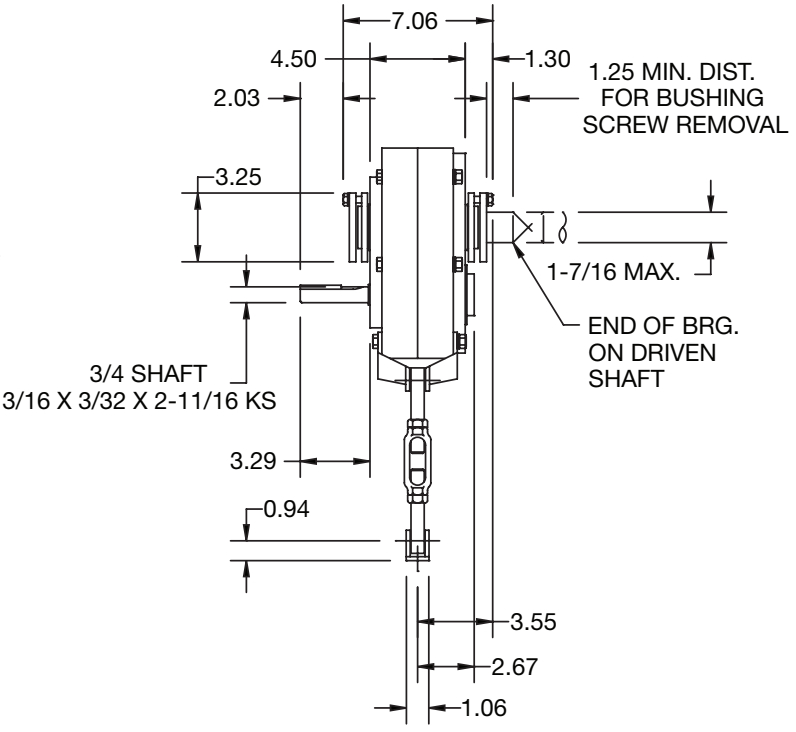
✻ Heat exchanger required - see page G2-81.

SELECTION/DIMENSIONS

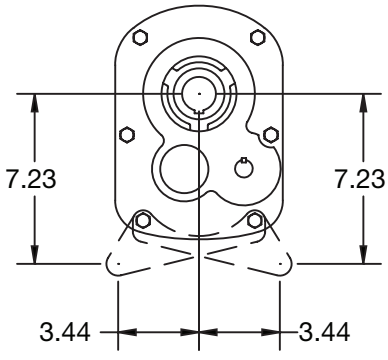
TORQUE-ARM Shaft Mount Speed Reducers

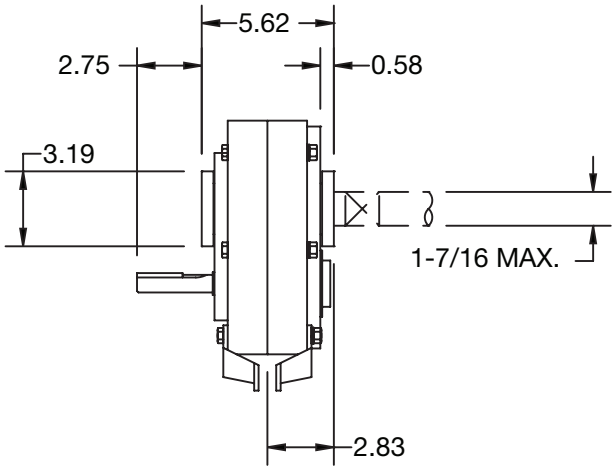
TXT1A - Double Reduction Taper Bushed





TXT1A - Double Reduction Straight Bore







SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT1A Taper Bushed Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT109AT	**241092**	107D09	9.44	45
TXT115AT	**241065**	107D15	15.35	45
TXT125AT	**241066**	107D25	25.64	45

TXT1A Straight Bore Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT109AS	**241327** ♣	107D09	9.44	45
TXT115AS	**241073**	107D15	15.35	45
TXT125AS	**241074**	107D25	25.64	45

Accessories for TXT1A Reducers

Description	Part Number	Weight
TA1M Standard Motor Mount (56T-215T)	**241391**	37.3
TAB1 Bottom Motor Mount (56T-215T) ♣ ♠	**241421**	34
TXT1 Backstop Assembly	**242101**	.8
Optional Filter Breather (3/8-18 NPT)	**430048**	.2
TXT1D TA Reducer Belt Guard (56T-215T)	**241395**	30
TXT1 Taconite Auxiliary Seal Kit ♥	**272515**	4.40
TXT1 Lube Kit	**LUBEKITTXT1**	4.6

TXT1 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
1-7/16	(Max.)	**241292**	◆	3/8 x 3/16 x 6-7/16	3/8 x 3/16 x 2	2.0	
1-3/8		**241294**	-	5/16 x 5/32 x 6-7/16	-	1.8	-
1-5/16	▲	**241290**	**241347**	5/16 x 5/32 x 6-7/16	5/16 x 5/32 x 2	1.8	0.4
1-1/4	▲	**241288**	**241346**	1/4 x 1/8 x 6-7/16	1/4 x 1/8 x 2	2.0	0.6
1-3/16	▲	**241286**	**241345**	1/4 x 1/8 x 6-7/16	1/4 x 1/8 x 2	2.2	0.6
1-1/8	▲	**241282**	**241344**	1/4 x 1/8 x 6-7/16	1/4 x 1/8 x 1-3/4	2.2	0.6
1	▲	**241278**	**241342**	1/4 x 1/8 x 6-7/16	1/4 x 1/8 x 1-3/4	2.5	1.0

♣ Made to order

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

○ Stock TXT1 Reducers are drilled for vertical mounting.

♠ DODGE standard belt guards will not fit this motor mount.

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

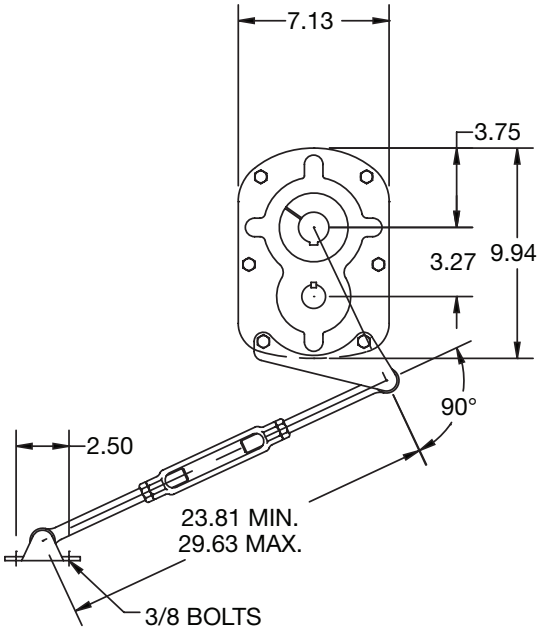
● Taper Bushed Reducers require bushing for all bore sizes.

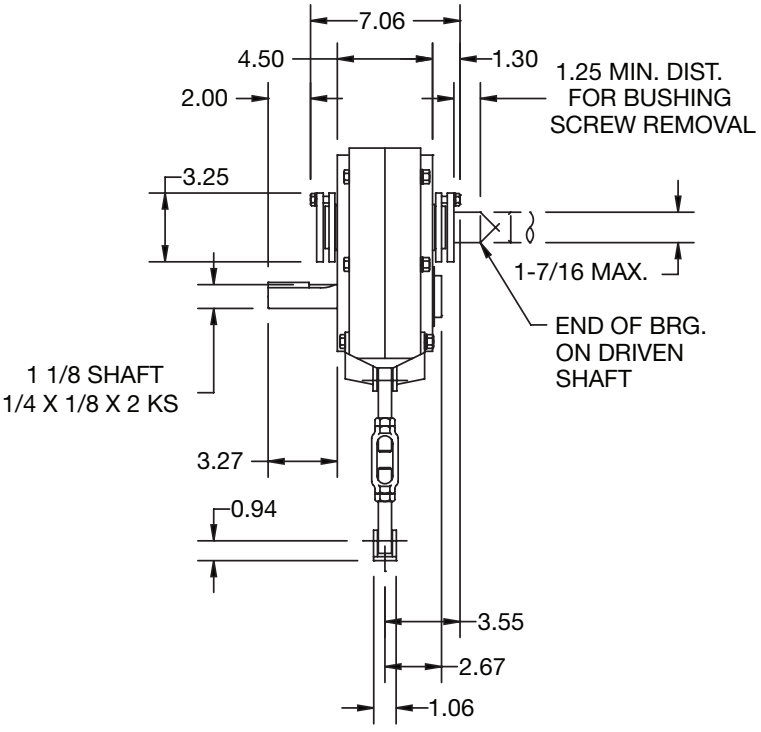
♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

SELECTION/DIMENSIONS

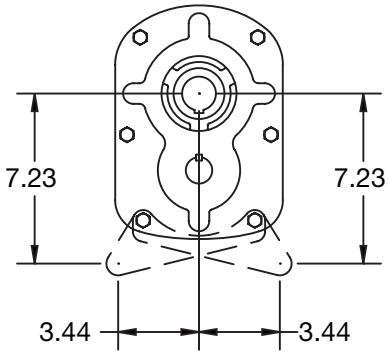
TORQUE-ARM Shaft Mount Speed Reducers

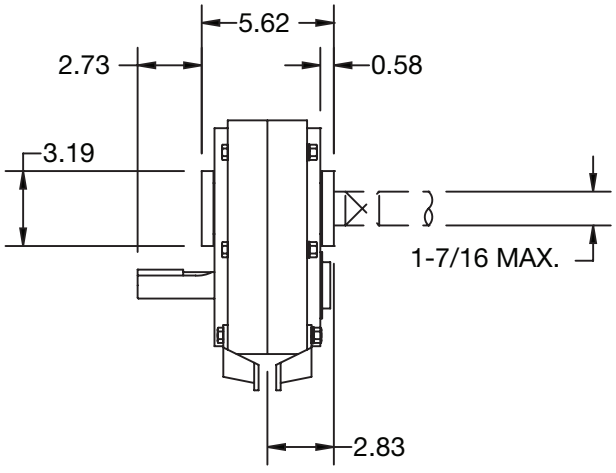
TXT105 - Single Reduction Taper Bushed





TXT105 - Single Reduction Straight Bore







SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT105 Taper Bushed Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT105T	**241083**	107S05	5.62	40

TXT105 Straight Bore Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT105S	**241087**	107S05	5.62	40

Accessories for TXT105 Reducers

Description	Part Number	Weight
TA1M Standard Motor Mount (56T-215T)	**241391**	37.3
TAB1 Bottom Motor Mount (56T-215T) ♠ ♣	**241421**	34
TXT105 Backstop Assembly	**242101**	.8
Optional Filter Breather (3/8-18 NPT)	**430048**	.2
TXT1S TA Reducer Belt Guard (56T-215T)	**241397**	30
TXT105 Taconite Auxiliary Seal Kit ♥	**272521**	5
TXT105 Lube Kit	**LUBEKITTXT105**	4.5

TXT1 Bushing Assemblies ○

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
1-7/16	(Max.)	**241292**	◆	3/8 x 3/16 x 6-7/16	3/8 x 3/16 x 2	2.0	-
1-3/8		**241294**	**-**	5/16 x 5/32 x 6-7/16	-	1.8	-
1-5/16	▲	**241290**	**241347**	5/16 x 5/32 x 6-7/16	5/16 x 5/32 x 2	1.8	0.4
1-1/4	▲	**241288**	**241346**	1/4 x 1/8 x 6-7/16	1/4 x 1/8 x 2	2.0	0.6
1-3/16	▲	**241286**	**241345**	1/4 x 1/8 x 6-7/16	1/4 x 1/8 x 2	2.2	0.6
1-1/8	▲	**241282**	**241344**	1/4 x 1/8 x 6-7/16	1/4 x 1/8 x 1-3/4	2.2	0.6
1	▲	**241278**	**241342**	1/4 x 1/8 x 6-7/16	1/4 x 1/8 x 1-3/4	2.5	1.0

♣ Made to order

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

○ Stock TXT1 Reducers are drilled for vertical mounting.

♠ DODGE standard belt guards will not fit this motor mount.

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

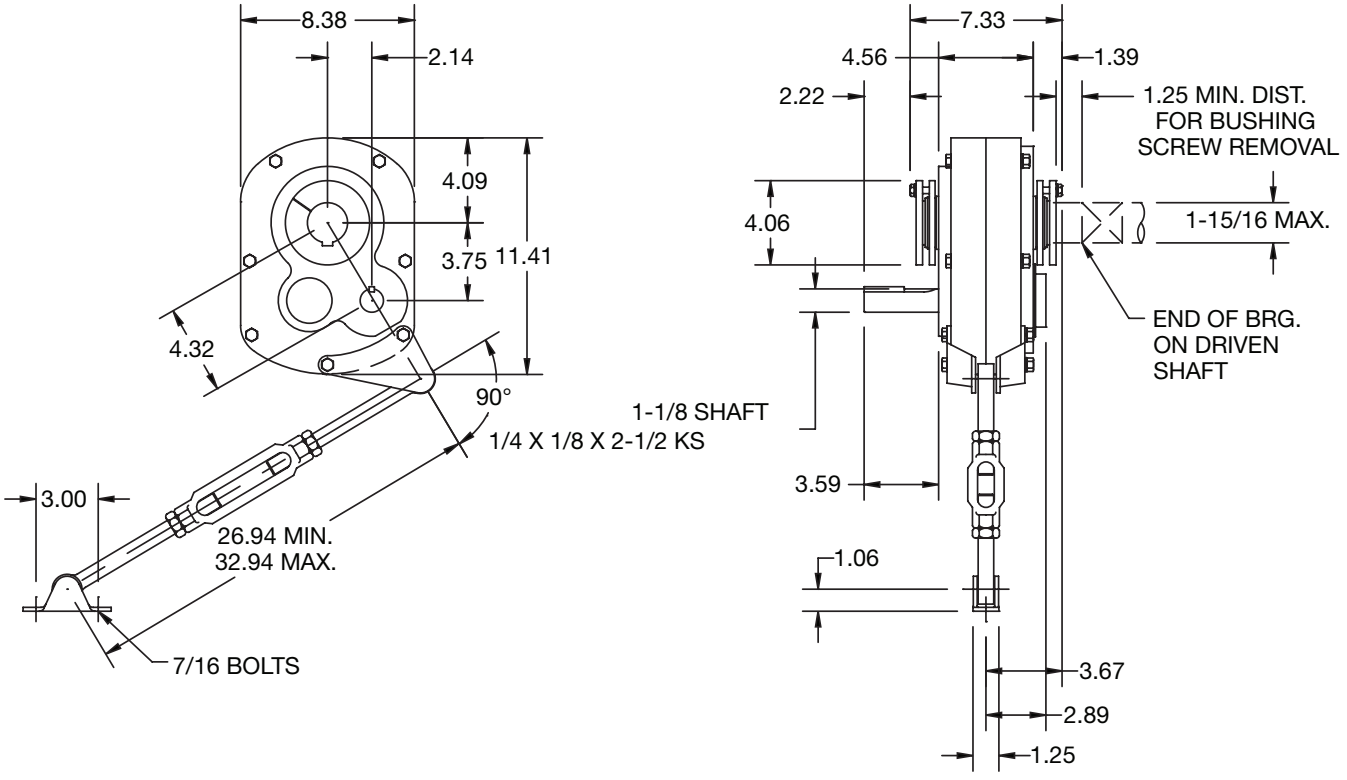
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

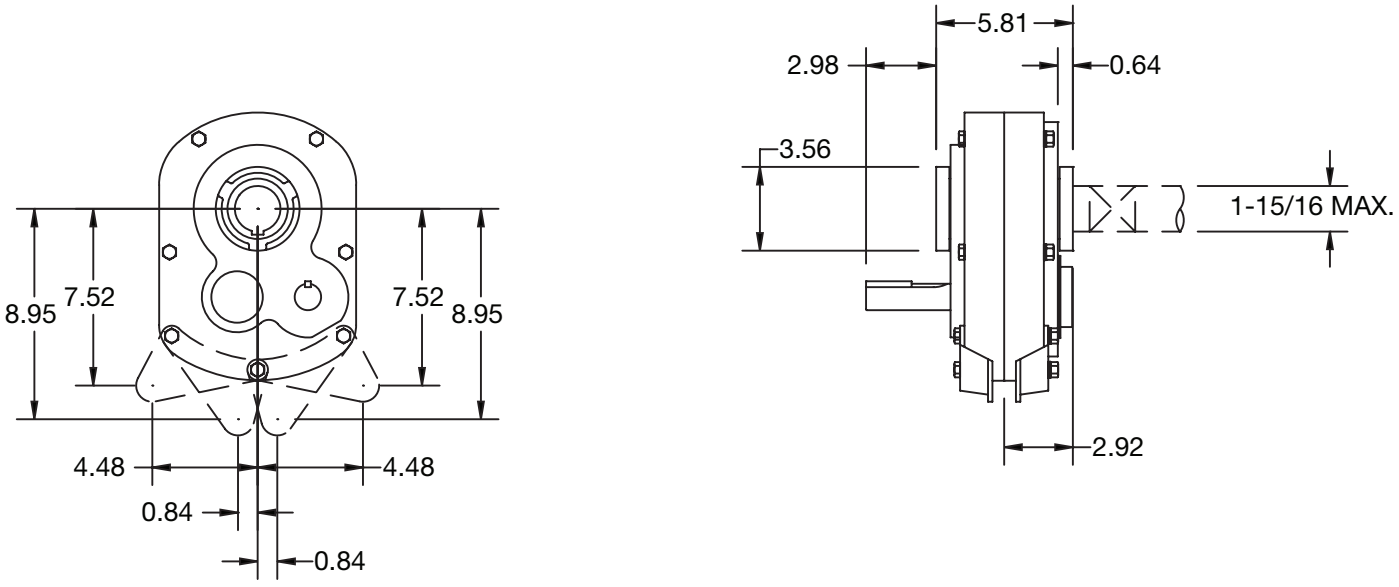
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT2A - Double Reduction Taper Bushed



TXT2A - Double Reduction Straight Bore



FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	MODIFICATION/ACCESSORIES PAGE G2-71	RELATED PRODUCTS PAGE G2-152



SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT2A Taper Bushed Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT209AT	**242079**	115D09	9.25	58
TXT215AT	**242082**	115D15	14.10	58
TXT225AT	**242083**	115D25	23.46	58

TXT2A Straight Bore Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT209AS	**242327** ♣	115D09	9.25	58
TXT215AS	**242090**	115D15	14.10	58
TXT225AS	**242091**	115D25	23.46	58

Accessories for TXT2A Reducers

Description	Part Number	Weight
TA1M Standard Motor Mount (56T-215T)	**241391**	37.3
TAB2 Bottom Motor Mount (56T-215T) ♠ ♣	**242421**	34
TXT2 Backstop Assembly	**252101**	1
Optional Filter Breather (3/8-18 NPT)	**430048**	.2
TXT2D TA Reducer Belt Guard (56T-215T)	**242395**	36
TXT2 Taconite Auxiliary Seal Kit ♥	**272446**	5.5
TXT2 Lube Kit	**LUBEKITTXT2**	4.6

TXT2 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
1-15/16	(Max.)	**242168**	◆	1/2 x 1/4 x 6-11/16	1/2 x 1/4 x 2-1/2	2.9	-
1-3/4		**242166**	**242351**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-7/8	3.3	0.8
1-11/16		**242164**	**242350**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-7/8	3.4	1.1
1-5/8	▲	**242162**	**242349**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-7/8	3.2	1.2
1-1/2	▲	**242158**	**242348**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-1/2	3.8	1.5
1-7/16	▲	**242156**	**242347**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-1/2	4.0	1.7
1-3/8	▲	**242154**	**242346**	5/16 x 5/32 x 6-11/16	5/16 x 5/32 x 2	3.6	1.8
1-5/16	▲	**242152**	**242345**	5/16 x 5/32 x 6-11/16	5/16 x 5/32 x 2	3.6	1.8
1-1/4	▲	**242150**	**242344**	1/4 x 1/8 x 6-11/16	1/4 x 1/8 x 2	3.6	2.1
1-3/16	▲	**242148**	**242343**	1/4 x 1/8 x 6-11/16	1/4 x 1/8 x 2	3.6	2.2
1-1/8	▲	**242146**	**-**	1/4 x 1/8 x 6-11/16	-	3.8	-

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT2 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

● Taper Bushed Reducers require bushing for all bore sizes.

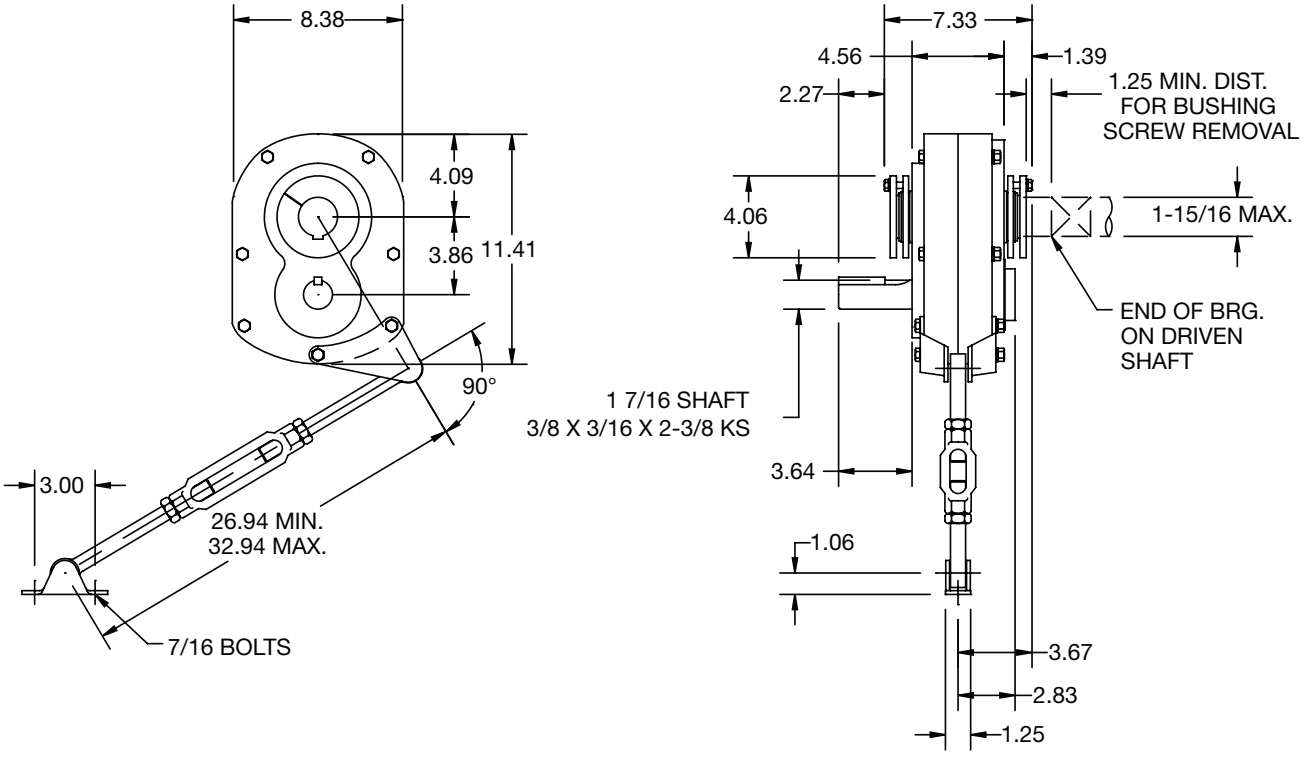
♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

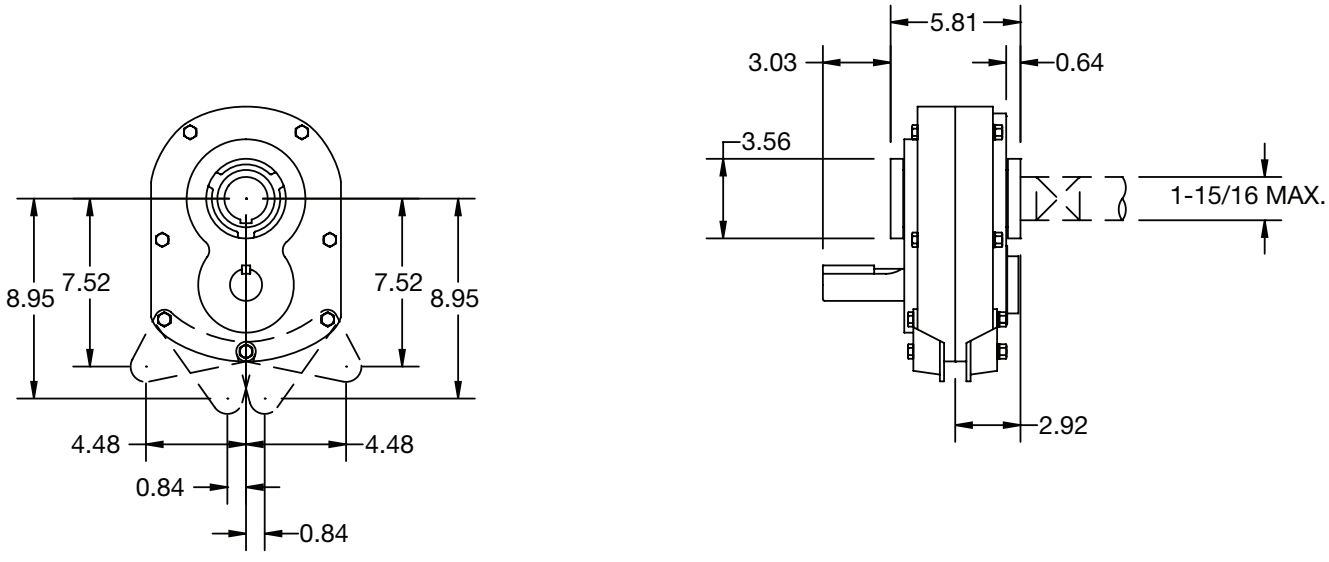
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT205 - Single Reduction Taper Bushed



TXT205 - Single Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT205 Taper Bushed Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT205T	**242249**	115S05	5.29	52

TXT205 Straight Bore Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT205S	**242253**	115S05	5.29	52

Accessories for TXT205 Reducers

Description	Part Number	Weight
TA1M Standard Motor Mount (56T-215T)	**241391**	37.3
TAB2 Bottom Motor Mount (56T-215T) ♠ ♣	**242421**	34
TXT205 Backstop Assembly	**252101**	1
Optional Filter Breather (3/8-18 NPT)	**430048**	0.2
TXT2S TA Reducer Belt Guard (56T-215T)	**242397**	36
TXT205 Taconite Auxiliary Seal Kit ♥	**272459**	5.8
TXT205 Lube Kit	**LUBEKITTXT205**	6.9

TXT2 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
1-15/16	(Max.)	**242168**	◆	1/2 x 1/4 x 6-11/16	1/2 x 1/4 x 2-1/2	2.9	-
1-3/4		**242166**	**242351**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-7/8	3.3	0.8
1-11/16		**242164**	**242350**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-7/8	3.4	1.1
1-5/8	▲	**242162**	**242349**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-7/8	3.2	1.2
1-1/2	▲	**242158**	**242348**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-1/2	3.8	1.5
1-7/16	▲	**242156**	**242347**	3/8 x 3/16 x 6-11/16	3/8 x 3/16 x 2-1/2	4.0	1.7
1-3/8	▲	**242154**	**242346**	5/16 x 5/32 x 6-11/16	5/16 x 5/32 x 2	3.6	1.8
1-5/16	▲	**242152**	**242345**	5/16 x 5/32 x 6-11/16	5/16 x 5/32 x 2	3.6	1.8
1-1/4	▲	**242150**	**242344**	1/4 x 1/8 x 6-11/16	1/4 x 1/8 x 2	3.6	2.1
1-3/16	▲	**242148**	**242343**	1/4 x 1/8 x 6-11/16	1/4 x 1/8 x 2	3.6	2.2
1-1/8	▲	**242146**	**-**	1/4 x 1/8 x 6-11/16	-	3.8	-

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT2 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

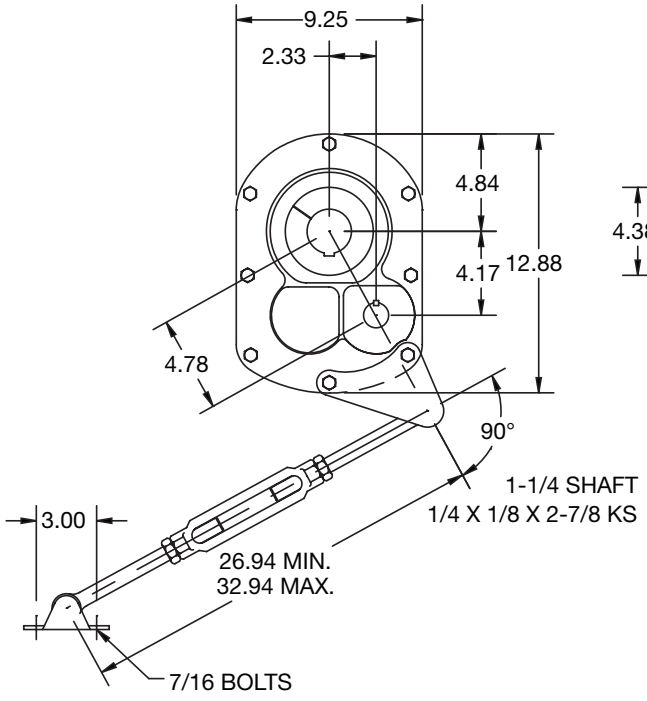
● Taper Bushed Reducers require bushing for all bore sizes.

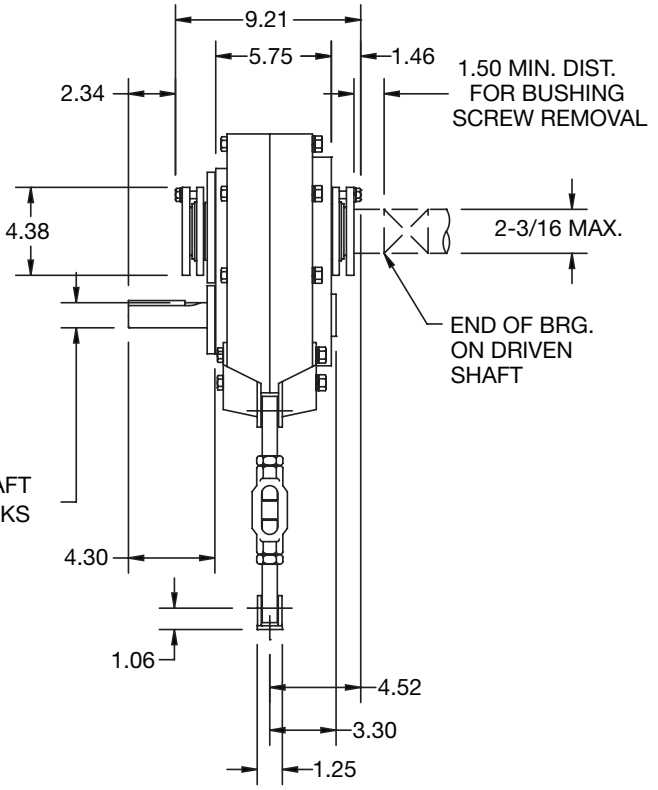
♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

SELECTION/DIMENSIONS

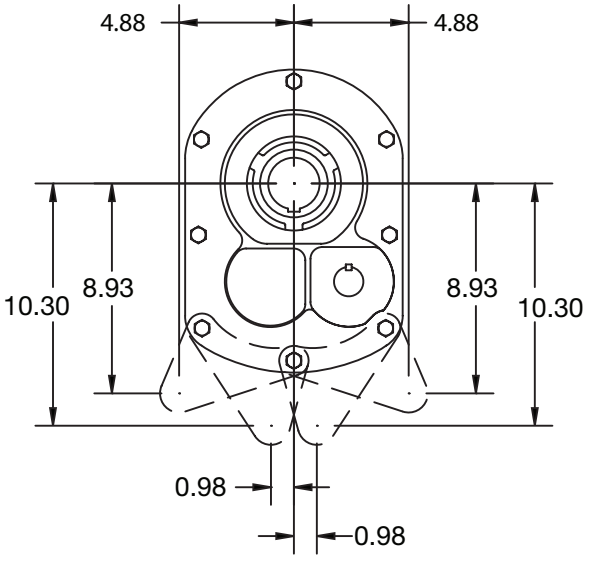
TORQUE-ARM Shaft Mount Speed Reducers

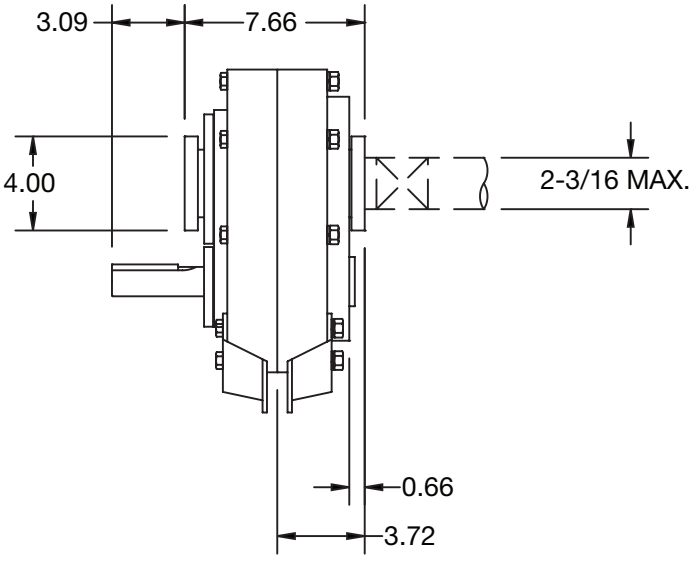
TXT3B - Double Reduction Taper Bushed





TXT3B - Double Reduction Straight Bore





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SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT3B Taper Bushed Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT309BT	**243500**	203D09	8.91	98
TXT315BT	**243501**	203D15	14.88	98
TXT325BT	**243502**	203D25	24.71	98

TXT3B Straight Bore Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT309BS	**243512** ♣	203D09	8.91	98
TXT315BS	**243513**	203D15	14.88	98
TXT325BS	**243514**	203D25	24.71	98

Accessories for TXT3B Reducers

Description	Part Number	Weight
TA3M Standard Motor Mount (56T-215T)	**243391**	38
TA3M Special Motor Mount (254T-256T) ♠ ♣	**243393**	45
TA3ML Long Motor Mount (143T-215T) ♣	**243392**	42
TAB3 Bottom Motor Mount (143T-286T) ♠ ♣	**243404**	54
TXT3A Backstop Assembly	**243106**	.6
Optional Filter Breather (3/8-18 NPT)	**430048**	.2
TXT3D TA Reducer Belt Guard (56T-215T)	**243387**	43
TXT3D TA Reducer Belt Guard for Long Motor Mount (56T-215T) ♣	**243153**	52
TXT3A Cooling Fan Assembly	**243581**	3
TXT3A Taconite Auxiliary Seal Kit ♥	**243577**	7.3
TXT3 Lube Kit	**LUBEKITTXT3**	6.9

TXT3 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
2-3/16	(Max.)	**243276**	◆	1/2 x 1/4 x 8-1/16	1/2 x 1/4 x 3-5/8	3.7	-
2		**243274**	**243429**	1/2 x 1/4 x 8-1/16	1/2 x 1/4 x 3-5/8	4.1	1.0
1-15/16		**243272**	**243428**	1/2 x 1/4 x 8-1/16	1/2 x 1/4 x 3-5/8	4.4	1.2
1-7/8	▲	**243270**	**243427** ♣	1/2 x 1/4 x 8-1/16	1/2 x 1/4 x 3-5/8	4.3	1.9
1-3/4	▲	**243266**	**243426**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 3-1/4	4.8	1.9
1-11/16	▲	**243268**	**243425**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 3-1/4	4.8	2.2
1-5/8	▲	**243264** ♣	**243424**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 2-1/4	4.8	2.3
1-1/2	▲	**243262**	**243423**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 2-1/4	5.4	2.5
1-7/16	▲	**243260**	**243422**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 2-1/4	5.6	2.7
1-3/8	▲	**243284**	**243421**	5/16 x 5/32 x 8-1/16	5/16 x 5/32 x 2-1/4	5.8	3.2
1-5/16	▲	**243282**	**243420**	5/16 x 5/32 x 8-1/16	5/16 x 5/32 x 2-1/4	5.8	3.8

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT3 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

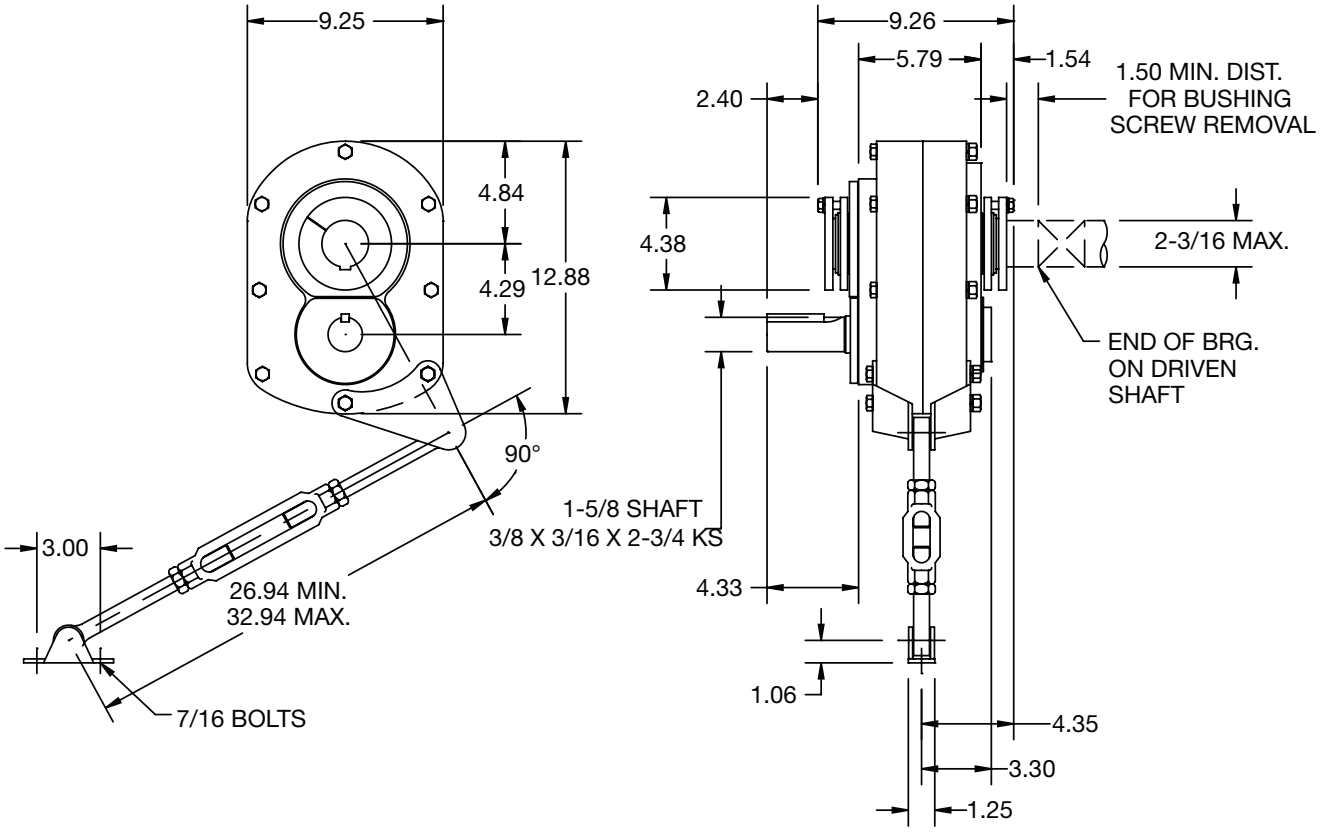
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

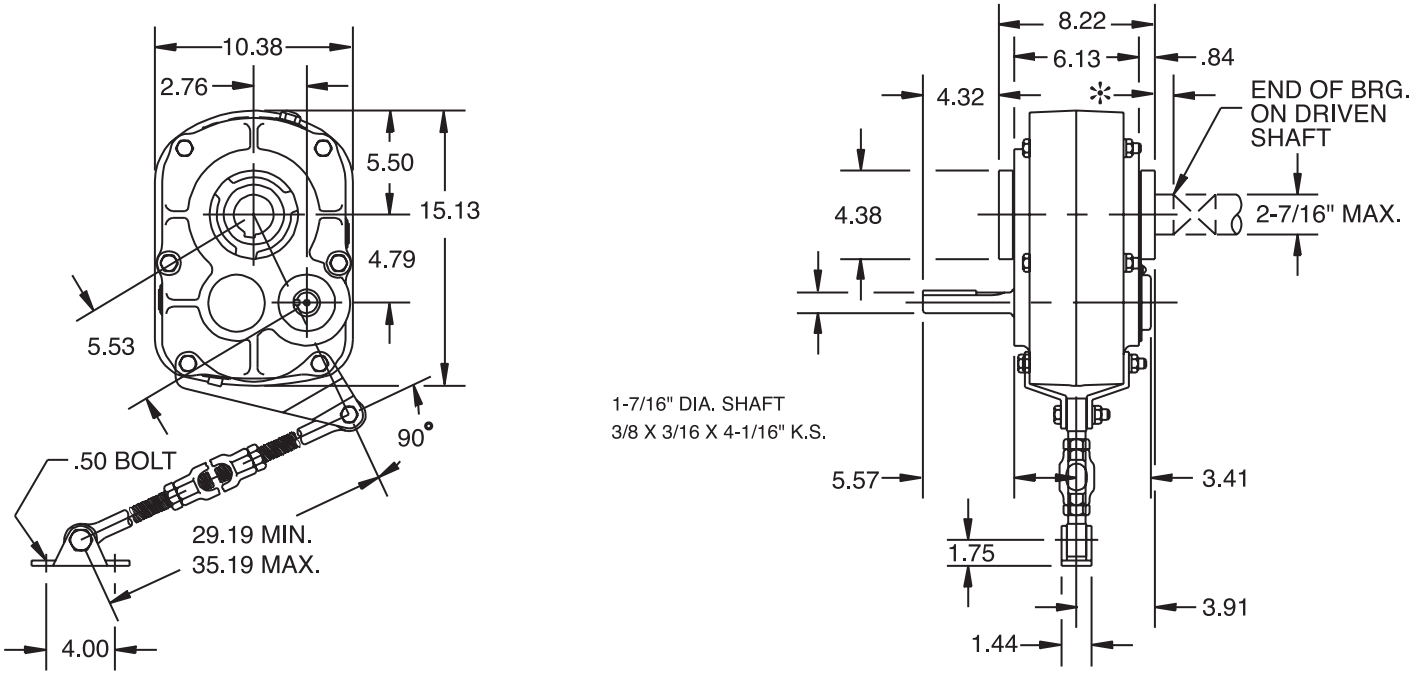
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT305A - Single Reduction Taper Bushed



TXT305A - Single Reduction Straight Bore



FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	MODIFICATION/ACCESSORIES PAGE G2-71	RELATED PRODUCTS PAGE G2-152



SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT305A Taper Bushed Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT305AT	**253151**	203S05	5.60	86

TXT305A Straight Bore Reducers ■ ○

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT305AS	**253155**	203S05	5.60	86

Accessories for TXT305A Reducers

Description	Part Number	Weight
TA3M Standard Motor Mount (56T-215T)	**243391**	38
TA3M Special Motor Mount (254T-256T) ♠ ♣	**243393**	45
TA3ML Long Motor Mount (143T-215T) ♣	**243392**	42
TAB3 Bottom Motor Mount (143T-286T) ♠ ♣	**243404**	54
TXT305A Backstop Assembly	**252101**	1
Optional Filter Breather (3/8-18 NPT)	**430048**	.2
TXT3S TA Reducer Belt Guard (56T-215T)	**243389**	43
TXT3S TA Reducer Belt Guard for Long Motor Mount (56T-215T) ♣	**243164**	55
TXT305A Cooling Fan Assembly	**253188**	3
TXT305A Taconite Auxiliary Seal Kit ♥	**253186**	7.6
TXT305 Lube Kit	**LUBEKITTXT305**	8.1

TXT3 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
2-3/16	(Max.)	**243276**	◆	1/2 x 1/4 x 8-1/16	1/2 x 1/4 x 3-5/8	3.7	-
2		**243274**	**243429**	1/2 x 1/4 x 8-1/16	1/2 x 1/4 x 3-5/8	4.1	1.0
1-15/16		**243272**	**243428**	1/2 x 1/4 x 8-1/16	1/2 x 1/4 x 3-5/8	4.4	1.2
1-7/8	▲	**243270**	**243427** ♣	1/2 x 1/4 x 8-1/16	1/2 x 1/4 x 3-5/8	4.3	1.9
1-3/4	▲	**243266**	**243426**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 3-1/4	4.8	1.9
1-11/16	▲	**243268**	**243425**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 3-1/4	4.8	2.2
1-5/8	▲	**243264** ♣	**243424**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 2-1/4	4.8	2.3
1-1/2	▲	**243262**	**243423**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 2-1/4	5.4	2.5
1-7/16	▲	**243260**	**243422**	3/8 x 3/16 x 8-1/16	3/8 x 3/16 x 2-1/4	5.6	2.7
1-3/8	▲	**243284**	**243421**	5/16 x 5/32 x 8-1/16	5/16 x 5/32 x 2-1/4	5.8	3.2
1-5/16	▲	**243282**	**243420**	5/16 x 5/32 x 8-1/16	5/16 x 5/32 x 2-1/4	5.8	3.8

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT3 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

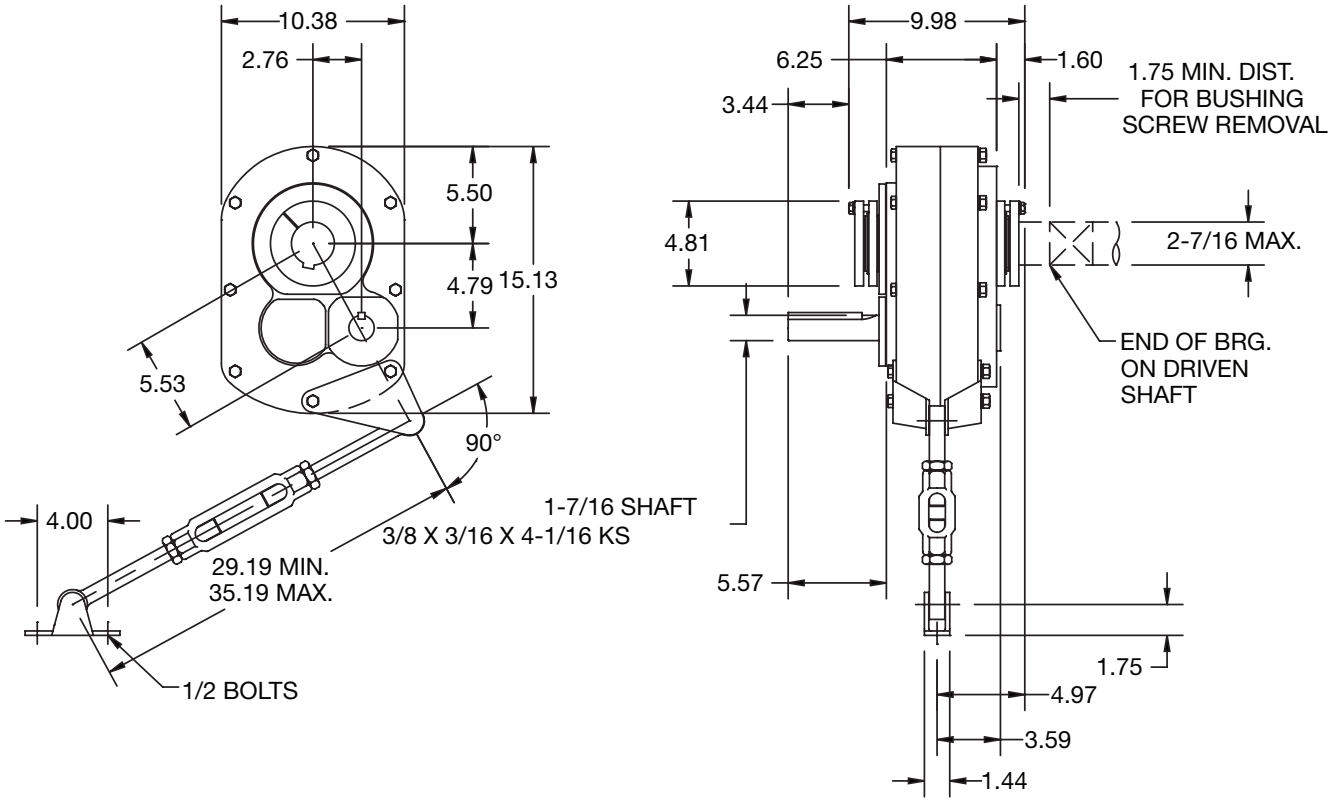
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

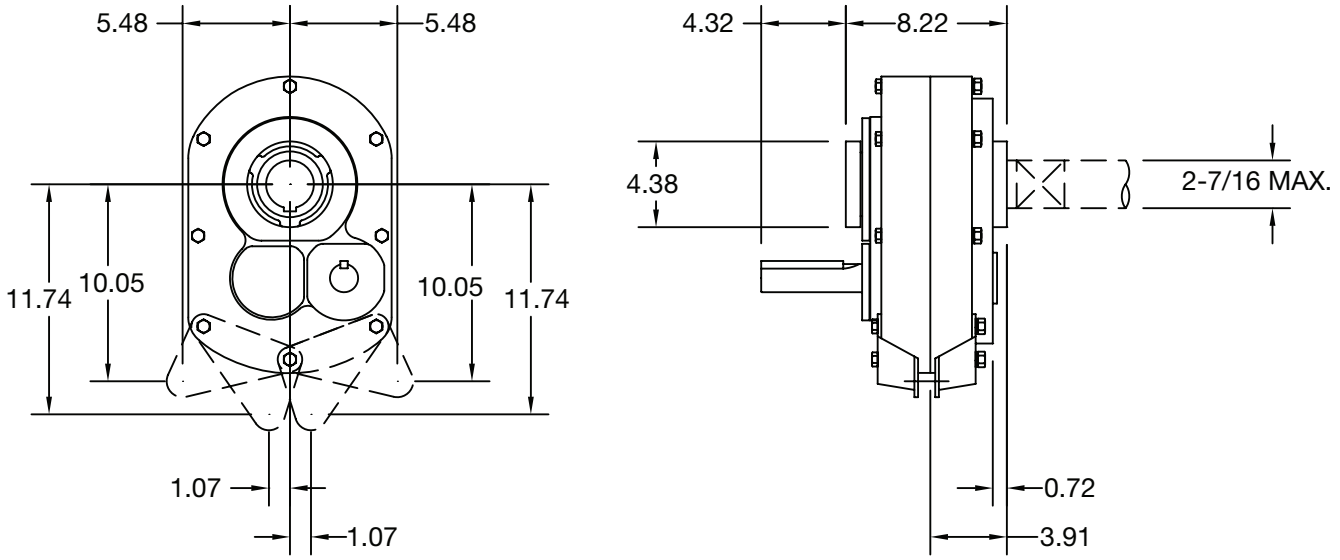
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT4B - Double Reduction Taper Bushed



TXT4B - Double Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT4B Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT409BT	**244525**	207D09	9.67	139
TXT415BT	**244526**	207D15	15.13	139
TXT425BT	**244527**	207D25	24.38	139

TXT4B Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT409BS	**244537** ♣	207D09	9.67	139
TXT415BS	**244538**	207D15	15.13	139
TXT425BS	**244539**	207D25	24.38	139

Accessories for TXT4B Reducers

Description	Part Number	Weight
TA4M Standard Motor Mount (143T-286T)	**244391**	75
TA4ML Long Motor Mount (143T-286T)	**244392**	75
TAB4 Bottom Motor Mount (143T-326T) ♠ ♣	**244404**	55
TXT4A Backstop Assembly	**244106**	1.2
Optional Filter Breather (3/8-18 NPT)	**430048**	.2
TXT4D TA Reducer Belt Guard (143T-286T)	**244395**	54
TXT4D TA Reducer Belt Guard for Long Motor Mount (143T-286T) ♠ ♣	**244151**	65
TXT4A Cooling Fan Assembly	**272594**	3
TXT4A Taconite Auxiliary Seal Kit ♥	**244676**	7.7
TXT4 Lube Kit	**LUBEKITTXT4**	10.4

TXT4 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
2-7/16	(Max.)	**244115**	◆	5/8 x 5/16 x 9-1/32	5/8 x 5/16 x 3-3/8	5.8	-
2-1/4	▲	**244113**	**244430**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 3-3/8	6.3	1.2
2-3/16	▲	**244111**	**244429**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 3-3/8	6.7	1.5
2-1/8	▲	**244109**	**244428**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 3-3/8	7.0	2.6
2	▲	**244095**	**244427**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 4	7.1	2.6
1-15/16	▲	**244093**	**244426**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 4	7.4	3.5
1-3/4	▲	**244087**	**244424**	3/8 x 3/16 x 9-1/32	3/8 x 3/16 x 2-7/16	8.0	3.6
1-11/16	▲	**244085**	**244423** ♣	3/8 x 3/16 x 9-1/32	3/8 x 3/16 x 2-7/16	8.3	3.6
1-1/2	▲	**244081**	**244421**	3/8 x 3/16 x 9-1/32	3/8 x 3/16 x 2-7/16	8.3	4.1
1-7/16	▲	**244079**	**244420**	3/8 x 3/16 x 9-1/32	3/8 x 3/16 x 2-7/16	8.8	4.1

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT4 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

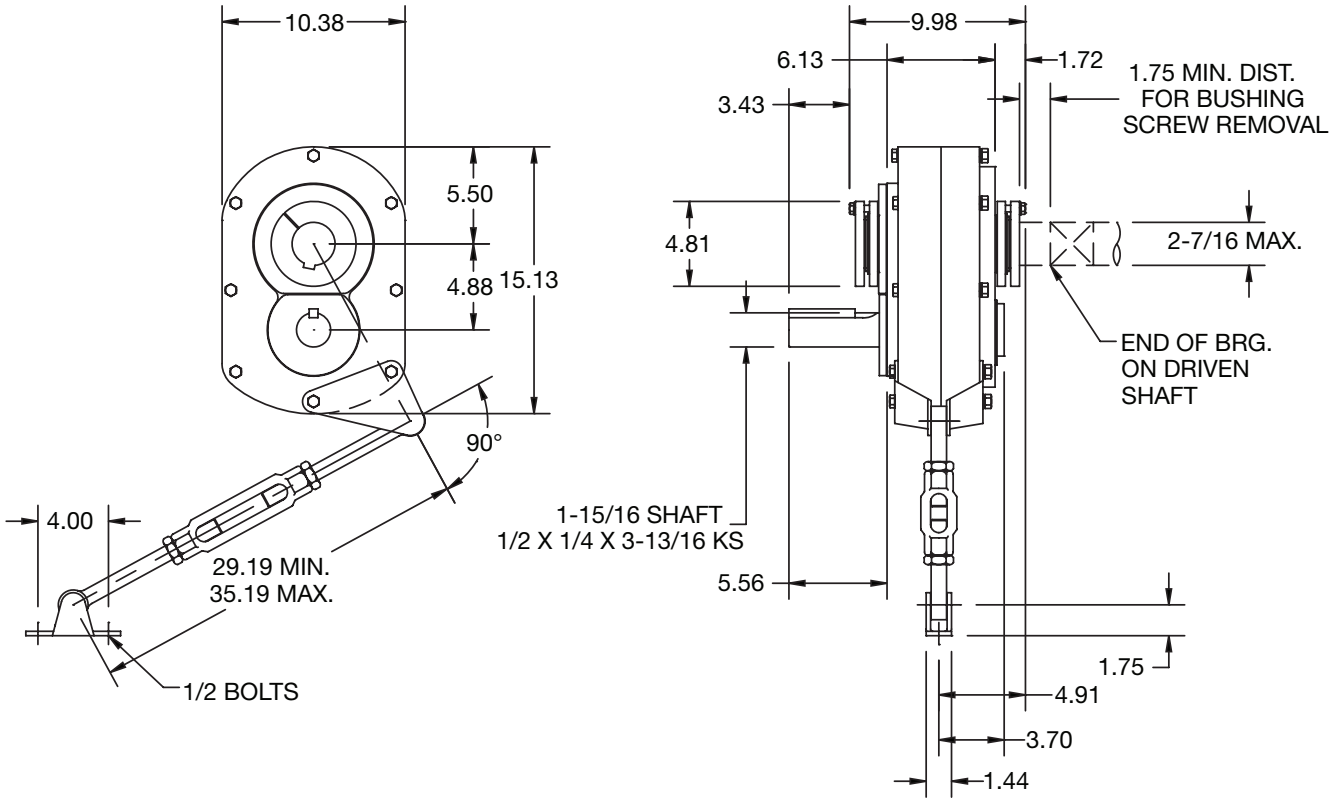
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

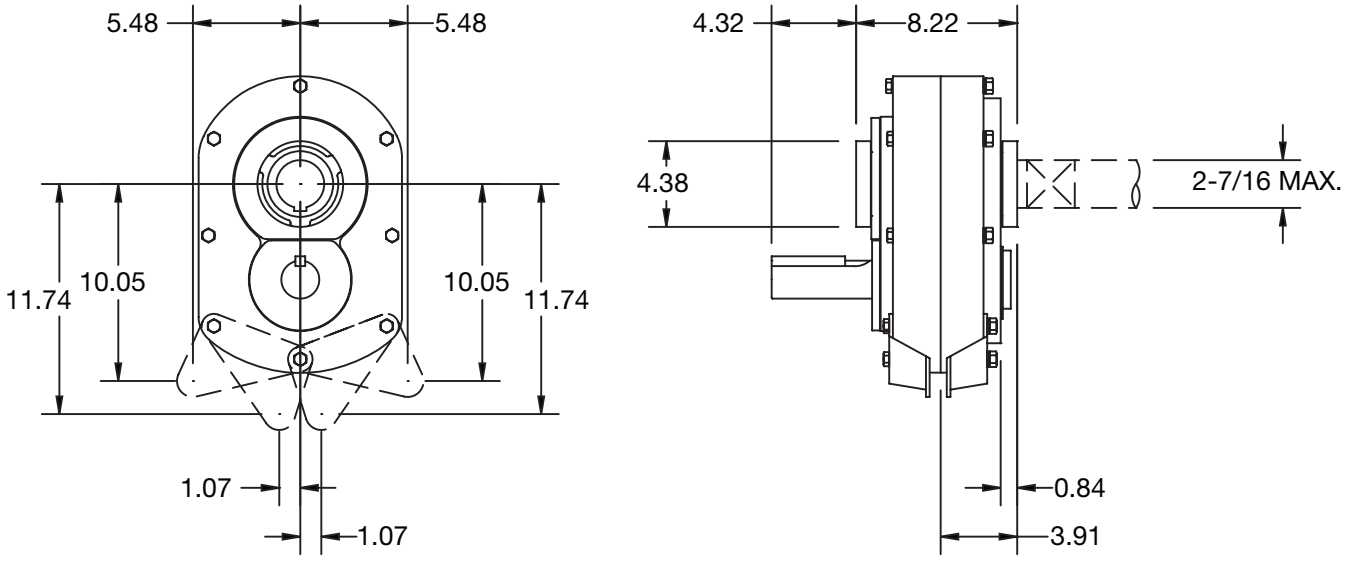
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT405A - Single Reduction Taper Bushed



TXT405A - Single Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT405A Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT405AT	**254200**	207S05	5.65	122

TXT405A Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT405AS	**254204**	207S05	5.65	122

Accessories for TXT405A Reducers

Description	Part Number	Weight
TA4M Standard Motor Mount (143T-286T)	**244391**	75
TA4ML Long Motor Mount (143T-286T)	**244392**	75
TAB4 Bottom Motor Mount (143T-326T) ♠ ♣	**244404**	55
TXT405A Backstop Assembly	**244148**	.9
Optional Filter Breather (3/8-18 NPT)	**430048**	.2
TXT4S TA Reducer Belt Guard (143T-286T)	**244397**	54
TXT4S TA Reducer Belt Guard for Long Motor Mount (143T-286T) ♠ ♣	**244164**	65
TXT405A Cooling Fan Assembly	**254268**	3
TXT405A Taconite Auxiliary Seal Kit ♥	**254267**	7.9
TXT405 Lube Kit	**LUBEKITTXT405**	12.7

TXT4 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
2-7/16	(Max.)	**244115**	◆	5/8 x 5/16 x 9-1/32	5/8 x 5/16 x 3-3/8	5.8	-
2-1/4	▲	**244113**	**244430**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 3-3/8	6.3	1.2
2-3/16	▲	**244111**	**244429**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 3-3/8	6.7	1.5
2-1/8	▲	**244109**	**244428**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 3-3/8	7.0	2.6
2	▲	**244095**	**244427**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 4	7.1	2.6
1-15/16	▲	**244093**	**244426**	1/2 x 1/4 x 9-1/32	1/2 x 1/4 x 4	7.4	3.5
1-3/4	▲	**244087**	**244424**	3/8 x 3/16 x 9-1/32	3/8 x 3/16 x 2-7/16	8.0	3.6
1-11/16	▲	**244085**	**244423** ♣	3/8 x 3/16 x 9-1/32	3/8 x 3/16 x 2-7/16	8.3	3.6
1-1/2	▲	**244081**	**244421**	3/8 x 3/16 x 9-1/32	3/8 x 3/16 x 2-7/16	8.3	4.1
1-7/16	▲	**244079**	**244420**	3/8 x 3/16 x 9-1/32	3/8 x 3/16 x 2-7/16	8.8	4.1

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT4 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

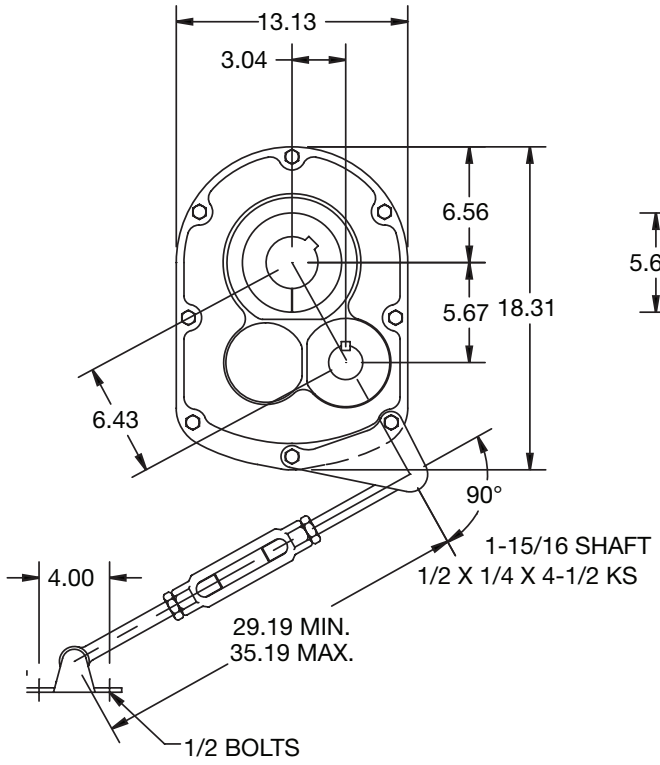
● Taper Bushed Reducers require bushing for all bore sizes.

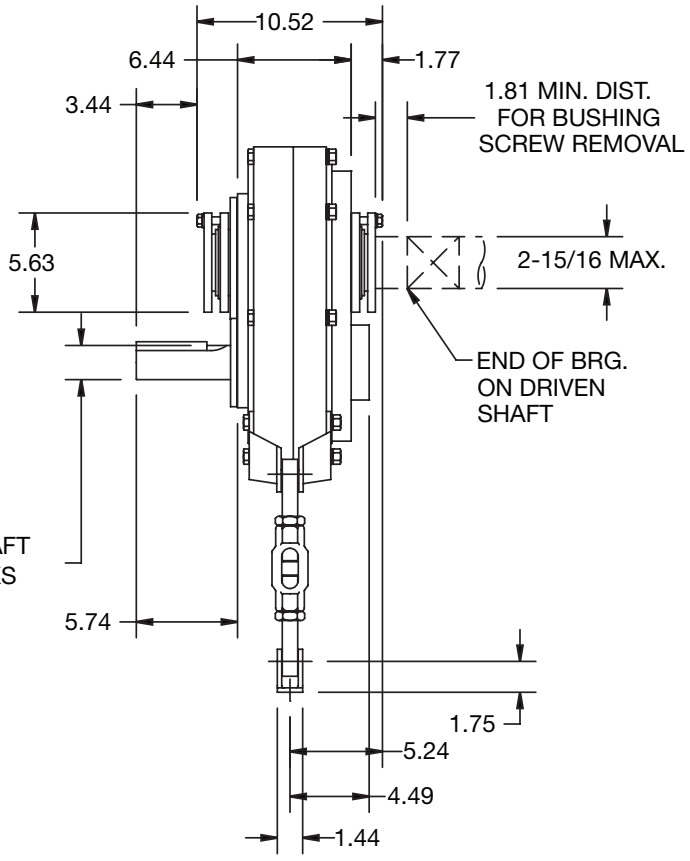
♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

SELECTION/DIMENSIONS

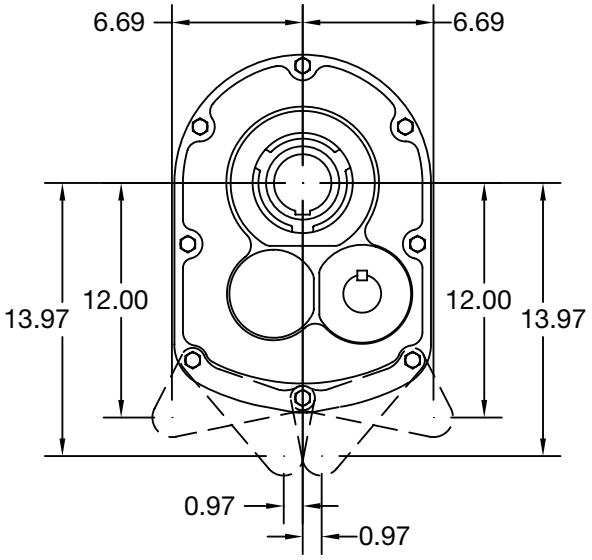
TORQUE-ARM Shaft Mount Speed Reducers

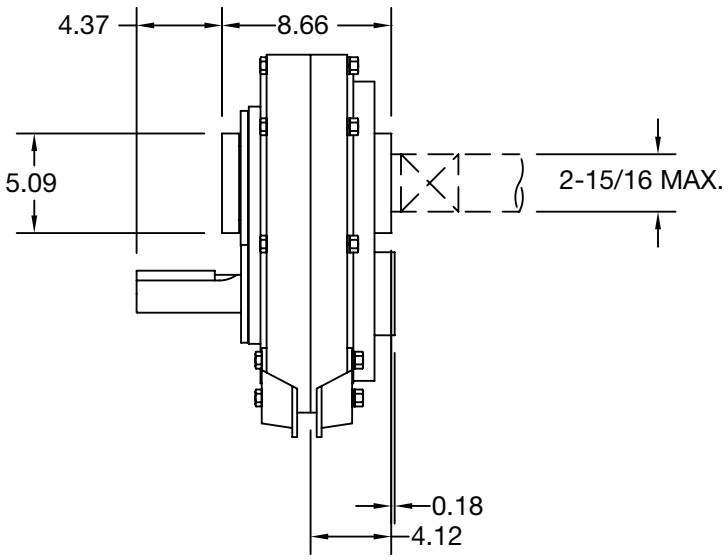
TXT5C - Double Reduction Taper Bushed





TXT5C - Double Reduction Straight Bore







SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT5C Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT509CT	**245550**	215D09	8.95	207
TXT515CT	**245551**	215D15	15.40	207
TXT525CT	**245552**	215D25	25.56	207

TXT5C Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT509CS	**245562** ♣	215D09	8.95	207
TXT515CS	**245563**	215D15	15.40	207
TXT525CS	**245564**	215D25	25.56	207

Accessories for TXT5C Reducers

Description	Part Number	Weight
TA5M Standard Motor Mount (143T-286T)	**245391**	76
TA5M Special Motor Mount (324T-326T) ♠ ♣	**245393**	79
TA5ML Long Motor Mount (143T-286T)	**245392**	89
TAB5 Bottom Motor Mount (143T-326T) ♠	**245405**	55
TXT5B Backstop Assembly	**245154**	2.2
Optional Filter Breather (1/2-14 NPT)	**430049**	.2
TXT5D TA Reducer Belt Guard (143T-286T)	**245387**	75
TXT5D TA Reducer Belt Guard for Long Motor Mount (143T-286T) ♣	**245102**	90
TXT5B Cooling Fan Assembly	**272369**	3
TXT5B Taconite Auxiliary Seal Kit ♥	**245635**	11.9
TXT5 Lube Kit	**LUBEKITTXT5**	18.5

TXT5 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
2-15/16	(Max.)	**245112**	◆	3/4 x 3/8 x 9-3/8	3/4 x 3/8 x 4-3/8	7.8	-
2-11/16		**245110**	**245428**	5/8 x 5/16 x 9-3/8	5/8 x 5/16 x 4-3/8	7.9	3.0
2-1/2	▲	**245099**	**245427**	5/8 x 5/16 x 9-3/8	5/8 x 5/16 x 4-3/8	8.5	3.4
2-7/16	▲	**245094**	**245426**	5/8 x 5/16 x 9-3/8	5/8 x 5/16 x 4-3/8	8.5	4.3
2-1/4	▲	**245092**	**245425**	1/2 x 1/4 x 9-3/8	1/2 x 1/4 x 3	9.2	4.7
2-3/16	▲	**245090**	**245424**	1/2 x 1/4 x 9-3/8	1/2 x 1/4 x 3	10.0	5.6
2	▲	**245088**	**245423**	1/2 x 1/4 x 9-3/8	1/2 x 1/4 x 3	10.2	5.9
1-15/16	▲	**245086**	**245422**	1/2 x 1/4 x 9-3/8	1/2 x 1/4 x 3	10.3	6.1

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT5 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

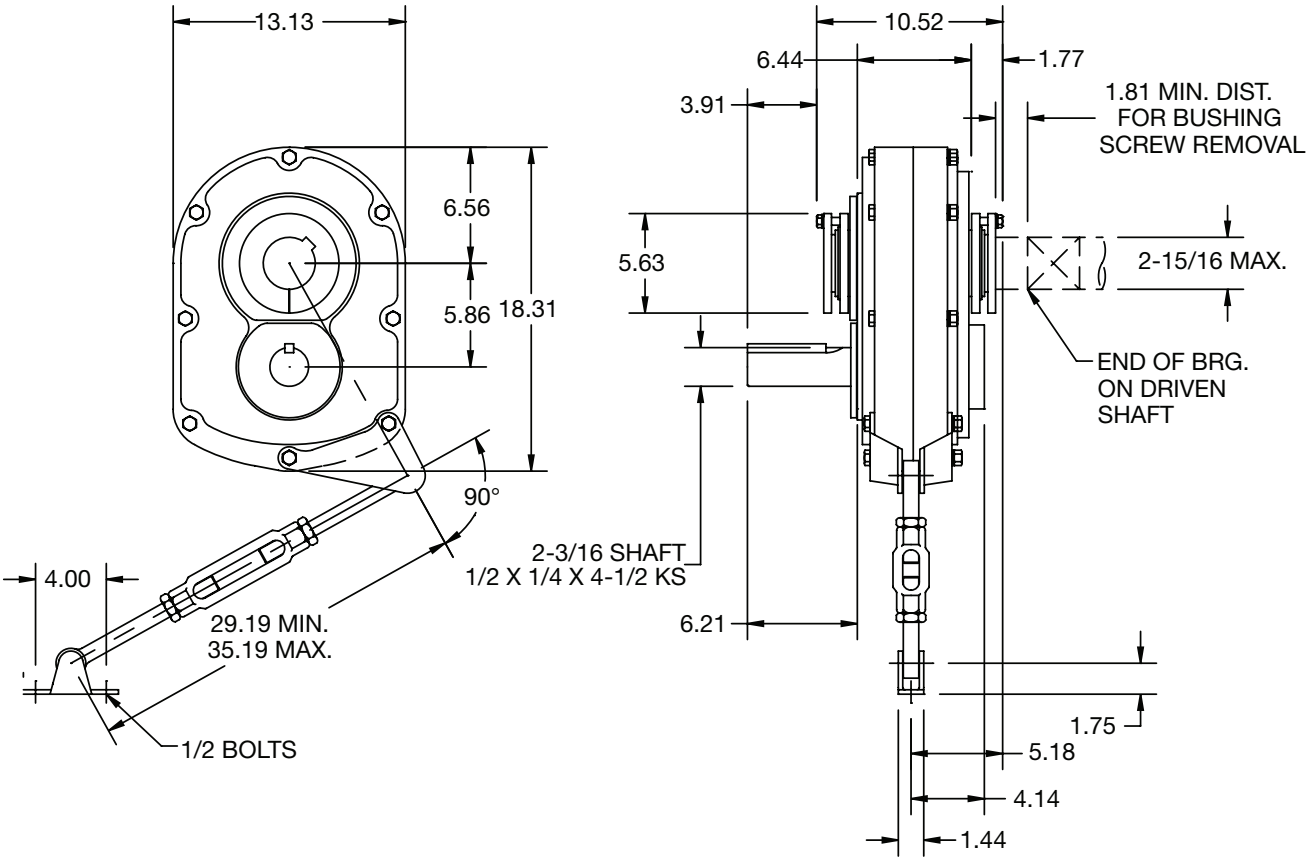
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

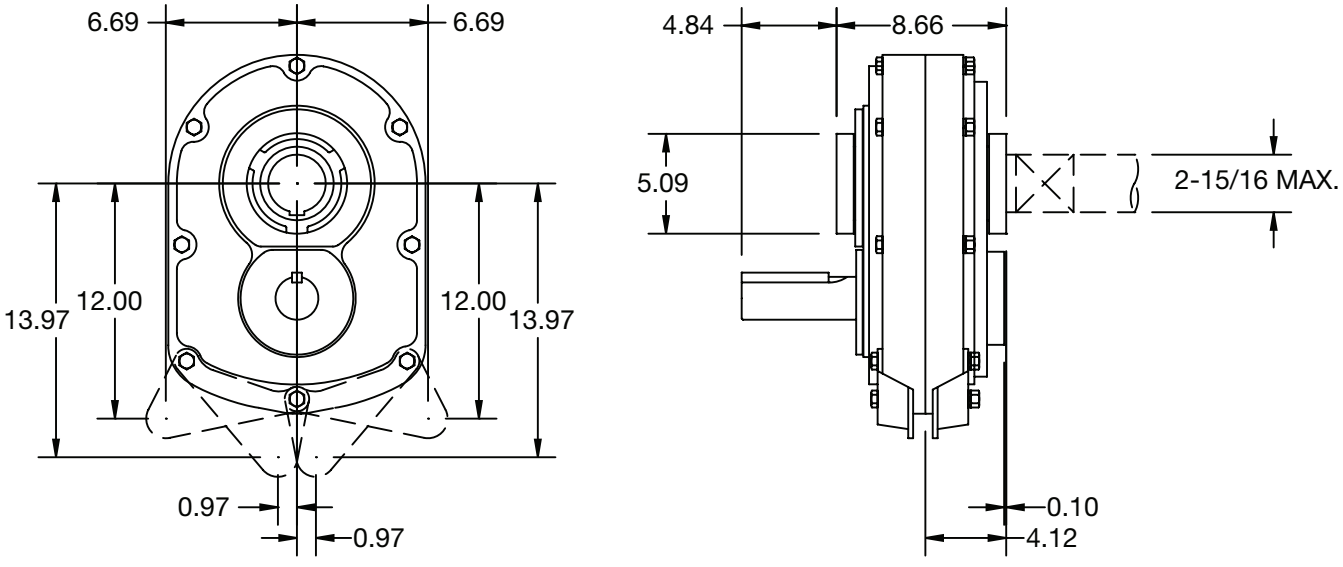
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT505A - Single Reduction Taper Bushed



TXT505A - Single Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT505A Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT505AT	**255200**	215S05	5.67	182

TXT505A Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT505AS	**255204**	215S05	5.67	182

Accessories for TXT505A Reducers

Description	Part Number	Weight
TA5M Standard Motor Mount (143T-286T)	**245391**	76
TA5M Special Motor Mount (324T-326T) ♠ ♣	**245393**	79
TA5ML Long Motor Mount (143T-286T)	**245392**	89
TAB5 Bottom Motor Mount (143T-326T) ♠	**245405**	55
TXT505A Backstop Assembly	**246101**	1.8
Optional Filter Breather (1/2-14 NPT)	**430049**	.2
TXT5S TA Reducer Belt Guard (143T-286T)	**245389**	59
TXT5S TA Reducer Belt Guard for Long Motor Mount (143T-286T) ♣	**245162**	90
TXT505A Cooling Fan Assembly	**255231**	3
TXT505A Taconite Auxiliary Seal Kit ♥	**255230**	12.3
TXT505 Lube Kit	**LUBEKITTXT505**	18.5

TXT5 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
2-15/16	(Max.)	**245112**	◆	3/4 x 3/8 x 9-3/8	3/4 x 3/8 x 4-3/8	7.8	-
2-11/16		**245110**	**245428**	5/8 x 5/16 x 9-3/8	5/8 x 5/16 x 4-3/8	7.9	3.0
2-1/2	▲	**245099**	**245427**	5/8 x 5/16 x 9-3/8	5/8 x 5/16 x 4-3/8	8.5	3.4
2-7/16	▲	**245094**	**245426**	5/8 x 5/16 x 9-3/8	5/8 x 5/16 x 4-3/8	8.5	4.3
2-1/4	▲	**245092**	**245425**	1/2 x 1/4 x 9-3/8	1/2 x 1/4 x 3	9.2	4.7
2-3/16	▲	**245090**	**245424**	1/2 x 1/4 x 9-3/8	1/2 x 1/4 x 3	10.0	5.6
2	▲	**245088**	**245423**	1/2 x 1/4 x 9-3/8	1/2 x 1/4 x 3	10.2	5.9
1-15/16	▲	**245086**	**245422**	1/2 x 1/4 x 9-3/8	1/2 x 1/4 x 3	10.3	6.1

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT5 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

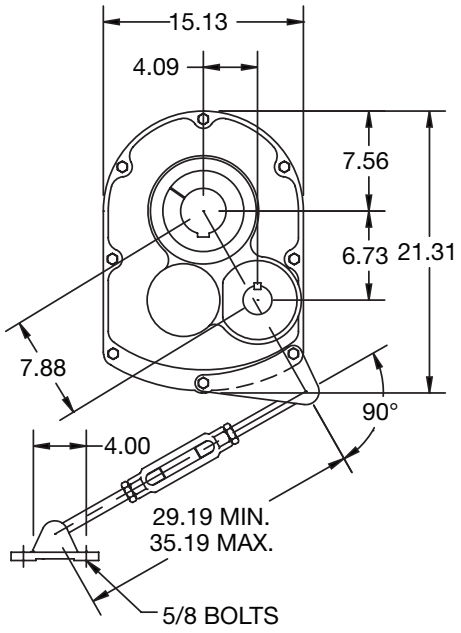
● Taper Bushed Reducers require bushing for all bore sizes.

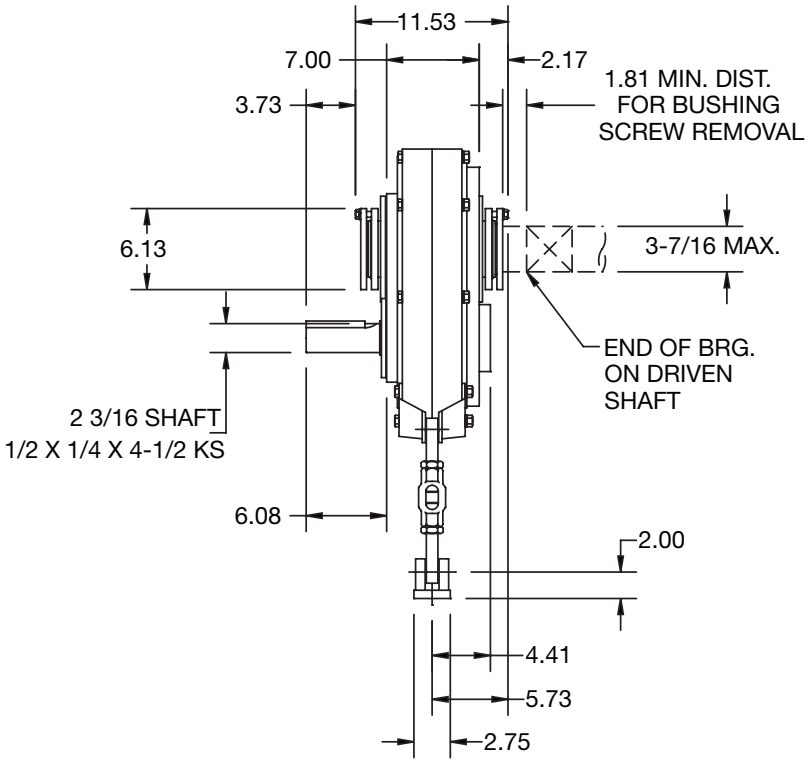
♥ Use with Taper Bushed Reducer only. See page G2-177 for drill and tap information required to mount to reducer.

SELECTION/DIMENSIONS

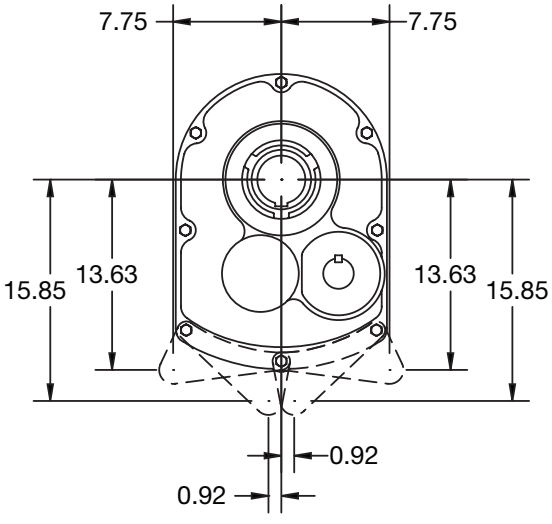
TORQUE-ARM Shaft Mount Speed Reducers

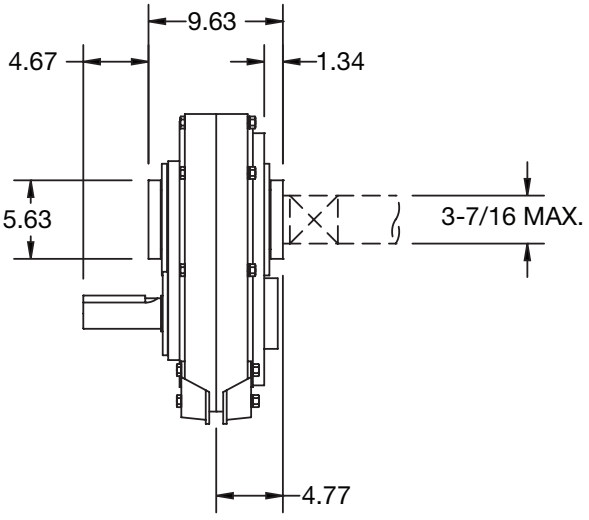
TXT6A - Double Reduction Taper Bushed





TXT6A - Double Reduction Straight Bore





FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	MODIFICATION/ACCESSORIES PAGE G2-71	RELATED PRODUCTS PAGE G2-152



SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT6A Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT609AT	**246149 ♣**	307D09	9.20	285
TXT615AT	**246150**	307D15	15.33	285
TXT625AT	**246151**	307D25	25.13	285

TXT6A Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT609AS	**246327 ♣**	307D09	9.20	285
TXT615AS	**246158 ♣**	307D15	15.33	285
TXT625AS	**246159**	307D25	25.13	285

Accessories for TXT6A Reducers

Description	Part Number	Weight
TA6M Standard Motor Mount (143T-326T)	**246391**	99
TA6M Special Motor Mount (364T) ♣ ♠	**246388**	110
TA6ML Long Motor Mount (143T-326T)	**246390**	100
TAB6 Bottom Motor Mount (182T-326T) ♠	**246392**	84
TXT6 Backstop Assembly	**246092**	2.5
Optional Filter Breather (1/2-14 NPT)	**430049**	0.2
TXT6D TA Reducer Belt Guard (143T-326T)	**246366**	83
TXT6D TA Reducer Belt Guard for Long Motor Mount (143T-326T)	**246147**	100
TXT6 Cooling Fan Assembly	**272325**	3
TXT6 Taconite Auxiliary Seal Kit ♥	**272450**	17.7
TXT6 Lube Kit	**LUBEKITTXT6**	20.8

TXT6 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
3-7/16	(Max.)	**246268**	◆	7/8 x 7/16 x 10-11/16	7/8 x 7/16 x 5-7/8	9.0	-
3	▲	**246283**	**246427**	3/4 x 3/8 x 10-11/16	3/4 x 3/8 x 5-7/8	11.3	4.6
2-15/16	▲	**246267**	**246426**	3/4 x 3/8 x 10-11/16	3/4 x 3/8 x 5-7/8	11.6	6.7
2-7/8	▲	**246266**	**246425**	3/4 x 3/8 x 10-11/16	3/4 x 3/8 x 5-7/8	12.2	6.7
2-11/16	▲	**246265**	**246424**	5/8 x 5/16 x 10-11/16	5/8 x 5/16 x 5-7/8	12.9	6.7
2-1/2	▲	**246264**	**246423**	5/8 x 5/16 x 10-11/16	5/8 x 5/16 x 3-1/2	14.0	8.2
2-7/16	▲	**246263**	**246422**	5/8 x 5/16 x 10-11/16	5/8 x 5/16 x 3-1/2	14.4	8.5
2-1/4	▲	**246262**	**246421**	1/2 x 1/4 x 10-11/16	1/2 x 1/4 x 3-1/2	14.9	9.8
2-3/16	▲	**246261**	**246420 ♣**	1/2 x 1/4 x 10-11/16	1/2 x 1/4 x 3-1/2	15.3	11.0

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT6 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

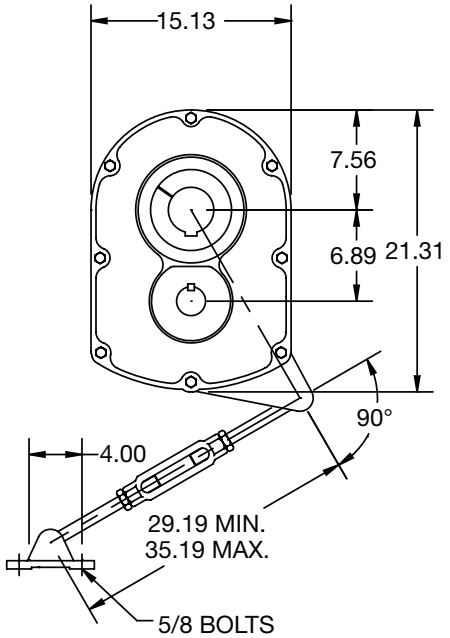
● Taper Bushed Reducers require bushing for all bore sizes.

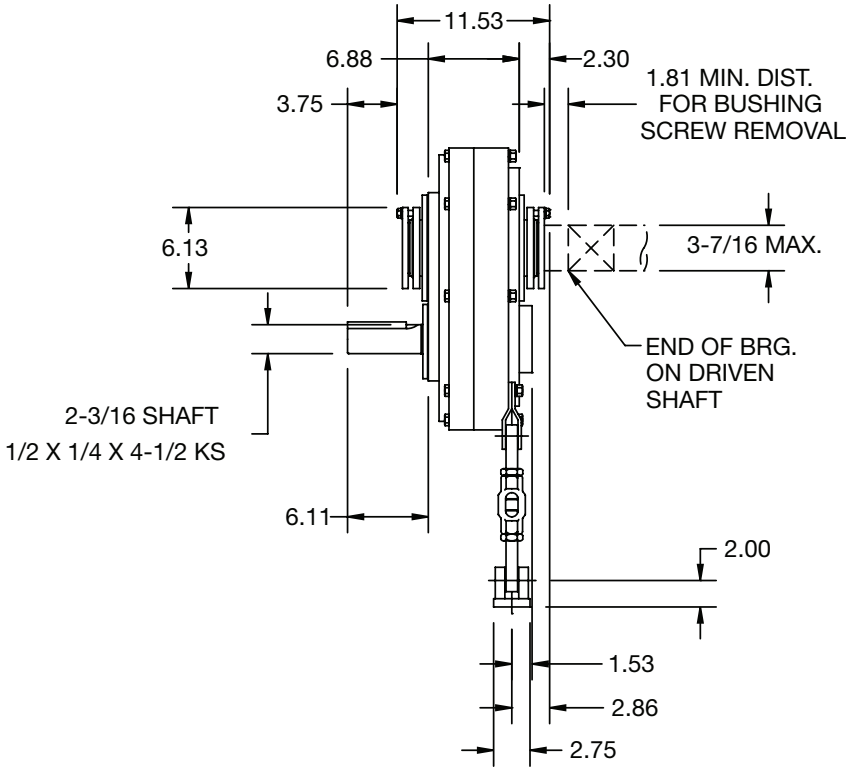
♥ Use with Taper Bushed Reducer only. See page G2-176 for drill and tap information required to mount to reducer.

SELECTION/DIMENSIONS

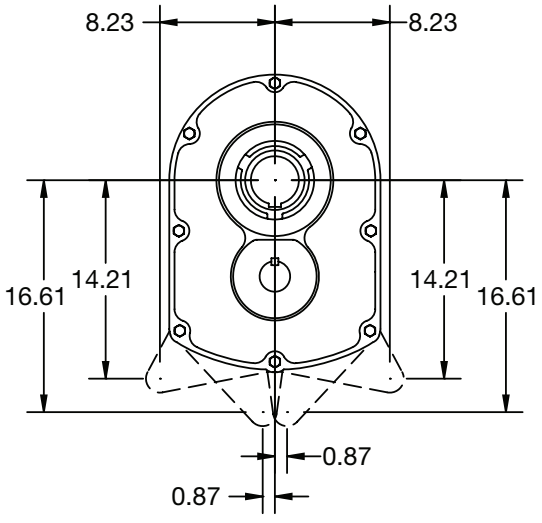
TORQUE-ARM Shaft Mount Speed Reducers

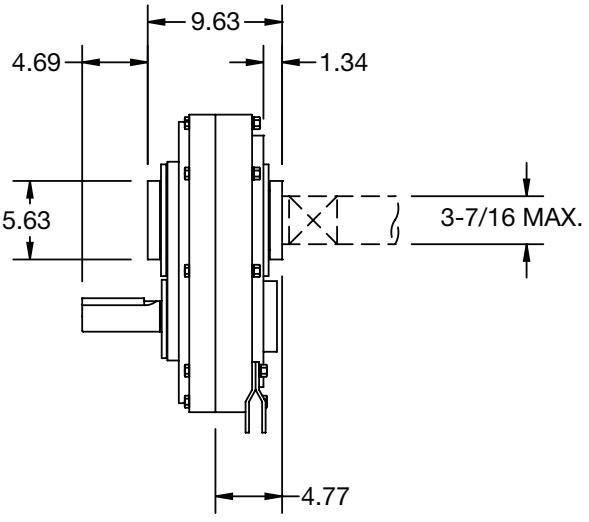
TXT605 - Single Reduction Taper Bushed





TXT605 - Single Reduction Straight Bore







SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT605 Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT605T	**246380**	307S05	5.67	251

TXT605 Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT605S	**246382**	307S05	5.67	251

Accessories for TXT605 Reducers

Description	Part Number	Weight
TA6M Standard Motor Mount (143T-326T)	**246391**	99
TA6ML Long Motor Mount (143T-326T)	**246390**	100
TAB6 Bottom Motor Mount (182T-326T) ♠	**246392**	84
TXT605 Backstop Assembly	**246092**	2.5
Optional Filter Breather (1/2-14 NPT)	**430049**	0.2
TXT6S TA Reducer Belt Guard (143T-326T)	**246368**	95
TXT6S TA Reducer Belt Guard for Long Motor Mount (143T-326T) ♣	**246132**	100
TXT605 Cooling Fan Assembly ♣	**272681**	3
TXT605 Taconite Auxiliary Seal Kit ♥	**272450**	17.7
TXT605 Lube Kit	**LUBEKITTXT605**	24.3

TXT6 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
3-7/16	(Max.)	**246268**	◆	7/8 x 7/16 x 10-11/16	7/8 x 7/16 x 5-7/8	9.0	-
3	▲	**246283**	**246427**	3/4 x 3/8 x 10-11/16	3/4 x 3/8 x 5-7/8	11.30	4.6
2-15/16	▲	**246267**	**246426**	3/4 x 3/8 x 10-11/16	3/4 x 3/8 x 5-7/8	11.60	6.7
2-7/8	▲	**246266**	**246425**	3/4 x 3/8 x 10-11/16	3/4 x 3/8 x 5-7/8	12.20	6.7
2-11/16	▲	**246265**	**246424**	5/8 x 5/16 x 10-11/16	5/8 x 5/16 x 5-7/8	12.90	6.7
2-1/2	▲	**246264**	**246423**	5/8 x 5/16 x 10-11/16	5/8 x 5/16 x 3-1/2	14.0	8.2
2-7/16	▲	**246263**	**246422**	5/8 x 5/16 x 10-11/16	5/8 x 5/16 x 3-1/2	14.40	8.5
2-1/4	▲	**246262**	**246421**	1/2 x 1/4 x 10-11/16	1/2 x 1/4 x 3-1/2	14.90	9.8
2-3/16	▲	**246261**	**246420** ♣	1/2 x 1/4 x 10-11/16	1/2 x 1/4 x 3-1/2	15.30	11.0

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT7 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

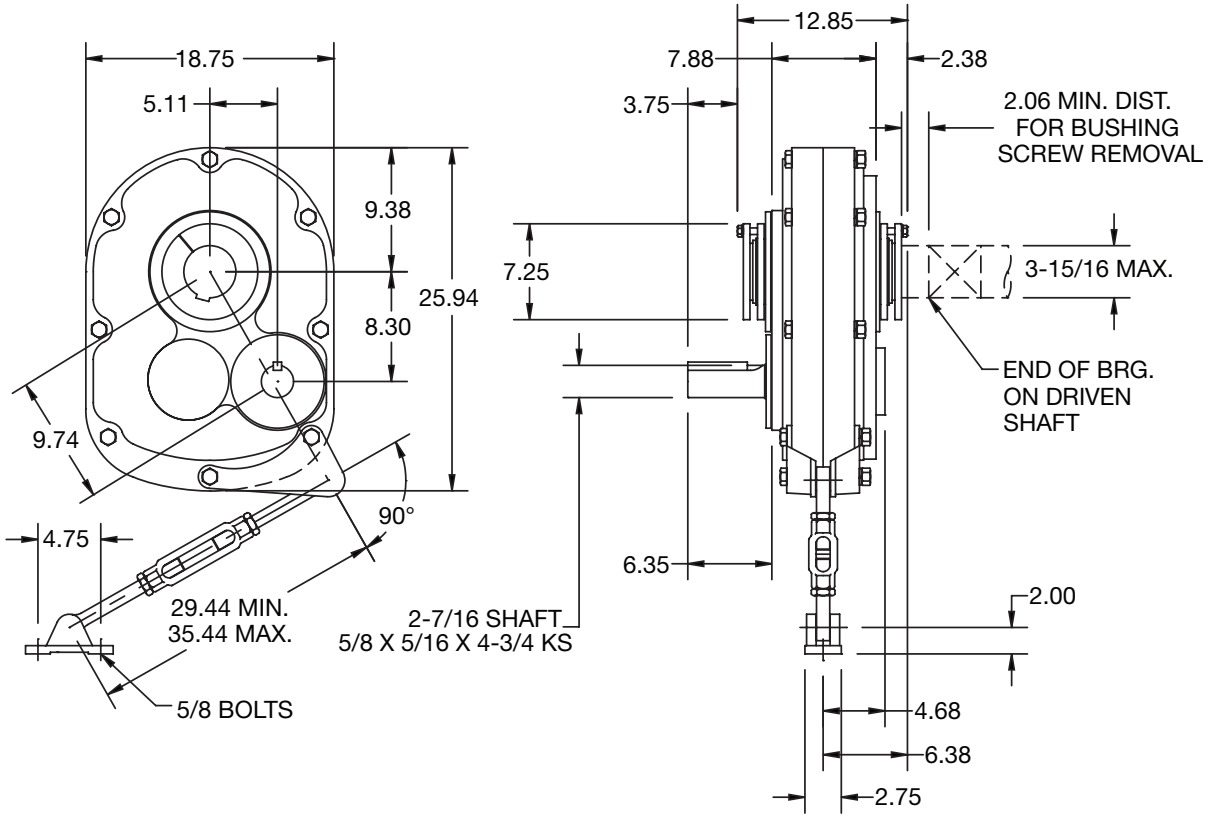
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-176 for drill and tap information required to mount to reducer.

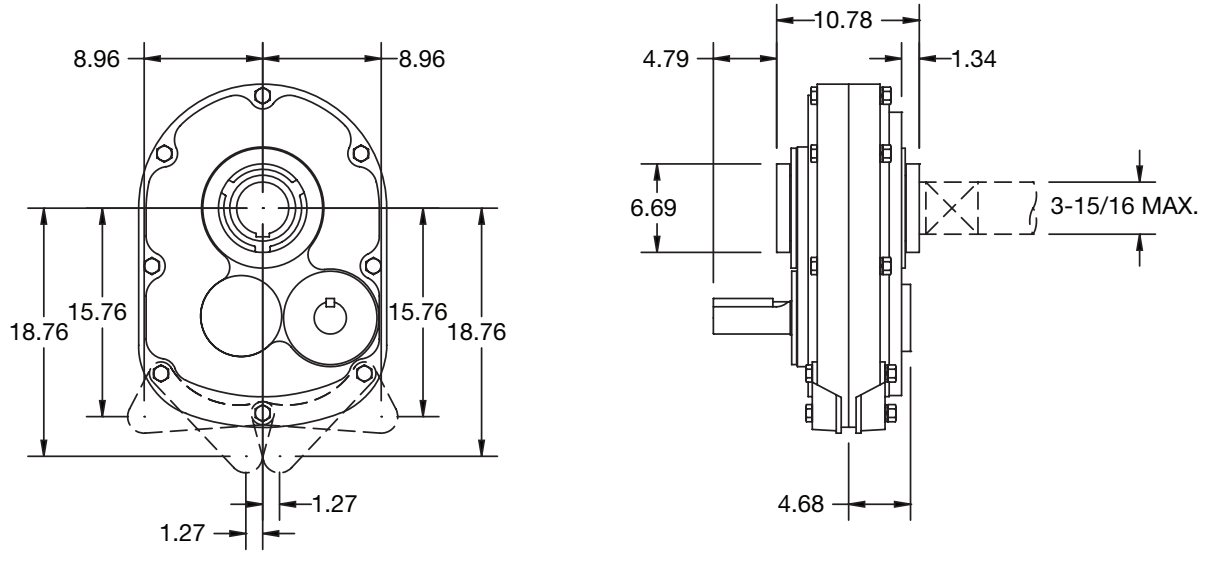
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT7A - Double Reduction Taper Bushed



TXT7A - Double Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT7A Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT709AT	**247159**	315D09	9.61	462
TXT715AT	**247160**	315D15	15.23	462
TXT725AT	**247161**	315D25	24.59	462

TXT7A Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT709AS	**247327** ♣	315D09	9.61	462
TXT715AS	**247168** ♣	315D15	15.23	462
TXT725AS	**247169**	315D25	24.59	462

Accessories for TXT7A Reducers

Description	Part Number	Weight
TA7M Standard Motor Mount (143T-365T)	**247395**	110
TA7ML Long Motor Mount (143T-326T) ♣	**247396**	100
TAB7 Bottom Motor Mount (182T-326T) ♠ ♣	**247404**	105
TXT7 Backstop Assembly	**247260**	2.8
Optional Filter Breather (1/2-14 NPT)	**430049**	.2
TXT7D TA Reducer Belt Guard (143T-365T)	**247390**	90
TXT7D TA Reducer Belt Guard for Long Motor Mount (143T-365T) ♣	**247152**	108
TXT7 Cooling Fan Assembly	**272326**	6
TXT7 Taconite Auxiliary Seal Kit ♥	**272451**	25
TXT7 Lube Kit	**LUBEKITTXT7**	34.7

TXT7 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
3-15/16	(Max.)	**272136**	◆	1 x 1/2 x 11-27/32	1 x 1/2 x 4-7/8	13.8	-
3-7/16		**272135**	**247428**	7/8 x 7/16 x 11-27/32	7/8 x 7/16 x 6-3/8	16.9	7.8
3-3/16	▲	**272134**	**247427**	3/4 x 3/8 x 11-27/32	3/4 x 3/8 x 6-3/8	19.2	9.0
3	▲	**272133**	**247426**	3/4 x 3/8 x 11-27/32	3/4 x 3/8 x 6-3/8	20.1	10.1
2-15/16	▲	**272132**	**247425**	3/4 x 3/8 x 11-27/32	3/4 x 3/8 x 4-7/8	21.3	10.1
2-11/16	▲	**272147**	**247422**	5/8 x 5/16 x 11-27/32	5/8 x 5/16 x 3-1/2	23.0	14.0
2-7/16	▲	**272125**	**247420**	5/8 x 5/16 x 11-27/32	5/8 x 5/16 x 3-1/2	24.2	14.2

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT7 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

● Taper Bushed Reducers require bushing for all bore sizes.

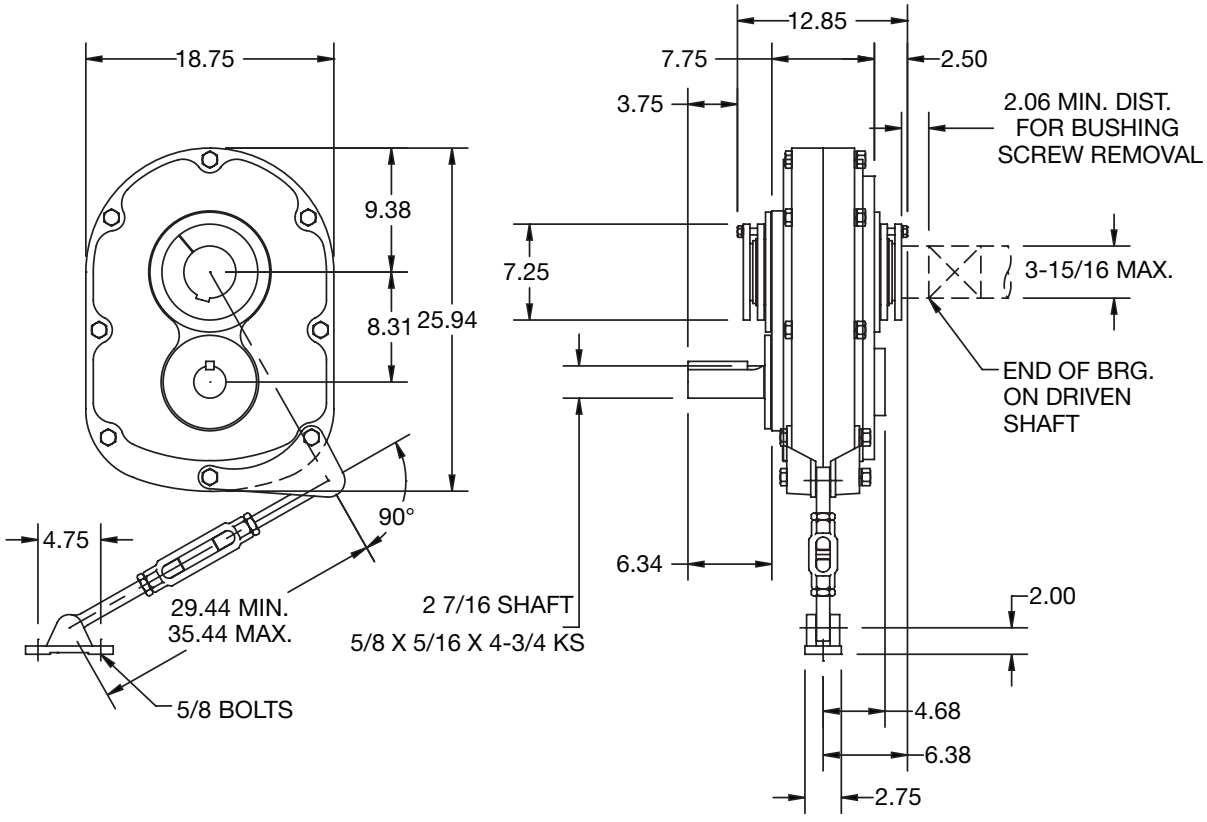
♥ Use with Taper Bushed Reducer only. See page G2-176 for drill and tap information required to mount to reducer.

Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

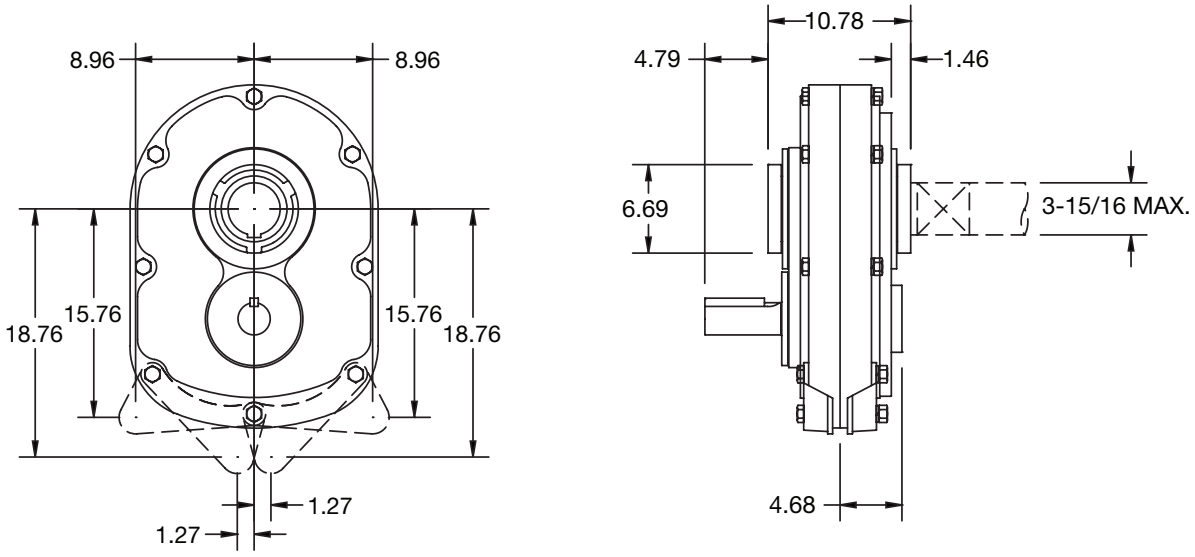
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT705 - Single Reduction Taper Bushed



TXT705 - Single Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT705 Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT705T	**247285 ♣**	315S05	5.36	410

TXT705 Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT705S	**247287 ♣**	315S05	5.36	410

Accessories for TXT705 Reducers

Description	Part Number	Weight
TA7M Standard Motor Mount (143T-365T)	**247395**	110
TA7ML Long Motor Mount (143T-326T) ♣	**247396**	100
TAB7 Bottom Motor Mount (182T-326T) ♠ ♣	**247404**	105
TXT705 Backstop Assembly	**247260**	2.80
Optional Filter Breather (1/2-14 NPT)	**430049**	0.20
TXT7S TA Reducer Belt Guard (143T-365T)	**247392**	112
TXT7S TA Reducer Belt Guard for Long Motor Mount (143T-365T) ♣	**247146**	135
TXT705 Cooling Fan Assembly ♣	**272685**	6
TXT705 Taconite Auxiliary Seal Kit ♥	**272451**	25
TXT705 Lube Kit	**LUBEKITTXT705**	39.3

TXT7 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
3-15/16	(Max.)	**272136**	◆	1 x 1/2 x 11-27/32	1 x 1/2 x 4-7/8	13.8	-
3-7/16		**272135**	**247428**	7/8 x 7/16 x 11-27/32	7/8 x 7/16 x 6-3/8	16.9	7.8
3-3/16	▲	**272134**	**247427**	3/4 x 3/8 x 11-27/32	3/4 x 3/8 x 6-3/8	19.2	9.0
3	▲	**272133**	**247426**	3/4 x 3/8 x 11-27/32	3/4 x 3/8 x 6-3/8	20.1	10.1
2-15/16	▲	**272132**	**247425**	3/4 x 3/8 x 11-27/32	3/4 x 3/8 x 4-7/8	21.3	10.1
2-11/16	▲	**272147**	**247422**	5/8 x 5/16 x 11-27/32	5/8 x 5/16 x 3-1/2	23.0	14.0
2-7/16	▲	**272125**	**247420**	5/8 x 5/16 x 11-27/32	5/8 x 5/16 x 3-1/2	24.2	14.2

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT7 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

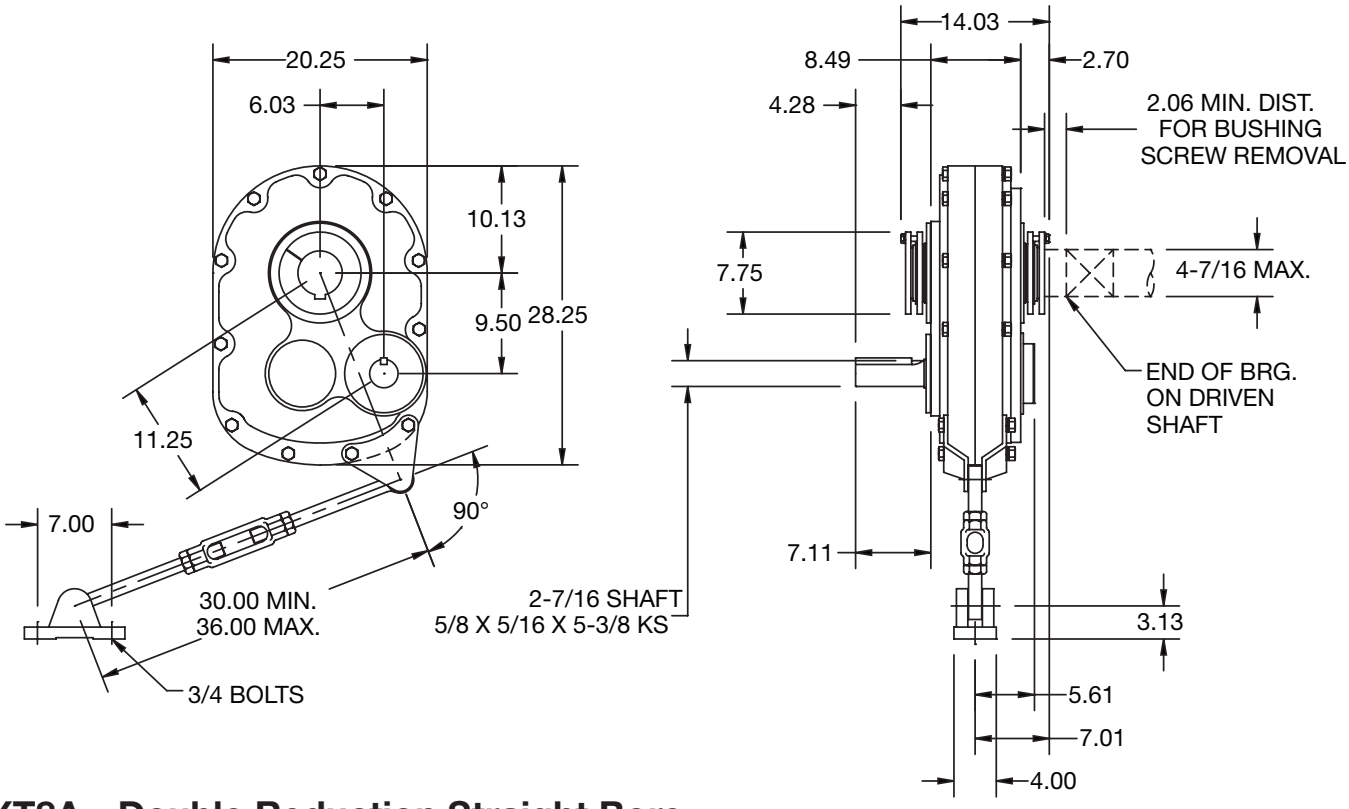
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-176 for drill and tap information required to mount to reducer.

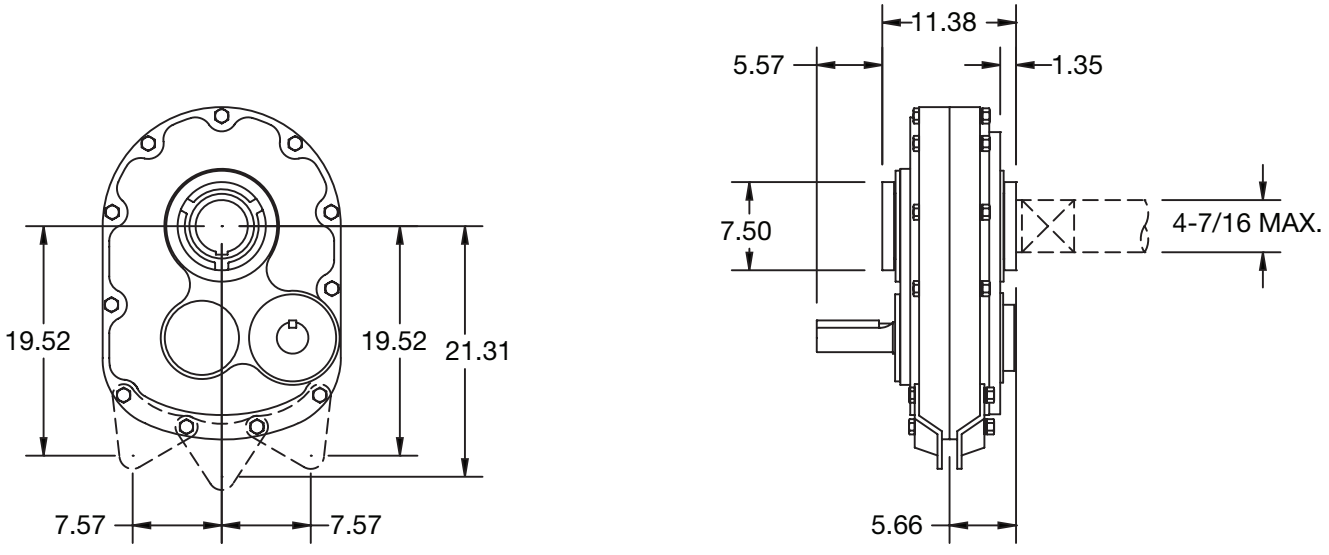
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT8A - Double Reduction Taper Bushed



TXT8A - Double Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT8A Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT815AT	**248279**	407D15	15.08	633
TXT825AT	**248280**	407D25	24.62	633

TXT8A Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT815AS	**248283** ♣	407D15	15.08	633
TXT825AS	**248284**	407D25	24.62	633

Accessories for TXT8A Reducers

Description	Part Number	Weight
TA8 Standard Motor Mount (213T-365T)	**248401**	119
TAB8 Bottom Motor Mount (213T-365T) ♠ ♣	**248406**	120
TXT8 Backstop Assembly	**249260**	3.8
Optional Filter Breather (1/2-14 NPT)	**430049**	.2
TXT8D TA Reducer Belt Guard (213T-365T)	**248395**	107
TXT8 Cooling Fan Assembly	**272327**	9
TXT8 Taconite Auxiliary Seal Kit ♥	**272452**	26.3
TXT8 Lube Kit	**LUBEKITTXT8**	40.5

TXT8 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
4-7/16	(Max.)	**272035**	◆	1 x 1/2 x 13-1/16	1 x 1/2 x 6-7/8	15	-
4-3/16		**272034**	**248424**	1 x 1/2 x 13-1/16	1 x 1/2 x 6-7/8	17	6.8
3-15/16		**272033**	**248423**	1 x 1/2 x 13-1/16	1 x 1/2 x 6-7/8	20	8.0
3-7/16	▲	**272032**	**248422**	7/8 x 7/16 x 13-1/16	7/8 x 7/16 x 6-7/8	25	12
2-15/16	▲	**272048**	**248420**	3/4 x 3/8 x 13-1/16	3/4 x 3/8 x 4-3/8	29	19

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT8 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

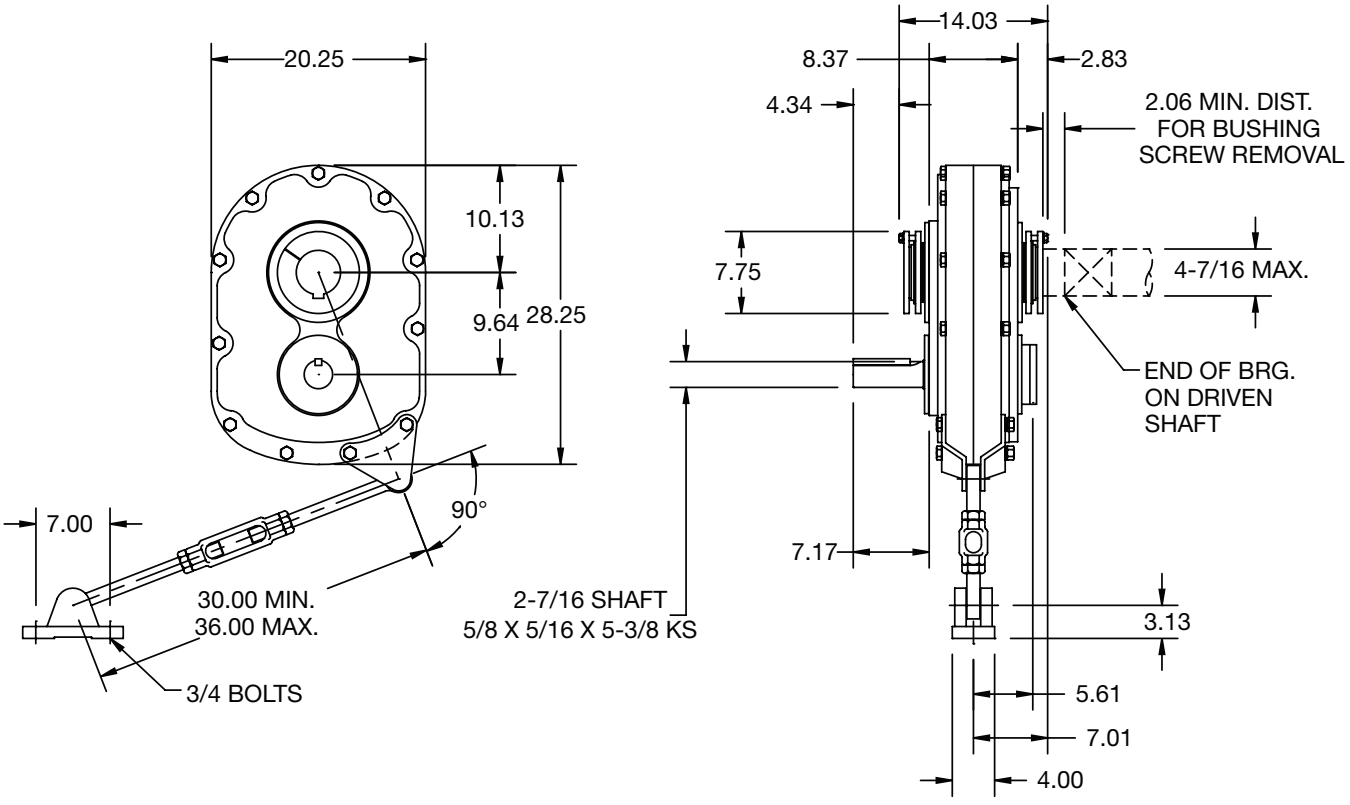
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-176 for drill and tap information required to mount to reducer.

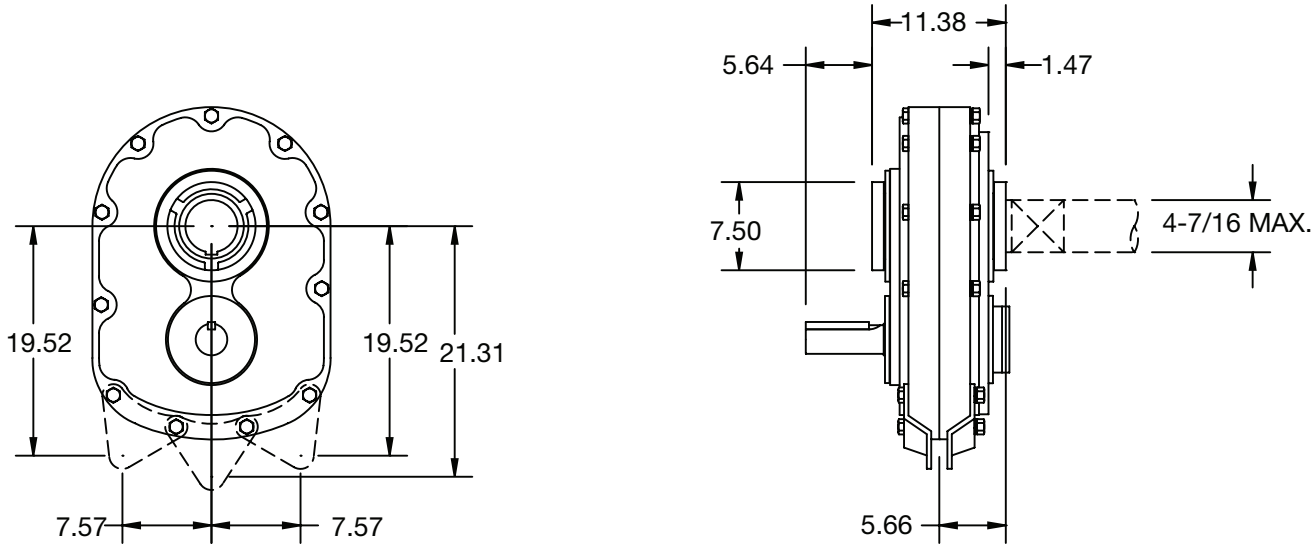
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT805 - Single Reduction Taper Bushed



TXT805 - Single Reduction Straight Bore



TORQUE-ARM Shaft Mount Speed Reducers



TXT805 Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT805T	**248275 ♣**	407S05	5.50	557

TXT805 Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT805S	**248277 ♣**	407S05	5.50	557

Accessories for TXT805 Reducers

Description	Part Number	Weight
TA8 Standard Motor Mount (254T-365T)	**248401**	119
TAB8 Bottom Motor Mount (213T-365T) ♠ ♣	**248406**	120
TXT805 Backstop Assembly	**250260**	5.6
Optional Filter Breather (1/2-14 NPT)	**430049**	.2
TXT8S TA Reducer Belt Guard (213T-365T)	**248397**	125
TXT8 Cooling Fan Assembly	**272327**	9
TXT8 Taconite Auxiliary Seal Kit ♥	**272452**	26.3
TXT8 Lube Kit	**LUBEKITTXT805**	45.1

TXT8 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
4-7/16	(Max.)	**272035**	◆	1 x 1/2 x 13-1/16	1 x 1/2 x 6-7/8	15	-
4-3/16		**272034**	**248424**	1 x 1/2 x 13-1/16	1 x 1/2 x 6-7/8	17	6.8
3-15/16		**272033**	**248423**	1 x 1/2 x 13-1/16	1 x 1/2 x 6-7/8	20	8.0
3-7/16	▲	**272032**	**248422**	7/8 x 7/16 x 13-1/16	7/8 x 7/16 x 6-7/8	25	12
2-15/16	▲	**272048**	**248420**	3/4 x 3/8 x 13-1/16	3/4 x 3/8 x 4-3/8	29	19

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT8 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

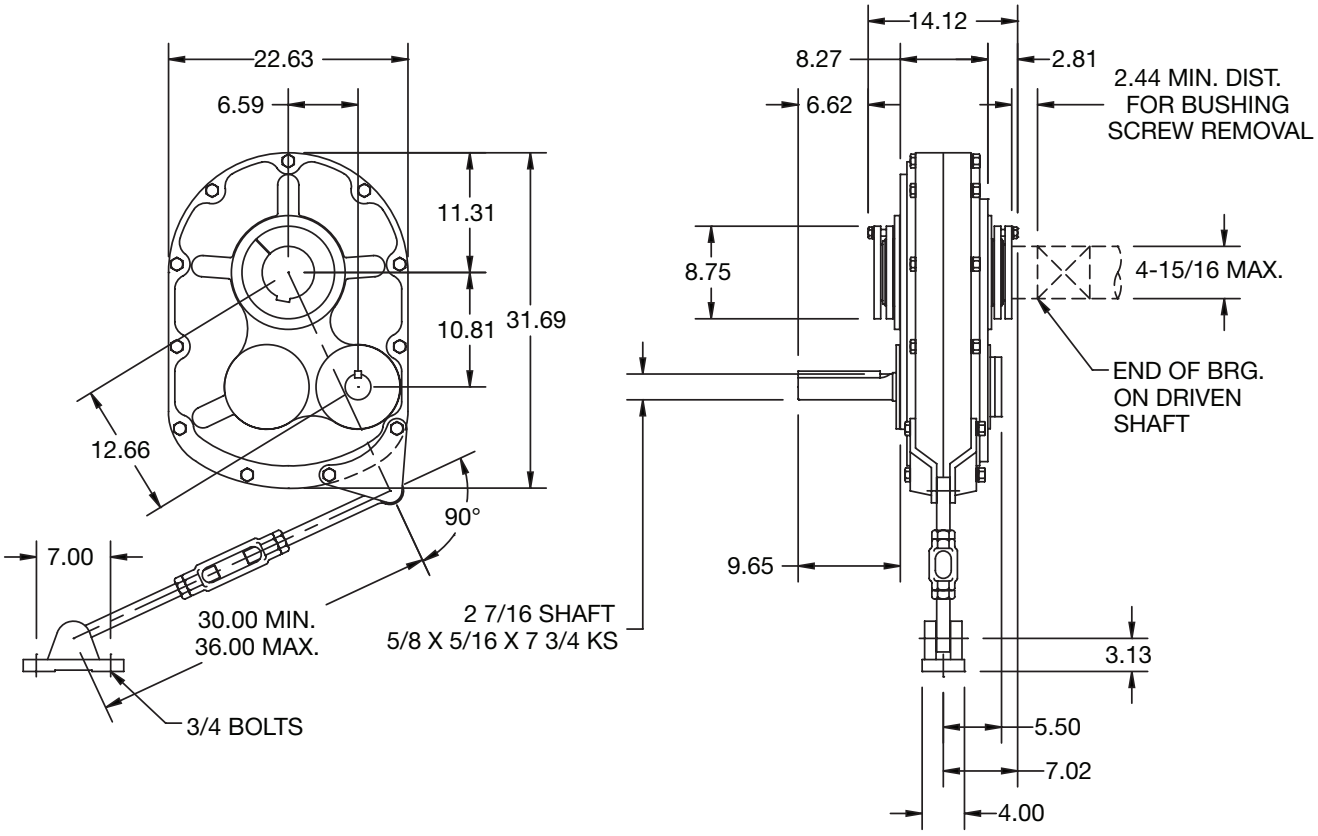
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-176 for drill and tap information required to mount to reducer.

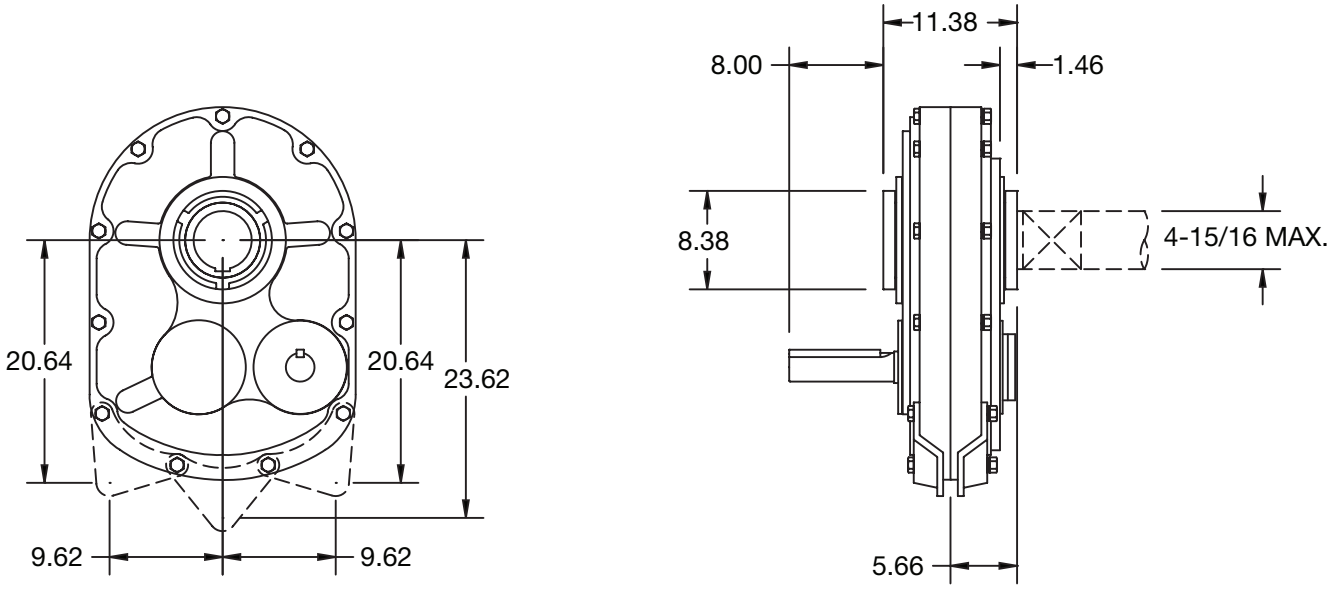
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT9A - Double Reduction Taper Bushed



TXT9A - Double Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT9A Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT915AT	**249269**	415D15	15.12	760
TXT926AT	**249270**	415D26	25.66	760

TXT9A Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT915AS	**249273** ♣	415D15	15.12	760
TXT926AS	**249274**	415D26	25.66	760

Accessories for TXT9A Reducers

Description	Part Number	Weight
TA9 Standard Motor Mount (213T-365T)	**249401**	120
TA9 Special Motor Mount (404T-405T) ♣ ♠	**249399**	125
TAB9 Bottom Motor Mount (213T-365T) ♠ ♣	**249404**	125
TXT9 Backstop Assembly	**249260**	3.8
Optional Filter Breather (1/2-14 NPT)	**430049**	.2
TXT9D TA Reducer Belt Guard (213T-365T)	**249395**	125
TXT9 Cooling Fan Assembly	**272328**	15
TXT9 Taconite Auxiliary Seal Kit ♥	**272453**	32.6
TXT9 Lube Kit	**LUBEKITTXT9**	53.2

TXT9 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
4-15/16	(Max.)	**272080**	◆	1-1/4 x 5/8 x 12-15/16	1-1/4 x 5/8 x 11-3/8	22	-
4-7/16		**272079**	**249422**	1 x 1/2 x 12-15/16	1 x 1/2 x 11-3/8	27	12.5
3-15/16	▲	**272077**	**249421**	1 x 1/2 x 12-15/16	1 x 1/2 x 11-3/8	32.4	26
3-7/16	▲	**272056**	**249420**	7/8 x 7/16 x 12-15/16	7/8 x 7/16 x 5	36	28

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT9 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

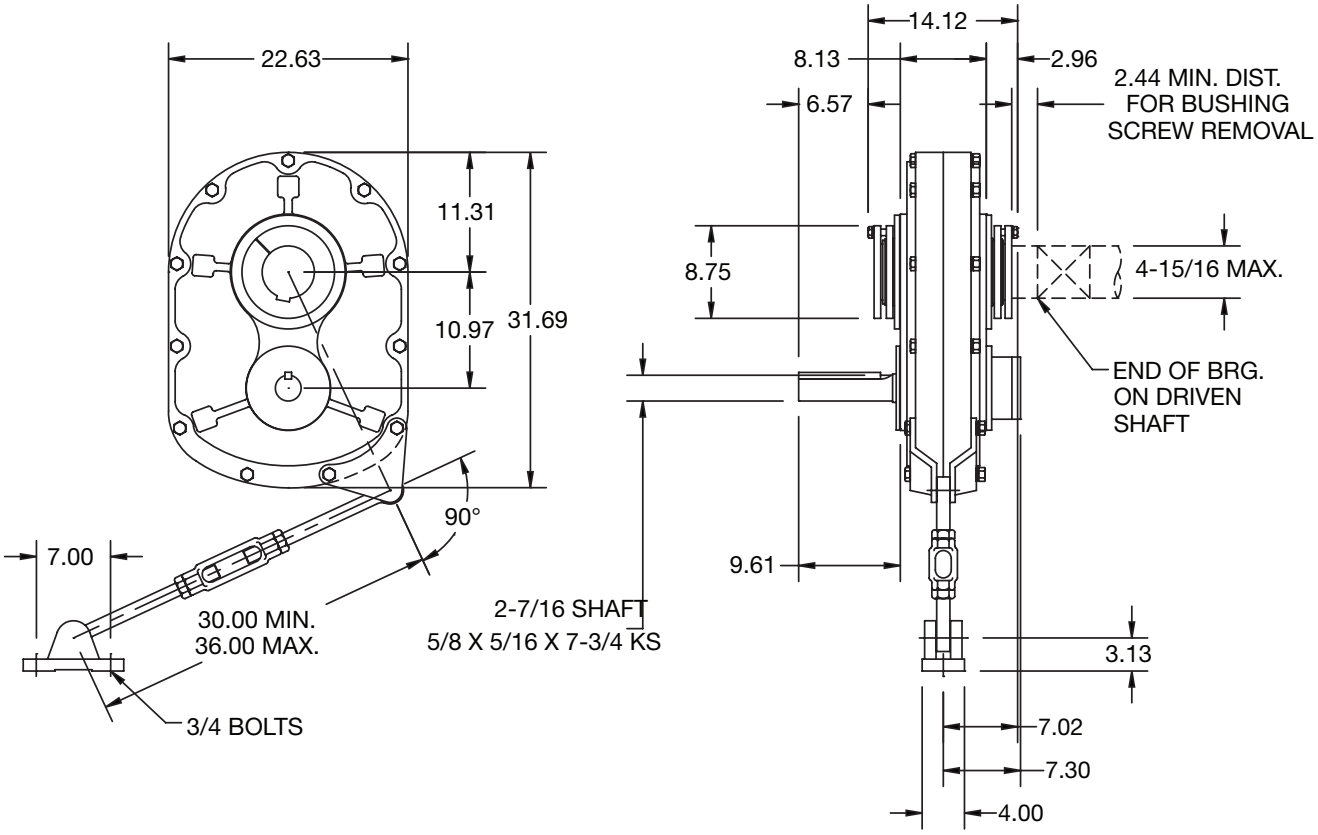
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-176 for drill and tap information required to mount to reducer.

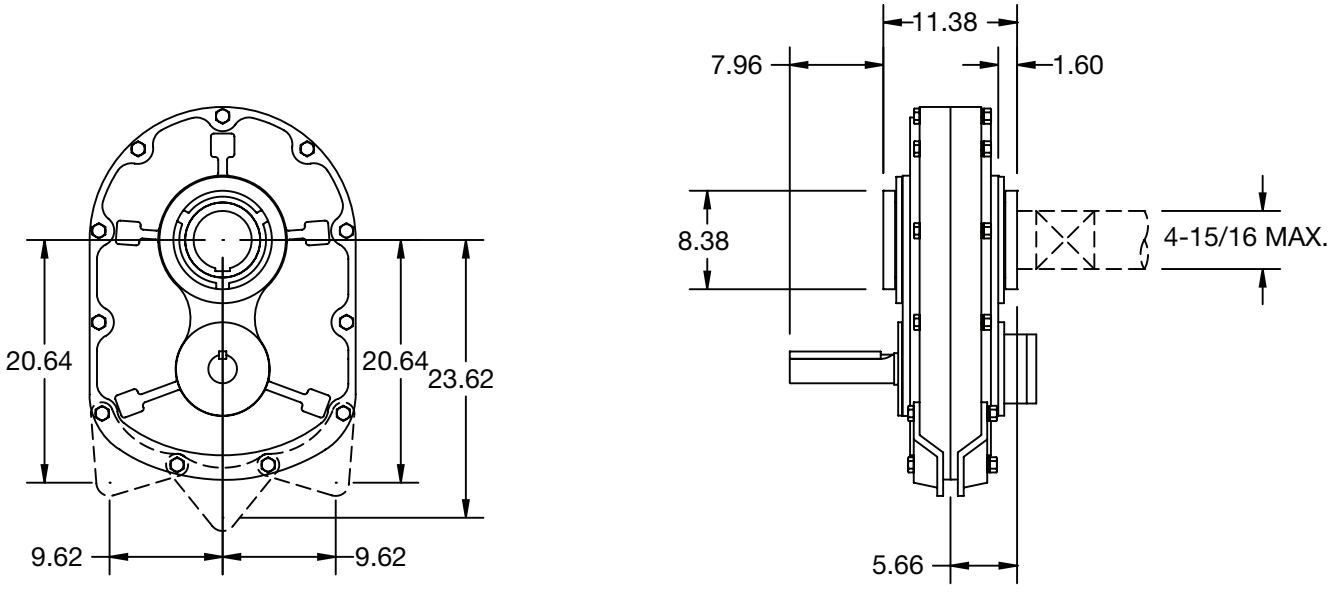
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT905 - Single Reduction Taper Bushed



TXT905 - Single Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT905 Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT905T	**249265 ♣**	415S05	5.38	668

TXT905 Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT905S	**249267 ♣**	415S05	5.38	668

Accessories for TXT905 Reducers

Description	Part Number	Weight
TA9 Standard Motor Mount (284T-365T)	**249401**	120
TA9 Special Motor Mount (404T-445T) ♣ ♠	**249399**	125
TAB9 Bottom Motor Mount (213T-365T) ♣ ♠	**249404**	125
TXT905 Backstop Assembly	**272259**	6.7
Optional Filter Breather (1/2-14 NPT)	**430049**	.2
TXT9-S TA Reducer Belt Guard (213T-365T)	**249397**	156
TXT905 Cooling Fan Assembly ♣	**272324**	15
TXT9 Taconite Auxiliary Seal Kit ♥	**272453**	32.6
TXT9 Lube Kit	**LUBEKITTXT905**	64.8

TXT9 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
4-15/16	(Max.)	**272080**	◆	1-1/4 x 5/8 x 12-15/16	1-1/4 x 5/8 x 11-3/8	22	-
4-7/16		**272079**	**249422**	1 x 1/2 x 12-15/16	1 x 1/2 x 11-3/8	27	12.5
3-15/16	▲	**272077**	**249421**	1 x 1/2 x 12-15/16	1 x 1/2 x 11-3/8	32.4	26
3-7/16	▲	**272056**	**249420**	7/8 x 7/16 x 12-15/16	7/8 x 7/16 x 5	36	28

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT9 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

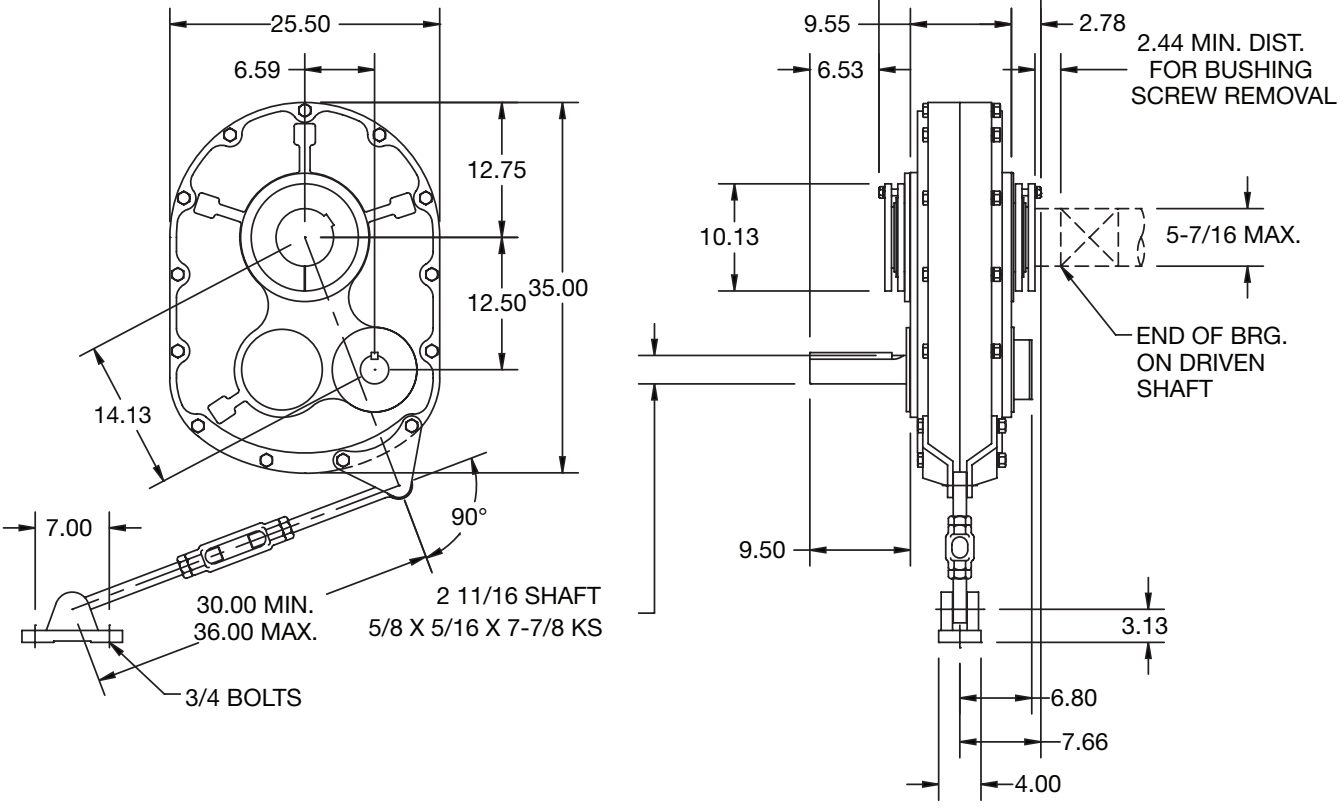
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-176 for drill and tap information required to mount to reducer.

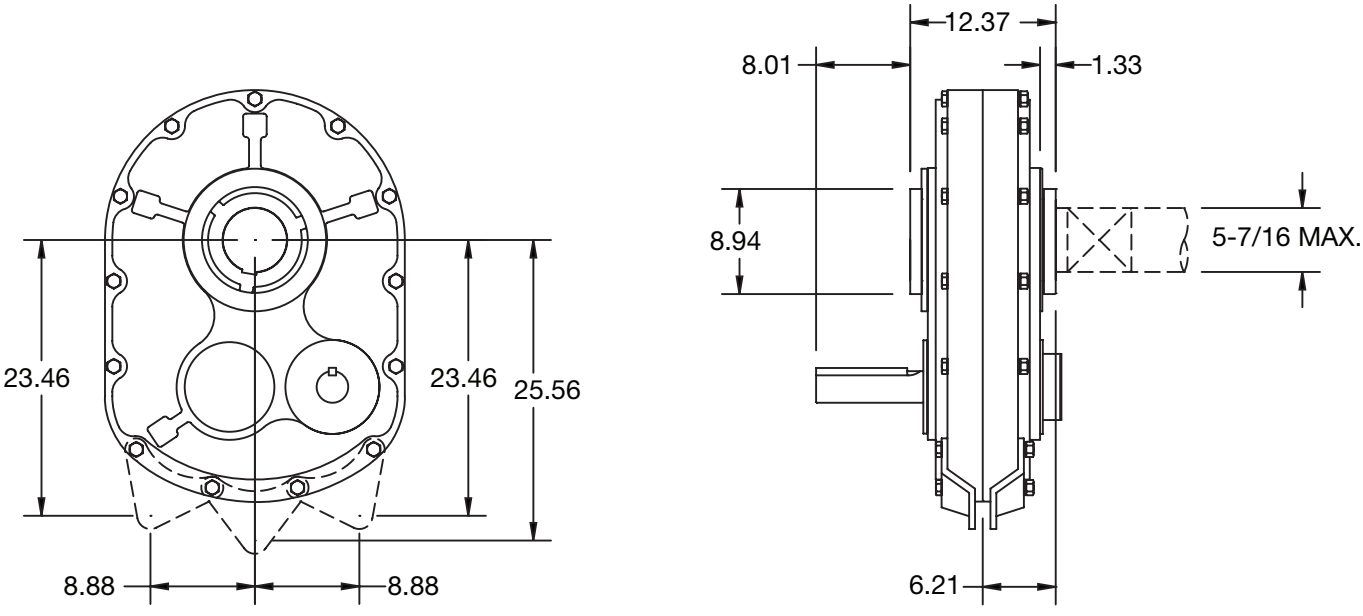
SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT10A - Double Reduction Taper Bushed



TXT10A - Double Reduction Straight Bore





SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT10A Taper Bushed Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT1015AT	**272600**	507D15	15.16	1020
TXT1024AT	**272601**	507D24	24.30	1020

TXT10A Straight Bore Reducers ■ ❍

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT1015AS	**272604** ♣	507D15	15.16	1020
TXT1024AS	**272605** ♣	507D24	24.30	1020

Accessories for TXT10A Reducers

Description	Part Number	Weight
TA10 Standard Motor Mount (254T-365T)	**250401**	130
TA10 Special Motor Mount (404T-445T)	**250404**	150
TAB10 Bottom Motor Mount (254T-365T) ♠ ♣	**250411**	150
TXT10 Backstop Assembly	**250260**	5.60
Optional Filter Breather (1/2-14 NPT)	**430049**	0.20
TXT10D TA Reducer Belt Guard (254T-445T)	**250395**	140
TXT10 Cooling Fan Assembly	**272329**	15
TXT10 Taconite Auxiliary Seal Kit ♥	**272454**	35.80
TXT10 Lube Kit	**LUBEKITTXT10**	89.1

TXT10 Bushing Assemblies ●

Stock Bore Size		Part Number		Shaft Keyseat Required †		Weight	
		Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing	Tapered Bushing	Straight Bore Bushing
5-7/16	(Max.)	**272240**	◆	1-1/4 x 5/8 x 14-1/16	1-1/4 x 5/8 x 12-3/8	26.50	-
4-15/16		**272239**	**250422**	1-1/4 x 5/8 x 14-1/16	1-1/4 x 5/8 x 12-3/8	33.50	12.90
4-7/16	▲	**272238**	**250421**	1 x 1/2 x 14-1/16	1 x 1/2 x 12-3/8	38.40	31.40
3-15/16	▲	**272214**	**250420**	1 x 1/2 x 14-1/16	1 x 1/2 x 6-5/8	44	33

♠ DODGE standard belt guard will not fit this motor mount

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

◆ Preferred bore. No bushing required for this bore size.

❍ Stock TXT10 Reducers are drilled for vertical mounting.

♣ Made to order

■ See pages G2-174 and G2-175 for reducer part numbers and drill and tap dimensions for Flange Mount TXT Reducers. Now available only as special factory order.

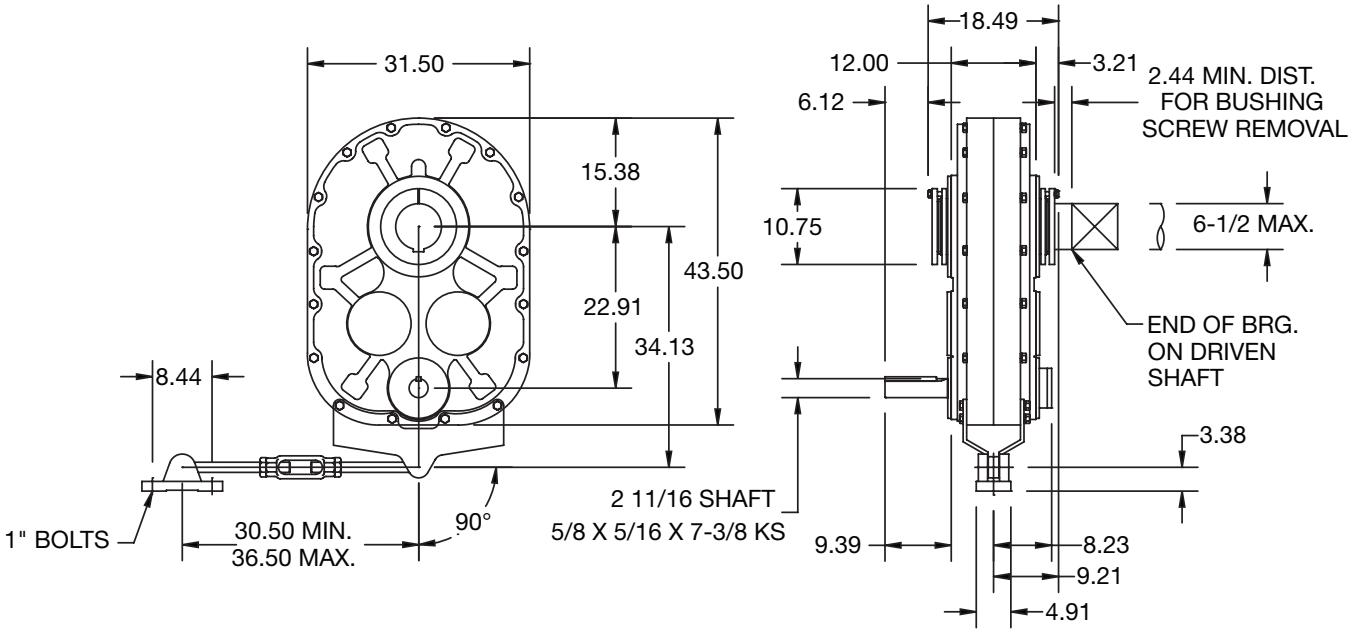
● Taper Bushed Reducers require bushing for all bore sizes.

♥ Use with Taper Bushed Reducer only. See page G2-176 for drill and tap information required to mount to reducer.

SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TXT12 - Double Reduction Taper Bushed



TXT12 Taper Bushed Reducers ❒

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TXT1215TV	**272615** ♣	608D15	14.89	2042
TXT1225TV	**272617**	608D25	24.65	2042

TXT12 Accessories

Description	Part Number	Weight
TA12 Standard Motor Mount (286T-445T)	**272310**	255
TXT12 Backstop Assembly	**250260**	5.6
Optional Filter Breather (1/2-14 NPT)	**430049**	.2
TXT12 Cooling Fan Assembly	**272330**	15
Heat Exchanger Cooling Package	**014148**	55
TXT12 Taconite Auxiliary Seal Kit	**272455**	67.8
TXT12D TA Reducer Belt Guard (320T-445T) ♣	**272688**	170
TXT12 Lube Kit	**LUBEKITTXT12**	202.5

TXT12 Tapered Bushing Assemblies ●

Stock Bore Size		Part Number	Shaft Keyseat Required †	Weight
6-1/2	(Max.)	**272219**	1-1/2 x 3/4 x 17-5/16	37.4
6-7/16		**272218**	1-1/2 x 3/4 x 17-5/16	38.4
6		**272217**	1-1/2 x 3/4 x 17-5/16	46.2
5-15/16		**272216**	1-1/2 x 3/4 x 17-5/16	47.3
5-7/16	▲	**272215**	1-1/4 x 5/8 x 17-5/16	53.1

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

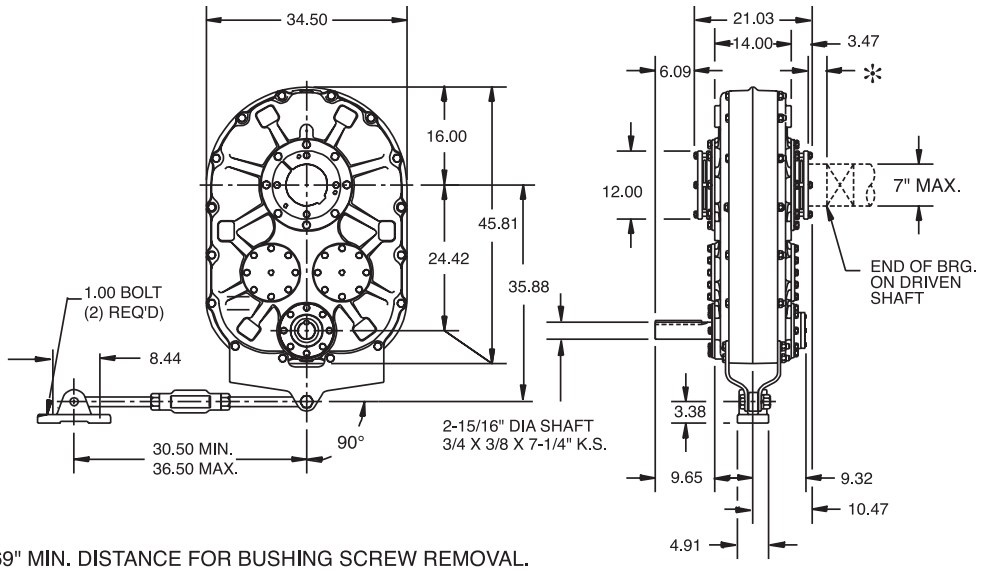
♣ Made to order

❒ Reducers are supplied already drilled and tapped for vertical mounting and flange mounting. See page G2-173 for Flange Mounting dimensions

● Taper Bushed Reducers require bushing for all bore sizes.

TORQUE-ARM Shaft Mount Speed Reducers

TDT13 - Double Reduction Taper Bushed



✻ 2.69" MIN. DISTANCE FOR BUSHING SCREW REMOVAL.

TDT13 Taper Bushed Reducer ❒

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TDT1325T	**272250**	700D25	24.73	2476

TDT13 Accessories

Description	Part Number	Weight
TA13 Standard Motor Mount (324T-447T)	**272313**	290
TDT13 Backstop Assembly	**272259**	6.70
Optional Filter Breather (1/2-14 NPT)	**430049**	0.20
TDT13 Cooling Fan Assembly	**272331**	20
Heat Exchanger Cooling Package	**014148**	55
TDT13 Taconite Auxiliary Seal Kit ♣	**272456**	87
TDT13 Lube Kit	**LUBEKITTXT13**	223.8

TDT13 Tapered Bushing Assemblies ●

Stock Bore Size		Part Number	Shaft Keyseat Required †	Weight
7	(Max.)	**272257**	1-3/4 x 3/4 x 19-9/16	74
6-1/2	▲	**272292** ♣	1-1/2 x 3/4 x 19-9/16	92
6	▲	**272291** ♣	1-1/2 x 3/4 x 19-9/16	111
5-15/16	▲	**272290**	1-1/2 x 3/4 x 19-9/16	113

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

♣ Made to order

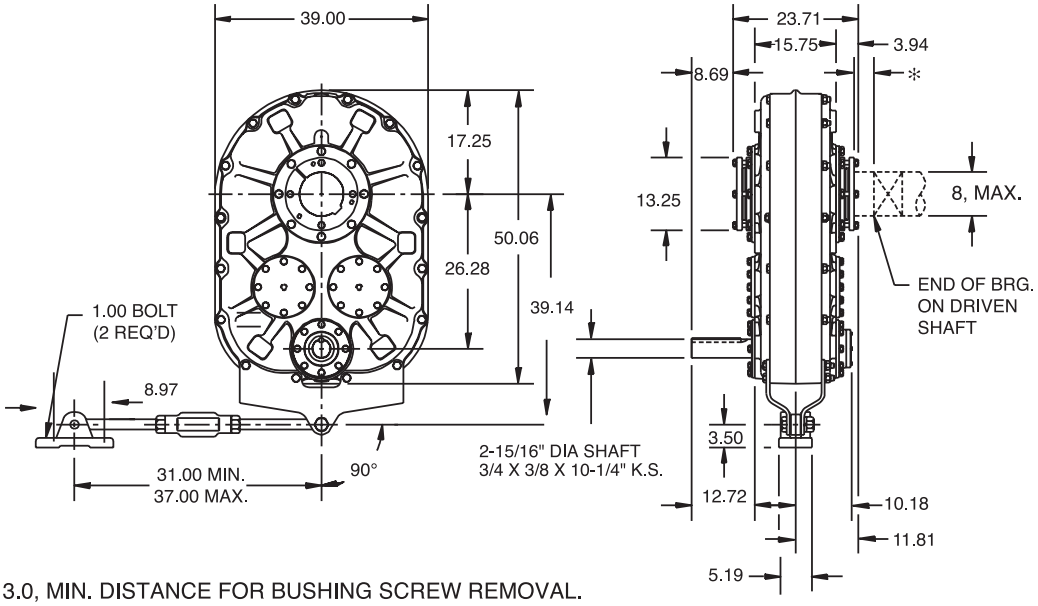
❒ Reducers are supplied already drilled and tapped for vertical mounting and flange mounting. See page G2-175 for Flange Mounting dimensions

● Taper Bushed Reducers require bushing for all bore sizes.

SELECTION/DIMENSIONS

TORQUE-ARM Shaft Mount Speed Reducers

TDT14 - Double Reduction Taper Bushed



* 3.0, MIN. DISTANCE FOR BUSHING SCREW REMOVAL.

TDT14 Taper Bushed Reducer ❒

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TDT1425T	**272150 ♣**	800D25	24.80	3436

TDT14 Accessories

Description	Part Number	Weight
TA14 Standard Motor Mount (324T-447T)	**272318**	295
TDT14 Backstop Assembly	**272293**	13.4
Optional Filter Breather (1/2-14 NPT)	**430049**	.2
TDT14 Cooling Fan Assembly	**272332**	20
Heat Exchanger Cooling Package	**014148**	55
TDT14 Taconite Auxiliary Seal Kit ♣	**272457**	131
TDT14 Lube Kit	**LUBEKITTXT14**	307.8

TDT14 Tapered Bushing Assemblies ●

Stock Bore Size		Part Number	Shaft Keyseat Required †	Weight
8	(Max.)	**272194 ♣**	2 x 3/4 x 22-1/4	135
7	▲	**272193 ♣**	1-3/4 x 3/4 x 22-1/4	144
6-1/2	▲	**272192 ♣**	1-1/2 x 3/4 x 22-1/4	162.1
6	▲	**272191 ♣**	1-1/2 x 3/4 x 22-1/4	188

† Shaft key furnished.

▲ Check the driven shaft and key for strength.

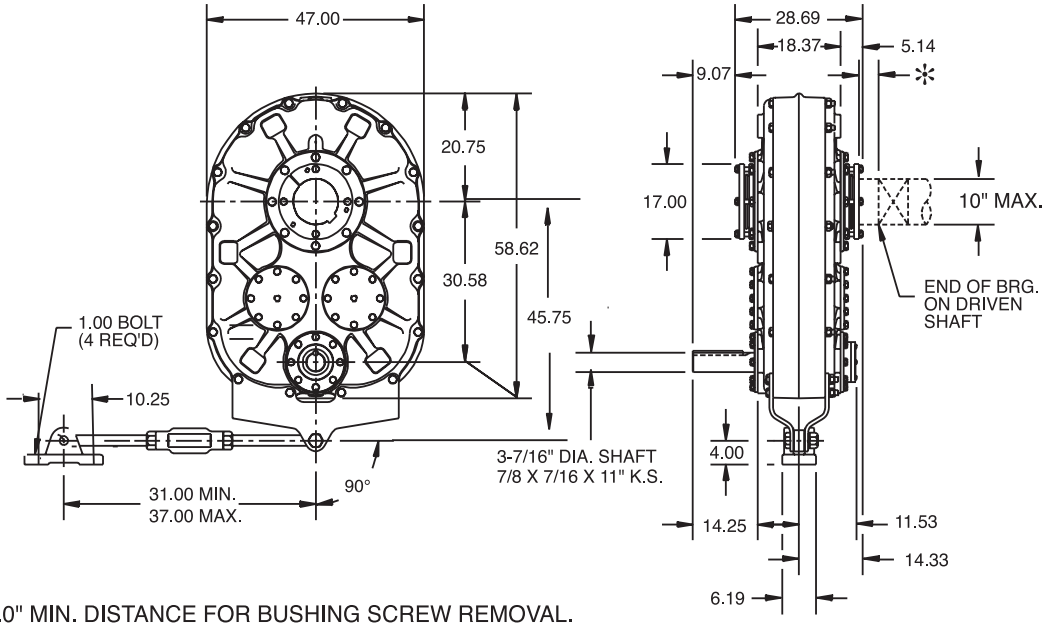
♣ Made to order

❒ Reducers are supplied already drilled and tapped for vertical mounting and flange mounting. See page G2-173 for Flange Mounting dimensions

● Taper Bushed Reducers require bushing for all bore sizes.

TORQUE-ARM Shaft Mount Speed Reducers

TDT15 - Double Reduction Taper Bushed



❊ 3.0" MIN. DISTANCE FOR BUSHING SCREW REMOVAL.

TDT15 Taper Bushed Reducer

Reducer Size	Part Number	AGMA Code	Actual Ratio	Weight
TDT1530T	**272370** ♣	1000D30	30.64	5622

TDT15 Accessories

Description	Part Number	Weight
TA15 Standard Motor Mount (405T-449T) ♣	**272392**	300
TDT15 Backstop Assembly	**272293**	13.40
Optional Filter Breather (1/2-14 NPT)	**430049**	0.20
TDT15 Cooling Fan Assembly	**272333**	23
Heat Exchanger Cooling Package	**014148**	55
TDT15 Taconite Auxiliary Seal Kit ♣	**272458**	180
TDT15 Lube Kit	**LUBEKITTXT15**	575.1

TDT15 Tapered Bushing Assemblies ●

Stock Bore Size		Part Number	Shaft Keyseat Required †	Weight
10	(Max.)	**272395**	2-1/2 x 7/8 x 27-5/16	202
9	▲	**272396**	2 x 3/4 x 27-5/16	267
8-1/2	▲	**272397**	2 x 3/4 x 27-5/16	300
8	▲	**272398** ♣	2 x 3/4 x 27-5/16	307

† Shaft key furnished.
▲ Check the driven shaft and key for strength.
♣ Made to order
❒ Reducers are supplied already drilled and tapped for vertical mounting and flange mounting. See page G2-175 for Flange Mounting dimensions
● Taper Bushed Reducers require bushing for all bore sizes.

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	MODIFICATION/ACCESSORIES PAGE G2-71	RELATED PRODUCTS PAGE G2-152

MODIFICATIONS/ ACCESSORIES

DODGE®



TORQUE-ARM Shaft Mount Speed Reducers

Table 5- Dodge Torque-Arm Reducers And Accessories Compatibility

TXT Reducer	Maximum Bore	AGMA Code	Input HP @75 RPM Output 15, 25:1	Input HP @100 RPM Output 5:1	Taper Bushed	Straight Bore	HYDROIL Style	Vertical Style	Motor Mount	Backstop	Taconite Auxiliary Seals	Belt Guards
TXT1	1-7/16"	107	4.15	4.49	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TXT2	1-15/16"	115	7.52	7.70	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TXT3	2-3/16"	203	12.7	11.7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TXT4	2-7/16"	207	19.3	19.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TXT5	2-15/16"	215	29.9	25.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TXT6	3-7/16"	307	50.3	51.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TXT7	3-15/16"	315	72.3	87.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TXT8	4-7/16"	407	106.9	111.0	Yes	Yes	-	Yes	Yes	Yes	Yes	Yes
TXT9	4-15/16"	415	154.7	140.0	Yes	Yes	-	Yes	Yes	Yes	Yes	Yes
TXT10	5-7/16"	507	216.0	-	Yes	Yes	-	Yes	Yes	Yes	Yes	Yes
TXT12	6-1/2"	608	275.0	-	Yes	-	-	Yes	Yes	Yes	Yes	Yes
TDT13	7"	700	374.0	-	Yes	-	-	Yes	Yes	Yes	Yes	Yes
TDT14	8"	800	561.0	-	Yes	-	-	Yes	Yes	Yes	Yes	Yes
TDT15	10"	1000	-	-	Yes	-	-	Yes	Yes	Yes	Yes	Yes

Table 6 - Dodge Screw Conveyor Drive Reducers And Accessories Compatibility

SCXT Reducer	AGMA Code	Input HP@ 75 RPM Output 15,25:1	Input HP@100 RPM Output 5:1	HYDROIL Style	Drive Shafts	Adapter	Motor Mount	Taconite Auxiliary Seals	Belt Guards
SCXT1	107	4.15	4.49	Yes	Yes	Yes	Yes	Yes	Yes
SCXT2	115	7.52	7.70	Yes	Yes	Yes	Yes	Yes	Yes
SCXT3	203	12.70	11.70	Yes	Yes	Yes	Yes	Yes	Yes
SCXT4	207	19.30	19.60	Yes	Yes	Yes	Yes	Yes	Yes
SCXT5	215	29.90	25.00	Yes	Yes	Yes	Yes	Yes	Yes
SCXT6	307	50.30	51.60	Yes	Yes	Yes	Yes	Yes	Yes
SCXT7	315	72.30	87.40	Yes	Yes	Yes	Yes	Yes	Yes
SCXT8	407	106.90	111.00	-	Yes	Yes	Yes	Yes	Yes

Table 7 - NEMA Motor Information (1750 RPM)

Horsepower	NEMA Motor Frame	Shaft Diameter	Minimum Sheave Diameters
1	143T	7/8	2.2
1-1/2	145T	7/8	2.4
2	145T	7/8	2.4
3	182T	1-1/8	2.4
5	184T	1-1/8	3.0
7-1/2	213T	1-3/8	3.0
10	215T	1-3/8	3.8
15	254T	1-5/8	4.4
20	256T	1-5/8	4.4
25	284T	1-7/8	4.4
30	286T	1-7/8	5.2
40	324T	2-1/8	6.0
50	326T	2-1/8	6.8
60	364T	2-3/8	7.4
75	365T	2-3/8	8.6
100	+405T	2-7/8	8.6
125	+444T	3-3/8	10.5
150	+445T	3-3/8	10.5
200	+447T	3-3/8	13.2

+ Energy Efficient (TEFC-XE) Frame

Table 8 - Minimum Sheave Diameters For Dodge TORQUE-ARM Reducers

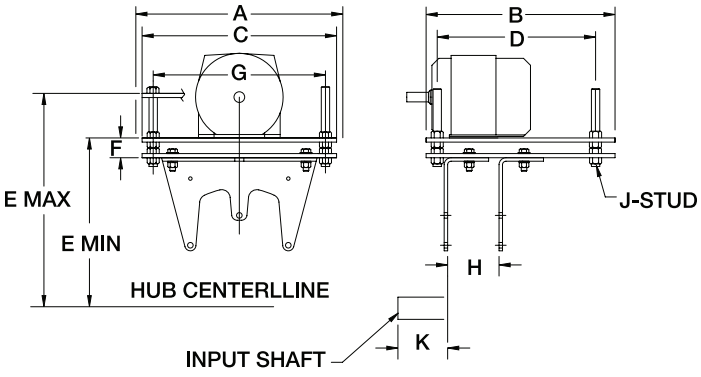
TXT, SCXT Reducer	Single Reduction		Double Reduction			
	Shaft Diameter	5:1	Shaft Diameter	9:1	15:1	25:1
1	1-1/8	4.0	3/4	4.0	3.0	3.0
2	1-7/16	3.0	1-1/8	5.0	3.0	3.0
3	1-5/8	7.0	1-1/4	5.0	4.0	4.0
4	1-15/16	7.5	1-7/16	6.5	4.6	4.6
5	2-3/16	9.5	1-15/16	7.0	5.4	5.4
6	2-3/16	6.5	2-3/16	7.0	6.2	6.2
7	2-7/16	7.5	2-7/16	7.0	6.2	6.2
8	2-7/16	9.2	2-7/16		6.2	6.2
9	2-7/16	9.5	2-7/16		8.0	8.0
10			2-11/16		8.5	8.5
12			2-11/16		9.5	9.5
13			2-15/16			12.0
14			2-15/16			15.0
15			3-7/16			20.0

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DODGE®



TORQUE-ARM Shaft Mount Speed Reducers



TA MOTOR MOUNTS

The TA Motor Mount is a rugged all steel unit which requires no drilling and no foundation. It bolts directly to the top of the TORQUE-ARM reducer and can be located in any position around the shaft. It permits easy belt tensioning.

Each motor mount accommodates a wide variety of NEMA motor frames - see table below.

All motor mount fasteners are supplied with zinc-plated finish as standard. Bolt hole configuration will also allow this mount to fasten to the top of a Screw Conveyor Drive reducer of equivalent size.

TORQUE-ARM Motor Mounts - TA1M Thru TA7M

Motor Mount No. ■	Part Number ●	Wt.	Reducer Size	NEMA Motor Frame	A	B	C	D	E ◆		G	H	J	K
									Min	Max				
TA1M	**241391**	37	TXT1A	56T - 215T	14.63	11.00	13.50	9.25	10.03	14.18	12.00	3.38	5/8 x 7	3.88
			TXT2A						10.59	14.75				4.18
TA3M	**243391**	40	TXT3B	56T - 215T	14.63	11.00	13.50	9.25	11.59	15.78	12.00	4.25	5/8 x 7	4.88
	243393 ▲	70		254T - 256T	18.63	17.00	17.50	14.25	11.59	15.78	15.50		3/4 x 8	
TA4M	**244391**	75	TXT4B	143T - 286T	18.63	17.00	17.50	14.25	11.96	16.73	15.50	4.63	3/4 x 8	6.13
TA5M	**245391**	76	TXT5C	143T - 286T	18.63	17.00	17.50	14.25	12.53	17.28	15.50	4.13	3/4 x 8	6.65
	245393 ▲ ♣			324T - 326T	20.50	18.50	19.25	16.50	12.53	17.28	17.50		3/4 x 8	
TA6M	**246391**	99	TXT6A	143T - 326T	20.50	18.50	19.25	16.50	14.56	19.31	17.50	4.50	3/4 x 8	7.31
TA7M	**247395**	110	TXT7A	143T - 365T	22.50	19.00	21.25	16.50	17.62	22.13	19.25	4.75	1 x 9	7.81

V-Belt Drive Center Distances For TA1M Thru TA7M TORQUE-ARM Motor Mounts

Motor Mount No.	Reducer Size	Center Distances For Various NEMA Motor Frames															
		56		140		180		210		250		280		320		360	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
TA1M	TXT1A	17.6	21.0	17.6	21.0	18.5	22.0	19.3	22.7								
	TXT2A	18.7	22.1	18.7	22.1	19.7	23.1	20.5	23.9								
TA3M	TXT3B	20.2	23.6	20.2	23.6	21.2	24.6	22.0	25.3	23.0	26.3						
TA4M	TXT4B			21.2	25.2	22.2	26.2	23.0	26.9	23.9	27.9	24.7	28.7				
TA5M	TXT5C			22.7	26.6	23.7	27.6	24.4	28.4	25.4	29.4	26.2	30.1	27.2	31.1		
TA6M	TXT6A			25.9	29.7	26.9	30.7	27.6	31.4	28.6	32.4	29.4	33.2	30.4	34.2		
TA7M	TXT7A			30.6	34.4	31.6	35.4	32.4	36.2	33.4	37.2	34.1	37.9	35.1	38.9	36.1	40.0

■ Can be used with any ratio TORQUE-ARM Reducer (5, 9, 15, 25)

● Necessary mounting bolts are included

▲ Made to order belt guards required for these motor mounts. Consult DODGE.

◆ Provides for V-belt adjustment

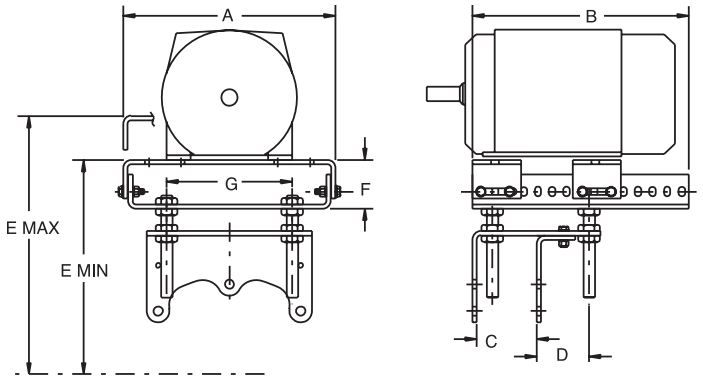
♣ Made to order

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MODIFICATIONS/ ACCESSORIES

DODGE®

TORQUE-ARM Shaft Mount Speed Reducers





TORQUE-ARM Motor Mounts - TA8 Thru TA15

Motor Mount No.	Part Number ●	Wt.	Reducer Size	Nominal Ratio	NEMA Motor Frame	A	B	C	D	E ◆ Min	E ◆ Max	F	G
TA8	**248401** ■	119	TXT8A	15, 25	213T - 365T	18.63	19	5.25	4.36	19.4	23.9	4.25	11
				5	254T - 365T								
TA9	**249401** ■	120	TXT9A	15, 26	213T - 365T	18.63	19	5.25	4.63	21.46	25.9	4.25	11
				5	284T - 365T								
	249399 ♣ ▲	125		15, 26	404T - 445T	25.06	24			20.21	24.71	3.81	
TA10	**250401**	130	TXT10A	15, 24	254T - 365T	18.63	19	6	3.88	22.6	27.09	4.25	11
	250404	200			404T - 445T	25.06	24	6	3.88	21.86	27.38	3.81	18.5
TA12	**272310**	255	TXT12	15, 25	286T - 445T	25.06	24	7.63	5.25	25.65	31.13	3.81	18.5
TA13	**272313**	290	TDT13	25	324T - 445T	25.06	24	8.75	8.63	25.65	31.13	3.81	18.5
TA14	**272318**	295	TDT14	25	324T - 447T	25.06	24	10	7.38	25.81	31.31	3.81	18.5
TA15	**272392** ♣	320	TDT15	30	405T - 449T	25.06	24	12.63	5.75	33.5	39	3.81	18.5

V-BELT Drive Center Distances For TA8 Thru TA15 TORQUE-ARM Motor Mounts

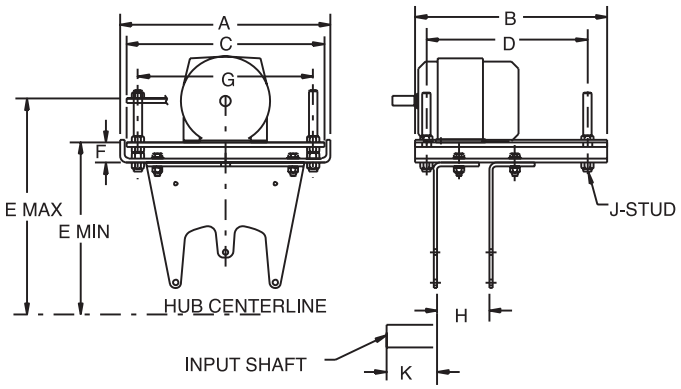
Motor Mount No.	Reducer Size	Nominal Ratio	Center Distances For Various NEMA Motor Frames													
			210		250		280		320		360		400		440	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
TA8	TXT8A	15, 25	35.5	40.5	36.4	41.2	37.2	42.2	38.2	43.2	39.2	44.2				
		5			37.2	41.5	37.9	42.3	38.9	43.3	39.9	44.3				
TA9	TXT9A	15, 26	38.0	43.0	39.0	44.0	39.8	44.7	40.7	45.7	41.7	46.7	42.8	47.7		
		5					40.5	44.8	41.5	45.8	42.5	46.8	43.5	47.8		
TA10	TXT10A	15, 24			42.6	47.5	43.3	48.2	44.3	49.2	45.3	50.2	45.8	50.7	47.3	51.7
TA12	TXT12	15, 25					57.0	61.0	57.7	62.1	58.7	63.1	59.7	64.1	60.7	65.1
TA13	TDT13	25							59.7	65.1	60.7	66.1	61.7	67.1	62.0	66.7
TA14	TDT14	25							61.7	67.1	62.7	68.1	63.7	69.1	64.7	70.1
TA15	TDT15	30											75.0	80.5	76.0	81.5

■ Can be used with any ratio TORQUE-ARM reducer (5, 15, 25)
● Necessary mounting bolts are included
▲ Made to order belt guards required for these motor mounts. Consult DODGE.
♣ Made to order.
◆ Provides for V-belt adjustment

DODGE®



TORQUE-ARM Shaft Mount Speed Reducers



TAML Long Motor Mounts

The TAML Motor Mount has longer support brackets, which allows for more clearance between the conveyor pulley and the bottom plate of the motor mount. (Reference table below for clearance dimensions). The motor mount is a rugged all steel unit which requires no drilling and no foundation. It bolts directly to the top of the TORQUE-ARM reducer and can be located in any position around the shaft. It permits easy belt tensioning and accommodates a wide variety of NEMA motor frames.

All motor mount fasteners are supplied with zinc-plated finish as standard.

Bolt hole configuration will also allow this mount to fasten to the top of a Screw Conveyor Drive Reducer of equivalent size.

TORQUE-ARM Long Motor Mounts - TA3ML Thru TA7ML ▲†

Motor Mount No. ■	Part Number ●	Wt.	Reducer Size	NEMA Motor Frame	A	B	C	D	E ◆		F	G	H	J	K
									Min	Max					
TA3ML	**243392** ♣	42	TXT3B	56T - 215T	14.63	11.00	13.50	9.25	14.59	18.72	1.59	12.00	4.25	5/8 x 7	4.88
TA4ML	**244392**	78	TXT4B	143T - 286T	18.63	17.00	17.50	14.25	16.46	21.20	1.78	15.50	4.63	3/4 x 8	6.13
TA5ML	**245392**	80	TXT5C	143T - 286T	18.63	17.00	17.50	14.25	19.28	24.03	1.84	15.50	4.13	3/4 x 8	6.65
TA6ML	**246390**	102	TXT6A	143T - 326T	20.50	18.50	19.25	16.50	28.56	33.30	1.84	17.50	4.50	3/4 x 8	7.31
TA7ML	**247396** ♣	115	TXT7A	143T - 326T	22.50	19.00	21.25	16.50	32.46	37.20	1.84	19.25	4.75	3/4 x 8	7.81

V-BELT Drive Center Distances For TA3ML Thru TA7ML TORQUE-ARM Long Motor Mounts

Motor Mount No.	Reducer Size	Center Distances For Various NEMA Motor Frames													
		56		140		180		210		250		280		320	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
TA3ML	TXT3B	23.1	26.5	23.1	26.5	24.1	27.5	24.9	28.3						
TA4ML	TXT4B			25.6	30.6	26.7	30.6	27.4	31.4	28.3	32.4	29.2	33.1		
TA5ML	TXT5C			29.4	33.4	30.4	34.3	31.1	35.1	32.1	36.1	32.9	36.8		
TA6ML	TXT6A					40.8	44.6	41.6	45.4	42.6	46.4	43.3	47.1	44.3	48.1
TA7ML	TXT7A					47.0	50.8	47.7	51.5	48.7	52.5	49.5	53.3	50.5	54.3

Clearance Dimensions ■

Reducer	Motor Mount	Clearance Dimensions (1)
TXT1A	TA1M	7.63
TXT2A	TA1M	8.25
TXT3B	TA3M	9.25
TXT4B	TA4M	9.44
TXT5C	TA5M	10.00
TXT6A	TA6M	11.97
TXT7A	TA7M	14.38

Clearance Dimensions ■

Reducer	Motor Mount	Clearance Dimensions (1)
TXT3B	TA3ML	12.25
TXT4B	TA4ML	13.94
TXT5C	TA5ML	16.75
TXT6A	TA6ML	25.96
TXT7A	TA7ML	29.88

■ Can be used with any ratio TORQUE-ARM Reducer (5, 9, 15, 25)

● Necessary mounting bolts are included

▲ Made to order belt guards required for these motor mounts. Consult DODGE.

◆ Provides for V-belt adjustment

† Consult DODGE for Long Motor Mounts for reducers TXT8A and larger.

(1) Distance from centerline of head shaft (reducer bore) and lowest component of motor mount hardware extending over top of conveyor

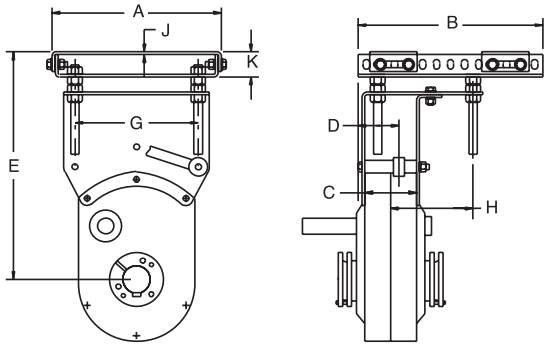
♣ Made to order

Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

MODIFICATIONS/ ACCESSORIES

DODGE®

TORQUE-ARM Shaft Mount Speed Reducers



TAB BOTTOM MOTOR MOUNTS

For those applications where space constraints do not allow a DODGE TORQUE-ARM motor mount to be mounted from the top end of the reducer with our standard TORQUE-ARM motor mounts, TAB Bottom Motor Mounts are available. The TAB Motor Mount is a rugged all-steel unit which requires no drilling or foundation. It bolts directly to the bottom of a TORQUE-ARM reducer housing and also serves as a support member for the TORQUE-ARM rod assembly. Each mount accommodates a wide variety of NEMA AC motor frames. For initial belt installation, the adjusting screws can be set at a minimum position which offers adequate future V-belt adjustment.

TORQUE-ARM Bottom Motor Mounts - TAB 1 Thru TAB 10 ▲

Motor Mount No.	Part Number ●	Wt.	Reducer Size	Nominal Ratio	NEMA Motor Frame	A	B	C	D	E ◆ Min	E ◆ Max	G	H	J	K
TAB1	**241421** ♣	40	TXT1A	5, 9, 15, 25	56T - 215T	12-1/8	11-1/2	3-3/8	2-43/64	14-17/64	17-61/64	8	5-25/32	1/4	2-3/8
TAB2	**242421** ♣	45	TXT2A	5, 9, 15, 25	56T - 215T	12-1/8	11-1/2	3-3/8	2-43/64	14-29/32	18-19/32	8	5-25/32	1/4	2-3/8
TAB3	**243404** ♣	60	TXT3B	5, 9, 15, 25	143T - 286T	15-1/8	16-1/2	4-1/4	3-15/32	19-1/4	23-7/8	11	5-13/32	1/4	2-3/8
TAB4	**244404** ♣	65	TXT4B	5, 9, 15, 25	143T - 145T 182T - 326T	15-1/8	16-1/2	4-5/8	5-13/32 3-21/32	20-13/32	25-1/32	11	5-1/32	1/4	2-3/8
TAB5	**245405**	70	TXT5C	5, 9, 15, 25	143T - 145T 182T - 326T	15-1/8	16-1/2	4-1/8	5-21/64 3-37/64	21-15/32	26-3/32	11	5-17/32	1/4	2-3/8
TAB6	**246392**	75	TXT6A	5, 9, 15, 25	182T - 215T 254T - 326T	15-1/8	16-1/2	4-1/2	5-5/32 3-13/32	24-1/4	28-13/16	11	5-17/16	1/4	2-3/8
TAB7	**247404** ♣	85	TXT7A	5, 9, 15, 25	182T - 215T 254T - 326T	15-1/8	16-1/2	4-3/4	5-1/2 3-3/4	27-3/4	32-1/4	11	5-1/8	1/4	2-3/8
TAB8	**248406** ♣	90	TXT8A	5, 15, 25	213T - 256T 284T - 365T	15-1/8	19	5-1/4	3-5/8 3-7/8	33-13/32	37-25/32	11	4-5/8	3/8	4-1/4
TAB9	**249404** ♣	95	TXT9A	5, 15, 26	213T - 256T 284T - 365T	18-5/8	19	5-1/4	5-5/8 3-7/8	34-29/32	39-9/32	11	4-5/8	3/8	4-1/4
TAB10	**250411**♣	105	TXT10A	15, 24	254T - 365T	25-1/16	24	6	4-23/32	36-3/32	41-17/32	18-1/2	4-1/8	3/8	3-13/16

● Necessary mounting bolts are included.
◆ Provides for V-belt adjustment.
▲ Made to order belt guards required for these motor mounts. Consult DODGE
♣ Made to order

V-BELT Drive Center Distances For TORQUE-ARM Bottom Motor Mounts

Motor Mount No.	Reducer Size	Nominal Ratio	Center Distances For Various NEMA Motor Frames															
			56		140		180		210		250		280		320		360	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
TAB1	TXT1A	9, 15, 25	14.70	18.40	14.70	18.40	15.70	19.40										
		5	14.50	18.20	14.50	18.20	16.30	19.20	17.20	19.90								
TAB2	TXT2A	9, 15, 25	14.80	18.50	14.80	18.50	15.80	19.50	16.50	20.20								
		5			14.60	18.20	15.60	19.20	16.30	20.00								
TAB3	TXT3B	9, 15, 25	18.70	23.30	18.70	23.30	19.70	24.30	20.50	25.10								
	TXT305A	5			19.50	24.10	20.20	24.80	21.20	25.80								
TAB4	TXT4B	9, 15, 25	19.30	23.90	19.30	23.90	20.30	24.90	21.10	25.70	22.10	26.60						
	TX405A	5			20.00	24.70	20.80	25.40	21.80	26.40	22.50	27.20						
TAB5	TXT5C	9, 15, 25			19.50	24.10	20.50	25.10	21.30	25.90	22.30	26.90	23.00	27.60				
	TXT505A	5					20.90	25.50	21.90	26.50	22.60	27.20	23.60	28.20				
TAB6	TXT6A	9, 15, 25			21.40	25.90	22.40	26.90	23.10	27.60	24.10	28.60	24.90	29.40	25.80	30.40		
		5							23.60	28.20	24.40	28.90	25.40	29.90				
TAB7	TXT7A	9, 15, 25					24.50	28.90	25.20	29.70	26.20	30.60	26.90	31.40	27.90	32.40		
		5							25.70	30.20	26.40	30.90	27.40	31.90				
TAB8	TXT8A	15, 25							29.50	33.80	30.50	34.80	31.20	35.60	32.20	36.50	33.20	37.50
	TXT8	5									30.50	34.90	31.50	35.90	32.50	36.90		
TAB9	TXT9A	15, 26							29.90	34.10	30.80	35.10	31.60	35.90	32.50	36.80	33.50	37.80
	TXT9	5											31.70	36.10	32.70	37.10		
TAB10	TXT10A	15, 24									32.00	37.00	32.80	38.00	33.70	39.00	34.70	40.00

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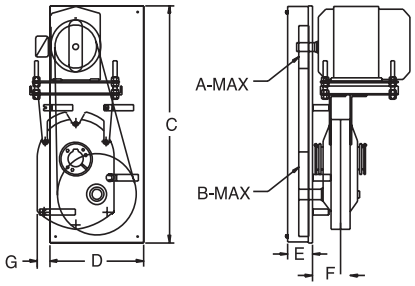


TORQUE-ARM Shaft Mount Speed Reducers



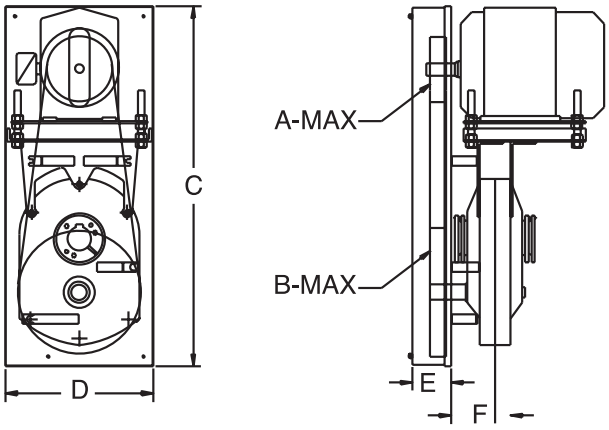
SLOTTED METAL PANEL BELT GUARD

Belt guards with mounting straps for TXT Reducers will fit standard TA motor mounts. The belt guards are designed to fit most common sheave diameters. They mount easily with no machining required.



Belt Guards For Double Reduction TXT Reducers (9, 15, 25:1) With Standard Motor Mounts ■

Reducer Size	Belt Guard Size	Part Number	Motor Mount No.	Wt.	NEMA Motor Frame	Center Distance		A	B	C	D	E	F	G
						Min	Max							
TXT1A	TXT1D	**241395**	TA1M	30	56T-215T	17.6	22.7	5.0	12.0	32.0	13.0	3.50	3.63	-
TXT2A	TXT2D	**242395**	TA1M	36	56T-215T	18.7	23.9	6.0	12.0	34.0	15.0	4.00	3.50	-
TXT3B	TXT3D	**243387** ▲	TA3M	43	56T-215T	20.2	25.3	7.0	14.0	37.0	17.0	4.00	3.94	-
TXT4B	TXT4D	**244395**	TA4M	54	143T-286T	21.2	28.7	7.0	15.0	43.0	18.0	4.50	5.19	-
TXT5C	TXT5D	**245387** ▲	TA5M	75	143T-286T	22.7	30.2	7.0	15.0	45.0	18.0	4.25	5.13	0.625
TXT6A	TXT6D	**246366**	TA6M	83	143T-326T	25.9	34.2	8.0	18.0	50.0	20.0	6.00	6.06	1.63
TXT7A	TXT7D	**247390**	TA7M	90	143T-365T	30.6	40	10.0	20.0	56.0	23.0	6.00	6.88	0.500
TXT8A	TXT8D	**248395**	TA8	107	213T-365T	35.4	44.2	12.0	25.0	63.0	27.0	6.50	7.46	0.156
TXT9A	TXT9D	**249395** ▲	TA9	125	213T-365T	38	46.7	12.0	25.0	66.0	30.0	9.00	7.63	2.91
TXT10A	TXT10D	**250395**	TA10	140	254T-445T	42.5	50.8	12.0	25.0	72.5	30.0	9.00	8.25	4.31
TXT12	TXT12D	**272688** ♣	TA12	170	320T-445T	58.1	66.6	15.0	30.0	91.0	34.0	9.50	8.13	-



Belt Guards For Single Reduction TXT Reducers (5:1) With Standard Motor Mounts ■

Reducer Size	Belt Guard Size	Part Number	Motor Mount No.	Wt.	NEMA Motor Frame	Center Distance		A	B	C	D	E	F
						Min	Max						
TXT105	TXT1S	**241397**	TA1M	30	56T-215T	17.6	22.7	5.0	12.0	32.0	13.0	3.50	3.63
TXT205	TXT2S	**242397**	TA1M	36	56T-215T	18.7	23.9	6.0	13.0	34.0	15.0	4.00	3.50
TXT305A	TXT3S	**243389** ▲	TA3M	43	56T-215T	20.2	25.3	7.0	15.0	37.0	17.0	4.00	3.94
TXT405A	TXT4S	**244397**	TA4M	54	143T-286T	21.2	28.7	8.0	16.0	43.0	18.0	4.50	5.19
TXT505A	TXT5S	**245389** ▲	TA5M	59	143T-286T	22.7	30.2	8.0	16.0	45.0	18.0	5.25	5.13
TXT605	TXT6S	**246368**	TA6M	95	143T-326T	25.9	34.2	10.0	18.0	50.0	20.0	6.00	6.06
TXT705	TXT7S	**247392**	TA7M	112	143T-365T	30.6	40.0	10.0	25.0	58.0	27.0	6.00	6.88
TXT805	TXT8S	**248397**	TA8	125	213T-365T	35.1	43.9	13.0	30.0	66.0	32.0	6.50	7.46
TXT905	TXT9S	**249397** ▲	TA9	156	213T-365T	37.6	46.4	13.0	30.0	69.0	32.0	9.00	7.63

▲ These belt guards do not fit the larger frame, higher H.P. TORQUE-ARM motor mounts on pages G2-73 and G2-74.

■ These belt guards do not fit TAB Bottom Motor Mounts. Consult DODGE for made-to-order belt guards for use with Bottom Motor Mounts

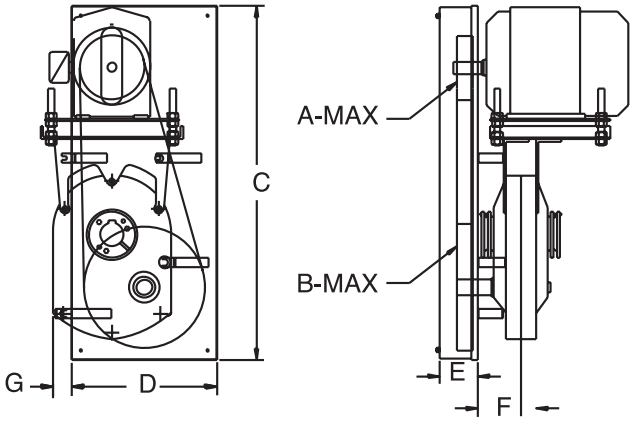
♣ Made to order.

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	RELATED PRODUCTS PAGE G2-152	RENEWAL PARTS PAGE G2-166

MODIFICATIONS/ ACCESSORIES

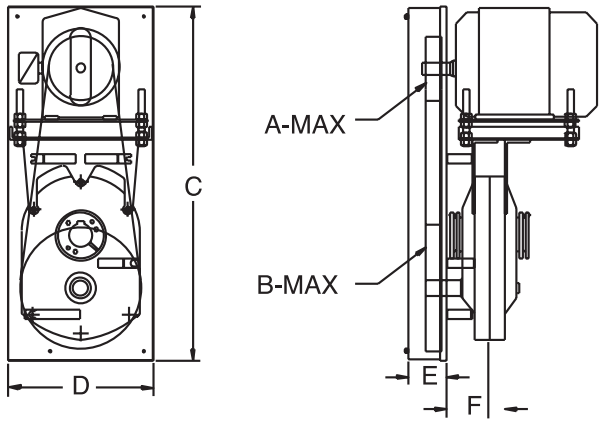
DODGE®

TORQUE-ARM Shaft Mount Speed Reducers



Belt Guards For Double Reduction TXT Reducers (9, 15, 25:1) With Long Motor Mounts

Reducer Size	Belt Guard Size	Part Number	Motor Mount No.	Wt.	NEMA Motor Frame	Center Distance		A	B	C	D	E	F	G
						Min	Max							
TXT3B	TXT3DLMM	**243153 ▲ ♣**	TA3ML	52	56T-215T	23.1	28.3	7	14	40	17	4	3.94	-
TXT4B	TXT4DLMM	**244151 ♣**	TA4ML	65	143T-286T	25.6	33.1	7	15	47.5	18	4.5	5.19	-
TXT5C	TXT5DLMM	**245102 ▲ ♣**	TA5ML	90	143T-286T	29.4	36.8	7	15	51.7	18	4.25	5.13	0.625
TXT6A	TXT6DLMM	**246147**	TA6ML	100	143T-326T	39.8	48.1	8	18	64	20	6	6.06	1.63
TXT7A	TXT7DLMM	**247152 ♣**	TA7ML	108	143T-365T	46	55.3	10	20	71.5	23	6	6.88	0.5



Belt Guards For Single Reduction TXT Reducers (5:1) With Long Motor Mounts

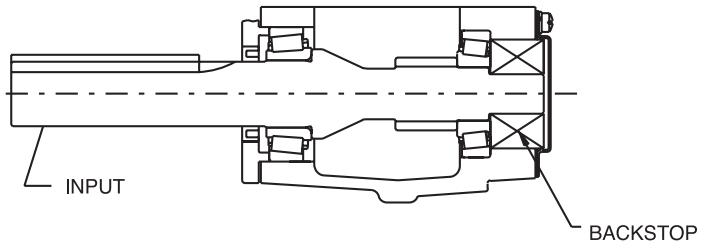
Reducer Size	Belt Guard Size	Part Number	Motor Mount No.	Wt.	NEMA Motor Frame	Center Distance		A	B	C	D	E	F
						Min	Max						
TXT305A	TXT3SLMM	**243164 ▲ ♣**	TA3ML	55	56T-215T	23.1	28.3	7.0	15.0	40.0	17.0	4.00	3.94
TXT405A	TXT4SLMM	**244164 ♣**	TA4ML	65	143T-286T	25.6	33.1	8.0	16.0	47.5	18.0	4.50	5.19
TXT505A	TXT5SLMM	**245162 ▲ ♣**	TA5ML	90	143T-286T	29.4	36.8	8.0	16.0	51.7	18.0	4.25	5.13
TXT605	TXT6SLMM	**246132 ♣**	TA6ML	100	143T-326T	39.8	48.1	10.0	18.0	64.0	20.0	6.00	6.06
TXT705	TXT7SLMM	**247146 ♣**	TA7ML	135	143T-365T	46.0	55.3	10.0	20.0	71.5	23.0	6.00	6.88

▲ These belt guards do not fit the larger frame, higher H.P. TORQUE-ARM motor mounts on pages G2-73

♣ Made to order

TORQUE-ARM Shaft Mount Speed Reducers

Backstop Assemblies For TORQUE-ARM Reducers



Backstops are offered for service conditions that require the prevention of reverse direction. They can be quickly installed by removing cover plate and slipping the backstop over the input shaft. After cover is replaced, backstop becomes completely sealed inside the reducer case. Since the reducer lubricates the backstop, no additional lubrication is required.

When ordering backstops, specify by reducer size and ratio. Keys are included in each backstop assembly.

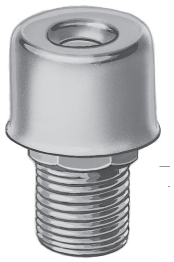
Warning: Backstops are not recommended for applications involving energy absorption and shock or torque loads in excess of reducer ratings or on applications such as chair lifts, amusement rides, etc., where the safety of persons or property is dependent on their function. On such applications, other safety devices should be provided.

Backstop Assemblies ■

Reducer Size	Nominal Ratio	Part Number	Weight
TXT1A	5, 9, 15, 25	**242101**	0.6
TXT2A	5, 9, 15, 25	**252101**	1.0
TXT3B	9, 15, 25	**243106**	0.6
TXT3A	5	**252101**	1.0
TXT4B	9, 15, 25	**244106**	1.2
TXT4A	5	**244148**	0.9
TXT5C	9, 15, 25	**245154**	2.2
TXT5A	5	**246101**	1.8
TXT6 A	5, 9, 15, 25	**246092**	2.5
TXT7A	5, 9, 15, 25	**247260**	2.8
TXT8A	15, 25	**249260**	3.8
TXT8	5	**250260**	5.6
TXT9A	15, 26	**249260**	3.8
TXT9	5	**272259**	6.7
TXT10A	15, 24	**250260**	5.6
TXT12	15, 25	**250260**	5.6
TDT13	25	**272259**	6.7
TDT14	25	**272293**	13.4
TDT15	30	**272293**	13.4

■ See pages G2-184 and G2-185 for complete listing of Backstop assemblies for all generations of DODGE TXT TORQUE-ARM reducers.

FILTER BREATHERS FOR TORQUE-ARM REDUCERS



FILTER BREATHERS ★

Reducer Size	Part Number	Plug Dimensions
TXT1 to TXT4	**430048**	3/8-18 NPSF
TXT5 to TXT10	**430049**	1/2-14 NPSF

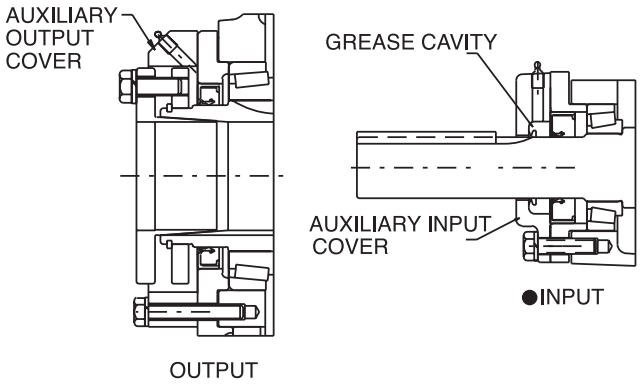
★ Breathers fit all reducer ratios.

Filter air breathers are designed for use in dusty atmospheres where the standard Torque-Arm breather may become clogged and inoperative. The 40 micron mesh opening allows the reducer to breathe, yet keep dust out, under the most extreme conditions. Clean oil is necessary for proper service and long gear and bearing life. Breathers may be used in all reducers and screw conveyor drives. When ordering, specify reducer size.

MODIFICATIONS/ ACCESSORIES

TORQUE-ARM Shaft Mount Speed Reducers

Auxiliary Seal Kits For TORQUE-ARM Reducers



An Auxiliary Seal Kit consists of two output seals and one input seal with necessary mounting hardware. Seal rings are equipped with a standard grease fitting and a large cavity which permits grease purging of the seal in severe applications, such as taconite mining, rock processing, fertilizer processing, etc. Reducer housings on sizes 1 and 2 must be drilled and tapped to accommodate auxiliary seals. On sizes 3-10, the input and front side output auxiliary seals bolt to the existing seal carriers, but the housing must be drilled and tapped for the back side output auxiliary seal. A filter breather is included with each auxiliary seal kit.

Auxiliary Seal Kits ★■●

Reducer Size	Nominal Ratio	Part Number	Reducer Size	Nominal Ratio	Part Number
TXT1A	9, 15, 25	**272515**	TXT6A	5, 9, 15, 25	**272450**
TXT1	5	**272521**	TXT7A	5, 9, 15, 25	**272451**
TXT2A	9, 15, 25	**272446**	TXT8A	5, 15, 25	**272452**
TXT2	5	**272459**	TXT9A	5, 15, 26	**272453**
TXT3B	9, 15, 25	**243577**	TXT10A	15, 24	**272454**
TXT3A	5	**253186**	TXT12	15, 25	**272455**
TXT4B	9, 15, 25	**244676**	TDT13	25	**272456**
TXT4A	5	**254267**	TDT14	25	**272457** ♣
TXT5C	9, 15, 25	**245635**	TDT15	30	**272458** ♣
TXT5A	5	**255230**			

★ For Taper Bushed reducers only.

■ See page G2-175 and G2-176 for dimensions to drill and tap reducer housing for mounting of auxiliary seal kit. Dodge will install upon request.

♣ Made to order

● Input auxiliary seal can not be used on same input shaft with a cooling fan

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TORQUE-ARM Shaft Mount Speed Reducers

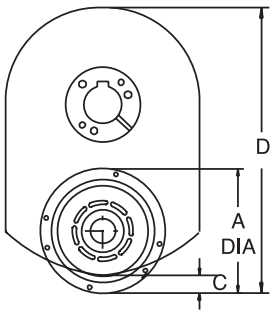
Cooling Fan Assemblies For Torque-Arm Reducers

When the thermal capacity of a Torque-Arm reducer is exceeded, cooling fans provide an optional, inexpensive way of lowering the oil temperature, thus increasing the thermal horsepower capacity of the reducer. Selection tables indicate when a cooling fan is required.

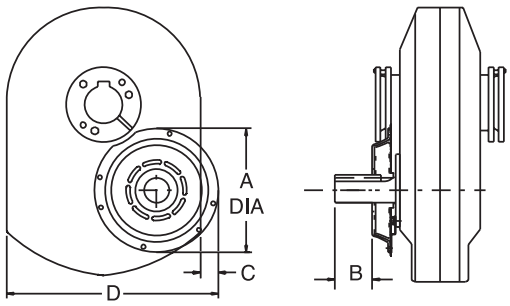
Installation is accomplished simply by attaching formed steel mounting straps to the reducer input shaft seal carrier. The fan assembly, which fastens to the input shaft, is compact enough to allow installation of the originally designed for the reducer. The fan housing is attached to the outer edges of the straps, which are spaced to allow free circulation of air at the back of the housing as well as through the front of the unit. The fan blade offers a radial streamline air flow which means smaller fans yet a more efficient movement of air.

For thermal capacities beyond the range of cooling fans, heat exchangers may be used-see below.

NOTE: See page G2-179 for maximum input shaft speeds



TXT305A THRU TXT905 (5:1)
TXT12 THRU TDT15 (15, 25, 30:1)



TXT3A THRU TXT10
RATIOS 9,15,25:1

TORQUE-ARM Reducer Cooling Fan Assemblies

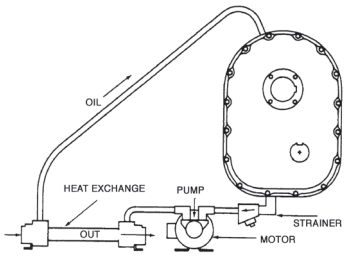
Reducer Size	Cooling Fan No.	Part Number	Nominal Ratios	Wt.	A	B	C	D
TXT3B, SCXT3B	TXT3A	**243581**	9, 15, 25	3.0	4.88	2.13	0.15	9.38
TXT305A, SCXT305A	TXT305A	**253188**	5	3.0	3.94	1.88	-	-
TXT4B, SCXT4B	TDT4	**272594**	9, 15, 25	3.0	5.88	2.94	0.50	10.88
TXT405A, SCXT405A	TXT405A	**254268**	5	3.0	4.68	2.94	-	-
TXT5C, SCXT5C	TDT5	**272369**	9, 15, 25	3.0	7.08	3.44	-	-
TXT505A, SCXT505A	TXT505A	**255231**	5	3.0	5.75	3.44	-	-
TXT6A, SCXT6A	TDT6	**272325**	9, 15, 25	6.0	10.25	3.44	1.31	16.44
TXT605, SCXT605	TXT605	**272681** ♣	5	6.0	7.08	3.42	-	-
TXT7A, SCXT7A	TDT7	**272326**	9, 15, 25	6.0	12.75	3.68	2.18	20.94
TXT705, SCXT705	TXT705	**272685** ♣	5	6.0	9.25	3.88	-	-
TXT8A	TDT8	**272327**	15, 25	9.0	12.75	4.18	2.38	22.63
TXT805	TDT8	**272327**	5	9.0	12.75	4.25	-	-
TXT9A	TDT9	**272328**	15, 26	15.0	16.75	6.31	3.75	26.38
TXT905	T19	**272324** ♣	5	15.0	12.75	7.44	-	-
TXT10A	TDT10	**272329**	15, 24	15.0	16.75	6.13	2.25	27.75
TXT12	TDT12	**272330**	15, 25	15.0	16.75	5.88	3.25	46.75
TDT13	TDT13	**272331**	25	20.0	18.50	5.68	3.94	49.75
TDT14	TDT14	**272332**	25	20.0	18.50	8.63	2.81	52.88
TDT15	TDT15	**272333**	30	23.0	18.50	9.50	2.00	60.63

♣ MADE TO ORDER

Reducer Heat Exchanger Cooling Package

For thermal capacities beyond the range of cooling fanes, an optional heat exchanger cooling package is available to prevent overheating the reducer and allow the use of full mechanical HP rating by lowering the oil temperature to an acceptable level.

Specifications for the heat exchange motor are as follows:
1/2 HP, 60 Hz, 3PH, 230/460 Volt, TEFC, 56 frame
Minimum coolant (water) flow is 3 G.P.M. based upon a maximum water temperature of 80°f.
Minimum oil temperature for operation is 60°F



Part Number
014148 ♣

♣ Made to order

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	RELATED PRODUCTS PAGE G2-152	RENEWAL PARTS PAGE G2-166



Screw Conveyor Shaft Mount Speed Reducers

Easy Selection Method (For Electric Motors)

When to Use Easy Selection

The Easy Selection tables for Shaft Mount reducers are for electric motor selections up to 75 horsepower with output speeds up to 400 RPM, using AGMA recommended application class numbers. For extreme shock or high energy loads which must be absorbed, as when stalling; for power source other than an electric motor; or for extreme ambient temperatures, or oversized equipment, consult DODGE Application Engineering, (864) 284-5700

How to Select

Step 1: Determine Class of Service-See Table 1, page G2-15 to determine Load Classification for applications under normal conditions. Find the type application and duty cycle that most closely matches your specific application.

Class I Steady load not exceeding Motor HP rating and light shock loads during 10 hours a day. Moderate shock loads are allowable if operation is intermittent.

For Class I applications, the maximum value of starting and momentary peak loads should not exceed 2 x Motor HP rating. If it exceeds this amount it should be divided by 2 and the result used in the selection table instead of the Motor HP rating.

Class II Steady load not exceeding Motor HP rating for over 10 hours a day. Moderate shock loads are allowable during 10 hours a day.

For Class II applications, the maximum value of starting and momentary peak loads should not exceed 2.8 x Motor HP rating. If it exceeds this amount it should be divided by 2.8 and the result used in the selection table instead of the Motor HP rating.

Class III Moderate shock loads for over 10 hours a day. Heavy shock loads are allowable during 10 hours a day.

For Class III applications, the maximum value of starting and momentary peak loads should not exceed 4 x Motor HP rating. If it exceeds this amount it should be divided by 4 and the result used in the selection table instead of the Motor HP rating.

Step 2: Determine Reducer Size-See the Easy Selection Tables, pages G2-85 thru G2-91. From Selection Table I, II or III read the reducer size for the application horsepower and output speed. **Note:** For applications where fan cooling is unacceptable use the Easy Selection tables with an increased Class number. Where more than one reducer selection is listed, the most economical ratio is generally listed first. See page G2-177 for maximum input and output speeds, overhung load ratings and WR2 ratings.

Step 3: Check Dimensions-See Selection/Dimensions sections, pages G2-92 thru G2-121 for reducer dimensions, weights and part numbers. See Engineering/ Technical section, page G2-172 and G2-176 for reducer and torque-arm rod mounting positions.

Step 4: Select Screw Conveyor Drive Shaft and Adapter to fit screw diameter-See Selection/Dimensions section, pages G2-92 thru G2-121 for compatibility of screw diameter and drive shaft diameter.



Screw Conveyor Shaft Mount Speed Reducers

Step 5: Select a Belt Drive Arrangement-From the Sheave Ratio table, page G2-164 thru G2-167, select the required sheave ratio for the belt drive. Select the belt drive so that the sheave mounted on the reducer shaft is not smaller than the minimum sheave diameter shown in Table 19, page G2-163. **Note:** Mount the sheave as close as possible to the reducer to minimize the effect of overhung load on the reducer.

Step 6: Select Accessories-See Modifications/ Accessories section, pages G2-122 thru G2-128, for description, dimensions, weights, and part numbers for accessories available for the Screw Conveyor Drive reducer selected:

Motor Mounts

Belt Guards

Cooling Fans

Auxiliary Seal Kits

Alternative drive shaft styles

Filter Breathers

Note: Screw Conveyor Drive reducers are shipped without oil. Screw Conveyor Drive reducers are suitable from stock for vertical or incline mounting, no modification required.

EXAMPLE: Easy Selection Method - SCXT Screw Conveyor Drive Reducers

A 5 HP 1750 RPM motor is used to drive a heavy duty screw conveyor that runs 10 hours per day in a local feed mill, conveying grain. User needs a replacement reducer drive for a CEMA standard screw conveyor with a 12” diameter screw and 2-7/16, diameter drive shaft. Conveyor speed is 72 RPM.

Step 1: Determine Class of Service-From Table 1, page G2-15, locate “conveyors, general purpose; screw conveyor-heavy duty, not uniformly loaded” for 3 to 10 hours per day. This load is classified as a Class II application.

Step 2: Determine Reducer Size-From Table 10, Class II Selection, page G2-88, find the column for 5 HP and read down to 72 RPM. An SCXT225 reducer is the correct selection. Check maximum input and output speed, overhung load, and WR2 requirements with reducer ratings on page G2-177.

Step 3: Check Dimensions-See Selection/Dimensions section, page G2-94, for reducer dimensions, weights, part numbers and other pertinent drive dimensions. See Engineering/Technical section page G2-173 for information on mounting positions.

Step 4: Select Screw Conveyor Drive Shaft and Adapter to fit screw diameter-See Selection/Dimensions section, page G2-96. Here we verify that a 2-7/16” diameter drive shaft is compatible with 12” diameter screw. From this same page, select a C2A adapter which fits the 2-7/16” CEMA standard screw conveyor drive shaft.

Step 5: Select a Belt Drive Arrangement-From the Sheave Ratio table, page G2-164, select a V-drive ratio for the conveyor speed of 72 RPM. With this information, select a belt drive that meets your customer’s needs -i.e. belt style preference, service factor requirements, Taper Lock or QD mounting, etc. Sheave diameter must not be less than minimum diameters shown in Table 19, page G2-163.

Step 6: Select Accessories-See Selection/Dimensions page G2-97 and Modifications/Accessories page G2-126 to pick out accessories for this application:

M214 Motor Mount-to mount motor to side of SCXT225 reducer.

SCXT2D Expanded Metal Belt Guard-to cover and protect the rotating belt drive.

SELECTION



Screw Conveyor Shaft Mount Speed Reducers

SELECTION GUIDE: SCXT SCREW CONVEYOR DRIVE REDUCERS

This Is A Handy Reference Sheet For Quick Selection And Specification Of DODGE Screw Conveyor Drive Reducers. Use It To Identify Information Needed To Make An Accurate Selection With A Step-By-Step Selection Format For Choosing Reducer, Accessories And V-Drive.

Use This Page To Make Your Own Selections Or Send This Form, With Application Data To DODGE For Assistance.

Name _____ Company Name _____

Phone No. _____ Fax. No. _____

Application Data:

Type of Driven Equipment _____

Hours of Service Per Day _____ Class of Service _____

Type of Load: Uniform _____ Moderate _____ Shock _____

Motor Type: HP _____ RPM _____ Frame Size _____ Shaft Size _____

Screw Conveyor RPM _____

Drive Shaft Diameter And Type _____

Adapter Type _____

Unusual Ambient Temperature _____

Other Pertinent Application Characteristics (i.e. - Dusty Environment, Reversing Duty, Start/Stop Cycles, Etc.) _____

Reducer Drive Selection:

Step 1 Determine Class of Service _____

Step 2 From Appropriate Service Class Table, Select Reducer Size And Rotation That Meets Application HP and Driven RPM Requirements _____

Step 3 Select Drive Shaft With Diameter To Fit Screw Size _____

Determine Type Of Drive Shaft Needed: Standard _____ Stainless Steel _____

3-Hole Standard _____ 3-Hole Stainless _____

Step 4 Select Adapter: C Standard _____

AC Adjustable Packing Kit _____

Step 5 Select accessories required for application:

Motor Mount: Standard _____ Long _____

Belt Guard: Standard _____ Long _____

Cooling Fan _____ Auxiliary Seal Kit _____ Filter Breather _____

Other _____

V-Belt Drive Specification:

Service Factor _____ V-Belt Drive Ratio Needed _____

Belt Center Distance _____ Type of Belt Desired _____

Driver: Shaft Diameter _____ Driven: Shaft Diameter _____

Sheave _____ Sheave _____

Bushing _____ Bushing _____

Belts: Size _____ Quantity _____

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Screw Conveyor Shaft Mount Speed Reducers

Table 9 - Class I Selection Table SCXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
1/4	4-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1/3	5-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1/2	4-6		SCXT225A	
	7-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
3/4	4-5		SCXT325B	
	6-10		SCXT225A	
	11-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1	4-5		SCXT425B	
	6-7		SCXT325B	
	8-15		SCXT225A	
	16-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1-1/2	4		SCXT525C	
	5-7		SCXT425B	
	8-12		SCXT325B	
	13-23		SCXT225A	
	24-70		SCXT125A	SCXT115A
1-1/2 (Continued)	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
2	4-6		SCXT525C	
	7-10		SCXT425B	
	11-17		SCXT325B	
	18-32		SCXT225A	SCXT215A
	33-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
3	4-5		SCXT625A	
	6-10		SCXT525C	
	11-15		SCXT425B	
	16-26		SCXT325B	
	27-51		SCXT225A	SCXT215A
	52-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
5	5-6		SCXT725A	
	7-9		SCXT625A	
	10-17		SCXT525C	
	18-26		SCXT425B	SCXT415B
	27-46		SCXT325B	SCXT315B
	47-70		SCXT225A	SCXT215A
	71-85		SCXT215A	SCXT225A
	86-92		SCXT109A	SCXT215A
	93-115		SCXT115A	SCXT109A
	116-119		SCXT109A	SCXT115A
	120-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
7-1/2	4-6		SCXT825A	
	7-9		SCXT725A	

★ See Page G2-173 for lubrication for 15 RPM and slower

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EASY SELECTION



Screw Conveyor Shaft Mount Speed Reducers (Continued)

Table 9 - Class I Selection Table SCXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
7-1/2 (Continued)	10-15		SCXT625A	
	16-26		SCXT525C	
	27-40		SCXT425B	SCXT415B
	41-70		SCXT325B	SCXT315B
	71-74		SCXT315B	SCXT325B
	75-85		SCXT215A	SCXT225A
	86-95		SCXT215A	SCXT209A
	96-140	SCXT205	SCXT209A	SCXT215A
	141-200	SCXT205	SCXT209A	
	201-231	SCXT205		
10	6-8		SCXT825A	
	9-12		SCXT725A	
	13-20		SCXT625A	
	21-36		SCXT525C	SCXT515C
	37-56		SCXT425B	SCXT415B
	57-70		SCXT325B	SCXT315B
	71-85		SCXT315B	SCXT325B
	86-103		SCXT315B	SCXT309B
	104-115		SCXT215A	SCXT209A
	116-140	SCXT305A	SCXT215A	
	141-158	SCXT305A	SCXT309B	
	159-200	SCXT305A	SCXT309B	
	201-400	SCXT205		
15	9-13		SCXT825A	
	14-19		SCXT725A	
	20-32		SCXT625A	SCXT615A
	33-56		SCXT525C	SCXT515C
	57-70		SCXT425B	SCXT415B
	71-85		SCXT415B	SCXT425B
	86-93		SCXT415B	SCXT409B
	94-115		SCXT309B+	SCXT315B
	116-140	SCXT405A	SCXT315B	SCXT309B+
	141-145	SCXT405A	SCXT309B+	
	146-200	SCXT305A	SCXT309B+	
	201-400	SCXT305A		
20	13-18		SCXT825A	
	19-26		SCXT725A	SCXT715A
	27-45		SCXT625A	SCXT615A
	46-70		SCXT525C	SCXT515C
	71-78		SCXT515C	SCXT525C

HP	Output RPM	Reducer Selection		
		Single	Double	
20 (Continued)	79-85		SCXT415B	SCXT42B
	86-115		SCXT415B	SCXT409B+
	116-140	SCXT405A	SCXT409B+	SCXT415B+
	141-200	SCXT405A	SCXT309B+	
	201-241	SCXT405A		
	242-400	SCXT305A+		
25	16-23		SCXT825A	
	24-33		SCXT725A	SCXT715A
	34-59		SCXT625A	SCXT615A
	60-70		SCXT525C+	SCXT515C+
	71-80		SCXT515C+	SCXT525C+
	81-101		SCXT515C+	SCXT509C+
	102-132	SCXT505A	SCXT415B+	SCXT409B+
	133-140	SCXT505A	SCXT409B+	SCXT415B+
	141-163	SCXT505A	SCXT409B+	
	164-200	SCXT405A+	SCXT409B+	
	201-400	SCXT405A+		
30	20-28		SCXT825A	SCXT815A
	29-41		SCXT725A	SCXT715A
	42-70		SCXT625A	SCXT615A
	71-75		SCXT615A	SCXT625A
	76-115		SCXT515C+	SCXT509C+
	116-125	SCXT605	SCXT509C+	SCXT515C+
	126-131	SCXT605	SCXT409B+	
	132-200	SCXT505A	SCXT409B+	
	201-215	SCXT505A+		
	216-400	SCXT405A+		
40	26-38		SCXT825A	SCXT815A
	39-57		SCXT725A	SCXT715A
	58-70		SCXT625A	SCXT615A
	71-81		SCXT615A+	SCXT625A+
	82-114	SCXT605	SCXT615A+	SCXT609A+
	115-125	SCXT605	SCXT515C+	SCXT509C+
	126-200	SCXT605	SCXT509C+	
	201-241	SCXT605		
	242-400	SCXT505A+		
50	33-49		SCXT825A	SCXT815A
	50-70		SCXT725A	SCXT715A
	71-74		SCXT715A	SCXT725A
	75-125		SCXT615A+	SCXT709A+

★ See Page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81

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Screw Conveyor Shaft Mount Speed Reducers (Continued)

Table 9 - Class I Selection Table SCXT Reducers ★

HP	Output RPM	Reducer Selection	
		Single	Double
50 (Continued)	126-163	SCXT605+	SCXT709A+
	164-200	SCXT605+	SCXT609A+
	201-400	SCXT605+	
60	40-60		SCXT825A SCXT815A
	61-70		SCXT725A+ SCXT715A+
	71-120		SCXT715A+ SCXT709A+
	121-131	SCXT705	SCXT709A+
	132-200	SCXT605+	SCXT709A+
	201-400	SCXT605+	
75	51-70		SCXT825A SCXT815A
	71-78		SCXT815A+
	79-120		SCXT715A+ SCXT709A+
	121-200	SCXT705	SCXT709A+
	201-210	SCXT705	
	211-400	SCXT605+	

★ See Page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81

EASY SELECTION



Screw Conveyor Shaft Mount Speed Reducers

Table 10 - Class II Selection Table SCXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
1/4	5-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1/3	4-6		SCXT225A	
	7-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1/2	4-5		SCXT325B	
	6-9		SCXT225A	
	10-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
3/4	4-5		SCXT425B	
	6-8		SCXT325B	
	9-16		SCXT225A	
	17-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1	5-7		SCXT425B	
	8-11		SCXT325B	
	12-22		SCXT225A	
	23-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1-1/2	5-6		SCXT525C	
	7-11		SCXT425B	
	12-18		SCXT325A	
	19-34		SCXT225A	SCXT215A
	35-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		

HP	Output RPM	Reducer Selection		
		Single	Double	
2	4-5		SCXT625A	
	6-9		SCXT525C	
	10-14		SCXT425B	
	15-24		SCXT325B	SCXT315B
	25-47		SCXT225A	SCXT215A
	48-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
3	4-5		SCXT725A	
	6-8		SCXT625A	
	9-14		SCXT525C	
	15-22		SCXT425B	SCXT415B
	23-38		SCXT325B	SCXT315B
	39-70		SCXT225A	SCXT215A
	71-75		SCXT215A	SCXT225A
	76-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
5	4-6		SCXT825A	
	7-8		SCXT725A	
	9-14		SCXT625A	
	15-24		SCXT525C	
	25-37		SCXT425B	SCXT415B
	38-69		SCXT325B	SCXT315B
	70-85		SCXT215A	SCXT225A
	86-89		SCXT215A	SCXT209A
	90-136	SCXT205	SCXT209A	SCXT215A
	137-140	SCXT205	SCXT115A	SCXT209A
	141-191	SCXT205	SCXT109A	
	192-200	SCXT105	SCXT109A	
	201-400	SCXT105		
7-1/2	6-9		SCXT825A	
	10-13		SCXT725A	
	14-21		SCXT625A	
	22-38		SCXT525C	SCXT515C
	39-59		SCXT425B	SCXT415B
	60-70		SCXT325B	SCXT315B
	71-85		SCXT315B	SCXT325B
	86-110		SCXT315B	SCXT309B
	111-122		SCXT215A	
	123-140	SCXT305A	SCXT209A	SCXT215A
	141-183	SCXT305A	SCXT209A	
	184-200	SCXT205	SCXT209A	
	201-400	SCXT205		

★ See page G2-173 for lubrication for 15 RPM and slower

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Screw Conveyor Shaft Mount Speed Reducers (Continued)

Table 10 - Class II Selection Table SCXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
10	8-12		SCXT825A	
	13-18		SCXT725A	
	19-29		SCXT625A	SCXT615A
	30-52		SCXT525C	SCXT515C
	53-70		SCXT425B	SCXT415B
	71-84		SCXT415B	SCXT425B
	85-130		SCXT315B	SCXT309B
	131-140	SCXT305A	SCXT315B	SCXT309B
	141-200	SCXT305A	SCXT309B	
	201-353	SCXT305A		
	354-400	SCXT205		
15	13-19		SCXT825A	
	20-27		SCXT725A	
	28-47		SCXT625A	SCXT615A
	48-70		SCXT525C	SCXT515C
	71-82		SCXT515C	SCXT525C
	83-117		SCXT415B	SCXT409B
	118-140	SCXT405A	SCXT409B	SCXT415B
	141-150	SCXT405A	SCXT409B	
	151-200	SCXT405A	SCXT309B+	
	201-269	SCXT405A		
	270-400	SCXT305A		
20	18-26		SCXT825A	
	27-38		SCXT725A	SCXT715A
	39-68		SCXT625A	SCXT615A
	69-80		SCXT515C	SCXT525C
	81-89		SCXT515C	
	90-117		SCXT515C+	SCXT509C+
	118-125	SCXT505A	SCXT409B+	SCXT415B+
	126-200	SCXT505A	SCXT409B+	
	201-400	SCXT405A+		
25	23-33		SCXT825A	SCXT815A
	34-49		SCXT725A	SCXT715A
	50-80		SCXT615A	SCXT625A
	81-94		SCXT615A	SCXT609A
	95-125	SCXT605	SCXT509C+	SCXT515C+
	126-174	SCXT605	SCXT509C+	
	175-200	SCXT505A	SCXT409B+	
	201-270	SCXT505A		
	271-400	SCXT405A+		
30	28-41		SCXT825A	SCXT815A
	42-60		SCXT725A	SCXT715A
	61-76		SCXT625A	SCXT615A
	77-89		SCXT615A	SCXT609A
	90-125	SCXT605	SCXT615A+	SCXT609A+
	126-200	SCXT605	SCXT509C+	
	201-233	SCXT605		
	234-349	SCXT505A+		
	350-400	SCXT405A+		
40	37-56		SCXT825A	SCXT815A
	57-75		SCXT725A	SCXT715A
	76-88		SCXT715A	
	89-114		SCXT615A+	SCXT609A+
	115-120		SCXT615A+	SCXT609A+
	121-200	SCXT605	SCXT609A+	
	201-347	SCXT605+		
	348-400	SCXT505A+		
50	47-70		SCXT825A	SCXT815A
	71-72		SCXT815A	SCXT825A
	73-95		SCXT715A+	
	96-110	SCXT705	SCXT709A	SCXT715A+
	111-120	SCXT705	SCXT709A+	SCXT715A+
	121-179	SCXT705	SCXT709A+	
	180-200	SCXT605	SCXT609A+	
	201-400	SCXT605+		
60	57-70		SCXT825A	SCXT815A
	71-75		SCXT815A	SCXT825A
	76-89		SCXT815A	
	90-120	SCXT705	SCXT715A+	SCXT709A+
	121-200	SCXT705	SCXT709A+	
	201-285	SCXT705		
	286-400	SCXT605+		
75	74-75		SCXT815A	SCXT825A
	76-120		SCXT815A+	
	121-133		SCXT709A+	
	134-200	SCXT705	SCXT709A+	
	201-400	SCXT705		

★ See page G2-173 for lubrication for 15 RPM and slower

+ Fan cooling required - see page G2-81

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EASY SELECTION



Screw Conveyor Shaft Mount Speed Reducers

Table 10 - Class III Selection Table SCXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
1/4	4-6		SCXT225A	
	7-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-89		SCXT115A	SCXT109A
	90-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1/3	5-9		SCXT225A	
	10-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1/2	4-5		SCXT425B	
	6-7		SCXT325B	
	8-15		SCXT225A	
	16-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
3/4	4		SCXT525C	
	5-7		SCXT425B	
	8-12		SCXT325B	
	13-23		SCXT225A	
	24-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1	4-6		SCXT525C	
	7-10		SCXT425B	
	11-17		SCXT325B	
	18-32		SCXT225A	
	33-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
1-1/2	4-5		SCXT625A	
	6-10		SCXT525C	
	11-15		SCXT425B	
	16-26		SCXT325B	
	27-51		SCXT225A	SCXT215A
1-1/2 (Continued)	52-70		SCXT125A	SCXT115A
	71-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
2	5-7		SCXT625A	
	8-13		SCXT525C	
	14-21		SCXT425B	
	22-36		SCXT325B	SCXT315B
	37-71		SCXT225A	SCXT215A
	72-85		SCXT115A	SCXT125A
	86-115		SCXT115A	SCXT109A
	116-140	SCXT105	SCXT109A	SCXT115A
	141-200	SCXT105	SCXT109A	
	201-400	SCXT105		
3	4-5		SCXT825A	
	6-7		SCXT725A	
	8-12		SCXT625A	
	13-20		SCXT525C	
	21-32		SCXT425B	SCXT415B
	33-57		SCXT325B	SCXT315B
	58-70		SCXT225A	SCXT215A
	71-85		SCXT215A	SCXT225A
	86-89		SCXT215A	SCXT209A
	90-113	SCXT205	SCXT215A	SCXT209A
	114-140	SCXT205	SCXT109A	SCXT115A
	141-155	SCXT205	SCXT109A	
	156-200	SCXT105	SCXT109A	
	201-400	SCXT105		
5	6-8		SCXT825A	
	9-12		SCXT725A	
	13-20		SCXT625A	
	21-36		SCXT525C	SCXT515C
	37-56		SCXT425B	SCXT415B
	57-70		SCXT325B	SCXT315B
	71-85		SCXT315B	SCXT325B
	86-103		SCXT315B	SCXT309B
	104-114	SCXT305A	SCXT215A	SCXT309B
	115-140	SCXT305A	SCXT209A	SCXT215A
	141-167	SCXT305A	SCXT209A	
	168-200	SCXT205	SCXT209A	
	201-400	SCXT205		
7-1/2	9-13		SCXT825A	
	14-19		SCXT725A	
	20-32		SCXT625A	SCXT615A
	33-56		SCXT525C	SCXT515C
	57-70		SCXT425B	SCXT415B
	71-85		SCXT415B	SCXT425B

★ See page G2-173 for lubrication for 15 RPM and slower

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Screw Conveyor Shaft Mount Speed Reducers (Continued)

Table 10 - Class III Selection Table SCXT Reducers ★

HP	Output RPM	Reducer Selection		
		Single	Double	
7-1/2 (Continued)	86-93		SCXT415B	SCXT409B
	94-140	SCXT405A	SCXT309B	SCXT315B
	141-144	SCXT405A	SCXT309B	
	145-200	SCXT305A	SCXT309B	
	201-400	SCXT305A		
10	13-18		SCXT825A	
	19-26		SCXT725A	SCXT715A
	27-45		SCXT625A	SCXT615A
	46-70		SCXT525C	SCXT515C
	71-78		SCXT515C	SCXT525C
	79-92		SCXT415B	
	93-105		SCXT415B	SCXT409B
	106-141	SCXT405A	SCXT409B	SCXT415B
	142-200	SCXT405A	SCXT309B	
	201-241	SCXT405A		
	242-400	SCXT305A		
15	20-28		SCXT825A	SCXT815A
	29-41		SCXT725A	SCXT715A
	42-70		SCXT625A	SCXT615A
	71-75		SCXT615A	SCXT625A
	76-93		SCXT515C	
	94-115		SCXT515C	SCXT509C
	116-125	SCXT605	SCXT509C	SCXT515C
	126-131	SCXT605	SCXT509C	
	132-200	SCXT505A	SCXT409B	
	201-215	SCXT505A		
	216-400	SCXT405A		
20	26-38		SCXT825A	SCXT815A
	39-57		SCXT725A	SCXT715A
	58-70		SCXT625A	SCXT615A
	71-114		SCXT615A	SCXT609A
	115-125	SCXT605	SCXT509C+	SCXT515C+
	126-200	SCXT605	SCXT509C+	
	201-218	SCXT605		
	219-324	SCXT505A		
	325-400	SCXT405A+		
25	33-49		SCXT825A	SCXT815A
	50-70		SCXT725A	SCXT715A
	71-74		SCXT715A	SCXT725A
	75-104		SCXT615A	SCXT609A
	105-113		SCXT615A+	SCXT609A
	114-125	SCXT605	SCXT615A+	SCXT609A+
	126-200	SCXT605	SCXT609A+	
	201-294	SCXT605		
	295-400	SCXT505A+		
30	40-60		SCXT825A	SCXT815A
	61-70		SCXT725A	SCXT715A
	71-98		SCXT715A	
	99-125		SCXT615A	SCXT609A+
30 (Continued)	126-131	SCXT705	SCXT609A+	
	132-200	SCXT605	SCXT609A+	
	201-381	SCXT605		
	382-400	SCXT505A+		
40	54-70		SCXT825A	SCXT815A
	71-84		SCXT815A	
	85-89		SCXT715A	SCXT709A
	90-120	SCXT705	SCXT715A+	SCXT709A
	121-200	SCXT705	SCXT709A+	
	201-249	SCXT705		
	250-400	SCXT605+		
50	70-75		SCXT815A	SCXT825A
	76-110		SCXT815A	
	111-120		SCXT715A+	SCXT709A+
	121-123		SCXT709A+	
	124-200	SCXT705	SCXT709A+	
	201-400	SCXT705		
60	86-120		SCXT815A	
	142-161		SCXT709A+	
	162-200	SCXT705	SCXT709A+	
	201-400	SCXT705		

★ See page G2-173 for lubrication for 15 RPM and slower

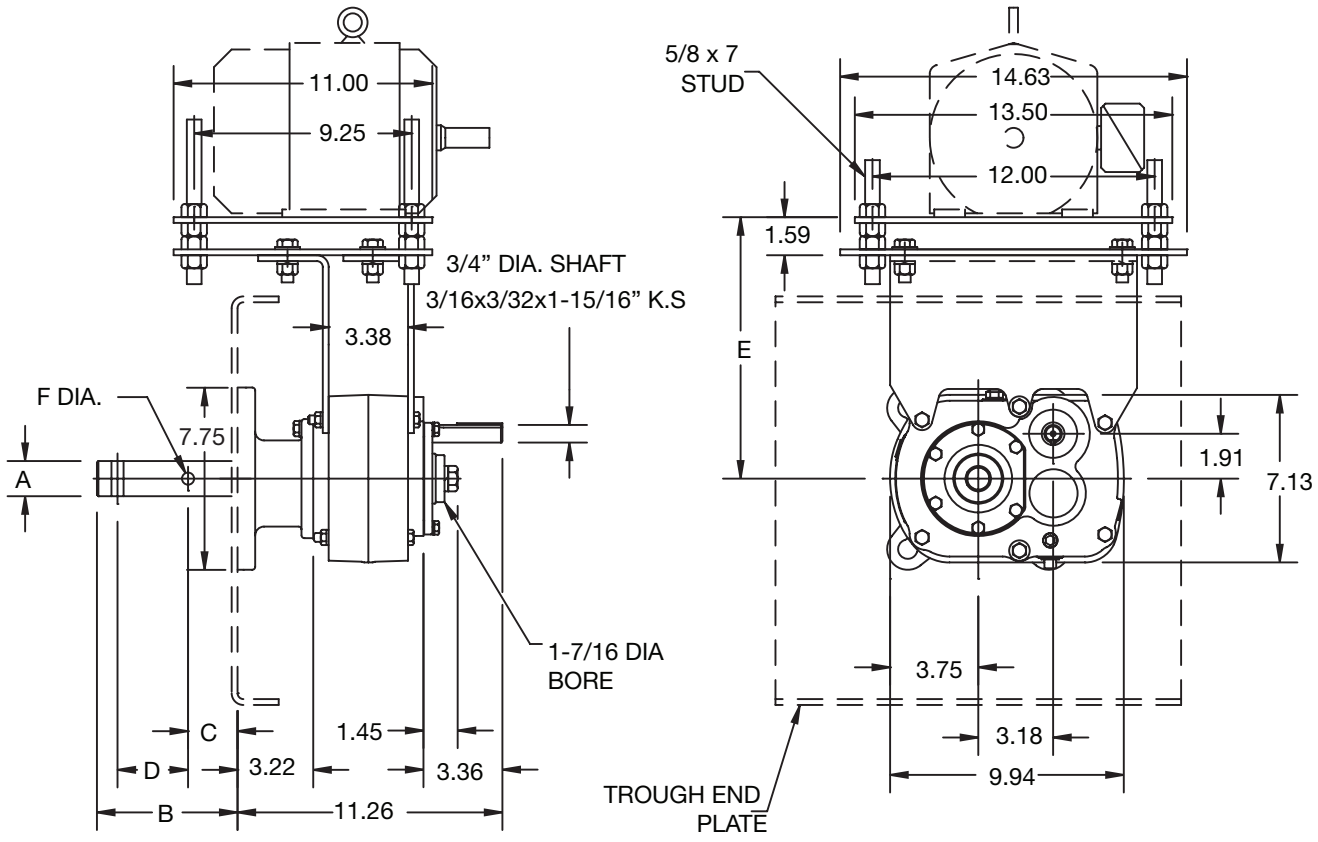
+ Fan cooling required - see page G2- 81

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SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT1A - DOUBLE REDUCTION SCREW CONVEYOR DRIVES



SCXT1A Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT109A	**241480**	107D09	9.44	45
SCXT115A	**351163**	107D15	15.35	45
SCXT125A	**351164**	107D25	25.64	45

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C1 x 1-1/2	6" - 9"	**351094**	1.50	6.00	2.13	3.00	.52	7.2	C1A	**351086**	13
C1 x 2	9" - 12"	**351095**	2.00	6.00	2.13	3.00	.64	9.1			
C1 x 2-7/16	12" - 14"	**351096**	2.44	6.69	2.75	3.00	.64	12.5			
C1 x 3	12" - 20"	**351097**	3.00	6.88	2.88	3.00	.77	17.4			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT1A - Double Reduction Screw Conveyor Drives

Accessories for SCXT1A Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC1 Adjustable Packing Kit ♠			**356301**	0.8
M112 Standard Motor Mount	56T thru 210T	6”-12”	**351069**	42
M120L Long Motor Mount	56T thru 210T	14”-20”	**272625**	51
SCXT1D SCD Reducer Belt Guard	56T thru 210T	-	**241489**	27
SCXT1D SCD Reducer Belt Guard for Long Motor Mount	56T thru 210T	-	**241149**	32
SCXT1 Auxiliary Seal Kit ♥	-	-	**272721**	2
SCXT1 Lube Kit	-	-	**LUBEKITTXT1**	4.6

SCXT1 Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames					
			56, 140		180		210	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M112	11.10	15.30	13.50	17.00	14.50	18.00	15.30	19.00
M120L	17.10	21.30	19.50	22.90	20.50	23.90	21.20	24.70

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit , with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♥ See page G2-177 for drill and tap information required to mount to reducer.

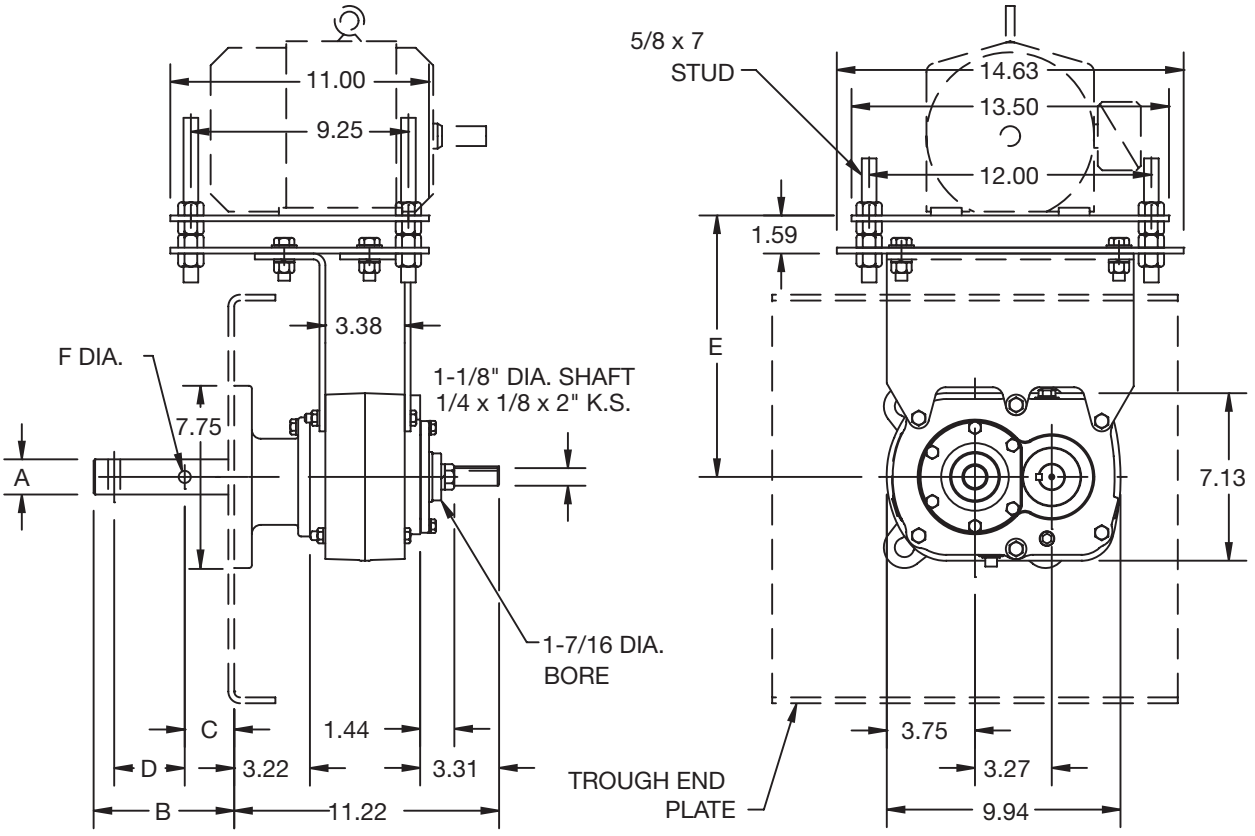
▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seal. See page G2-122 for adapter bolt pattern details.

★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT105 - Single Reduction Screw Conveyor Drives



SCXT105 Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT105	**351165**	107S05	5.62	40

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C1 x 1-1/2	6" - 9"	**351094**	1.50	6.00	2.13	3.00	.52	7.20	C1A	**351086**	13
C1 x 2	9" - 12"	**351095**	2.00	6.00	2.13	3.00	.64	9.10			
C1 x 2-7/16	12" - 14"	**351096**	2.44	6.69	2.75	3.00	.64	12.50			
C1 x 3	12" - 20"	**351097**	3.00	6.88	2.88	3.00	.77	17.40			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT105 - Single Reduction Screw Conveyor Drives

Accessories for SCXT105 Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC1 Adjustable Packing Kit ♠			**356301**	0.8
M112 Standard Motor Mount	56T thru 210T	6" - 12"	**351069**	42
M120L Long Motor Mount	56T thru 210T	14" - 20"	**272625**	51
SCXT1S SCD Reducer Belt Guard	56T thru 210T	-	**241491**	30
SCXT1S SCD Reducer Belt Guard for Long Motor Mount ♣	56T thru 210T	-	**241142**	36
SCXT105 Auxiliary Seal Kit ♥ ♣	-	-	**251146**	2
SCXT105 Lube Kit	-	-	**LUBEKITTXT105**	4.5

SCXT105 Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames					
			56, 140		180		210	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M112	11.10	15.30	15.40	19.00	16.40	20.00	17.20	20.60
M120L	17.10	21.30	21.40	24.80	22.40	25.80	23.10	26.60

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♥ See page G2-177 for drill and tap information required to mount to reducer.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seal. See page G2-122 for adapter bolt pattern details.

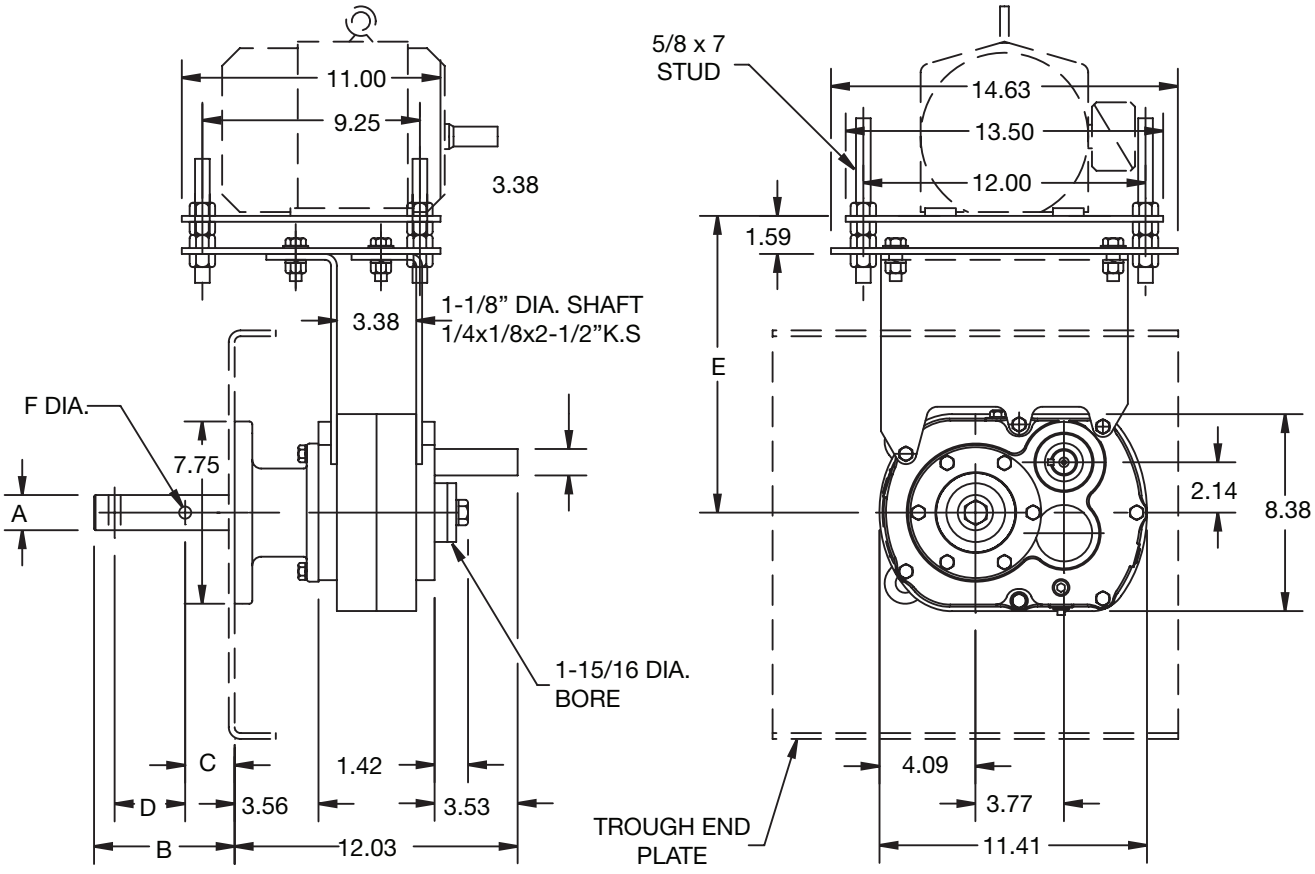
★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

♣ Made to order

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT2A - Double Reduction Screw Conveyor Drives



SCXT2A Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT209A	**242480 ♣**	115D09	9.25	58
SCXT215A	**352065**	115D15	14.10	58
SCXT225A	**352066**	115D25	23.46	58

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C2 x 1-1/2	6" - 9"	**352090**	1.50	6.00	2.13	3.00	.52	11.40	C2A	**352052**	15
C2 x 2	9" - 12"	**352091**	2.00	6.00	2.13	3.00	.64	13.80			
C2 x 2-7/16	12" - 14"	**352092**	2.44	6.69	2.75	3.00	.64	17.30			
C2 x 3	12" - 20"	**352093**	3.00	6.88	2.88	3.00	.77	19			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT2A - Double Reduction Screw Conveyor Drives

Accessories for SCXT2A Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC2 Adjustable Packing Kit ♠			**356302**	1.2
M214 Standard Motor Mount	56T thru 210T	6" - 14"	**352069**	43
M220L Long Motor Mount	56T thru 210T	16" - 20"	**272626**	51
SCXT2D SCD Reducer Belt Guard	56T thru 210T	-	**242489**	32
SCXT2D SCD Reducer Belt Guard for Long Motor Mount	56T thru 210T	-	**242223**	38
SCXT2 Auxiliary Seal Kit ♥	-	-	**272722**	3
SCXT2 Lube Kit	-	-	**LUBEKITTXT2**	4.6

SCXT2 Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames					
			56, 140		180		210	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M214	12.6	16.8	14.9	18.3	15.9	19.3	16.6	20.0
M220L	18.6	22.8	20.9	24.2	21.9	25.3	22.6	26.0

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♥ See page G2-177 for drill and tap information required to mount to reducer.

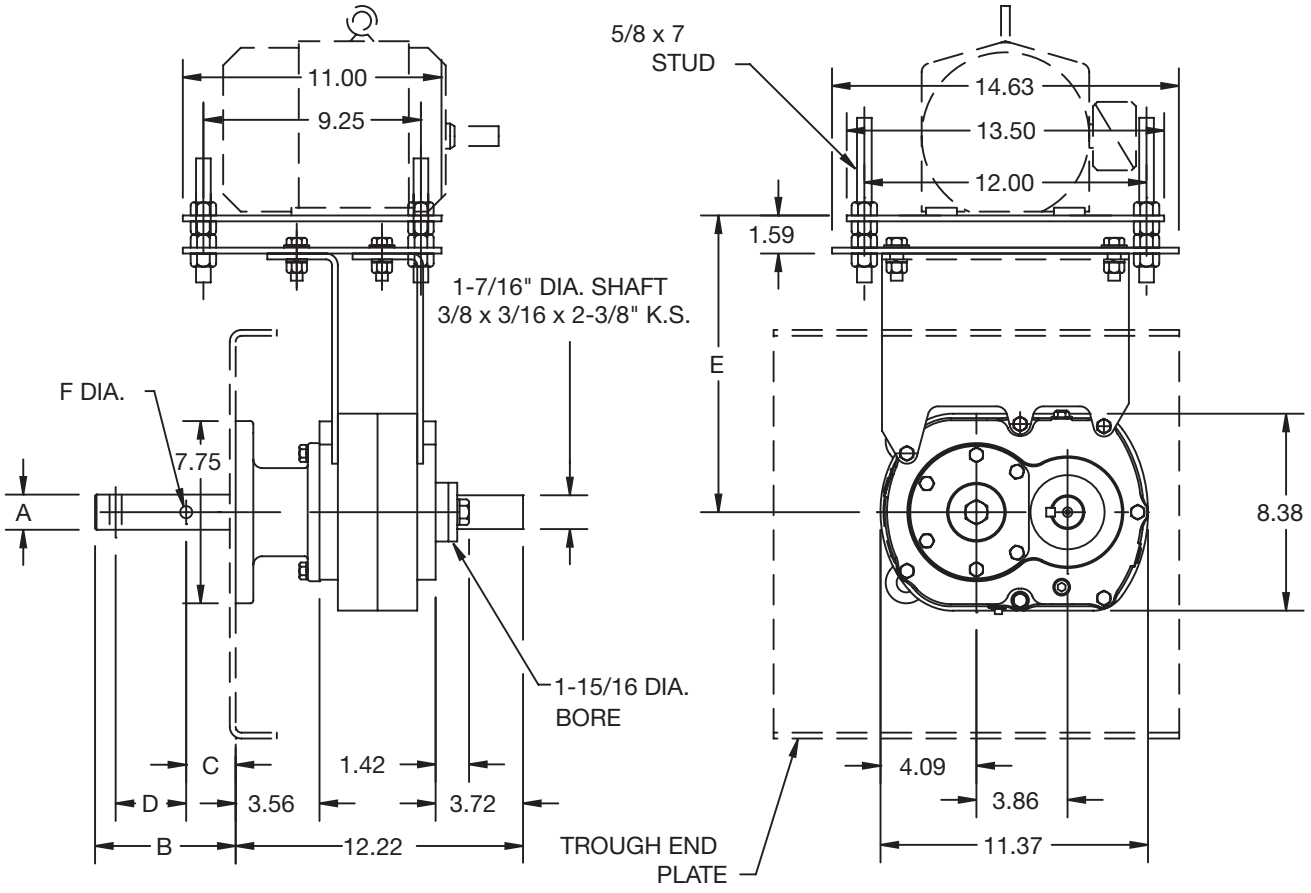
▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seal. See page G2-122 for adapter bolt pattern details.

★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT205 - Single Reduction Screw Conveyor Drives



SCXT205 Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT205	**352218**	115S05	5.29	52

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C2 x 1-1/2	6" - 9"	**352090**	1.50	6.00	2.13	3.00	.52	11.40	C2A	**352052**	15
C2 x 2	9" - 12"	**352091**	2.00	6.00	2.13	3.00	.64	13.80			
C2 x 2-7/16	12" - 14"	**352092**	2.44	6.69	2.75	3.00	.64	17.30			
C2 x 3	12" - 20"	**352093**	3.00	6.88	2.88	3.00	.77	19			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT205 - Single Reduction Screw Conveyor Drives

Accessories for SCXT205 Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC2 Adjustable Packing Kit ♠			**356302**	1.2
M214 Standard Motor Mount	56T thru 210T	6" - 14"	**352069**	43
M220L Long Motor Mount	56T thru 210T	16" - 20"	**272626**	51
SCXT2S SCD Reducer Belt Guard	56T thru 210T	-	**242491**	34
SCXT2S SCD Reducer Belt Guard for Long Motor Mount	56T thru 210T	-	**242114**	41
SCXT205 Auxiliary Seal Kit ♥ ♣	-	-	**252146**	3
SCXT205 Lube Kit	-	-	**LUBEKITTXT205**	6.9

SCXT205 Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames					
			56, 140		180		210	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M214	12.6	16.8	17.0	20.5	18.0	21.4	18.7	22.2
M220L	18.6	22.8	23.0	26.4	24.0	27.5	24.7	28.2

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♥ See page G2-177 for drill and tap information required to mount to reducer.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seal. See page G2-122 for adapter bolt pattern details.

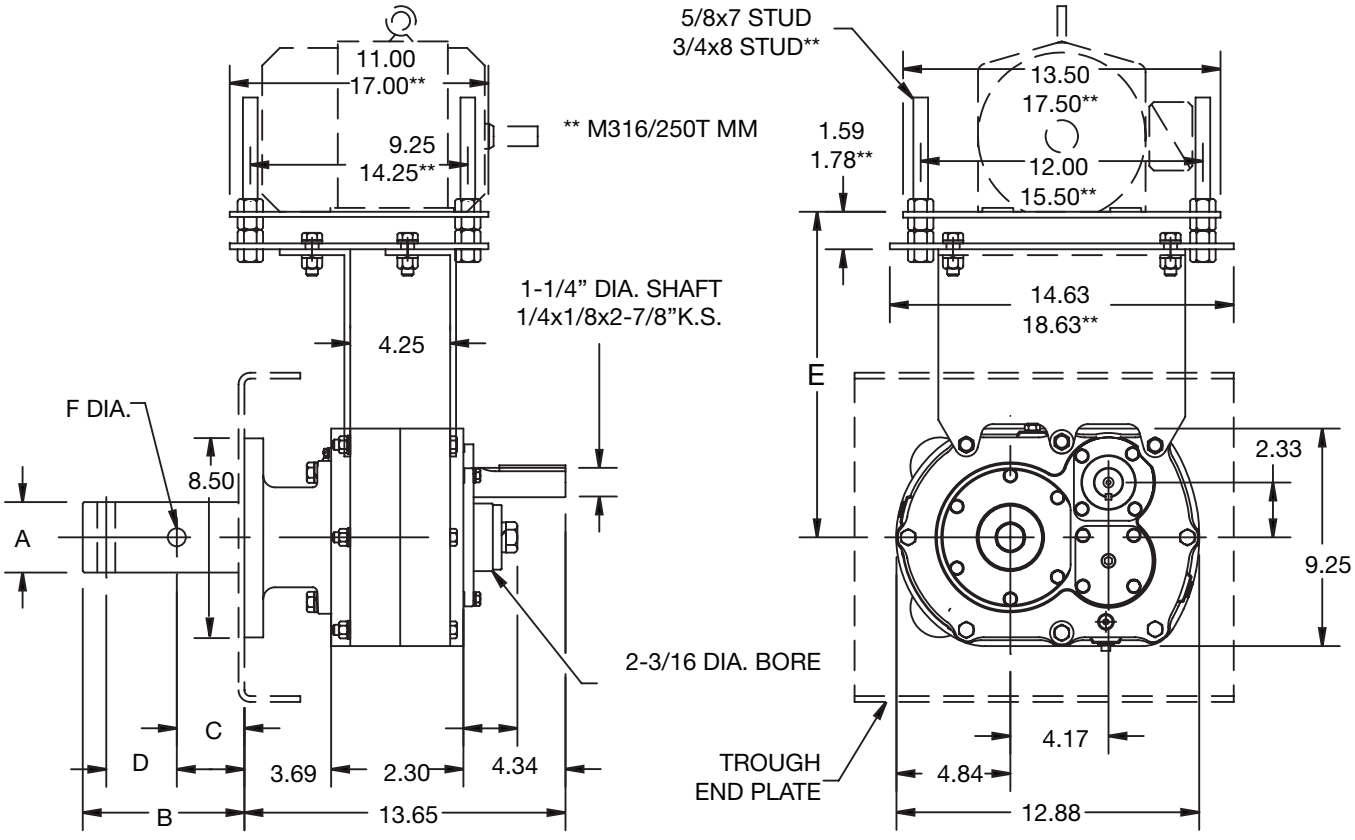
★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

♣ Made to order

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT3B - Double Reduction Screw Conveyor Drives



SCXT3B Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT309B	**243524**	203D09	8.91	98
SCXT315B	**243525**	203D15	14.88	98
SCXT325B	**243526**	203D25	24.71	98

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C3A x 1-1/2	9"	**243562**	1.50	6.00	2.13	3.00	.52	15	C3	**353047**	29
C3A x 2	9" - 12"	**243563**	2.00	6.00	2.13	3.00	.64	16			
C3A x 2-7/16	12" - 14"	**243564**	2.44	6.69	2.75	3.00	.64	19.50			
C3A x 3	12" - 20"	**243565**	3.00	6.88	2.88	3.00	.77	26			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT3B - Double Reduction Screw Conveyor Drives

Accessories for SCXT3B Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC3 Adjustable Packing Kit ♠			**356303**	1.4
M316 Standard Motor Mount	56T thru 210T	6" - 16"	**353069**	44
M316/250T Special Motor Mount ■ ●	250T	6" - 16"	**353070**	44
M320L Long Motor Mount	56T thru 210T	18" - 20"	**272627**	56
SCXT3-D SCD Reducer Belt Guard	56T thru 210T	-	**243416**	40
SCXT3-D SCD Reducer Belt Guard for Long Motor Mount	56T thru 210T	-	**243154**	48
SCXT3A Cooling Fan Assembly	-	-	**243581**	3
SCXT3A Auxiliary Seal Kit	-	-	**243582**	5
SCXT3 Lube Kit	-	-	**LUBEKITTXT3**	6.9

SCXT3B Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames							
			"56,140"		180		210		250	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M316	13.8	18.0	15.8	19.3	16.8	20.3	17.6	21.0	18.6	22.0
M320L	19.8	24.0	21.8	25.3	22.8	26.3	23.6	27.0	-	-

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

● Drawing dimensions are noted as **.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seal. See page G2-122 for adapter bolt pattern details.

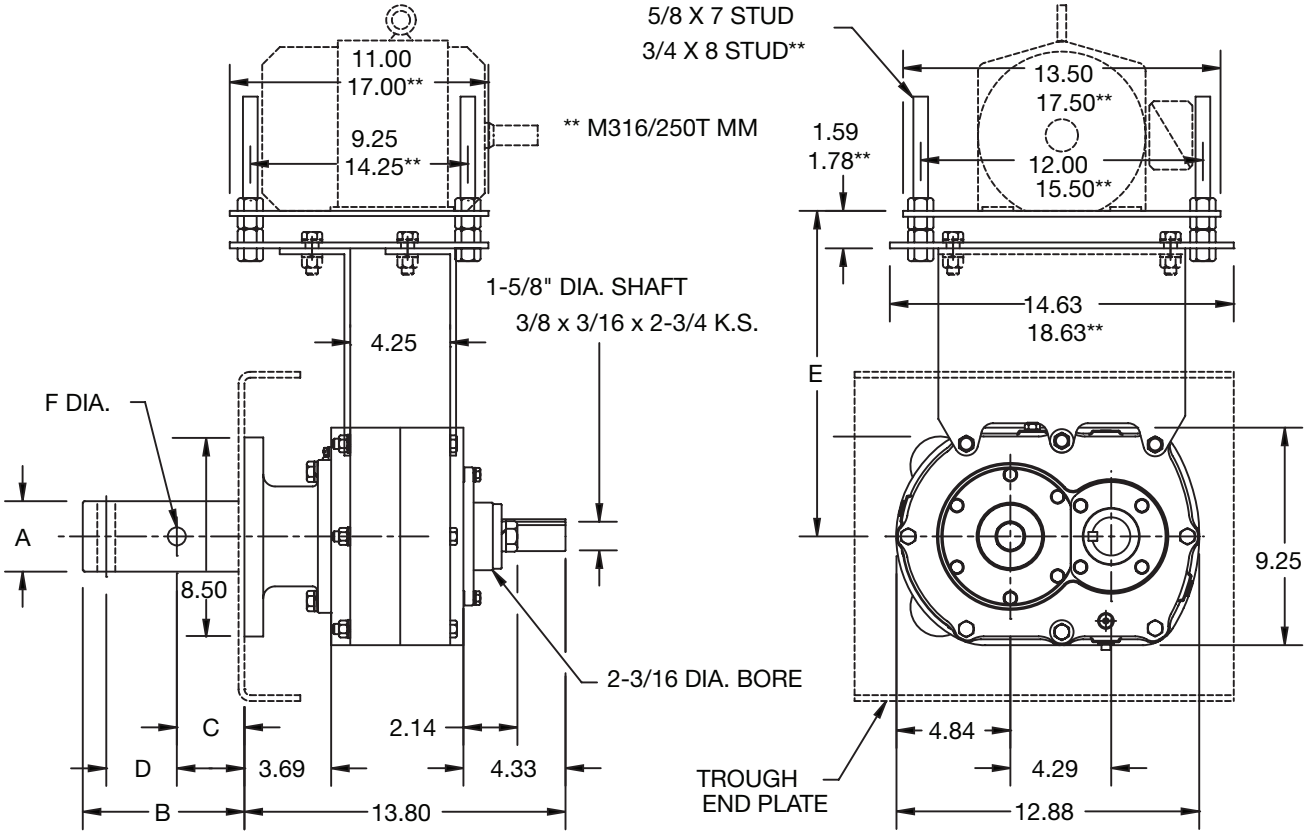
★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

■ DODGE standard belt guards will not fit with this motor mount.

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT305A - Single Reduction Screw Conveyor Drives



SCXT305A Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT305A	**253159**	203S05	5.60	86

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C3A x 1-1/2	9”	**243562**	1.50	6.00	2.13	3	.52	15	C3	**353047**	29
C3A x 2	9” - 12”	**243563**	2.00	6.00	2.13	3	.64	16			
C3A x 2-7/16	12” - 14”	**243564**	2.44	6.69	2.75	3	.64	19.5			
C3A x 3	12” - 20”	**243565**	3.00	6.88	2.88	3	.77	26			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT305A - Single Reduction Screw Conveyor Drives

Accessories for SCXT305A Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC3 Adjustable Packing Kit ♠			**356303**	1.4
M316 Standard Motor Mount	56T thru 210T	6'-16"	**353069**	44
M316/250T Special Motor Mount ■ ● ♣	250T	6"-16"	**353070**	44
M320L Long Motor Mount	56T thru 210T	18"-20"	**272627**	56
SCXT3S SCD Reducer Belt Guard	56T thru 210T	-	**243418**	40
SCXT3S SCD Reducer Belt Guard for Long Motor Mount ♣	56T thru 210T	-	**243167**	48
SCXT305A Cooling Fan Assembly	-	-	**253188**	3
SCXT305A Auxiliary Seal Kit ♣	-	-	**253146**	5
SCXT305 Lube Kit	-	-	**LUBEKITTXT305**	8.1

SCXT305A Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames							
			56, 140		180		210		250	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M316	13.8	18.0	18.2	21.6	19.2	22.6	19.5	23.4	20.9	24.4
M320L	19.8	24.0	24.2	27.6	25.2	28.6	25.9	29.4	-	-

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

● Drawing dimensions are noted as **.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seal. See page G2-122 for adapter bolt pattern details.

★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

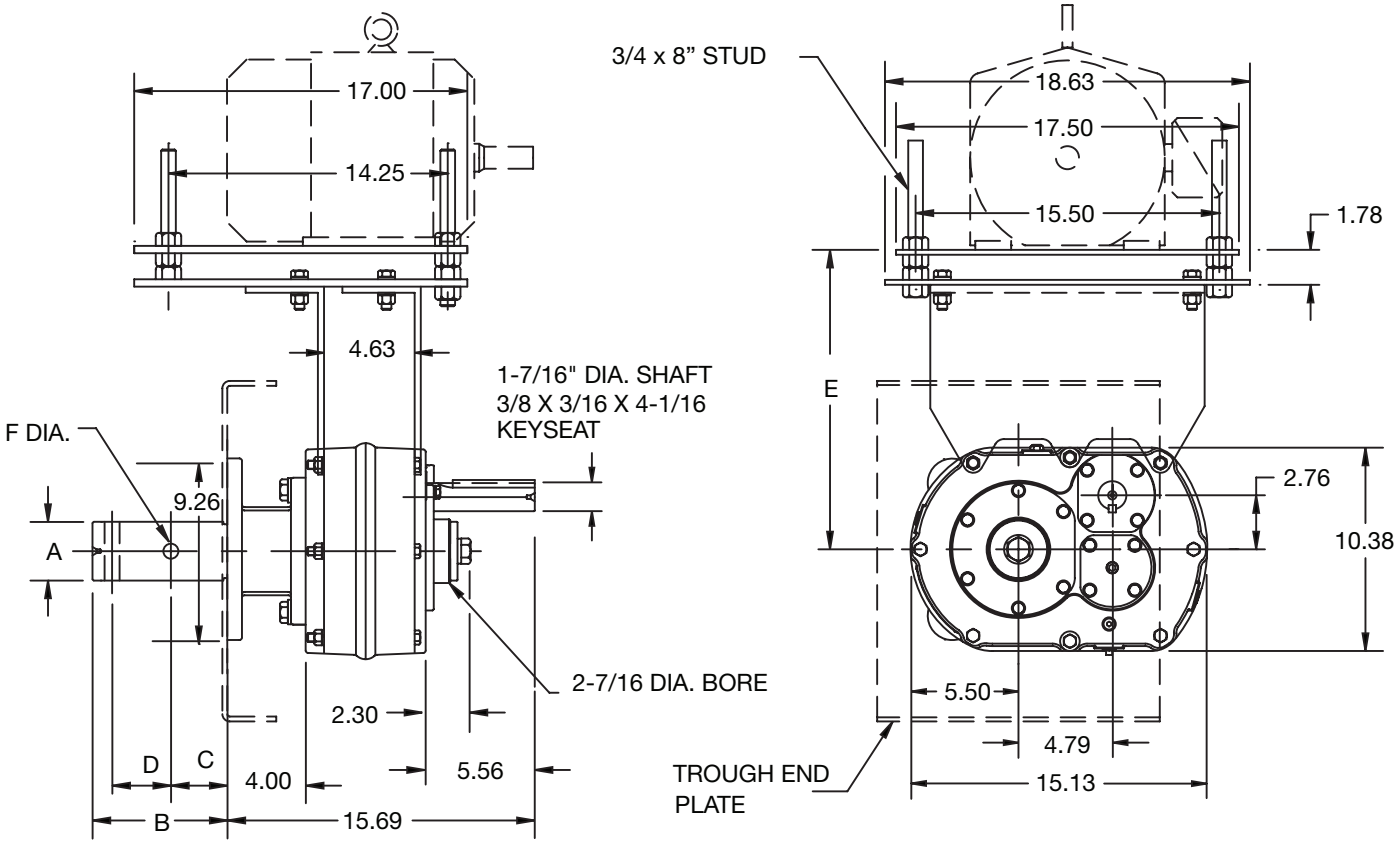
■ DODGE standard belt guards will not fit with this motor mount.

♣ Made to order

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT4B - Double Reduction Screw Conveyor Drives



SCXT4B Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT409B	**244549**	207D09	9.67	139
SCXT415B	**244550**	207D15	15.13	139
SCXT425B	**244551**	207D25	24.38	139

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C4A x 1-1/2	9"	**244594**	1.50	6.00	2.13	3	.52	19	C4	**354121**	33
C4A x 2	9" - 12"	**244595**	2.00	6.00	2.13	3	.64	20.8			
C4A x 2-7/16	12" - 14"	**244596**	2.44	6.69	2.75	3	.64	24.3			
C4A x 3	12" - 20"	**244597**	3.00	6.88	2.88	3	.77	29.2			
C4A x 3-7/16	18" - 24"	**244598**	3.44	9.13	3.88	4	.89	39.3			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT4B - Double Reduction Screw Conveyor Drives

Accessories for SCXT4B Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC4 Adjustable Packing Kit ♠			**356304**	2.1
M418 Standard Motor Mount	140T thru 280T	9"-18"	**354069**	86
M418/320T Motor Mount ■ ♣	140T thru 320T	9"-18"	**354028**	90
M424L Long Motor Mount	140T thru 280T	20"-24"	**272628**	100
SCXT4D SCD Reducer Belt Guard	140T thru 280T	-	**244489**	44
SCXT4D SCD Reducer Belt Guard for Long Motor Mount	140T thru 280T	-	**244152**	53
SCXT4A Cooling Fan Assembly	-	-	**272594**	3
SCXT4A Auxiliary Seal Kit	-	-	**244677**	5
SCXT4 Lube Kit	-	-	**LUBEKITTXT4**	10.4

SCXT4B Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames											
			56, 140		180		210		250		280		320	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M418	15.3	20.1	16.9	21.0	17.9	22.0	18.6	22.7	19.6	23.7	20.4	24.5	21.4	25.4
M424L	21.3	26.1	23.2	27.0	24.2	28.0	24.9	28.6	25.9	29.6	26.7	30.4		

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♣ Made to order

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seal. See page G2-122 for adapter bolt pattern details.

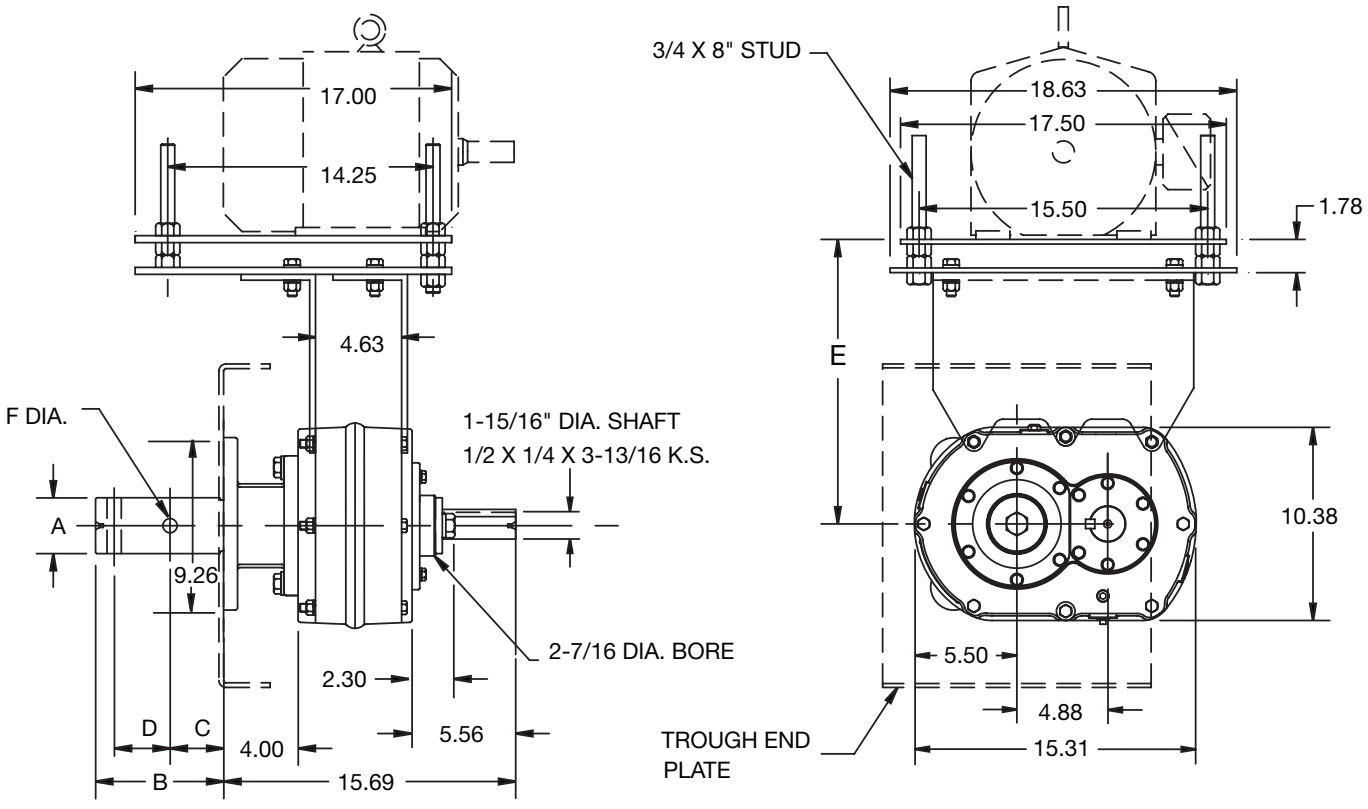
★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

■ DODGE standard belt guards will not fit with this motor mount.

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT405A - Single Reduction Screw Conveyor Drives



SCXT405A Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT405A	**254208**	207S05	5.65	122

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C4 x 1-1/2	9”	**244594**	1.50	6.00	2.13	3.00	.52	19	C4	**354121**	33
C4 x 2	9” - 12”	**244595**	2.00	6.00	2.13	3.00	.64	20.80			
C4 x 2-7/16	12” - 14”	**244596**	2.44	6.69	2.75	3.00	.64	24.30			
C4 x 3	12” - 20”	**244597**	3.00	6.88	2.88	3.00	.77	29.20			
C4 x 3-7/16	18” - 24”	**244598**	3.44	9.13	3.88	4.00	.89	39.30			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT405A - Single Reduction Screw Conveyor Drives

Accessories for SCXT405A Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC4 Adjustable Packing Kit ♠			**356304**	2.1
M418 Standard Motor Mount	140T thru 280T	9"-18"	**354069**	86
M418/320T Motor Mount ■ ♣	140T thru 320T	9"-18"	**354028**	90
M424L Long Motor Mount	140T thru 280T	20"-24"	**272628**	100
SCXT4S SCD Reducer Belt Guard	140T thru 280T	-	**244491**	50
SCXT4S SCD Reducer Belt Guard for Long Motor Mount ♣	140T thru 280T	-	**244167**	60
SCXT405A Cooling Fan Assembly	-	-	**254268**	3
SCXT405A Auxiliary Seal Kit ♣	-	-	**254146**	5
SCXT405 Lube Kit	-	-	**LUBEKITTXT405**	12.7

SCXT405A Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames											
			56, 140		180		210		250		280		320	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max
M418	15.3	20.1	19.6	23.7	20.6	24.7	21.4	25.5	22.4	26.5	23	27.2	21.4	25.4
M424L	21.3	26.1	25.9	29.7	26.9	30.7	27.7	31.4	28. 7	32.3	29.4	33.2		

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♣ Made to order.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seal. See page G2-122 for adapter bolt pattern details.

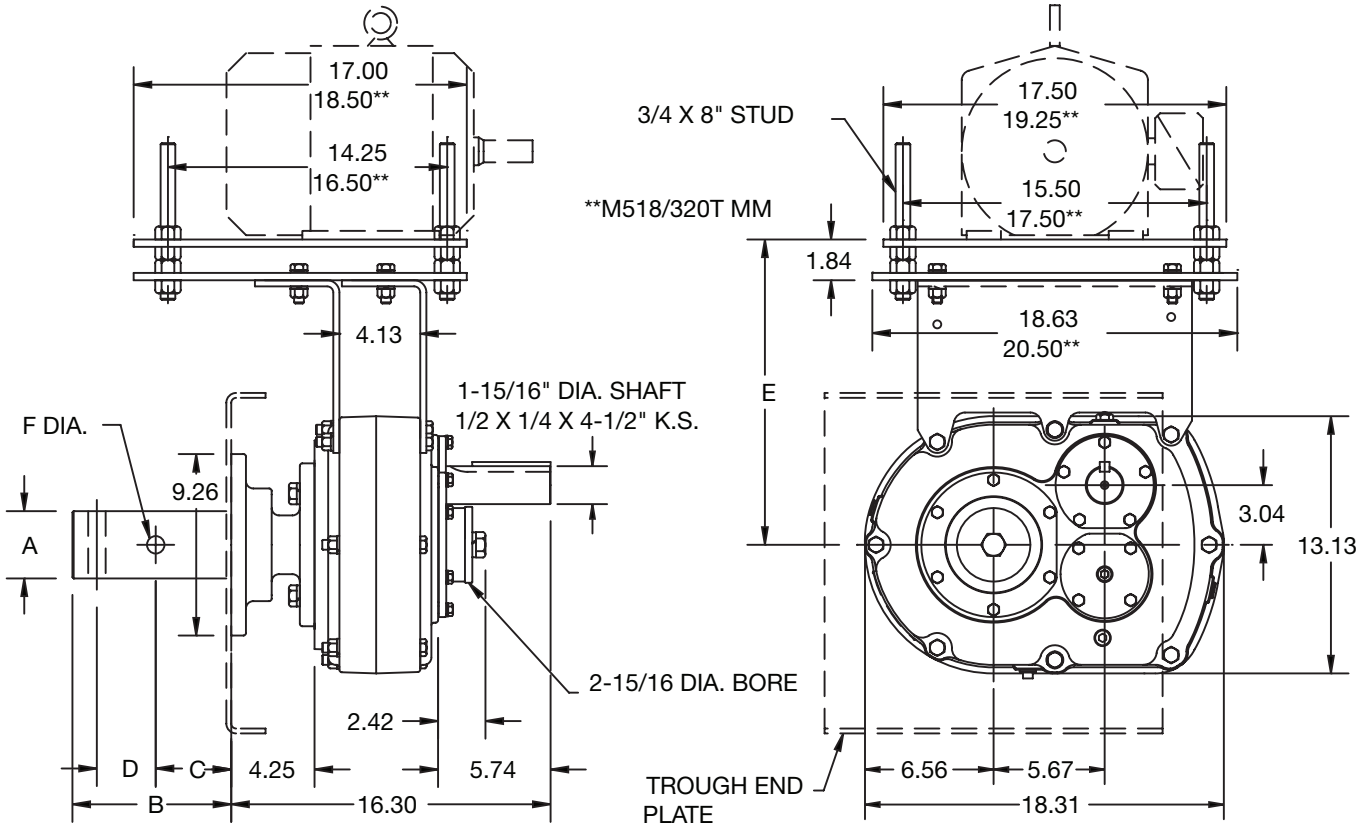
★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

■ DODGE standard belt guards will not fit with this motor mount.

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT5C - Double Reduction Screw Conveyor Drives



SCXT5C Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT509C	**245574 ♣**	215D09	8.95	207
SCXT515C	**245575**	215D15	15.40	207
SCXT525C	**245576**	215D25	25.56	207

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C5B x 2	9”	**355175**	2.00	6.00	2.13	3.00	.64	29.4	C5	**355072**	43
C5B x 2-7/16	9” - 12”	**355176**	2.44	6.69	2.75	3.00	.64	33			
C5B x 3	12” - 14”	**355177**	3.00	6.88	2.88	3.00	.77	37.9			
C5B x 3-7/16	12” - 20”	**355178**	3.44	9.13	3.88	4.00	.89	48.3			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT5C - Double Reduction Screw Conveyor Drives

Accessories for SCXT5C Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC5 Adjustable Packing Kit ♠			**356305**	2.1
M518 Standard Motor Mount	140T thru 280T	9"-18"	**355169**	82
M518/320T Special Motor Mount ● ■ ♣	320T	9"-18"	**355168**	82
M524L Long Motor Mount	140T thru 280T	20"-24"	**272629**	110
SCXT5D SCD Reducer Belt Guard	140T thru 280T	-	**245495**	45
SCXT5D SCD Reducer Belt Guard for Long Motor Mount	140T thru 280T	-	**245103**	54
SCXT5B Cooling Fan Assembly	-	-	**272369**	3
SCXT5B Auxiliary Seal Kit	-	-	**245637**	6
SCXT5 Lube Kit	-	-	**LUBEKITTXT5**	18.5

SCXT5C Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames											
			56, 140		180		210		250		280		320	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M518	15.3	20.1	16.6	20.7	17.6	21.7	18.4	22.4	19.4	23.4	20	24.2	21.1	25.2
M524L	21.3	26.1	22.9	26.6	23.9	27.6	24.7	28.4	25.7	29.4	26.4	30.1	-	-

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♣ Made to order.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seal. See page G2-122 for adapter bolt pattern details.

★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

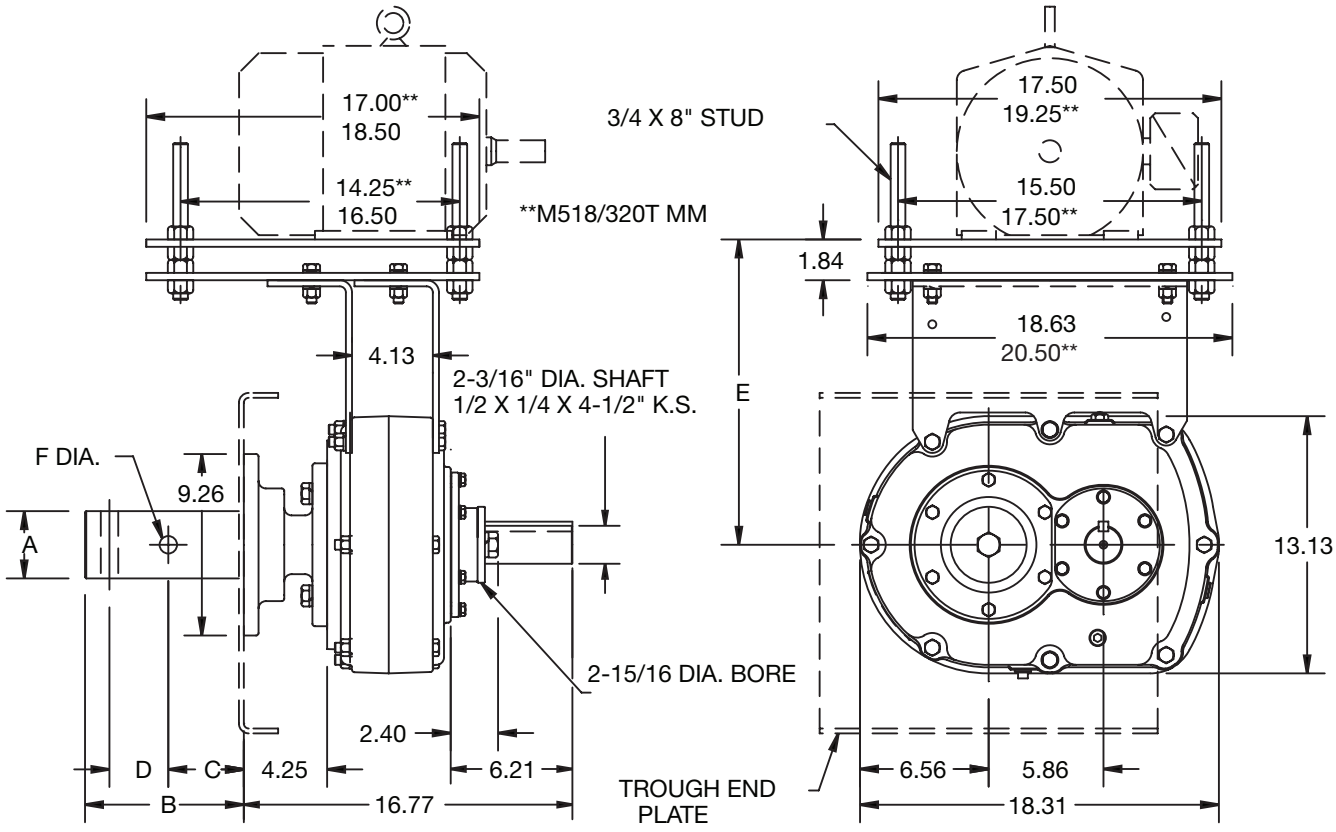
■ DODGE standard belt guards will not fit with this motor mount.

● Drawing dimensions are noted as **

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT505A - Single Reduction Screw Conveyor Drives



SCXT505A Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT505A	**255208**	215S05	5.67	182

CEMA Drive Shafts ★								Adapter Assembly ▲			
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C5B x 2	9" - 12"	**355175**	2.00	6.00	2.13	3.00	.64	29.40	C5	**355072**	43
C5B x 2-7/16	12" - 14"	**355176**	2.44	6.69	2.75	3.00	.64	33			
C5B x 3	12" - 20"	**355177**	3.00	6.88	2.88	3.00	.77	37.90			
C5B x 3-7/16	18" - 24"	**355178**	3.44	9.13	3.88	4.00	.89	48.30			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT505A - Single Reduction Screw Conveyor Drives

Accessories for SCXT505A Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC5 Adjustable Packing Kit ♠			**356305**	2.1
M518 Standard Motor Mount	140T thru 280T	9"-18"	**355169**	82
M518/320T Special Motor Mount ● ■ ♣	320T	9"-18"	**355168**	82
M524L Long Motor Mount	140T thru 280T	20"-24"	**272629**	110
SCXT5S SCD Reducer Belt Guard	140T thru 280T	-	**245497**	70
SCXT5S SCD Reducer Belt Guard for Long Motor Mount ♣	140T thru 280T	-	**245015**	84
SCXT505A Cooling Fan Assembly	-	-	**255231**	3
SCXT505A Auxiliary Seal Kit ♣	-	-	**255148**	6
SCXT505 Lube Kit	-	-	**LUBEKITTXT505**	18.5

SCXT505A Motor Mount Assembly Dimensions

SCD Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames											
			56, 140		180		210		250		280		320	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M518	15.3	20.1	19.7	23.8	20.7	24.7	21.4	25.5	22.4	26.5	23.0	27.2	24.2	28.2
M524L	21.3	26.1	25.9	29.7	26.9	30.7	27.7	31.4	28.7	32.4	29.5	33.2	-	-

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♣ Made to order.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seals. See page G2-122 for adapter bolt pattern details.

★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

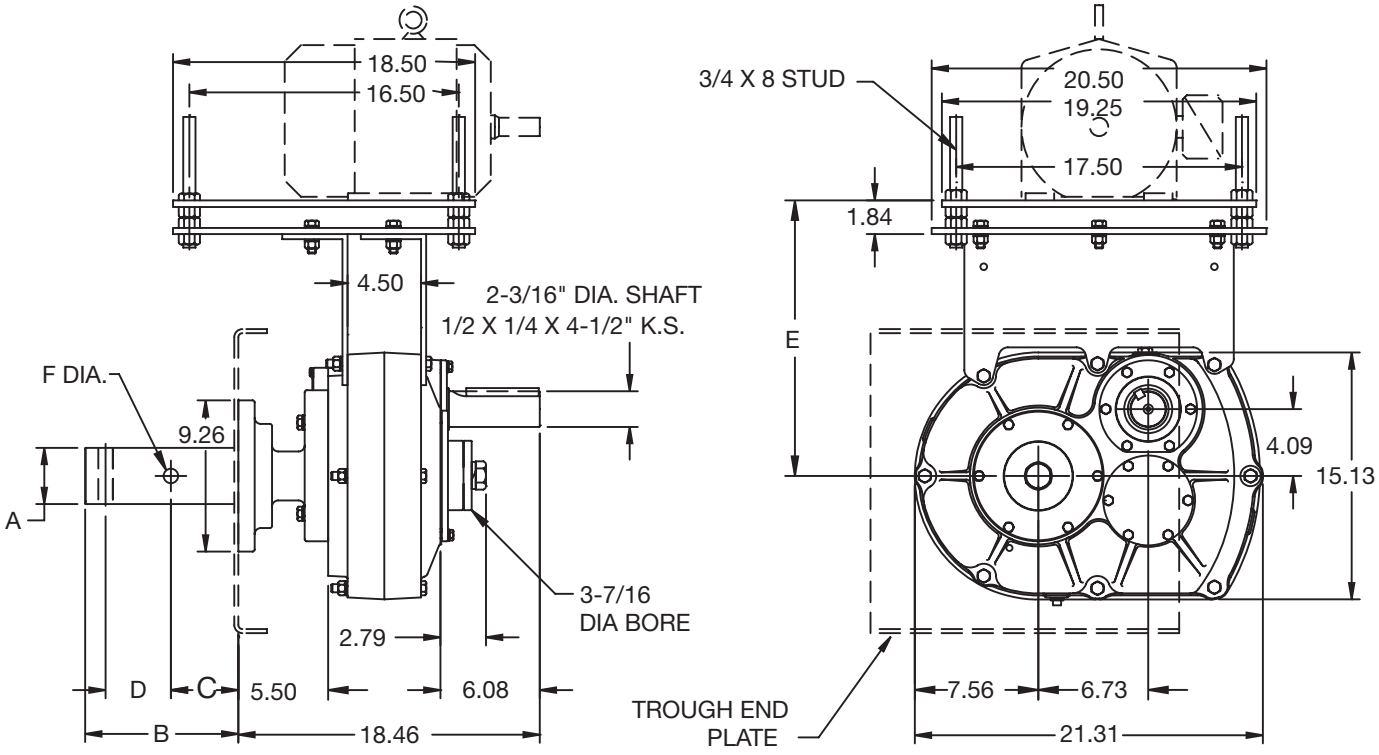
■ DODGE standard belt guards will not fit with this motor mount. Consult DODGE for special belt guard.

● Drawing dimensions are noted as **

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT6A - Double Reduction Screw Conveyor Drives



SCXT6A Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT609A	**246480 ♣**	307D09	9.20	285
SCXT615A	**356057**	307D15	15.33	285
SCXT625A	**356058**	307D25	25.13	285

CEMA Drive Shafts ★									Adapter Assembly ▲		
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C6 x 2-7/16	12" - 14"	**356042**	2.44	6.69	2.75	3.00	.64	47.70	C6	**356055**	56
C6 x 3	12" - 20"	**356043**	3.00	6.88	2.88	3.00	.77	52.70			
C6 x 3-7/16	18" - 24"	**356044**	3.44	9.13	3.88	4.00	.89	63			



Screw Conveyor Shaft Mount Speed Reducers

SCXT6A - Double Reduction Screw Conveyor Drives

Accessories for SCXT6A Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC6 / AC7 Adjustable Packing Kit ♠			**356306**	2.4
M620 Standard Motor Mount	140T thru 320T	12”-20”	**356069**	105
M624L Long Motor Mount ♣	140T thru 320T	24”	**272630**	122
SCXT6D SCD Reducer Belt Guard	140T thru 320T	-	**246476**	60
SCXT6D SCD Reducer Belt Guard for Long Motor Mount	140T thru 320T	-	**246148**	72
SCXT6 Cooling Fan Assembly	-	-	**272325**	3
SCXT6 Auxiliary Seal Kit	-	-	**272726**	7
SCXT6 Lube Kit	-	-	**LUBEKITTXT6**	20.8

SCXT6A Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames											
			56, 140		180		210		250		280		320	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M620	16.7	21.4	17.0	21.0	18.0	22.0	18.8	22.8	19.7	23.8	20.5	24.5	21.5	25.5
M624L	22.7	27.4	23.2	27.0	24.2	27.9	24.9	28.7	25.9	29.7	26.7	30.5	27.6	31.4

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♣ Made to order

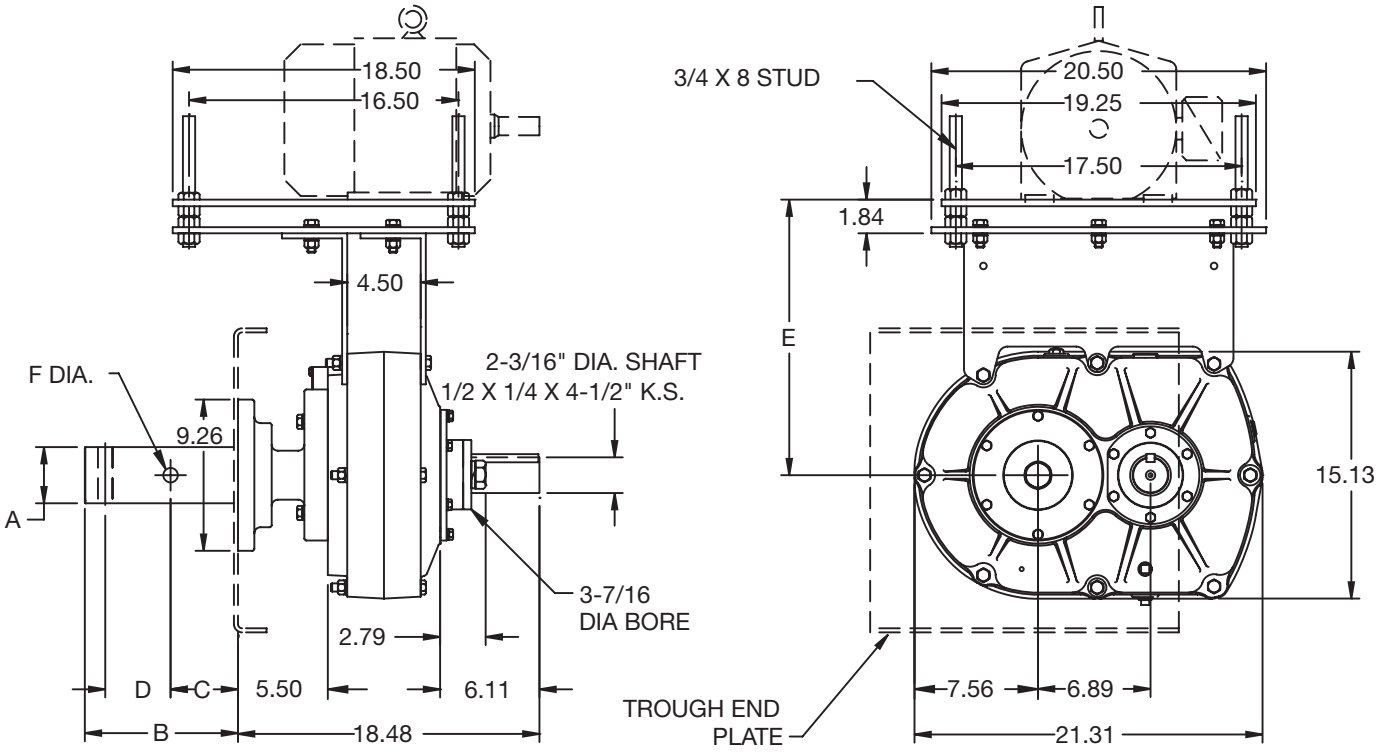
▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seals. See page G2-122 for adapter bolt pattern details.

★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT605 - Single Reduction Screw Conveyor Drives



SCXT605 Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT605	**356285**	307S05	5.67	251

CEMA Drive Shafts ★									Adapter Assembly ▲		
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C6 x 2-7/16	12" - 14"	**356042**	2.44	6.69	2.75	3.00	.64	47.70	C6	**356055**	56
C6 x 3	12" - 20"	**356043**	3.00	6.88	2.88	3.00	.77	52.70			
C6 x 3-7/16	18" - 24"	**356044**	3.44	9.13	3.88	4.00	.89	63			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT605 - Single Reduction Screw Conveyor Drives

Accessories for SCXT605 Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC6 / AC7 Adjustable Packing Kit ♠			**356306**	2.4
M620 Standard Motor Mount	140T thru 320T	12"-20"	**356069**	105
M624L Long Motor Mount ♣	140T thru 320T	24"	**272630**	122
SCXT6S SCD Reducer Belt Guard	140T thru 320T	-	**246478**	77
SCXT6S SCD Reducer Belt Guard for Long Motor Mount ♣	140T thru 320T	-	**246142**	92
SCXT605 Cooling Fan Assembly ♣	-	-	**272681**	3
SCXT6 Auxiliary Seal Kit	-	-	**272726**	7
SCXT605 Lube Kit	-	-	**LUBEKITTXT605**	24.3

SCXT605 Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames											
			56, 140		180		210		250		280		320	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M620	16.7	21.4	21.1	25.1	22.1	26.1	22.8	26.8	23.8	27.9	24.6	28.6	25.6	29.6
M624L	22.7	27.4	27.2	31.1	28.2	32.1	29	32.8	30	33.8	30.7	34.6	31.7	35.5

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♣ Made to order

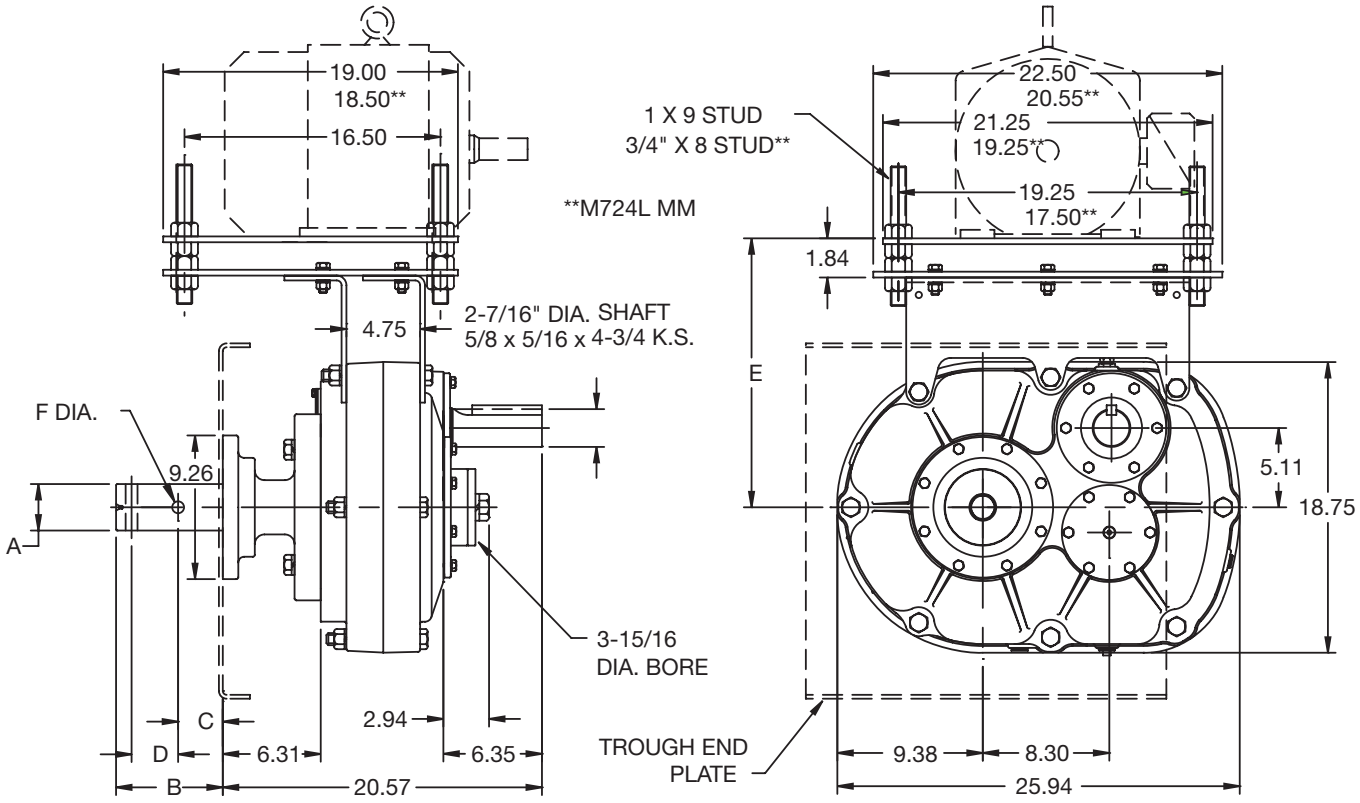
▲ Includes adapter, necessary mounting bolts, seal retainer. and lip type seals. See page G2-122 for adapter bolt pattern details.

★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT7A - Double Reduction Screw Conveyor Drives



SCXT7A Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT709A	**247480 ♣**	315D09	9.61	462
SCXT715A	**356256 ♣**	315D15	15.23	462
SCXT725A	**356257**	315D25	24.59	462

CEMA Drive Shafts ★									Adapter Assembly ▲		
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C7 x 2-7/16	12" - 14"	**356182 ♣**	2.44	6.69	2.75	3.00	.64	58	C7	**356187**	72
C7 x 3	12" - 20"	**356183**	3.00	6.88	2.88	3.00	.77	70			
C7 x 3-7/16	18" - 24"	**356184**	3.44	9.13	3.88	4.00	.89	80.30			



Screw Conveyor Shaft Mount Speed Reducers

SCXT7A - Double Reduction Screw Conveyor Drives

Accessories for SCXT7A Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC6 / AC7 Adjustable Packing Kit ♠			**356306**	2.4
M720 Standard Motor Mount	140T thru 360T	12"-20"	**356269**	106
M724L Long Motor Mount ♣ ●	140T thru 320T	24"	**272631**	130
SCXT7D SCD Reducer Belt Guard	140T thru 360T	-	**247474**	75
SCXT7D SCD Reducer Belt Guard for Long Motor Mount	140T thru 320T	-	**247153**	90
SCXT7 Cooling Fan Assembly	-	-	**272326**	6
SCXT7 Auxiliary Seal Kit	-	-	**272727**	8
SCXT7 Lube Kit	-	-	**LUBEKITTXT7**	34.7

SCXT7A Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames													
			56,140		180		210		250		280		320		360	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M720	17.5	21.7	17.1	20.5	18.1	21.5	18.8	22.2	19.8	23.2	20.5	24.0	21.5	25.0	22.5	26.0
M724L	23.5	27.7	22.4	26.1	23.3	27.1	24.1	27.8	25.0	28.8	25.8	29.5	26.8	30.5	---	---

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

♣ Made to order

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seals. See page G2-122 for adapter bolt pattern details.

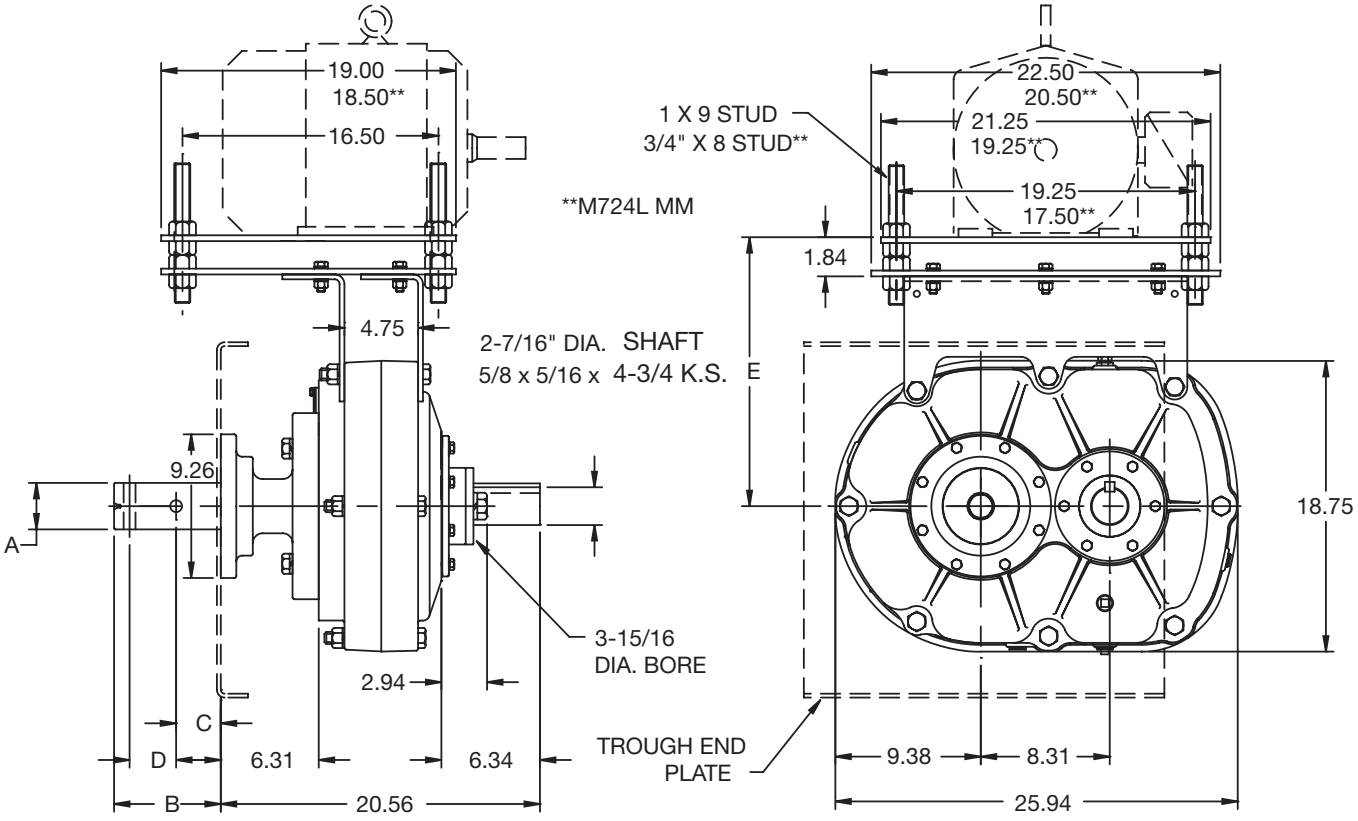
★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

● Drawing dimensions are noted as **

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT705 - Single Reduction Screw Conveyor Drives



SCXT705 Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT705	**356295 ♣**	315S05	5.36	410

CEMA Drive Shafts ★									Adapter Assembly ▲		
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C7 x 2-7/16	12" - 14"	**356182 ♣**	2.44	6.69	2.75	3	0.64	58	C7	**356187**	72
C7 x 3	12" - 20"	**356183**	3	6.88	2.88	3	0.77	70			
C7 x 3-7/16	18" - 24"	**356184**	3.44	9.13	3.88	4	0.89	80.3			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT705 - Single Reduction Screw Conveyor Drives

Accessories for SCXT705 Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
AC6 / AC7 Adjustable Packing Kit ♠			**356306**	2.4
M720 Standard Motor Mount	140T thru 360T	12"-20"	**356269**	106
M724L Long Motor Mount ♣ ●	140T thru 320T	24"	**272631**	130
SCXT7S SCD Reducer Belt Guard	140T thru 360T	-	**247476**	84
SCXT7S SCD Reducer Belt Guard for Long Motor Mount	140T thru 320T	-	**247149**	100
SCXT705 Cooling Fan Assembly ♣	-	-	**272685**	6
SCXT705 Auxiliary Seal Kit	-	-	**272727**	8
SCXT705 Lube Kit	-	-	**LUBEKITTXT705**	39.3

SCXT705 Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames													
			56,140		180		210		250		280		320		360	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M720	17.5	21.7	22.1	25.6	23.1	26.5	23.8	27.3	24.8	28.3	25.6	29.0	26.6	30.0	27.5	31.0
M724L	23.5	27.7	27.3	31.1	28.3	32.1	29.1	32.9	30.1	33.9	30.8	34.7	31.8	35.6	-	-

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ AC Adjustable Packing Kit, with braided seals, is furnished if specified. It bolts to the C adapter.

◆ Provides for V-Belt adjustment.

● Drawing dimensions are noted as **

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seals. See page G2-122 for adapter bolt pattern details.

★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

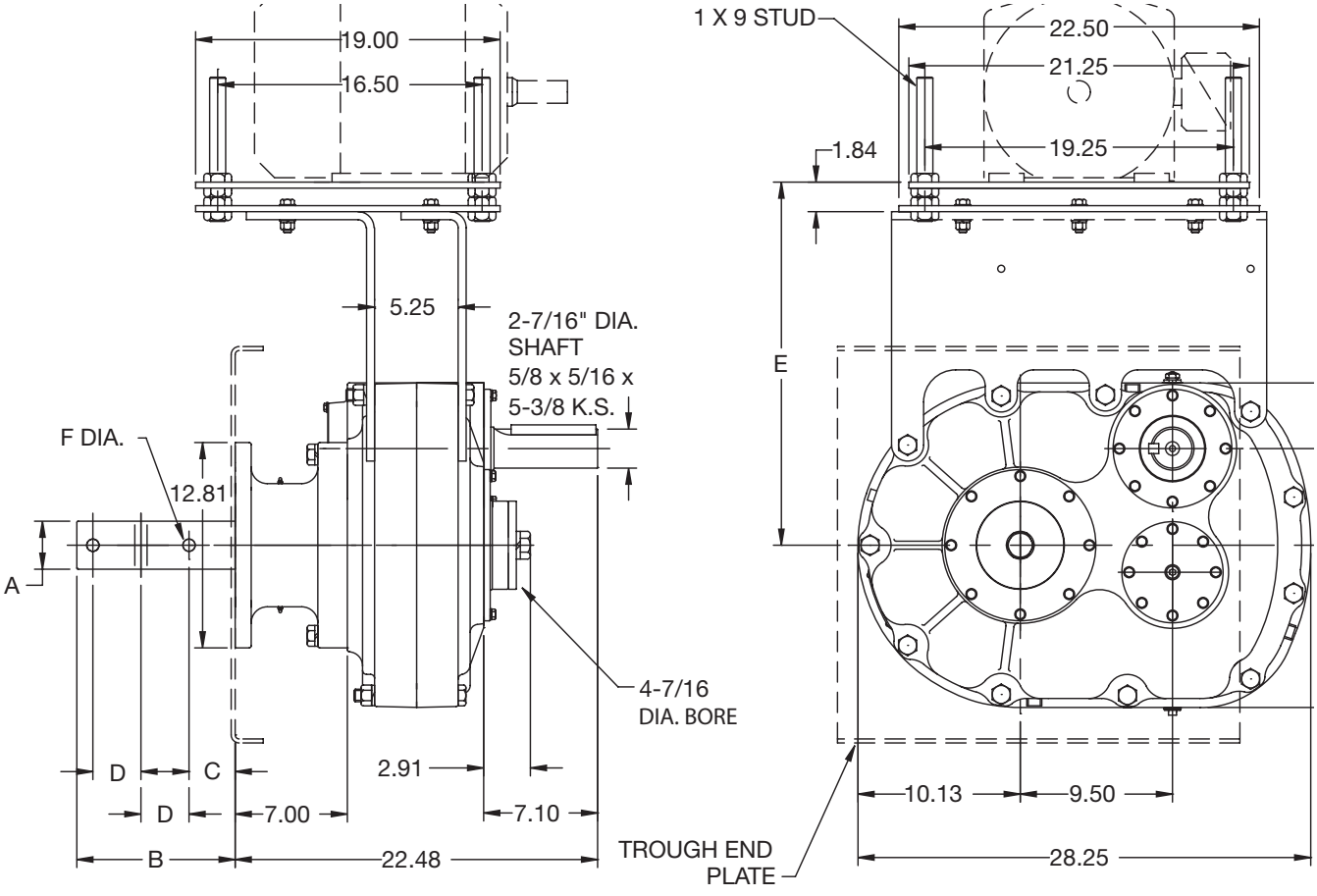
♣ Made to order.

Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

SELECTION/DIMENSIONS

Screw Conveyor Shaft Mount Speed Reducers

SCXT8A - Double Reduction Screw Conveyor Drives



SCXT8A Screw Conveyor Drives†

Reducers				
Size	**Part No.**	**AGMA Code**	**Ratio**	**Weight**
SCXT815A	**248464 ♣**	407D15	15.08	633
SCXT825A	**248465 ♣**	407D25	24.62	633

CEMA Drive Shafts ★									Adapter Assembly ▲		
Drive Shaft	**Screw Dia.**	**Part No.**	**A**	**B**	**C**	**D**	**F Dia.**	**Weight**	**Size**	**Part No.**	**Weight**
C8 X 3	12" - 20"	**248473 ♣**	3.00	9.88	2.88	3.00	.77	88	C8 ♠	**248470 ♣**	90
C8 X 3-7/16	18" - 24"	**248474 ♣**	3.44	13.13	3.88	4.00	.89	100			

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Screw Conveyor Shaft Mount Speed Reducers

SCXT8A - Double Reduction Screw Conveyor Drives

Accessories for SCXT8A Reducers

Description	NEMA Motor Frame	Screw Dia.	Part No.	Weight
M824L Long Motor Mount ♣	210T thru 360T	12" - 24"	**248469**	163
SCXT8D SCD Reducer Belt Guard ♣	210T thru 360T	---	**248477**	113
SCXT8 Cooling Fan Assembly	---	---	**272327**	9
SCXT8 Auxiliary Seal Kit ♣	---	---	**248484**	10
SCXT8 Lube Kit	---	---	**LUBEKITTXT8**	40.5

SCXT8A Motor Mount Assembly Dimensions

Motor Mount	E ◆		V-Belt Drive Center Distances for Various NEMA Motor Frames													
			56,140		180		210		250		280		320		360	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
M824	22.70	28.60	---	---	---	---	23.3	28.4	24.3	29.4	25.1	30.1	26.0	31.1	27.0	32.1

† For a complete SCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

♠ Totally enclosed adapter is standard for SCXT8A screw conveyor drive reducer.

◆ Provides for V-Belt adjustment.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seals. See page G2-122 for adapter bolt pattern details.

★ CEMA drive shaft and key is furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

♣ Made to order

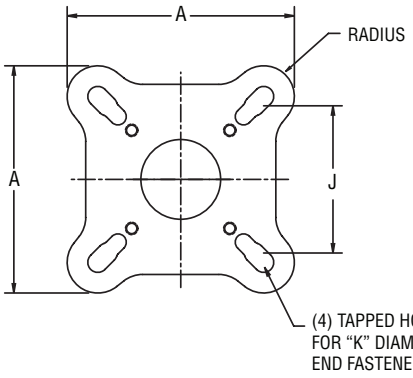
Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

MODIFICATIONS/ ACCESSORIES

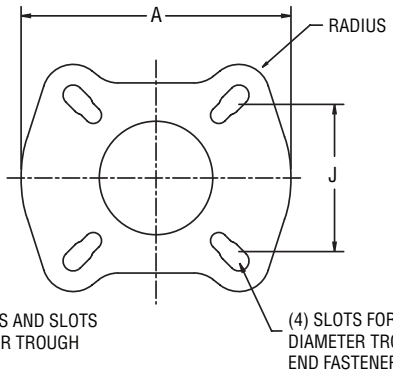


Screw Conveyor Shaft Mount Reducers
SCXT Screw Conveyor Adapters

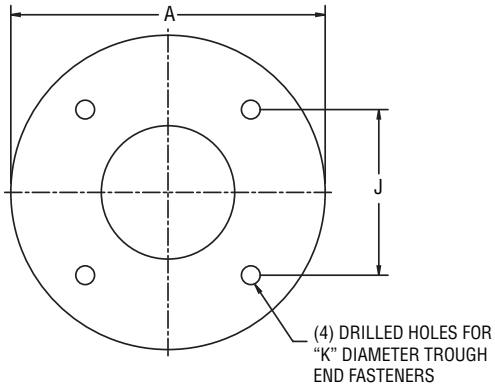
SCXT Sizes 1-6



SCXT Size 7



SCXT Size 8



Reducer Size	Drive Shaft Diameter	J	K	A	Radius
SCXT 1	1-1/2	4	1/2	7.75	0.875
	2	5-1/8	5/8	7.75	0.875
	2-7/16	5-5/8	5/8	7.75	0.875
	3	6	3/4	7.75	0.875
SCXT 2	1-1/2	4	1/2	7.75	0.875
	2	5-1/8	5/8	7.75	0.875
	2-7/16	5-5/8	5/8	7.75	0.875
	3	6	3/4	7.75	0.875
SCXT 3	1-1/2	4	1/2	8.50	1.25
	2	5-1/8	5/8	8.50	1.25
	2-7/16	5-5/8	5/8	8.50	1.25
	3	6	3/4	8.50	1.25
SCXT 4	1-1/2	4	1/2	9.26	1.25
	2	5-1/8	5/8	9.26	1.25
	2-7/16	5-5/8	5/8	9.26	1.25
	3	6	3/4	9.26	1.25
	3-7/16	6-3/4	3/4	9.26	1.25
SCXT 5	2	5-1/8	5/8	9.26	1.25
	2-7/16	5-5/8	5/8	9.26	1.25
	3	6	3/4	9.26	1.25
	3-7/16	6-3/4	3/4	9.26	1.25
SCXT 6	2-7/16	5-5/8	5/8	9.26	1.25
	3	6	3/4	9.26	1.25
	3-7/16	6-3/4	3/4	9.26	1.25
SCXT 7	2-7/16	5-5/8	5/8	11.00	1.25
	3	6	3/4	11.00	1.25
	3-7/16	6-3/4	3/4	11.00	1.25
SCXT 8	3	6	3/4	12.81	n/a
	3-7/16	6-3/4	3/4	12.81	n/a

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Screw Conveyor Shaft Mount Speed Reducers

SCXT Screw Conveyor Drive Optional Drive Shafts

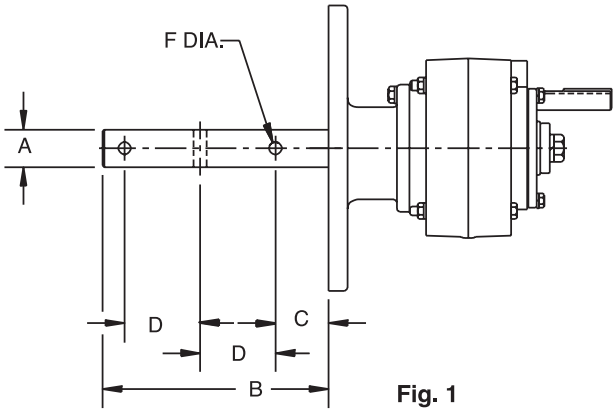


Fig. 1

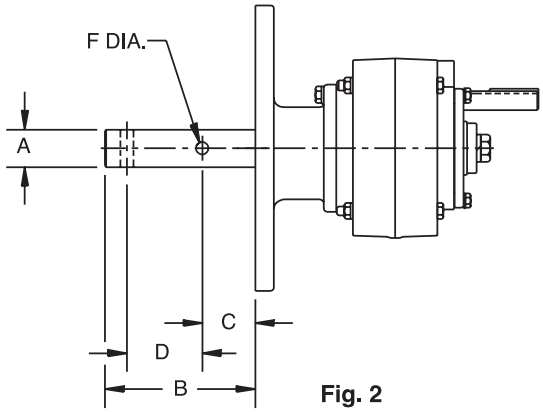


Fig. 2

Optional Drive Shafts for SCXT1A Reducers ♣

Description	Drive Shaft	Screw Dia.	Part No.	Figure	A	B	C	D	F	Weight
Stainless Steel * Drive Shafts	C1 x 1-1/2	6" - 9"	**351147**	2	1.50	6.00	2.13	3.00	0.52	7.20
	C1 x 2	9" - 12"	**351148**	2	2.00	6.00	2.13	3.00	0.64	9.10
	C1 x 2-7/16	12" - 14"	**351149**	2	2.44	6.69	2.75	3.00	0.64	12.50
	C1 x 3	12" - 20"	**351150**	2	3.00	6.88	2.88	3.00	0.77	17.40
3-Hole Drive Shafts	C1 x 1-1/2	6" - 9"	**351300**	1	1.50	9.00	2.13	3.00	0.52	8.70
	C1 x 2	9" - 12"	**351301**	1	2.00	9.00	2.13	3.00	0.64	11.80
	C1 x 2-7/16	12" - 14"	**351302**	1	2.44	9.69	2.75	3.00	0.64	16.40
	C1 x 3	12" - 20"	**351303**	1	3.00	9.88	2.88	3.00	0.77	23.40
Stainless Steel * 3-Hole Drive Shafts	C1 x 1-1/2	6" - 9"	**351025**	1	1.50	9.00	2.13	3.00	0.52	8.70
	C1 x 2	9" - 12"	**351026**	1	2.00	9.00	2.13	3.00	0.64	11.80
	C1 x 2-7/16	12" - 14"	**351027**	1	2.44	9.69	2.75	3.00	0.64	16.40
	C1 x 3	12" - 20"	**351028**	1	3.00	9.88	2.88	3.00	0.77	23.40

Optional Drive Shafts for SCXT2A Reducers ♣

Description	Drive Shaft	Screw Dia.	Part No.	Figure	A	B	C	D	F	Weight
Stainless Steel * Drive Shafts	C2 x 1-1/2	6" - 9"	**352160**	2	1.50	6.00	2.13	3.00	0.52	11.40
	C2 x 2	9" - 12"	**352161**	2	2.00	6.00	2.13	3.00	0.64	13.80
	C2 x 2-7/16	12" - 14"	**352162**	2	2.44	6.69	2.75	3.00	0.64	17.30
	C2 x 3	12" - 20"	**352163**	2	3.00	6.88	2.88	3.00	0.77	19
3-Hole Drive Shafts	C2 x 1-1/2	6" - 9"	**351305**	1	1.50	9.00	2.13	3.00	0.52	12.90
	C2 x 2	9" - 12"	**351306**	1	2.00	9.00	2.13	3.00	0.64	16.50
	C2 x 2-7/16	12" - 14"	**351307**	1	2.44	9.69	2.75	3.00	0.64	21.20
	C2 x 3	12" - 20"	**351308**	1	3.00	9.88	2.88	3.00	0.77	25
Stainless Steel * 3-Hole Drive Shafts	C2 x 1-1/2	6" - 9"	**352186**	1	1.50	9.00	2.13	3.00	0.52	12.90
	C2 x 2	9" - 12"	**352187**	1	2.00	9.00	2.13	3.00	0.64	16.50
	C2 x 2-7/16	12" - 14"	**352188**	1	2.44	9.69	2.75	3.00	0.64	21.20
	C2 x 3	12" - 20"	**352189**	1	3.00	9.88	2.88	3.00	0.77	25

* Supplied as #316 stainless steel.

♣ Made to order. Consult DODGE for lead time.

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MODIFICATIONS/ ACCESSORIES

DODGE®



Screw Conveyor Shaft Mount Speed Reducers

Optional Drive Shafts for SCXT3B and SCXT305A Reducers ♣

Description	Drive Shaft	Screw Dia.	Part No.	Figure	A	B	C	D	F	Weight
Stainless Steel *	C3A x 1-1/2	9”	**243446**	2	1.50	6.00	2.13	3.00	0.52	15
	C3A x 2	9” - 12”	**243447**	2	2.00	6.00	2.13	3.00	0.64	16
	C3A x 2-7/16	12” - 14”	**243448**	2	2.44	6.69	2.75	3.00	0.64	19.50
	C3A x 3	12” - 20”	**243449**	2	3.00	6.88	2.88	3.00	0.77	26
Drive Shafts 3-Hole Drive Shafts	C3A x 1-1/2	9”	**243016**	1	1.50	9.00	2.13	3.00	0.52	16.50
	C3A x 2	9” - 12”	**243017**	1	2.00	9.00	2.13	3.00	0.64	18.70
	C3A x 2-7/16	12” - 14”	**243018**	1	2.44	9.69	2.75	3.00	0.64	23.40
	C3A x 3	12” - 20”	**243019**	1	3.00	9.88	2.88	3.00	0.77	32
Stainless Steel * 3-Hole Drive Shafts	C3A x 1-1/2	9”	**353180**	1	1.50	9.00	2.13	3.00	0.52	16.50
	C3A x 2	9” - 12”	**353181**	1	2.00	9.00	2.13	3.00	0.64	18.70
	C3A x 2-7/16	12” - 14”	**353182**	1	2.44	9.69	2.75	3.00	0.64	23.40
	C3A x 3	12” - 20”	**353183**	1	3.00	9.88	2.88	3.00	0.77	32

Optional Drive Shafts for SCXT4B and SCXT405A Reducers ♣

Description	Drive Shaft	Screw Dia.	Part No.	Figure	A	B	C	D	F	Weight
Stainless Steel * Drive Shafts	C4A x 1-1/2	9”	**244680**	2	1.50	6.00	2.13	3.00	0.52	19
	C4A x 2	9” - 12”	**244681**	2	2.00	6.00	2.13	3.00	0.64	20.80
	C4A x 2-7/16	12” - 14”	**244682**	2	2.44	6.69	2.75	3.00	0.64	24.30
	C4A x 3	12” - 20”	**244683**	2	3.00	6.88	2.88	3.00	0.77	29.20
	C4A x 3-7/16	18” - 24”	**244684**	2	3.44	9.13	3.88	4.00	0.89	39.30
3-Hole Drive Shafts	C4A x 1-1/2	9”	**244494**	1	1.50	9.00	2.13	3.00	0.52	20.50
	C4A x 2	9” - 12”	**244496**	1	2.00	9.00	2.13	3.00	0.64	23.50
	C4A x 2-7/16	12” - 14”	**244497**	1	2.44	9.69	2.75	3.00	0.64	28.20
	C4A x 3	12” - 20”	**244498**	1	3.00	9.88	2.88	3.00	0.77	35.20
	C4A x 3-7/16	18” - 24”	**244499**	1	3.44	14.13	3.88	4.00	0.89	49.80
Stainless Steel * 3-Hole Drive Shafts	C4A x 1-1/2	9”	**354351**	1	1.50	9.00	2.13	3.00	0.52	20.50
	C4A x 2	9” - 12”	**354352**	1	2.00	9.00	2.13	3.00	0.64	23.50
	C4A x 2-7/16	12” - 14”	**354353**	1	2.44	9.69	2.75	3.00	0.64	28.20
	C4A x 3	12” - 20”	**354354**	1	3.00	9.88	2.88	3.00	0.77	35.20
	C4A x 3-7/16	18” - 24”	**354355**	1	3.44	14.13	3.88	4.00	0.89	49.80

Optional Drive Shafts for SCXT5C and SCXT505A Reducers ♣

Description	Drive Shaft	Screw Dia.	Part No.	Figure	A	B	C	D	F	Weight
Stainless Steel * Drive Shafts	C5B x 2	9” - 12”	**245651**	2	2.00	6.00	2.13	3.00	0.64	29.40
	C5B x 2-7/16	12” - 14”	**245652**	2	2.44	6.69	2.75	3.00	0.64	33
	C5B x 3	12” - 20”	**245653**	2	3.00	6.88	2.88	3.00	0.77	37.90
	C5B x 3-7/16	18” - 24”	**245654**	2	3.44	9.13	3.88	4.00	0.89	48.30
3-Hole Drive Shafts	C5B x 2	9” - 12”	**245474**	1	2.00	9.00	2.13	3.00	0.64	32.10
	C5B x 2-7/16	12” - 14”	**245476**	1	2.44	9.69	2.75	3.00	0.64	36.90
	C5B x 3	12” - 20”	**245477**	1	3.00	9.88	2.88	3.00	0.77	43.90
	C5B x 3-7/16	18” - 24”	**245478**	1	3.44	14.13	3.88	4.00	0.89	58.80
Stainless Steel * 3-Hole Drive Shafts	C5B x 2	9” - 12”	**355225**	1	2.00	9.00	2.13	3.00	0.64	32.10
	C5B x 2-7/16	12” - 14”	**355226**	1	2.44	9.69	2.75	3.00	0.64	36.90
	C5B x 3	12” - 20”	**355227**	1	3.00	9.88	2.88	3.00	0.77	43.90
	C5B x 3-7/16	18” - 24”	**355228**	1	3.44	14.13	3.88	4.00	0.89	58.80

* Supplied as # 316 stainless steel.

♣ Made to order. Consult DODGE for lead time.



Screw Conveyor Shaft Mount Speed Reducers

SCXT Screw Conveyor Drive Optional Drive Shafts (Continued)

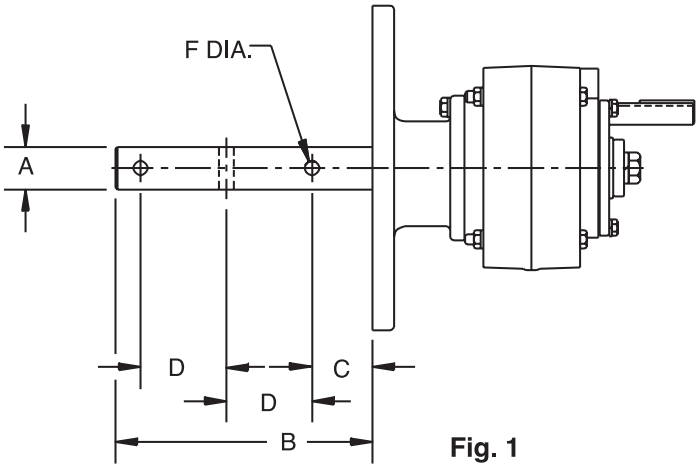


Fig. 1

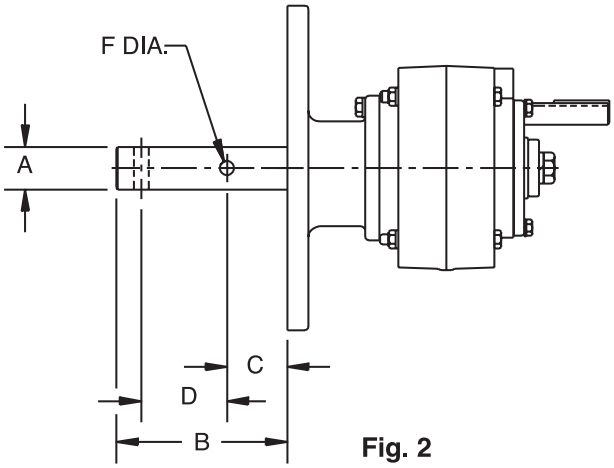


Fig. 2

Optional Drive Shafts for SCXT6A Reducers ♣

Description	Drive Shaft	Screw Dia.	Part No.	Figure	A	B	C	D	F	Weight
Stainless Steel * Drive Shafts	C6 x 2-7/16	12" - 14"	**356014**	2	2.44	6.69	2.75	3.00	0.64	47.7
	C6 x 3	12" - 20"	**356015**	2	3.00	6.88	2.88	3.00	0.77	52.7
	C6 x 3-7/16	18" - 24"	**356016**	2	3.44	9.13	3.88	4.00	0.89	63.0
3-Hole Drive Shafts	C6 x 2-7/16	12" - 14"	**351327**	1	2.44	9.69	2.75	3.00	0.64	51.6
	C6 x 3	12" - 20"	**351328**	1	3.00	9.88	2.88	3.00	0.77	58.7
	C6 x 3-7/16	18" - 24"	**351329**	1	3.44	14.13	3.88	4.00	0.89	73.5
Stainless Steel * 3-Hole Drive Shafts	C6 x 2-7/16	12" - 14"	**356275**	1	2.44	9.69	2.75	3.00	0.64	51.6
	C6 x 3	12" - 20"	**356276**	1	3.00	9.88	2.88	3.00	0.77	58.7
	C6 x 3-7/16	18" - 24"	**356277**	1	3.44	14.13	3.88	4.00	0.89	73.5

Optional Drive Shafts for SCXT7A Reducers ♣

Description	Drive Shaft	Screw Dia.	Part No.	Figure	A	B	C	D	F	Weight
Stainless Steel * Drive Shafts	C7 x 2-7/16	12" - 14"	**356240**	2	2.44	6.69	2.75	3.00	0.64	58.0
	C7 x 3	12" - 20"	**356241**	2	3.00	6.88	2.88	3.00	0.77	70.0
	C7 x 3-7/16	18" - 24"	**356242**	2	3.44	9.13	3.88	4.00	0.89	80.3
3-Hole Drive Shafts	C7 x 2-7/16	12" - 14"	**351332**	1	2.44	9.69	2.75	3.00	0.64	61.9
	C7 x 3	12" - 20"	**351333**	1	3.00	9.88	2.88	3.00	0.77	76.0
	C7 x 3-7/16	18" - 24"	**351334**	1	3.44	14.13	3.88	4.00	0.89	90.8
Stainless Steel* 3-Hole Drive Shafts	C7 x 2-7/16	12" - 14"	**356281**	1	2.44	9.69	2.75	3.00	0.64	61.9
	C7 x 3	12" - 20"	**356282**	1	3.00	9.88	2.88	3.00	0.77	76.0
	C7 x 3-7/16	18" - 24"	**356283**	1	3.44	14.13	3.88	4.00	0.89	90.8

* Supplied as # 316 stainless steel.

♣ Made to order. Consult DODGE for lead time.

NOTE: See page G2-120 for dimensions and part numbers for drive shafts available for SCXT8A Screw Conveyor Drives.

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	RELATED PRODUCTS PAGE G2-152	RENEWAL PARTS PAGE G2-166

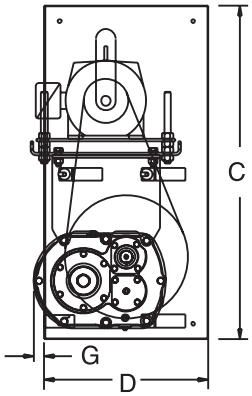
MODIFICATIONS/ ACCESSORIES

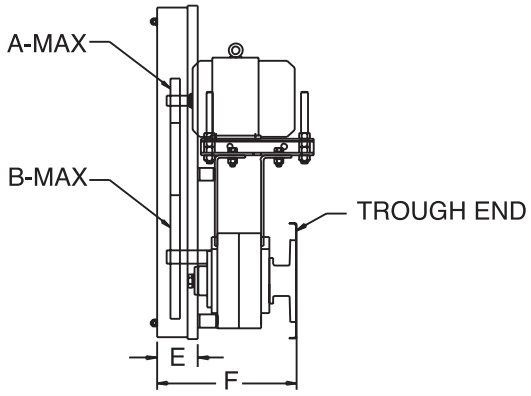
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Screw Conveyor Shaft Mount Speed Reducers

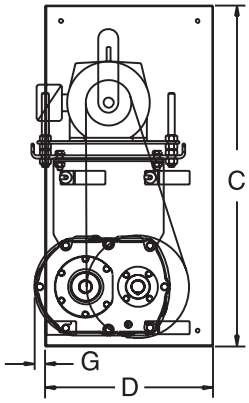
Slotted Metal Panel Belt Guards

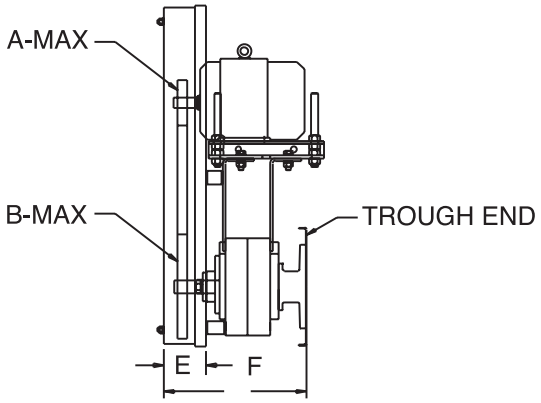




Belt Guards For Double Reduction SCXT Reducers (9, 15, 25:1) With Standard Motor Mounts

Reducer Size	Belt Guard Size	Part Number	Motor Mount No.	Wt.	NEMA Motor Frame	Center Distance		A	B	C	D	E	F	G
						Min.	Max.							
SCXT1A	SCXT1D	**241489**	M 112L	21	56T-215T	13.5	19.0	5.0	12.0	27.5	13.0	3.5	12.5	1.00
SCXT2A	SCXT2D	**242489**	M 214L	32	56T-215T	14.9	20.0	5.0	12.0	30.0	14.0	3.8	13.5	0.875
SCXT3B	SCXT3D	**243416 ▲**	M 316L	40	56T-215T	15.8	22.0	6.0	14.0	32.5	16.0	4.0	14.6	1.06
SCXT4B	SCXT4D	**244489**	M 418L	44	143T-286T	16.9	24.5	7.0	15.0	37.0	17.0	5.0	16.8	1.78
SCXT5C	SCXT5D	**245495▲**	M 518L	45	143T-286T	16.6	25.2	7.0	15.0	37.0	18.0	4.3	18.9	3.25
SCXT6A	SCXT6D	**246476**	M 620L	60	143T-326T	17.0	25.5	8.0	18.0	41.0	20.0	6.0	21.4	4.38
SCXT7A	SCXT7D	**247474**	M 720L	75	143T-365T	17.1	26.0	10.0	20.0	43.0	23.0	6.0	23.5	6.25





Belt Guards For Double Reduction SCXT Reducers (5:1) With Standard Motor Mounts

Reducer Size	Belt Guard Size	Part Number	Motor Mount No.	Wt.	NEMA Motor Frame	Center Distance		A	B	C	D	E	F	G
						Min.	Max.							
SCXT105	SCXT1S	**241491**	M 112	30	56T-215T	15.4	20.6	5.0 ■	12.0	31.0	13.50	3.50	12.50	0.38
SCXT205	SCXT2S	**242491**	M 214	34	56T-215T	17.0	22.2	6.0 ■	12.0	33.0	13.50	3.75	13.50	1.25
SCXT305A	SCXT3S	**243418 ▲**	M 316	40	56T-215T	18.2	24.4	7.0	12.0	35.0	13.50	4.00	14.63	2.38
SCXT405A	SCXT4S	**244491**	M 418	50	143T-286T	19.6	27.2	8.0	12.0	40.0	14.50	5.00	16.75	3.63
SCXT505A	SCXT5S	**245497 ▲**	M 518	70	143T-286T	19.7	28.2	8.0	12.0	40.0	14.50	5.50	18.91	5.68
SCXT605	SCXT6S	**246478**	M 620	77	143T-326T	21.1	29.6	10.0	16.0	45.0	18.00	6.00	21.44	5.97
SCXT705	SCXT7S	**247476**	M 720	84	143T-365T	22.1	31.0	10.0	16.0	45.5	19.00	6.00	23.53	9.25

■ Guard will interfere with floor when used with 6" screw unless trough is raised above floor.

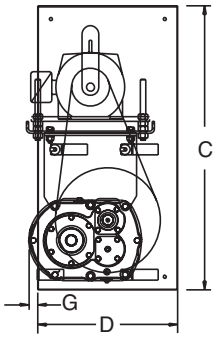
▲ These belt guards do not fit the larger frame, higher H.P. motor mounts in SCXT Selection/Dimension pages. Consult DODGE for special belt guard.

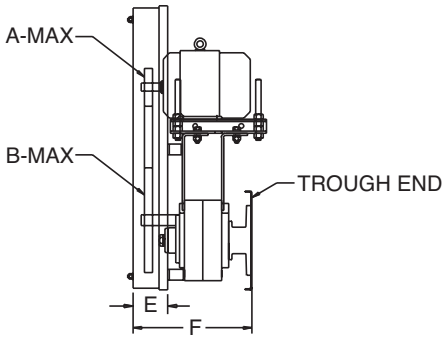
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Screw Conveyor Shaft Mount Speed Reducers

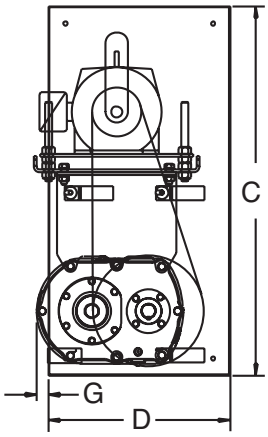
Slotted Metal Panel Belt Guards

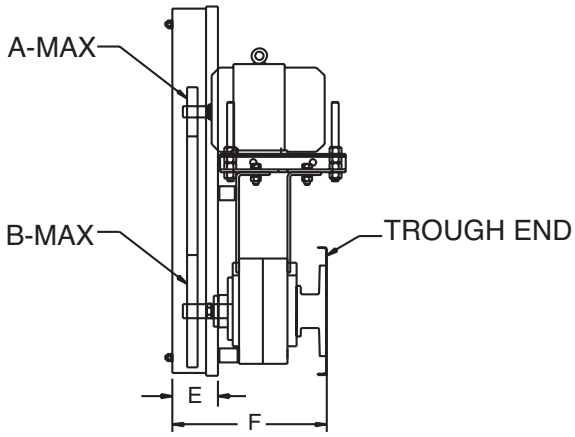




Belt Guards For Double Reduction SCXT Reducers (9, 15, 25:1) With Long Motor Mounts

Reducer Size	Belt Guard Size	Part Number	Motor Mount No.	Wt.	NEMA Motor Frame	Center Distance		A	B	C	D	E	F	G
						Min.	Max.							
SCXT1A	SCXT1DLMM	**241149**	M120L	26	56T-215T	19.5	25.0	5.0	12.0	33.5	13.0	3.50	12.50	1.00
SCXT2A	SCXT2DLMM	**242223**	M220L	37	56T-215T	20.9	26.0	5.0	12.0	36.0	14.0	3.75	13.50	0.875
SCXT3B	SCXT3DLMM	**243154** ▲	M320L	45	56T-215T	21.8	27.0	6.0	14.0	38.0	16.0	4.00	14.63	1.06
SCXT4B	SCXT4DLMM	**244152** ▲	M424L	50	143T-286T	23.2	30.4	7.0	15.0	43.0	17.0	5.00	16.75	1.78
SCXT5C	SCXT5DLMM	**245103** ▲	M524L	52	143T-286T	22.9	30.9	7.0	15.0	43.0	18.0	4.25	18.91	3.25
SCXT6A	SCXT6DLMM	**246148**	M624L	65	143T-326T	23.3	31.4	8.0	18.0	47.0	20.0	6.00	21.44	4.38
SCXT7A	SCXT7DLMM	**247153** ▲	M724L	80	143T-326T	23.2	30.5	10.0	20.0	49.0	23.0	6.00	23.53	6.25
SCXT8A	SCXT8DLMM	**248477** ♣	M824L	113	210T-360T	23.3	32.1	12.0	25.0	53.0	28.0	6.50	24.81	5.62





Belt Guards For Single Reduction SCXT Reducers (5:1) With Long Motor Mounts

Reducer Size	Belt Guard Size	Part Number	Motor Mount No.	Wt.	NEMA Motor Frame	Center Distance		A	B	C	D	E	F	G
						Min.	Max.							
SCXT105	SCXT1SLMM	**241142**	M120L	35	56T-215T	21.4	26.6	5.0 ■	12.0	37.0	13.5	3.50	12.50	0.38
SCXT205	SCXT2SLMM	**242114**	M220L	40	56T-215T	23.3	28.2	6.0 ■	12.0	39.0	13.5	3.75	13.50	1.25
SCXT305A	SCXT3SLMM	**243167** ▲	M320L	45	56T-215T	24.2	29.4	7.0	12.0	41.0	13.5	4.00	14.63	2.38
SCXT405A	SCXT4SLMM	**244167** ▲	M424L	55	143T-286T	25.9	33.2	8.0	12.0	46.0	14.5	5.00	16.75	3.63
SCXT505A	SCXT5SLMM	**245015** ▲	M524L	70	143T-286T	26.0	33.2	8.0	12.0	46.0	14.5	5.50	18.91	5.68
SCXT605	SCXT6SLMM	**246142**	M624L	82	143T-326T	27.4	35.5	10.0	16.0	51.0	18.0	6.00	21.44	5.97
SCXT705	SCXT7SLMM	**247149**	M724L	90	143T-326T	28.2	35.6	10.0	16.0	51.5	19.0	6.00	23.53	9.25

■ Guard will interfere with floor when used with 6, screw unless trough is raised above floor.

▲ These belt guards do not fit the larger frame, higher H.P. motor mounts in SCXT Selection/Dimension pages. Consult DODGE for special belt guard.

♣ Made to order.

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	RELATED PRODUCTS PAGE G2-152	RENEWAL PARTS PAGE G2-166

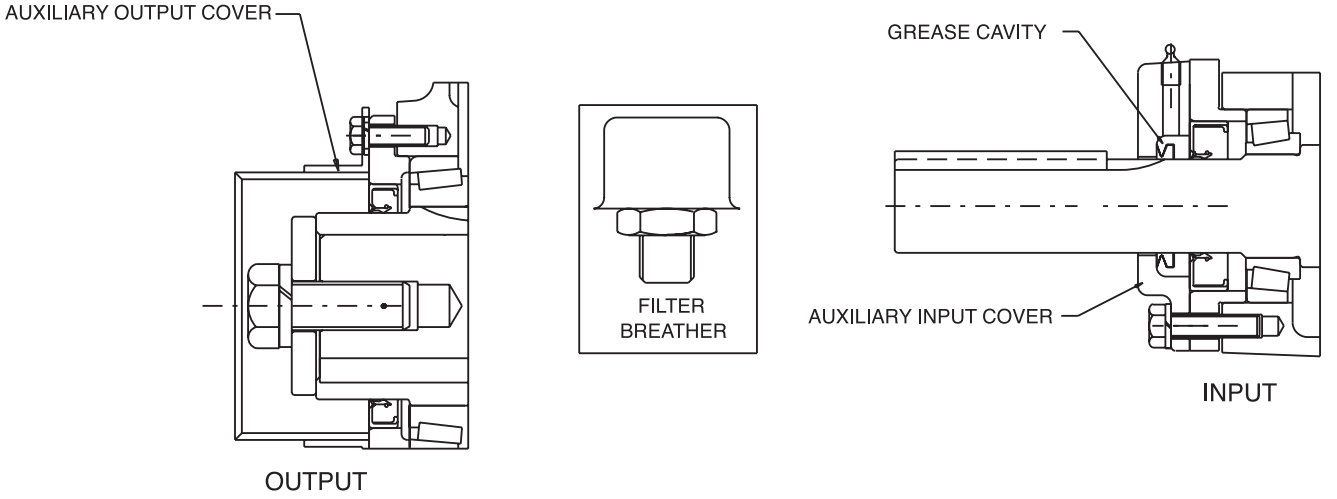
MODIFICATIONS/ ACCESSORIES



Screw Conveyor Shaft Mount Speed Reducers

Auxiliary Seal Kit For Screw Conveyor Drive Reducers

Screw conveyor drives often operate in harsh environments in which the input shaft side of the reducer ends up turning in such materials as sand, cement, saw dust and grain. These materials are very abrasive and often damage seals, bearings and gears. These damages can lead to costly repair bills and downtime. To help prevent these maintenance problems DODGE offers an Auxiliary Seal Kit to protect the input side of the reducer. The kit contains a drive shaft end cover, special filter breather and a grease purged input seal with necessary mounting hardware. The auxiliary seals prevent contaminates from getting to the seal area and thus prevents them from entering the reducer. Use the auxiliary seal kit to get the longest possible life out of your DODGE Screw Conveyor Drive Reducer. Reducer housings on sizes SCXT1 and SCXT2 must be drilled and tapped to accommodate the input auxiliary seal.



Auxiliary Seal Kits for SCXT Reducers ● ♦

Reducer Size	Nominal Ratio	Part Number	Nominal Ratio	Part Number ♣
SCXT1A	9, 15, 25	**272721**	5	**251146**
SCXT2A	9, 15, 25	**272722**	5	**252146**
SCXT3B	9, 15, 25	**243582**	5	**253146**
SCXT4B	9, 15, 25	**244677**	5	**254146**
SCXT5C	9, 15, 25	**245637**	5	**255148**
SCXT6A	5, 9, 15, 25	**272726**	-	**-**
SCXT7A	5, 9, 15, 25	**272727**	-	**-**
SCXT8A	15, 25	**248484 ♣**	-	**-**

Input Auxiliary Seal for SCXT Reducers ● ■

Reducer Size	Nominal Ratio	Part Number	Nominal Ratio	Part Number
SCXT1A	9, 15, 25	**241102**	5	**241109**
SCXT2A	9, 15, 25	**242102 ♣**	5	**242109 ♣**
SCXT3B	9, 15, 25	**243108**	5	**243109**
SCXT4B	9, 15, 25	**244117**	5	**244159 ♣**
SCXT5C	9, 15, 25	**245104**	5	**245106 ♣**
SCXT6A	5, 9, 15, 25	**246102**	-	**-**
SCXT7A	5, 9, 15, 25	**247102 ♣**	-	**-**
SCXT8A	15, 25	**248102**	-	**-**

♦ Auxiliary seal kit consists of drive shaft end cover, filter breather, grease purged input seal and all mounting hardware.

■ Input auxiliary seal is the grease purged input seal and hardware only. See page G2-177 for dimensions to drill and tap reducer housing for mounting of auxiliary input seal.

● Input auxiliary seals cannot be used on the same input shaft with a cooling fan

♣ Made to order.

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	RELATED PRODUCTS PAGE G2-152	RENEWAL PARTS PAGE G2-166



TORQUE-ARM Shaft Mount Speed Reducers

Easy Selection Method (For Hydraulic Motors)

When to Use Easy Selection

The Easy Selection tables for HXT Shaft Mount reducers are for hydraulic motor selections up to approximately horsepower with output speeds up to 400 RPM, using AGMA recommended application class numbers. For extreme repetitive shock loads, consult DODGE Application Engineering, (864) 284-5700

How to Select

Step 1: Determine Class of Service-See Table 1, G2-15 to determine Load Classification for applications under normal conditions. Find the type application and duty cycle that most closely matches your specific application.

Class I Steady load not exceeding Motor HP rating and light shock loads during 10 hours a day. Moderate shock loads are allowable if operation is intermittent.

For Class I applications, the maximum value of starting and momentary peak loads should not exceed 2 x Motor HP rating. If it exceeds this amount it should be divided by 2 and the result used in the selection table instead of the Motor HP rating.

Class II Steady load not exceeding Motor HP rating for over 10 hours a day. Moderate shock loads are allowable during 10 hours a day.

For Class II applications, the maximum value of starting and momentary peak loads should not exceed 2.8 x Motor HP rating. If it exceeds this amount it should be divided by 2.8 and the result used in the selection table instead of the Motor HP rating.

Class III Moderate shock loads for over 10 hours a day. Heavy shock loads are allowable during 10 hours a day.

For Class III applications, the maximum value of starting and momentary peak loads should not exceed 4 x Motor HP rating. If it exceeds this amount it should be divided by 4 and the result used in the selection table instead of the Motor HP rating.

Step 2: Determine Reducer Size-See the Easy Selection Tables, pages G2-130 thru G2-144. From Selection Table I, II or III read the reducer size for the application horsepower and output speed. Also compare the reducer/ motor running and starting torque, running pressure and flow rate with that required for the application. See Table 18, page G2-145 for maximum hydraulic motor starting pressure for HYDROIL Vane Motors.

Step 3: Compare Hollow Shaft Bore with the size of the driven shaft. All DODGE TORQUE-ARM Taper Bushed reducers require bushings. Refer to TXT reducer pages for available bushings. If the driven shaft is larger than the bore of the selected reducer, the shaft must be machined to the proper size, or select a larger reducer. Check driven shaft and key for strength.

Step 4: Check Dimensions-See Selection/Dimensions sections, pages G2-146 thru G2-149 for reducer dimensions, weights and part numbers. See Engineering/ Technical section, pages G2-173 and G2-176 for reducer and torque-arm rod mounting positions.

Step 5: Select a Hydroil Vane Motor-See Selection/ Dimensions pages for listing of HYDROIl Vane Motors required to drive each size and ratio of HXT reducer. See page G2-153 for dimensions and part numbers. **Note: 100 RPM is minimum speed for Hydroil Vane Motors.**

EXAMPLE: Easy Selecton Method - HXT TORQUE-ARM Reducer

A 3HP motor is used to drive the head shaft on a heavily loaded bucket elevator at 30 RPM, 16 hours per day. Head shaft diameter is 2-3/16". User wants to use a hydraulic motor as prime mover since drive is not in an easily accessible location.

Step 1: Determine Class of Service-From Table 1, page G2-15 locate "bucket elevators, heavily loaded" for over 10 hours per day. This load will be classified as a Class II application.

Step 2: Determine Reducer Size-From Table 13 -Class II Application, page G2-134, find the 30 RPM output column at the top of the table. Read down to the HP rating of 3HP or greater. At 3.6HP, trace to the far left column to find that the basic reducer size for the application is an HXT3. Either an HXT315 or an HXT325 may be used, depending on the starting torque requirements.

Step 3: Compare Hollow Shaft Bore of an HXT315/325 with the application driven shaft diameter. Per page G2-146, 2-3/16" is the maximum bore available for this size reducer, so it will work in this application. Select reducer bushing from part numbers listed with TXT reducers on page G2-39. Be sure to check driven shaft and key for strength.

Step 4: Check Dimensions and Weights-See Selection/ Dimensions section, page G2-146, for reducer dimensions, weights, part numbers and other pertinent drive dimensions. See Engineering/Technical section, pages G2-173 and G2-176 for information on reducer and torque-arm rod mounting positions.

Step 5: Select a Hydroil Vane Motor-See Selection/ Dimension page G2-146. Trace from Reducer size HXT315 right to column labeled Hydroil Motor. It must be driven by a size B30 Hyroil Vane Motor. Likewise a reducer size HXT325 is designed to be driven by an A20 Hydroil Vane Motor. See page G2-153 for the motor part numbers and dimensions.

EASY SELECTION

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 12 - Class I Selection Table HXT Reducers - Double Reduction
HXT-115A - HXT425B

Reducer Size	Requirements ★	Output Speed										
		10	15	20	25	30	35	40	45	50	55	60
HXT-115A	OUTPUT HP (RUN)	0.6	0.9	1.2	1.4	1.7	1.9	2.2	2.4	2.7	2.9	3.1
	Running Torque (lb.-in.)	4025	3776	3651	3577	3527	3491	3465	3396	3342	3298	3260
	Starting Torque (lb.-in.)	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025
	Running Pressure (psi)	1685	1581	1529	1498	1477	1462	1451	1422	1399	1381	1365
	Flow Rate (gpm)	2.0	2.3	2.7	3.0	3.4	3.8	4.1	4.5	4.9	5.2	5.6
HXT-125A	OUTPUT HP (RUN)	0.5	0.8	1.1	1.3	1.6	1.9	2.2	2.4	2.7	2.9	3.1
	Running Torque (lb.-in.)	3403	3403	3403	3403	3403	3403	3403	3396	3342	3298	3260
	Starting Torque (lb.-in.)	2868	2868	2868	2868	2868	2868	2868	2868	2868	2868	2868
	Running Pressure (psi)	2000	2000	2000	2000	2000	2000	2000	1996	1964	1938	1916
	Flow Rate (gpm)	1.5	1.8	2.1	2.3	2.6	2.9	3.2	3.4	3.7	3.9	4.2
HXT-215A	OUTPUT HP (RUN)	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	3.5	3.8	4.2
	Running Torque (lb.-in.)	4387	4387	4387	4387	4387	4387	4387	4387	4387	4387	4387
	Starting Torque (lb.-in.)	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697
	Running Pressure (psi)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
	Flow Rate (gpm)	2.2	2.6	2.9	3.3	3.6	4.0	4.3	4.7	5.0	5.4	5.7
HXT-225A	OUTPUT HP (RUN)	1.1	1.6	2.1	2.6	3.0	3.5	4.0	4.4	4.8	5.2	5.6
	Running Torque (lb.-in.)	7245	6824	6613	6486	6402	6342	6297	6171	6070	5988	5919
	Starting Torque (lb.-in.)	6152	6152	6152	6152	6152	6152	6152	6152	6152	6152	6152
	Running Pressure (psi)	1985	1870	1812	1777	1754	1737	1725	1691	1663	1640	1622
	Flow Rate (gpm)	2.7	3.2	3.7	4.3	4.8	5.4	6.0	6.5	7.1	7.6	8.2
HXT-315B	OUTPUT HP (RUN)	1.8	2.6	3.4	4.3	5.1	5.9	6.8	7.4	8.1	8.7	9.4
	Running Torque (lb.-in.)	11098	10894	10791	10730	10689	10660	10638	10379	10171	10001	9860
	Starting Torque (lb.-in.)	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190
	Running Pressure (psi)	1523	1495	1481	1473	1467	1463	1460	1425	1396	1373	1353
	Flow Rate (gpm)	4.6	5.7	6.9	8.0	9.2	10.3	11.5	12.6	13.7	14.8	15.9
HXT-325B	OUTPUT HP (RUN)	1.2	1.8	2.4	3.0	3.7	4.3	4.9	5.5	6.1	6.7	7.3
	Running Torque (lb.-in.)	7689	7689	7689	7689	7689	7689	7689	7689	7689	7689	7689
	Starting Torque (lb.-in.)	6479	6479	6479	6479	6479	6479	6479	6479	6479	6479	6479
	Running Pressure (psi)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
	Flow Rate (gpm)	2.7	3.4	4.0	4.6	5.2	5.8	6.4	7.0	7.6	8.3	8.9
HXT-415B	OUTPUT HP (RUN)	2.6	3.9	5.1	6.3	7.5	8.7	9.9	11.0	12.1	13.1	14.2
	Running Torque (lb.-in.)	16676	16229	16005	15871	15781	15717	15669	15424	15227	15066	14932
	Starting Torque (lb.-in.)	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479
	Running Pressure (psi)	2251	2191	2161	2142	2130	2122	2115	2082	2056	2034	2016
	Flow Rate (gpm)	5.7	6.8	8.0	9.1	10.3	11.4	12.6	13.7	14.9	16.0	17.2
HXT-425B	OUTPUT HP (RUN)	2.6	3.9	5.1	6.3	7.5	8.7	9.9	11.0	12.1	13.1	14.2
	Running Torque (lb.-in.)	16676	16229	16005	15871	15781	15717	15669	15424	15227	15066	14932
	Starting Torque (lb.-in.)	28164	28164	28164	28164	28164	28164	28164	28164	28164	28164	28164
	Running Pressure (psi)	1397	1360	1341	1330	1322	1317	1313	1292	1276	1262	1251
	Flow Rate (gpm)	5.9	7.7	9.6	11.5	13.4	15.3	17.2	19.0	20.9	22.8	24.7

★ See pages G2-145 for definition of requirements.



HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 12 - Class I Selection Table HXT Reducers - Double Reduction
HXT-115A - HXT425B

Reducer Size	Output Speed															
	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
	3.3	3.6	3.8	4.0	4.2	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.50
	3229	3202	3179	3158	3140	3124	3099	3076	3056	3037	3020	3005	2983	2964	2945	2929
HXT-115A	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025
	1352	1341	1331	1322	1315	1308	1298	1288	1280	1272	1265	1258	1249	1241	1233	1226
	6.0	6.3	6.7	7.1	7.5	7.8	8.2	8.6	9.0	9.3	9.7	10.1	10.5	10.8	11.2	11.6
	3.3	3.6	3.8	4.0	4.2											
	3229	3202	3179	3158	3140											
HXT-125A	2868	2868	2868	2868	2868											
	1898	1882	1868	1856	1845											
	4.5	4.7	5.0	5.2	5.5											
	4.5	4.9	5.2	5.6	5.9	6.3	6.6	7.0	7.3	7.7	8.0	8.4	8.7	9.0	9.4	9.7
	4387	4387	4387	4387	4387	4387	4387	4387	4387	4387	4387	4387	4387	4387	4387	4387
HXT-215A	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697
	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
	6.1	6.4	6.8	7.1	7.5	7.8	8.2	8.5	8.9	9.2	9.6	9.9	10.3	10.6	11.0	11.3
	6.0	6.5	6.9	7.3	7.7											
	5861	5811	5768	5730	5697											
HXT-225A	6152	6152	6152	6152	6152											
	1606	1592	1580	1570	1561											
	8.8	9.3	9.9	10.5	11.1											
	10.0	10.7	11.4	12.0	12.7	13.3	13.8	14.3	14.8	15.3	15.8	15.9	15.7	15.5	15.2	15.0
	9740	9637	9549	9471	9402	9341	9172	9020	8883	8758	8644	8351	7916	7515	7096	6753
HXT-315B	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190	17078	16862	16663	16478	16306
	1337	1323	1311	1300	1291	1282	1259	1238	1219	1202	1186	1146	1087	1031	974	927
	17.1	18.2	19.4	20.5	21.7	22.8	23.9	25.1	26.2	27.3	28.5	29.6	30.6	31.7	32.8	33.9
	7.9	8.5	9.1	9.8	10.4											
	7689	7689	7689	7689	7689											
HXT-325B	6479	6479	6479	6479	6479											
	2000	2000	2000	2000	2000											
	9.5	10.1	10.7	11.3	11.9											
	15.3	16.3	17.4	18.5	19.6	20.6	21.5	22.0	21.5	21.0	20.5	20.0	19.5	19.0	18.5	18.0
	14818	14721	14636	14563	14497	14440	14295	13866	12905	12032	11235	10504	9832	9211	8637	8103
HXT-415B	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479
	2000	1987	1976	1966	1957	1949	1930	1872	1742	1624	1517	1418	1327	1244	1166	1094
	18.30	19.5	20.7	21.8	23.0	24.1	25.3	26.4	27.4	28.4	29.4	30.4	31.5	32.5	33.6	34.7
	15.30	16.3	17.4	18.5	19.6											
	14818	14721	14636	14563	14497											
HXT-425B	28164	28164	28164	28164	28164											
	1241	1233	1226	1220	1215											
	26.6	28.5	30.3	32.2	34.1											

EASY SELECTION

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 12 - Class I Selection Table HXT Reducers - Double Reduction
HXT-515C - HXT725A

Reducer Size	Requirements ★	Output Speed										
		10	15	20	25	30	35	40	45	50	55	60
HXT-515C	OUTPUT HP (RUN)	4.6	6.5	8.5	10.5	12.5	14.4	16.4	17.9	19.3	20.8	22.3
	Running Torque (lb.-in.)	28751	27474	26835	26451	26196	26013	25876	25046	24381	23838	23384
	Starting Torque (lb.-in.)	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924
	Running Pressure (psi)	2125	2031	1983	1955	1936	1923	1913	1851	1802	1762	1728
	Flow Rate (gpm)	10.0	11.9	13.9	16.0	18.1	20.2	22.3	24.3	26.3	28.4	30.5
HXT-525C	OUTPUT HP (RUN)	4.6	6.5	8.5	10.5	12.5	14.4	16.4	17.9	19.3	20.8	22.3
	Running Torque (lb.-in.)	28751	27474	26835	26451	26196	26013	25876	25046	24381	23838	23384
	Starting Torque (lb.-in.)	29528	29528	29528	29528	29528	29528	29528	29528	29528	29528	29528
	Running Pressure (psi)	2298	2195	2144	2114	2093	2079	2068	2001	1948	1905	1869
	Flow Rate (gpm)	7.4	9.3	11.2	13.1	15.1	17.1	19.0	20.9	22.8	24.8	26.7
HXT-615A	OUTPUT HP (RUN)	5.3	8.0	10.7	13.4	16.0	18.7	21.4	24.0	26.7	29.4	32.1
	Running Torque (lb.-in.)	33671	33671	33671	33671	33671	33671	33671	33671	33671	33671	33671
	Starting Torque (lb.-in.)	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779
	Running Pressure (psi)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Flow Rate (gpm)	11.0	13.1	15.3	17.4	19.5	21.7	23.8	26.0	28.1	30.3	32.4
HXT-625A	OUTPUT HP (RUN)	7.2	10.4	13.7	16.9	20.1	23.3	26.6	29.1	31.6	34.1	36.6
	Running Torque (lb.-in.)	45427	43830	43031	42552	42233	42004	41833	40699	39792	39050	38431
	Starting Torque (lb.-in.)	52094	52094	52094	52094	52094	52094	52094	52094	52094	52094	52094
	Running Pressure (psi)	2058	1985	1949	1927	1913	1903	1895	1843	1802	1769	1741
	Flow Rate (gpm)	12.5	15.8	19.3	22.7	26.2	29.7	33.2	36.6	40.0	43.4	46.8
HXT-715A	OUTPUT HP (RUN)	9.6	14.4	19.2	23.8	28.3	32.9	37.4	41.4	45.3	49.3	53.2
	Running Torque (lb.-in.)	60533	60533	60533	59918	59483	59173	58940	57937	57135	56478	55931
	Starting Torque (lb.-in.)	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132
	Running Pressure (psi)	2500	2500	2500	2475	2457	2444	2434	2393	2360	2333	2310
	Flow Rate (gpm)	12.7	16.6	20.4	24.2	28.0	31.9	35.7	39.5	43.3	47.1	50.9
HXT-725A	OUTPUT HP (RUN)	8.6	12.9	17.1	21.4	25.7	30.0	34.3	38.6	42.8	47.1	51.4
	Running Torque (lb.-in.)	54009	54009	54009	54009	54009	54009	54009	54009	54009	54009	54009
	Starting Torque (lb.-in.)	50975	50975	50975	50975	50975	50975	50975	50975	50975	50975	50975
	Running Pressure (psi)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Flow Rate (gpm)	13.6	17.0	20.4	23.9	27.3	30.7	34.2	37.6	41.1	44.5	47.9

★ See pages G2-145 for definition of requirements.



HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 12 - Class I Selection Table HXT Reducers - Double Reduction
HXT-515C - HXT725A

Reducer Size	Output Speed															
	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
	23.7	24.8	24.2	23.5	22.9	22.3	21.7	21.1	20.5	19.8	19.2	18.6	18.0			
	23001	22329	20336	18514	16980	15616	14396	13298	12305	11345	10522	9769	9076			
HXT-515C	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924			
	1700	1650	1503	1368	1255	1154	1064	983	909	838	778	722	671			
	32.5	34.6	36.3	38.1	40.0	41.8	43.8	45.7	47.7	49.6	51.6	53.6	55.6			
	23.7	24.8	24.2	23.5												
	23001	22329	20336	18514												
HXT-525C	29528	29528	29528	29528												
	1838	1784	1625	1479												
	28.7	30.6	32.3	34.1												
	34.7	37.4	39.6	37.6	35.7	33.7	31.8	29.8	27.8	25.9	23.9	22.0	20.0			
	33671	33671	33277	29622	26471	23599	21097	18781	16687	14840	13098	11555	10084			
HXT-615A	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779			
	2500	2500	2471	2199	1965	1752	1566	1395	1239	1102	973	858	749			
	34.5	36.7	38.8	40.2	41.7	43.3	44.9	46.6	48.3	50.1	51.9	53.7	55.6			
	39.1	41.5	39.6	37.6												
	37908	37365	33277	29622												
HXT-625A	52094	52094	52094	52094												
	1717	1692	1507	1342												
	50.3	53.7	56.7	59.8												
	57.2	55.6	53.5	51.4	49.3	47.2	45.0	43.0	41.0	39.0	37.0	35.0				
	55468	50060	44958	40494	36555	33053	29854	27101	24610	22345	20278	18382				
HXT-715A	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132				
	2291	2067	1857	1672	1510	1365	1233	1119	1016	923	837	759				
	54.7	58.1	61.5	65.0	68.5	72.1	75.7	79.3	83.0	86.6	90.3	94.0				
	55.7	55.6	53.5													
	54009	50060	44958													
HXT-725A	50975	50975	50975													
	2500	2317	2081													
	51.4	54.3	57.1													

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EASY SELECTION

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 13 - Class II Selection Table HXT Reducers - Double Reduction
HXT-115A - HXT425B

Reducer Size	Requirements ★	Output Speed										
		10	15	20	25	30	35	40	45	50	55	60
HXT-115A	OUTPUT HP (RUN)	0.5	0.6	0.8	1.0	1.2	1.4	1.6	1.7	1.9	2.1	2.2
	Running Torque (lb.-in.)	2875	2697	2608	2555	2519	2494	2475	2426	2387	2355	2329
	Starting Torque (lb.-in.)	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025
	Running Pressure (psi)	1204	1129	1092	1070	1055	1044	1036	1016	1000	986	975
	Flow Rate (gpm)	1.7	2.0	2.4	2.7	3.1	3.5	3.8	4.2	4.6	4.9	5.3
HXT-125A	OUTPUT HP (RUN)	0.5	0.6	0.8	1.0	1.2	1.4	1.6	1.7	1.9	2.1	2.2
	Running Torque (lb.-in.)	2875	2697	2608	2555	2519	2494	2475	2426	2387	2355	2329
	Starting Torque (lb.-in.)	2868	2868	2868	2868	2868	2868	2868	2868	2868	2868	2868
	Running Pressure (psi)	1690	1585	1533	1501	1480	1465	1454	1426	1403	1384	1369
	Flow Rate (gpm)	1.4	1.6	1.8	2.1	2.4	2.6	2.9	3.1	3.4	3.7	3.9
HXT-215A	OUTPUT HP (RUN)	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	3.4	3.7	4.0
	Running Torque (lb.-in.)	4387	4387	4387	4387	4387	4387	4387	4387	4336	4277	4228
	Starting Torque (lb.-in.)	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697
	Running Pressure (psi)	2000	2000	2000	2000	2000	2000	2000	2000	1976	1950	1927
	Flow Rate (gpm)	2.2	2.6	2.9	3.3	3.6	4.0	4.3	4.7	5	5.3	5.7
HXT-225A	OUTPUT HP (RUN)	0.8	1.2	1.5	1.8	2.2	2.5	2.9	3.1	3.4	3.7	4.0
	Running Torque (lb.-in.)	5175	4874	4723	4633	4573	4530	4498	4408	4336	4277	4228
	Starting Torque (lb.-in.)	6152	6152	6152	6152	6152	6152	6152	6152	6152	6152	6152
	Running Pressure (psi)	1418	1335	1294	1269	1253	1241	1232	1208	1188	1172	1158
	Flow Rate (gpm)	2.2	2.8	3.3	3.9	4.4	5.0	5.6	6.2	6.7	7.3	7.9
HXT-315B	OUTPUT HP (RUN)	1.3	1.9	2.4	3.0	3.6	4.2	4.8	5.3	5.8	6.2	6.7
	Running Torque (lb.-in.)	7927	7781	7708	7664	7635	7614	7599	7413	7265	7144	7043
	Starting Torque (lb.-in.)	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190
	Running Pressure (psi)	1088	1068	1058	1052	1048	1045	1043	1018	997	981	967
	Flow Rate (gpm)	4.0	5.1	6.2	7.4	8.5	9.7	10.8	12.0	13.1	14.2	15.4
HXT-325B	OUTPUT HP (RUN)	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.3	5.8	6.2	6.7
	Running Torque (lb.-in.)	7689	7689	7689	7664	7635	7614	7599	7413	7265	7144	7043
	Starting Torque (lb.-in.)	6479	6479	6479	6479	6479	6479	6479	6479	6479	6479	6479
	Running Pressure (psi)	2000	2000	2000	1994	1986	1981	1977	1928	1890	1858	1832
	Flow Rate (gpm)	2.7	3.4	4.0	4.6	5.2	5.8	6.4	7.0	7.6	8.1	8.7
HXT-415B	OUTPUT HP (RUN)	1.9	2.8	3.6	4.5	5.4	6.2	7.1	7.9	8.6	9.4	10.2
	Running Torque (lb.-in.)	11911	11592	11432	11336	11272	11227	11192	11017	10876	10761	10665
	Starting Torque (lb.-in.)	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479
	Running Pressure (psi)	1608	1565	1543	1530	1522	1516	1511	1487	1468	1453	1440
	Flow Rate (gpm)	4.8	5.9	7.0	8.2	9.4	10.5	11.7	12.8	14	15.2	16.3
HXT-425B	OUTPUT HP (RUN)	1.9	2.8	3.6	4.5	5.4	6.2	7.1	7.9	8.6	9.4	10.2
	Running Torque (lb.-in.)	11911	11592	11432	11336	11272	11227	11192	11017	10876	10761	10665
	Starting Torque (lb.-in.)	28164	28164	28164	28164	28164	28164	28164	28164	28164	28164	28164
	Running Pressure (psi)	998	971	958	950	944	941	938	923	911	902	894
	Flow Rate (gpm)	5.3	7.2	9.0	10.9	12.8	14.7	16.6	18.5	20.4	22.3	24.1

★ See pages G2-145 for definition of requirements.



HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 13 - Class II Selection Table HXT Reducers - Double Reduction
HXT-115A - HXT425B

Reducer Size	Output Speed															
	65	**70**	**75**	**80**	**85**	**90**	**95**	**100**	**105**	**110**	**115**	**120**	**125**	**130**	**135**	**140**
	2.40	2.50	2.70	2.90	3.00	3.20	3.30	3.50	3.60	3.80	3.90	4.10	4.20	4.40	4.50	4.60
	2306	2287	2271	2256	2243	2232	2214	2197	2183	2169	2157	2146	2131	2117	2104	2092
HXT-115A	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025
	966	958	951	945	939	934	927	920	914	908	903	899	892	886	881	876
	5.7	6.1	6.4	6.8	7.2	7.6	7.9	8.3	8.7	9.1	9.4	9.8	10.2	10.6	10.9	11.3
	2.4	2.5	2.7	2.9	3.0											
	2306	2287	2271	2256	2243											
HXT-125A	2868	2868	2868	2868	2868											
	1355	1344	1334	1326	1318											
	4.2	4.5	4.7	5.0	5.3											
	4.3	4.6	4.9	5.2	5.5	5.8	6.0	6.3	6.6	6.8	7.1	7.4	7.6	7.9	8.2	8.4
	4186	4151	4120	4093	4069	4048	4010	3976	3945	3917	3891	3868	3847	3828	3810	3793
HXT-215A	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697
	1908	1892	1878	1866	1855	1845	1828	1812	1798	1786	1774	1763	1754	1745	1737	1729
	6.0	6.3	6.7	7.0	7.4	7.7	8.0	8.4	8.7	9.0	9.4	9.7	10.1	10.4	10.8	11.1
	4.3	4.6	4.9	5.2	5.5											
	4186	4151	4120	4093	4069											
HXT-225A	6152	6152	6152	6152	6152											
	1147	1137	1129	1121	1115											
	8.4	9.0	9.6	10.2	10.7											
	7.2	7.6	8.1	8.6	9.1	9.5	9.9	10.2	10.6	10.9	11.3	11.6	11.9	12.3	12.6	12.9
	6957	6884	6820	6765	6716	6672	6552	6443	6345	6256	6174	6099	6022	5951	5885	5824
HXT-315B	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190	17078	16862	16663	16478	16306
	955	945	936	929	922	916	899	884	871	859	847	837	827	817	808	799
	16.5	17.7	18.8	20	21.1	22.2	23.4	24.5	25.7	26.8	27.9	29.1	30.2	31.4	32.5	33.7
	7.2	7.6	8.1	8.6	9.1											
	6957	6884	6820	6765	6716											
HXT-325B	6479	6479	6479	6479	6479											
	1810	1791	1774	1760	1747											
	9.3	9.9	10.5	11.1	11.7											
	10.9	11.7	12.4	13.2	14.0	14.7	15.4	16.1	16.7	17.4	18.0	18.7	19.2	19.0	18.5	18.0
	10584	10515	10455	10402	10355	10314	10211	10118	10034	9957	9887	9823	9693	9211	8637	8103
HXT-415B	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479
	1429	1419	1411	1404	1398	1392	1378	1366	1355	1344	1335	1326	1309	1244	1166	1094
	17.5	18.6	19.8	21.0	22.1	23.3	24.5	25.6	26.8	28.0	29.1	30.3	31.4	32.5	33.6	34.7
	10.9	11.7	12.4	13.2	14.0											
	10584	10515	10455	10402	10355											
HXT-425B	28164	28164	28164	28164	28164											
	887	881	876	871	868											
	26	27.9	29.8	31.7	33.6											

EASY SELECTION

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 13 - Class II Selection Table HXT Reducers - Double Reduction
HXT-515C - HXT725A

Reducer Size	Requirements ★	Output Speed										
		10	15	20	25	30	35	40	45	50	55	60
HXT-515C	OUTPUT HP (RUN)	3.3	4.7	6.1	7.5	8.9	10.3	11.7	12.8	13.8	14.9	15.9
	Running Torque (lb.-in.)	20537	19624	19168	18894	18711	18581	18483	17890	17415	17027	16703
	Starting Torque (lb.-in.)	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924
	Running Pressure (psi)	1518	1450	1417	1396	1383	1373	1366	1322	1287	1258	1235
	Flow Rate (gpm)	8.4	10.3	12.4	14.5	16.6	18.7	20.9	22.9	25.0	27.1	29.1
HXT-525C	OUTPUT HP (RUN)	3.3	4.7	6.1	7.5	8.9	10.3	11.7	12.8	13.8	14.9	15.9
	Running Torque (lb.-in.)	20537	19624	19168	18894	18711	18581	18483	17890	17415	17027	16703
	Starting Torque (lb.-in.)	29528	29528	29528	29528	29528	29528	29528	29528	29528	29528	29528
	Running Pressure (psi)	1641	1568	1532	1510	1495	1485	1477	1430	1392	1361	1335
	Flow Rate (gpm)	6.4	8.3	10.3	12.2	14.2	16.2	18.2	20.1	22.0	24.0	25.9
HXT-615A	OUTPUT HP (RUN)	5.1	7.5	9.8	12.1	14.4	16.7	19.0	20.8	22.5	24.3	26.1
	Running Torque (lb.-in.)	32448	31307	30737	30394	30166	30003	29881	29071	28423	27893	27451
	Starting Torque (lb.-in.)	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779
	Running Pressure (psi)	2409	2325	2282	2257	2240	2228	2219	2158	2110	2071	2038
	Flow Rate (gpm)	10.7	12.6	14.7	16.7	18.8	21.0	23.1	25.1	27.1	29.1	31.2
HXT-625A	OUTPUT HP (RUN)	5.1	7.5	9.8	12.1	14.4	16.7	19.0	20.8	22.5	24.3	26.1
	Running Torque (lb.-in.)	32448	31307	30737	30394	30166	30003	29881	29071	28423	27893	27451
	Starting Torque (lb.-in.)	52094	52094	52094	52094	52094	52094	52094	52094	52094	52094	52094
	Running Pressure (psi)	1470	1418	1392	1377	1366	1359	1353	1317	1287	1263	1243
	Flow Rate (gpm)	11.0	14.3	17.8	21.3	24.7	28.2	31.7	35.1	38.6	42.0	45.5
HXT-715A	OUTPUT HP (RUN)	7.2	10.5	13.7	17.0	20.2	23.5	26.7	29.5	32.4	35.2	38.0
	Running Torque (lb.-in.)	45591	44040	43264	42798	42488	42266	42100	41384	40811	40342	39951
	Starting Torque (lb.-in.)	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132
	Running Pressure (psi)	1883	1819	1787	1768	1755	1746	1739	1709	1685	1666	1650
	Flow Rate (gpm)	11.5	15.2	19.0	22.8	26.6	30.5	34.3	38.1	41.9	45.7	49.5
HXT-725A	OUTPUT HP (RUN)	7.2	10.5	13.7	17.0	20.2	23.5	26.7	29.5	32.4	35.2	38.0
	Running Torque (lb.-in.)	45591	44040	43264	42798	42488	42266	42100	41384	40811	40342	39951
	Starting Torque (lb.-in.)	50975	50975	50975	50975	50975	50975	50975	50975	50975	50975	50975
	Running Pressure (psi)	2110	2039	2003	1981	1967	1956	1949	1916	1889	1867	1849
	Flow Rate (gpm)	12.5	15.8	19.1	22.5	25.9	29.3	32.7	36.1	39.4	42.8	46.2

★ See pages G2-145 for definition of requirements.



HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 13 - Class II Selection Table HXT Reducers - Double Reduction
HXT-515C - HXT725A

Reducer Size	Output Speed															
	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
	16.9	18.0	19.0	20.1	21.1	22.2	21.7	21.1	20.5	19.8	19.2	18.6	18.0			
	16429	16195	15991	15813	15656	15517	14396	13298	12305	11344	10522	9769	9076			
HXT-515C	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924			
	1214	1197	1182	1169	1157	1147	1064	983	909	838	778	722	671			
	31.2	33.3	35.5	37.6	39.7	41.8	43.8	45.7	47.7	49.6	51.6	53.6	55.6			
	16.9	18.0	19.0	20.1												
	16429	16195	15991	15813												
HXT-525C	29528	29528	29528	29528												
	1313	1294	1278	1264												
	27.9	29.8	31.8	33.8												
	27.9	29.7	31.5	33.3	35.1	33.7	31.8	29.8	27.8	25.9	23.9	22.0	20.0			
	27077	26756	26479	26236	26021	23599	21097	18781	16687	14840	13098	11555	10084			
HXT-615A	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779			
	2010	1987	1966	1948	1932	1752	1566	1395	1239	1102	973	858	749			
	33.2	35.3	37.4	39.5	41.6	43.3	44.9	46.6	48.3	50.1	51.9	53.7	55.6			
	27.9	29.7	31.5	33.3												
	27077	26756	26479	26236												
HXT-625A	52094	52094	52094	52094												
	1226	1212	1199	1188												
	49.0	52.4	55.9	59.4												
	40.9	43.7	46.5	49.3	49.3	47.2	45.0	43.0	41.0	39.0	37.0	35.0				
	39620	39337	39091	38876	36555	33053	29854	27101	24610	22345	20278	18382				
HXT-715A	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132				
	1636	1625	1614	1606	1510	1365	1233	1119	1016	923	837	759				
	53.4	57.2	61.0	64.9	68.5	72.1	75.7	79.3	83.0	86.6	90.3	94.0				
	40.9	43.7	46.5													
	39620	39337	39091													
HXT-725A	50975	50975	50975													
	1834	1821	1809													
	49.6	53.0	56.4													

EASY SELECTION

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 14 - Class III Selection Table HXT Reducers - Double Reduction
HXT-115A - HXT1425B

Reducer Size	Requirements ★	Output Speed										
		10	15	20	25	30	35	40	45	50	55	60
HXT-115A	OUTPUT HP (RUN)	0.3	0.4	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.4	1.6
	Running Torque (lb.-in.)	2013	1888	1826	1788	1763	1746	1732	1698	1671	1649	1630
	Starting Torque (lb.-in.)	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025
	Running Pressure (psi)	843	791	764	749	738	731	725	711	700	690	683
	Flow Rate (gpm)	1.4	1.7	2.1	2.5	2.8	3.2	3.6	4.0	4.3	4.7	5.1
HXT-125A	OUTPUT HP (RUN)	0.3	0.4	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.4	1.6
	Running Torque (lb.-in.)	2013	1888	1826	1788	1763	1746	1732	1698	1671	1649	1630
	Starting Torque (lb.-in.)	2868	2868	2868	2868	2868	2868	2868	2868	2868	2868	2868
	Running Pressure (psi)	1183	1110	1073	1051	1036	1026	1018	998	982	969	958
	Flow Rate (gpm)	1.1	1.4	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7
HXT-215A	OUTPUT HP (RUN)	0.6	0.8	1.0	1.3	1.5	1.8	2.0	2.2	2.4	2.6	2.8
	Running Torque (lb.-in.)	3623	3412	3306	3243	3201	3171	3148	3085	3035	2994	2959
	Starting Torque (lb.-in.)	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697
	Running Pressure (psi)	1651	1555	1507	1478	1459	1445	1435	1406	1383	1365	1349
	Flow Rate (gpm)	2.0	2.2	2.5	2.9	3.2	3.5	3.9	4.2	4.5	4.9	5.2
HXT-225A	OUTPUT HP (RUN)	0.6	0.8	1.0	1.3	1.5	1.8	2.0	2.2	2.4	2.6	2.8
	Running Torque (lb.-in.)	3623	3412	3306	3243	3201	3171	3148	3085	3035	2994	2959
	Starting Torque (lb.-in.)	6152	6152	6152	6152	6152	6152	6152	6152	6152	6152	6152
	Running Pressure (psi)	993	935	906	889	877	869	863	845	832	820	811
	Flow Rate (gpm)	1.9	2.5	3.0	3.6	4.2	4.7	5.3	5.9	6.4	7.0	7.6
HXT-315B	OUTPUT HP (RUN)	0.9	1.3	1.7	2.1	2.5	3.0	3.4	3.7	4.0	4.4	4.7
	Running Torque (lb.-in.)	5549	5447	5396	5365	5345	5330	5319	5189	5086	5001	4930
	Starting Torque (lb.-in.)	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190
	Running Pressure (psi)	762	748	741	736	734	732	730	712	698	686	677
	Flow Rate (gpm)	3.5	4.6	5.8	6.9	8.1	9.2	10.4	11.5	12.6	13.8	14.9
HXT-325B	OUTPUT HP (RUN)	0.9	1.3	1.7	2.1	2.5	3.0	3.4	3.7	4.0	4.4	4.7
	Running Torque (lb.-in.)	5549	5447	5396	5365	5345	5330	5319	5189	5086	5001	4930
	Starting Torque (lb.-in.)	6479	6479	6479	6479	6479	6479	6479	6479	6479	6479	6479
	Running Pressure (psi)	1443	1417	1403	1396	1390	1386	1384	1350	1323	1301	1282
	Flow Rate (gpm)	2.3	2.9	3.5	4.1	4.7	5.3	6.0	6.5	7.1	7.7	8.3
HXT-415B	OUTPUT HP (RUN)	1.3	1.9	2.5	3.1	3.8	4.4	5.0	5.5	6.0	6.6	7.1
	Running Torque (lb.-in.)	8338	8114	8002	7935	7891	7859	7835	7712	7613	7533	7466
	Starting Torque (lb.-in.)	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479
	Running Pressure (psi)	1126	1095	1080	1071	1065	1061	1058	1041	1028	1017	1008
	Flow Rate (gpm)	4.1	5.2	6.3	7.5	8.7	9.8	11.0	12.2	13.3	14.5	15.7
HXT-425B	OUTPUT HP (RUN)	1.3	1.9	2.5	3.1	3.8	4.4	5.0	5.5	6.0	6.6	7.1
	Running Torque (lb.-in.)	8338	8114	8002	7935	7891	7859	7835	7712	7613	7533	7466
	Starting Torque (lb.-in.)	28164	28164	28164	28164	28164	28164	28164	28164	28164	28164	28164
	Running Pressure (psi)	699	680	670	665	661	658	656	646	638	631	625
	Flow Rate (gpm)	4.9	6.7	8.6	10.5	12.4	14.3	16.2	18.1	20.0	21.8	23.7

★ See pages G2-145 for definition of requirements.



HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 14 - Class III Selection Table HXT Reducers - Double Reduction
HXT-115A - HXT1425B

Reducer Size	Output Speed															
	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.7	2.8	2.9	3.0	3.1	3.2	3.3
	1615	1601	1589	1579	1570	1562	1550	1538	1528	1519	1510	1502	1492	1482	1473	1464
HXT-115A	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025	4025
	676	670	666	661	657	654	649	644	640	636	632	629	625	620	617	613
	5.5	5.8	6.2	6.6	7.0	7.3	7.7	8.1	8.5	8.9	9.2	9.6	10.0	10.4	10.7	11.1
	1.7	1.8	1.9	2.0	2.1											
	1615	1601	1589	1579	1570											
HXT-125A	2868	2868	2868	2868	2868											
	949	941	934	928	923											
	4.0	4.3	4.5	4.8	5.1											
	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.3	5.5	5.7	5.9
	2930	2906	2884	2865	2848	2834	2807	2783	2762	2742	2724	2707	2693	2679	2667	2655
HXT-215A	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697	3697
	1336	1324	1315	1306	1298	1292	1280	1269	1259	1250	1242	1234	1228	1221	1216	1210
	5.6	5.9	6.2	6.6	6.9	7.3	7.6	8.0	8.3	8.6	9.0	9.3	9.7	10.0	10.4	10.7
	3.0	3.2	3.4	3.6	3.8											
	2930	2906	2884	2865	2848											
HXT-225A	6152	6152	6152	6152	6152											
	803	796	790	785	780											
	8.2	8.7	9.3	9.9	10.5											
	5.0	5.4	5.7	6.0	6.3	6.7	6.9	7.2	7.4	7.6	7.9	8.1	8.4	8.6	8.8	9.1
	4870	4819	4774	4735	4701	4671	4586	4510	4441	4379	4322	4270	4216	4166	4119	4077
HXT-315B	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190	17190	17078	16862	16663	16478	16306
	668	661	655	650	645	641	630	619	610	601	593	586	579	572	565	560
	16.1	17.2	18.4	19.5	20.7	21.8	23.0	24.1	25.3	26.4	27.6	28.7	29.9	31.0	32.2	33.3
	5.0	5.4	5.7	6.0	6.3											
	4870	4819	4774	4735	4701											
HXT-325B	6479	6479	6479	6479	6479											
	1267	1253	1242	1232	1223											
	8.9	9.5	10.1	10.7	11.3											
	7.6	8.2	8.7	9.2	9.8	10.3	10.8	11.2	11.7	12.2	12.6	13.1	13.5	13.8	14.2	14.6
	7409	7360	7318	7281	7249	7220	7147	7082	7024	6970	6921	6876	6785	6701	6623	6551
HXT-415B	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479	17479
	1000	994	988	983	979	975	965	956	948	941	934	928	916	905	894	884
	16.8	18.0	19.2	20.3	21.5	22.7	23.9	25.0	26.2	27.4	28.5	29.7	30.9	32.0	33.2	34.3
	7.6	8.2	8.7	9.2	9.8											
	7409	7360	7318	7281	7249											
HXT-425B	28164	28164	28164	28164	28164											
	621	617	613	610	607											
	25.6	27.5	29.4	31.3	33.2											

EASY SELECTION

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 14 - Class III Selection Table HXT Reducers - Double Reduction
HXT-515C - HXT725A

Reducer Size	Requirements ★	Output Speed										
		10	15	20	25	30	35	40	45	50	55	60
HXT-515C	OUTPUT HP (RUN)	2.3	3.3	4.3	5.2	6.2	7.2	8.2	8.9	9.7	10.4	11.1
	Running Torque (lb.-in.)	14376	13737	13417	13226	13098	13007	12938	12523	12191	11919	11692
	Starting Torque (lb.-in.)	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924
	Running Pressure (psi)	1063	1015	992	978	968	961	956	926	901	881	864
	Flow Rate (gpm)	7.1	9.2	11.3	13.4	15.5	17.6	19.8	21.9	23.9	26.0	28.2
HXT-525C	OUTPUT HP (RUN)	2.3	3.3	4.3	5.2	6.2	7.2	8.2	8.9	9.7	10.4	11.1
	Running Torque (lb.-in.)	14376	13737	13417	13226	13098	13007	12938	12523	12191	11919	11692
	Starting Torque (lb.-in.)	29528	29528	29528	29528	29528	29528	29528	29528	29528	29528	29528
	Running Pressure (psi)	1149	1098	1072	1057	1047	1039	1034	1001	974	952	934
	Flow Rate (gpm)	5.7	7.6	9.6	11.5	13.5	15.5	17.5	19.4	21.4	23.3	25.3
HXT-615A	OUTPUT HP (RUN)	3.6	5.2	6.8	8.4	10.1	11.7	13.3	14.5	15.8	17	18.3
	Running Torque (lb.-in.)	22714	21915	21516	21276	21116	21002	20917	20350	19896	19525	19216
	Starting Torque (lb.-in.)	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779
	Running Pressure (psi)	1686	1627	1598	1580	1568	1559	1553	1511	1477	1450	1427
	Flow Rate (gpm)	8.8	10.8	12.8	14.9	17.1	19.2	21.3	23.3	25.4	27.5	29.5
HXT-625A	OUTPUT HP (RUN)	3.6	5.2	6.8	8.4	10.1	11.7	13.3	14.5	15.8	17	18.3
	Running Torque (lb.-in.)	22714	21915	21516	21276	21116	21002	20917	20350	19896	19525	19216
	Starting Torque (lb.-in.)	52094	52094	52094	52094	52094	52094	52094	52094	52094	52094	52094
	Running Pressure (psi)	1029	993	975	964	956	951	947	922	901	884	870
	Flow Rate (gpm)	9.8	13.2	16.7	20.1	23.6	27.1	30.6	34.1	37.5	41.0	44.5
HXT-715A	OUTPUT HP (RUN)	5.1	7.3	9.6	11.9	14.2	16.4	18.7	20.7	22.7	24.6	26.6
	Running Torque (lb.-in.)	31914	30828	30285	29959	29742	29587	29470	28969	28567	28239	27966
	Starting Torque (lb.-in.)	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132
	Running Pressure (psi)	1318	1273	1251	1237	1228	1222	1217	1196	1180	1166	1155
	Flow Rate (gpm)	10.3	14.1	17.9	21.7	25.6	29.4	33.3	37.1	40.9	44.7	48.6
HXT-725A	OUTPUT HP (RUN)	5.1	7.3	9.6	11.9	14.2	16.4	18.7	20.7	22.7	24.6	26.6
	Running Torque (lb.-in.)	31914	30828	30285	29959	29742	29587	29470	28969	28567	28239	27966
	Starting Torque (lb.-in.)	50975	50975	50975	50975	50975	50975	50975	50975	50975	50975	50975
	Running Pressure (psi)	1477	1427	1402	1387	1377	1370	1364	1341	1322	1307	1294
	Flow Rate (gpm)	10.8	14.1	17.5	20.9	24.3	27.7	31.2	34.5	37.9	41.3	44.7

★ See pages G2-145 for definition of requirements.



HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 14 - Class III Selection Table HXT Reducers - Double Reduction HXT-515C - HXT725A

Reducer Size	Output Speed															
	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
	11.9	12.6	13.3	14.1	14.8	15.5	16.1	16.6	17.2	17.7	18.2	18.6	18			
	11501	11336	11194	11069	10959	10862	10653	10466	10296	10141	10000	9769	9076			
HXT-515C	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924	31924			
	850	838	827	818	810	803	787	774	761	750	739	722	671			
	30.3	32.4	34.5	36.6	38.8	40.9	43.0	45.1	47.3	49.4	51.5	53.6	55.6			
	11.9	12.6	13.3	14.1												
	11501	11336	11194	11069												
HXT-525C	29528	29528	29528	29528												
	919	906	895	885												
	27.3	29.2	31.2	33.2												
	19.5	20.8	22.1	23.3	24.6	25.8	26.6	27.5	27.8	25.9	23.9	22.0	20.0			
	18954	18729	18535	18365	18215	18081	17680	17318	16687	14840	13098	11555	10084			
HXT-615A	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779	31779			
	1407	1391	1376	1364	1352	1343	1313	1286	1239	1102	973	858	749			
	31.6	33.7	35.8	37.9	40.1	42.2	44.2	46.3	48.3	50.1	51.9	53.7	55.6			
	19.5	20.8	22.1	23.3												
	18954	18729	18535	18365												
HXT-625A	52094	52094	52094	52094												
	858	848	840	832												
	48.0	51.5	55.0	58.4												
	28.6	30.6	32.6	34.5	36.5	38.5	40.2	41.9	41.0	39.0	37.0	35.0				
	27734	27536	27364	27213	27080	26962	26663	26394	24610	22345	20278	18382				
HXT-715A	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132	57132				
	1145	1137	1130	1124	1118	1114	1101	1090	1016	923	837	759				
	52.4	56.2	60.1	63.9	67.8	71.6	75.4	79.3	83	86.6	90.3	94				
	28.6	30.6	32.6													
	27734	27536	27364													
HXT-725A	50975	50975	50975													
	1284	1275	1267													
	48.1	51.5	55.0													

Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

EASY SELECTION

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 15 - Class I Selection Table HXT Reducers - Single Reduction
HXT-105 - HXT-505A

Reducer Size	Requirements ★	Output Speed														
		90	100	110	120	130	140	150	160	180	200	220	250	300	350	400
HXT-105	OUTPUT HP (RUNNING)	3.9	4.2	4.4	4.7	5.0	5.2	5.5	5.7	6.2	6.7	6.9	7.1	7.6	7.9	8.3
	Running Torque (lb.-in.)	2758	2641	2546	2467	2400	2342	2293	2249	2176	2118	1973	1799	1586	1424	1303
	Starting Torque (lb.-in.)	5515	5283	5093	4934	4800	4685	4585	4498	4353	4237	3946	3598	3172	2848	2605
	Running Pressure (psi)	982	940	907	878	854	834	816	801	775	754	702	640	565	507	464
	Flow Rate (gpm)	9.4	10.2	11.0	11.8	12.7	13.5	14.4	15.2	16.9	18.7	20.3	22.9	27.1	31.4	35.7
HXT-205	OUTPUT HP (RUNNING)	6.8	7.1	7.4	7.7	8.0	8.3	8.6	8.9	9.5	10.1	10.5	11.1	12.0	12.9	13.8
	Running Torque (lb.-in.)	4759	4475	4243	4049	3886	3745	3624	3517	3340	3198	3014	2793	2523	2322	2171
	Starting Torque (lb.-in.)	6238	6238	6238	6238	6238	6238	6238	6238	6238	6238	6028	5586	5046	4644	4342
	Running Pressure (psi)	1800	1693	1605	1532	1470	1417	1371	1330	1263	1210	1140	1056	954	878	821
	Flow Rate (gpm)	10.1	10.8	11.5	12.2	12.9	13.7	14.4	15.2	16.7	18.3	19.9	22.2	26.2	30.2	34.2
HXT-305A	OUTPUT HP (RUNNING)	10.1	10.7	11.3	12.0	12.6	13.2	13.8	14.4	15.7	16.9	17.6	17.7	16.8	15.9	15.0
	Running Torque (lb.-in.)	7074	6758	6499	6284	6102	5946	5810	5692	5495	5337	5056	4462	3529	2863	2363
	Starting Torque (lb.-in.)	11851	11851	11851	11851	11851	11851	11621	11384	10989	10673	10112	9438	8614	7705	7024
	Running Pressure (psi)	1408	1346	1294	1251	1215	1184	1157	1133	1094	1063	1007	888	703	570	471
	Flow Rate (gpm)	17.9	19.3	20.7	22.1	23.6	25.1	26.6	28.1	31.1	34.2	37.1	41.5	48.9	56.3	63.9
HXT-405A	OUTPUT HP (RUNNING)	17.7	18.5	19.3	20.1	20.9	21.7	22.5	23.3	24.5	23.8	23.1	22.1	20.4	18.7	17.0
	Running Torque (lb.-in.)	12387	11655	11056	10557	10135	9773	9459	9185	8578	7500	6618	5571	4286	3367	2679
	Starting Torque (lb.-in.)	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956
	Running Pressure (psi)	2445	2300	2182	2083	2000	1929	1867	1813	1693	1480	1306	1099	846	665	529
	Flow Rate (gpm)	20.8	21.9	23.2	24.5	25.9	27.3	28.7	30.1	33.0	35.6	38.3	42.4	49.7	57.1	64.6
HXT-505A	OUTPUT HP (RUNNING)	21.9	23.1	24.3	25.5	26.7	27.9	29.1	30.4	31.3	30.1	28.9	27.1	24.1	21.0	18.0
	Running Torque (lb.-in.)	15321	14552	13923	13398	12954	12574	12244	11955	10959	9485	8279	6832	5063	3782	2836
	Starting Torque (lb.-in.)	21713	21713	21713	21713	21713	21713	21713	21713	21713	21713	21529	20748	19794	18659	17808
	Running Pressure (psi)	1665	1581	1513	1456	1408	1366	1331	1299	1191	1031	900	742	550	411	308
	Flow Rate (gpm)	29.2	31.9	34.6	37.3	40.1	42.9	45.7	48.5	54.0	59.5	64.9	73.2	87.20	101.3	115.4

★ See pages G2-145 for definition of requirements.



HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 16 - Class II Selection Table HXT Reducers - Single Reduction
HXT-105 - HXT-505A

Reducer Size	Requirements ★	Output Speed														
		90	100	110	120	130	140	150	160	180	200	220	250	300	350	400
HXT-105	OUTPUT HP (RUNNING)	2.8	3.0	3.2	3.4	3.5	3.7	3.9	4.1	4.4	4.8	4.9	5.1	5.4	5.6	5.9
	Running Torque	1970	1887	1819	1762	1714	1673	1638	1606	1555	1513	1409	1285	1133	1017	930
	Starting Torque	5515	5283	5093	4934	4800	4685	4585	4498	4353	4237	3946	3598	3172	2848	2605
	Running Pressure	701	672	648	627	610	596	583	572	553	539	502	457	403	362	331
	Flow Rate, GPM	8.9	9.8	10.6	11.5	12.3	13.2	14.0	14.9	16.6	18.3	20.0	22.6	26.9	31.2	35.5
HXT-205	OUTPUT HP (RUNNING)	4.9	5.1	5.3	5.5	5.7	5.9	6.2	6.4	6.8	7.2	7.5	7.9	8.6	9.2	9.8
	Running Torque	3399	3197	3031	2892	2775	2675	2588	2512	2386	2284	2153	1995	1802	1659	1551
	Starting Torque	6238	6238	6238	6238	6238	6238	6238	6238	6238	6238	6028	5586	5046	4644	4342
	Running Pressure	1286	1209	1146	1094	1050	1012	979	950	902	864	814	755	682	627	587
	Flow Rate, GPM	9.4	10.1	10.8	11.5	12.3	13.1	13.8	14.6	16.2	17.8	19.4	21.7	25.8	29.8	33.9
HXT-305A	OUTPUT HP (RUNNING)	7.2	7.7	8.1	8.5	9.0	9.4	9.9	10.3	11.2	12.1	12.6	13.4	14.6	15.3	15.0
	Running Torque	5053	4827	4642	4489	4358	4247	4150	4066	3925	3812	3611	3371	3076	2752	2363
	Starting Torque	11851	11851	11851	11851	11851	11851	11621	11384	10989	10673	10112	9438	8614	7705	7024
	Running Pressure	1006	961	924	894	868	846	826	810	781	759	719	671	613	548	471
	Flow Rate, GPM	16.8	18.2	19.7	21.2	22.7	24.2	25.7	27.2	30.3	33.4	36.4	40.9	48.6	56.3	63.9
HXT-405A	OUTPUT HP (RUNNING)	12.6	13.2	13.8	14.4	14.9	15.5	16.1	16.7	17.8	19.0	20.2	22.0	20.4	18.7	17.0
	Running Torque	8848	8325	7897	7541	7239	6981	6757	6561	6234	5973	5776	5541	4286	3367	2679
	Starting Torque	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956
	Running Pressure	1746	1643	1559	1488	1429	1378	1333	1295	1230	1179	1140	1093	846	665	529
	Flow Rate, GPM	18.9	20.2	21.5	22.9	24.4	25.8	27.3	28.7	31.7	34.8	37.8	42.4	49.7	57.1	64.6
HXT-505A	OUTPUT HP (RUNNING)	15.6	16.5	17.4	18.2	19.1	20.0	20.8	21.7	23.4	25.1	26.8	27.1	24.1	21.0	18.0
	Running Torque	10944	10394	9945	9570	9253	8981	8746	8540	8196	7921	7689	6832	5063	3782	2836
	Starting Torque	21713	21713	21713	21713	21713	21713	21713	21713	21713	21713	21529	20748	19794	18659	17808
	Running Pressure	1189	1130	1081	1040	1006	976	950	928	891	861	836	742	550	411	308
	Flow Rate, GPM	28.2	31.0	33.7	36.5	39.3	42.1	44.9	47.8	53.4	59.1	64.8	73.2	87.2	101.3	115.4

★ See pages G2-145 for definition of requirements.

EASY SELECTION

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Table 17 - Class III Selection Table HXT Reducers - Single Reduction
HXT-105 - HXT-505A

Reducer Size	Requirements ★	Output Speed														
		90	100	110	120	130	140	150	160	180	200	220	250	300	350	400
HXT-105	OUTPUT HP (RUNNING)	2.0	2.1	2.2	2.3	2.5	2.6	2.7	2.9	3.1	3.4	3.4	3.6	3.8	4.0	4.1
	Running Torque (lb.-in.)	1379	1321	1273	1234	1200	1171	1146	1125	1088	1059	987	899	793	712	651
	Starting Torque (lb.-in.)	5515	5283	5093	4934	4800	4685	4585	4498	4353	4237	3946	3598	3172	2848	2605
	Running Pressure (psi)	491	470	453	439	427	417	408	400	387	377	351	320	282	254	232
	Flow Rate (gpm)	8.6	9.5	10.3	11.2	12.0	12.9	13.8	14.6	16.4	18.1	19.8	22.4	26.7	31.0	35.4
HXT-205	OUTPUT HP (RUNNING)	3.4	3.6	3.7	3.9	4.0	4.2	4.3	4.5	4.8	5.1	5.3	5.5	6.0	6.4	6.9
	Running Torque (lb.-in.)	2380	2238	2121	2025	1943	1873	1812	1759	1670	1599	1507	1397	1262	1161	1086
	Starting Torque (lb.-in.)	6238	6238	6238	6238	6238	6238	6238	6238	6238	6238	6028	5586	5046	4644	4342
	Running Pressure (psi)	900	846	802	766	735	708	685	665	632	605	570	528	477	439	411
	Flow Rate (gpm)	8.8	9.5	10.3	11.0	11.8	12.6	13.4	14.2	15.8	17.4	19.0	21.4	25.5	29.5	33.6
HXT-305A	OUTPUT HP (RUNNING)	5.1	5.4	5.7	6.0	6.3	6.6	6.9	7.2	7.8	8.5	8.8	9.4	10.3	10.7	11.1
	Running Torque (lb.-in.)	3537	3379	3250	3142	3051	2973	2905	2846	2747	2668	2528	2359	2153	1926	1756
	Starting Torque (lb.-in.)	11851	11851	11851	11851	11851	11851	11621	11384	10989	10673	10112	9438	8614	7705	7024
	Running Pressure (psi)	704	673	647	626	607	592	578	567	547	531	503	470	429	384	350
	Flow Rate (gpm)	16.0	17.5	19.0	20.5	22.0	23.5	25.0	26.6	29.7	32.7	35.8	40.4	48.1	55.8	63.6
HXT-405A	OUTPUT HP (RUNNING)	8.8	9.2	9.6	10.1	10.5	10.9	11.3	11.7	12.5	13.3	14.1	15.4	17.5	18.7	17.0
	Running Torque (lb.-in.)	6194	5828	5528	5279	5068	4887	4730	4592	4364	4181	4043	3879	3677	3367	2679
	Starting Torque (lb.-in.)	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956	11956
	Running Pressure (psi)	1222	1150	1091	1042	1000	964	933	906	861	825	798	765	726	665	529
	Flow Rate (gpm)	17.5	18.9	20.3	21.7	23.2	24.7	26.2	27.7	30.7	33.8	36.9	41.5	49.3	57.1	64.6
HXT-505A	OUTPUT HP (RUNNING)	10.9	11.5	12.1	12.8	13.4	14.0	14.6	15.2	16.4	17.6	18.8	20.6	23.6	21.0	18.0
	Running Torque (lb.-in.)	7661	7276	6961	6699	6477	6287	6122	5978	5737	5545	5382	5187	4948	3782	2836
	Starting Torque (lb.-in.)	21713	21713	21713	21713	21713	21713	21713	21713	21713	21713	21529	20748	19794	18659	17808
	Running Pressure (psi)	832	791	756	728	704	683	665	650	623	603	585	564	538	411	308
	Flow Rate (gpm)	27.5	30.3	33.1	35.9	38.7	41.5	44.4	47.2	52.9	58.6	64.3	72.9	87.2	101.3	115.4

★ See pages G2-145 for definition of requirements.

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

★ **Requirements:**

Output HP - Horsepower rating of the reducer/motor under continuous operation after load has been started.

Running Torque - Continuous output torque rating of reducer/motor (lb.-in.)

Starting Torque - Momentary output torque available for starting (lb.-in.)

Running Pressure - Motor pressure required to generate running torque. This will start loads not to exceed 75% of the running load. For greater starting requirements, motor pressure may be increased-see table 18. (psi)

Flow Rate - Flow required for given output RPM (gpm). With oil viscosity of 300SUS @ 100ºF. for A10 and A20 motors, and 200SUS @ 100ºF. for B30, B40 and B50 motors.

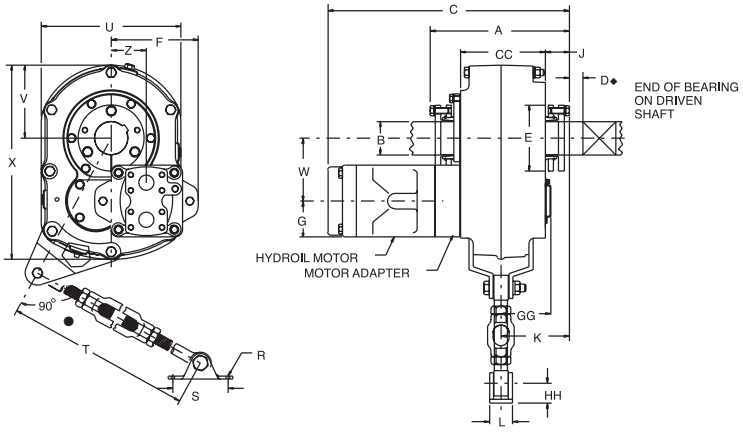
Table 18 - Maximum Hydraulic Motor Pressures Available For Starting

Double Reduction	Single Reduction	Maximum Hydraulic Pressure
---	HXT105	
---	HXT205	
HXT315B	HXT305A	
HXT415B, 425B	HXT405A	2500 psi
HXT515C, 525C	HXT505A	
HXT615A, 625A	---	
HXT715A, 725A	---	
HXT115A, 125A	---	
HXT215A, 225A	---	2000 psi
HXT325B	---	

SELECTION/DIMENSIONS

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

HXT1 Thru HXT7 Taper Bushed Reducers



◆ Recommended minimum distance to loosen bushing using bushing screws as jack screws.

Reducer will operate satisfactorily at 90° or 180° from normal position shown in front view by relocating breather and drain plugs.

● The ideal position for the TORQUE-ARM is at right angles to a line between the point of attachment of the TORQUE-ARM to the reducer and the output shaft. This may vary up to ± 20° in tension and ± 20° in compression.

CAUTION: Exceeding the position variance of the TORQUE-ARM could result in excessive reaction load and result in damage to the equipment.

HXT1A Thru HXT7A HYDROIL Double Reduction Taper Bushed TORQUE-ARM Speed Reducers

Reducer Size		AGMA Code		Gear Ratio		Part Number		Wt.	HYDROIL Motor		A	B Max. Bore ♥	C	D	E	F	G	J	K
15:1	25:1	15:1	25:1	15:1	25:1	15:1	25:1		Size	Wt.									
.....	HXT125A	.....	107H25	.....	25.64	.....	**241070 ♣**	49	A10	11	7.06	1.44	13.22	1.25	3.25	4.47	2.41	1.28	3.53
HXT115A	.....	107H15	.....	15.35	.....	**241069 ♣**	.....		A20										
HXT215A	HXT225A	115H15	115H25	14.10	23.46	**242086 ♣**	**242087 ♣**	65	A20	11	7.31	1.94	13.38	1.25	4.06	4.69	2.41	1.38	3.66
.....	HXT325B	.....	205H25	.....	24.71	.....	**243508**	112	A20	11	9.22	2.19	14.64	1.50	4.38	4.88	2.41	1.58	4.44
HXT315B	.....	203H15	.....	14.88	.....	**243507**	.....		B30	30			15.45			5.75	2.38		
HXT415B	HXT425B	207H15	207H25	15.13	24.38	**244532**	**244533 ♣**	143	B30	30	10	2.44	16.13	1.75	4.81	6.19	2.38	1.81	4.75
.....	HXT525C	.....	215H25	.....	25.56	**245557**	**245558**	212	B30	30	10.5	2.94	16.88	1.81	5.63	6.50	2.38	1.94	5.50
HXT515C	.....	215H15	.....	15.40	.....		.....		B40	55			17.63			7.25	3.06		
HXT615A	HXT625A	307H15	307H25	15.33	25.13	**246154 ♣**	**246155 ♣**	293	B40	55	11.5	3.44	18.58	1.81	6.13	8.28	3.06	1.94	5.70
.....	HXT725A	.....	315H25	.....	24.59	.....	**247165 ♣**	470	B40	55	12.81	3.94	19.16	2.06	7.25	9.30	3.06	2.16	6.34
HXT715A	.....	315H15	.....	15.23	.....	**247164 ♣**	.....		B50	106			22.75			9.30	3.69		

Reducer Size	L	R Bolt	S	T		U	V	W	X	Z	CC	GG	HH
				Min.	Max.								
HXT1A	1.06	0.38	2.50	23.81	29.63	7.13	3.75	3.19	9.94	1.91	4.50	2.66	0.94
HXT2A	1.25	0.44	3.00	26.94	32.94	8.38	4.13	3.75	11.41	2.13	4.56	2.94	1.06
HXT3B	1.25	0.44	3.00	26.94	32.94	9.25	4.81	4.19	12.88	2.31	6.38	3.25	1.06
HXT4B	1.44	0.50	4.00	29.19	35.19	10.38	5.50	4.78	15.13	2.75	6.88	3.38	1.75
HXT5C	1.44	0.50	4.00	29.19	35.19	13.13	6.56	5.69	18.31	3.06	7.06	4.50	1.75
HXT6A	2.75	0.63	4.75	29.19	35.19	15.13	7.56	6.75	21.31	4.09	7.63	4.56	2.00
HXT7A	2.75	0.63	4.75	29.44	35.44	18.75	9.38	8.31	25.94	5.13	8.13	4.69	2.00

Note: All reducers on this page require bushings. Stock HXT reducers are drilled for vertical mounting.
Reducer includes motor adapter.

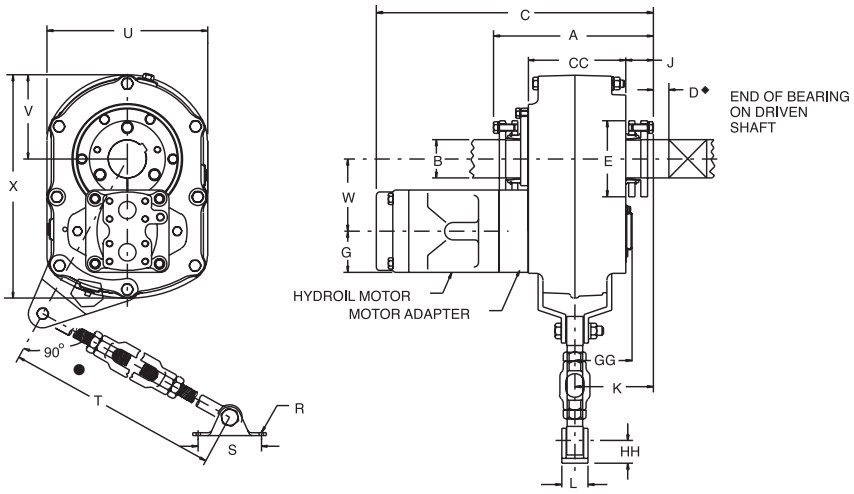
♥ See pages G2-30 thru G2-57 for bore and keyseat information and bushing part numbers.

♣ Made to order.

FEATURES/BENEFITS PAGE G2-2 | SPECIFICATION PAGE G2-9 | RELATED PRODUCTS PAGE G2-152 | RENEWAL PARTS PAGE G2-166

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

HXT105 Thru HXT505 Taper Bushed Reducers



Reducer will operate satisfactorily at 90° or 180° from normal position shown in front view by relocating breather and drain plugs.

◆ Recommended minimum distance to loosen bushing using bushing screws as jack screws.

- The ideal position for the TORQUE-ARM is at right angles to a line between the point of attachment of the TORQUE-ARM to the reducer and the output shaft. This may vary up to ± 20° in tension and ± 20° in compression.

CAUTION: Exceeding the position variance of the TORQUE-ARM could result in excessive reaction load and result in damage to the equipment.

HXT105 Thru HXT505A HYDROL Single Reduction Taper Bushed TORQUE-ARM Speed Reducers

Reducer Size	AGMA Code	Gear Ratio	Part Number	Reducer Wt.	HYDROIL Motor		A	B Max. Bore ♥	C	D	E	G	J	K	L
					Size	Wt.									
HXT105	107H05	5.62	**241085**	44	B30	30	5.63	1.44	14.97	1.25	3.25	2.38	1.28	3.53	1.06
HXT205	115H05	5.29	**242251**	56	B30	30	5.81	1.94	15.25	1.25	4.06	2.38	1.38	3.66	1.25
HXT305A	203H05	5.60	**253153** ♣	90	B40	55	6.88	2.19	17.66	1.5	4.38	3.06	1.58	4.44	1.25
HXT405A	207H05	5.65	**254202** ♣	126	B40	55	7.81	2.44	18.69	1.75	4.81	3.06	1.81	4.75	1.44
HXT505A	215H05	5.67	**255202** ♣	186	B50	106	8.38	2.94	22	1.81	5.63	3.69	1.92	4.13	1.44

HXT105 Thru HXT505A HYDROL Single Reduction Taper Bushed TORQUE-ARM Speed Reducers

Reducer Size	R Bolt	S	T		U	V	W	X	CC	GG	HH
			Min.	Max.							
HXT105	0.38	2.50	23.81	29.63	7.13	3.75	3.25	9.94	4.50	2.64	0.94
HXT205	0.44	3.00	26.94	32.94	8.50	4.13	3.88	11.41	4.56	2.83	1.06
HXT305A	0.44	3.00	26.94	32.94	9.25	4.81	4.28	12.88	6.38	3.25	1.06
HXT405A	0.50	4.00	29.19	35.19	10.38	5.50	4.88	15.13	6.88	3.38	1.75
HXT505A	0.50	4.00	29.19	35.19	13.13	6.56	5.88	18.31	7.06	4.50	1.75

Note: All reducers on this page require bushings. Stock HXT reducers are drilled for vertical mounting. Reducer includes motor adapter.

♥ See pages G2-30 thru G2-57 for bore and keyseat information and bushing part numbers.

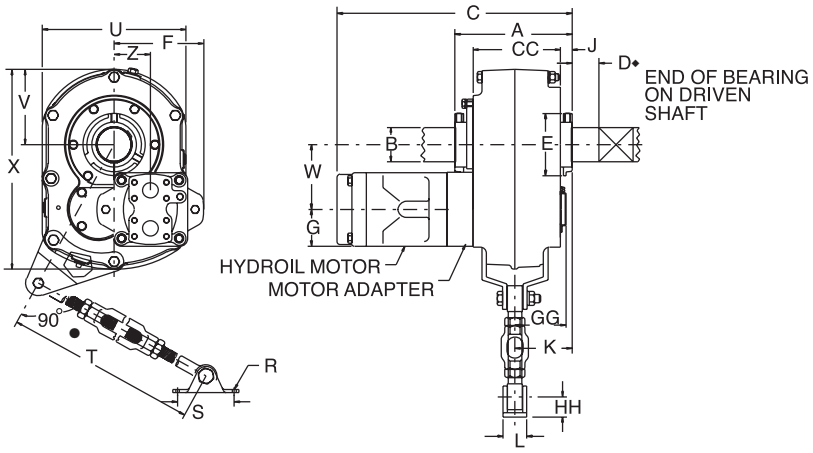
♣ Made to order.

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	RELATED PRODUCTS PAGE G2-152	RENEWAL PARTS PAGE G2-166

SELECTION/DIMENSIONS

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

HXT1 Thru HXT7 Straight Bore Reducers



Reducer will operate satisfactorily at 90° or 180° from normal position shown in front view by relocating breather and drain plugs.

- The ideal position for the TORQUE-ARM is at right angles to a line between the point of attachment of the TORQUE-ARM to the reducer and the output shaft. This may vary up to ± 20° in tension and ± 20° in compression. **CAUTION:** Exceeding the position variance of the TORQUE-ARM could result in excessive reaction load and result in damage to the equipment.

HXT1A Thru HXT7A HYDROIL Double Reduction Straight Bore TORQUE-ARM Speed Reducers ♣

Reducer Size		AGMA Code		Gear Ratio		Part Number		Wt.	HYDROIL Motor		A	B Max. Bore ♥	C	E	F	G	J	K	L
15:1	25:1	15:1	25:1	15:1	25:1	15:1	25:1		Size	Wt.									
.....	HXT125A	.....	107H25	.....	25.64	**....**	**241078**	49	A10	11	5.63	1.44	12.50	3.19	4.47	2.41	0.56	2.81	1.06
HXT115A	.....	107H15	.....	15.35	.....	**241077**	**....**		A20										
HXT215A	HXT225A	115H15	115H25	14.10	23.46	**242094**	**242095**	65	A20	11	5.81	1.94	12.63	3.56	4.69	2.41	0.63	2.91	1.25
.....	HXT325B	.....	203H25	.....	24.71	**....**	**243520**	112	A20	11	7.81	2.19	13.69	4.00	4.88	2.41	0.63	2.47	1.25
HXT315B	.....	203H15	.....	14.88	.....	**243519**	**....**		B30	30			14.50		5.75	2.38			
HXT415B	HXT425B	207H15	207H25	15.13	24.38	**244544**	**244545**	143	B30	30	8.22	2.44	15.16	4.38	6.19	2.38	0.84	3.88	1.44
.....	HXT525C	.....	215H25	.....	25.56	**....**	**245570**	212	B30	30	8.66	2.94	15.94	5.13	6.50	2.38	1.00	4.13	1.44
HXT515C	.....	215H15	.....	15.40	.....	**245569**	**....**		B40	55			16.69		7.25	3.06			
HXT615A	HXT625A	307H15	307H25	15.33	25.13	**246162**	**246163**	293	B40	55	9.63	3.44	17.69	5.63	8.28	3.06	1.00	4.81	2.75
.....	HXT725A	.....	315H25	.....	24.59	**....**	**247173**	470	B40	55	10.78	3.94	18.19	6.69	9.31	3.06	1.14	5.39	2.75
HXT715A	.....	315H15	.....	15.23	.....	**247172**	**....**		B50	106			21.50		8.38	3.69			

Reducer Size	R Bolt	S	T		U	V	W	X	Z	CC	GG	HH
			Min.	Max.								
HXT1A	0.38	2.50	23.81	29.63	7.13	3.75	3.19	9.94	1.91	4.50	2.66	0.94
HXT2A	0.44	3.00	26.94	32.94	8.38	4.13	3.75	11.41	2.13	4.56	2.94	1.06
HXT3B	0.44	3.00	26.94	32.94	9.25	4.81	4.19	12.88	2.31	6.38	3.25	1.06
HXT4B	0.50	4.00	29.19	35.19	10.38	5.50	4.78	15.13	2.75	6.88	3.38	1.75
HXT5C	0.50	4.00	29.19	35.19	13.13	6.56	5.69	18.31	3.06	7.06	4.50	1.75
HXT6A	0.63	4.75	29.19	35.19	15.13	7.50	6.75	21.31	4.09	7.63	4.56	2.00
HXT7A	0.63	4.75	29.44	35.44	18.75	9.38	8.31	25.94	5.13	8.50	4.69	2.00

Note: Except for maximum bore, all reducers on this page require bushings. Stock HXT Reducers are drilled for vertical mounting. Reducer includes motor adapter.

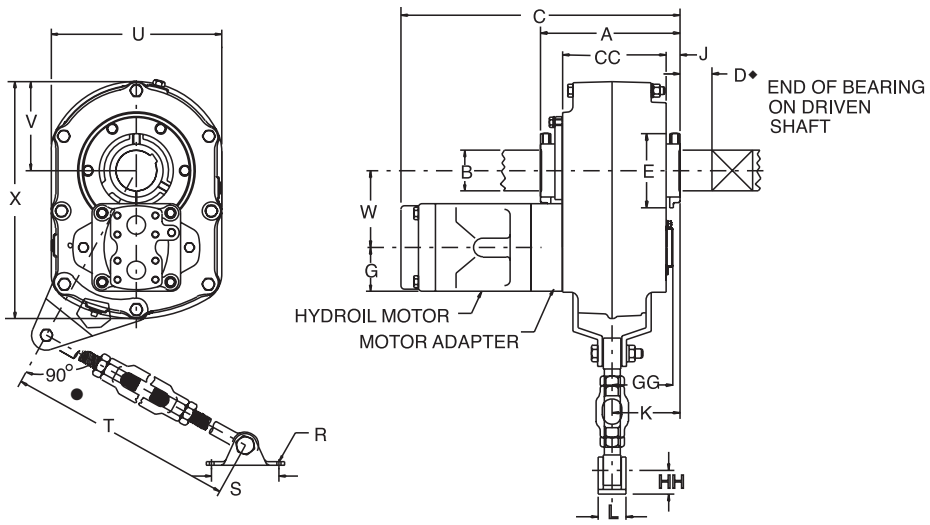
♥ See pages G2-30 thru G2-57 for bore and keyseat information and bushing part numbers.

♣ Made to order.

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HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

HXT105 Thru HXT505A Straight Bore Reducers



Reducer will operate satisfactorily at 90° or 180° from normal position shown in front view by relocating breather and drain plugs.

- The ideal position for the TORQUE-ARM is at right angles to a line between the point of attachment of the TORQUE-ARM to the reducer and the output shaft. This may vary up to ± 20° in tension and ± 20° in compression. **CAUTION:** Exceeding the position variance of the TORQUE-ARM could result in excessive reaction load and result in damage to the equipment.

HXT105 Thru HXT505A HYDROIL Single Reduction Straight Bore TORQUE-ARM Speed Reducers

Reducer Size	AGMA Code	Gear Ratio	Part Number	Reducer Wt.	HYDROIL Motor		A	B Max. Bore ♥	C	D	E	G	J	K
					Size	Wt.								
HXT105	107H05	5.62	**241089 ♣**	44	B30	30	5.63	1.44	14.25	3.19	2.38	0.56	2.81	1.06
HXT205	115H05	5.29	**242255**	56	B30	30	5.81	1.94	14.5	3.56	2.38	0.63	2.91	1.25
HXT305A	203H05	5.60	**253157**	90	B40	55	7.41	2.19	16.69	4	3.06	0.63	4.44	1.25
HXT405A	207H05	5.65	**254206 ♣**	126	B40	55	8.22	2.44	17.72	4.38	3.06	0.84	4.75	1.44
HXT505A	215H05	5.67	**255206 ♣**	186	B50	106	8.66	2.94	21.06	5.13	3.69	1	4.13	1.44

Reducer Size	R Bolt	S	T		U	V	W	X	CC	GG	HH
			Min.	Max.							
HXT105	0.38	2.5	23.81	29.63	7.13	3.75	3.25	9.94	4.5	2.64	0.94
HXT205	0.44	3	26.94	32.94	8.5	4.13	3.88	11.41	4.56	2.83	1.06
HXT305A	0.44	3	26.94	32.94	9.25	4.81	4.29	12.88	6.38	3.25	1.06
HXT405A	0.5	4	29.19	35.19	10.38	5.5	4.88	15.13	6.88	3.38	1.75
HXT505A	0.5	4	29.19	35.19	13.13	6.56	5.88	18.31	7.06	4.15	1.75

Note: Except for maximum bore, all reducers on this page require bushings. Stock HXT Reducers are drilled for vertical mounting. Reducer includes motor adapter.

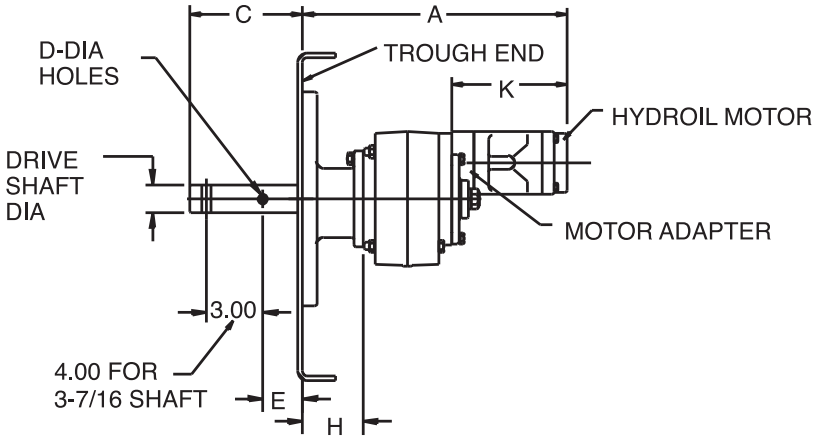
♥ See pages G2-30 thru G2-57 for bore and keyseat information and bushing part numbers.

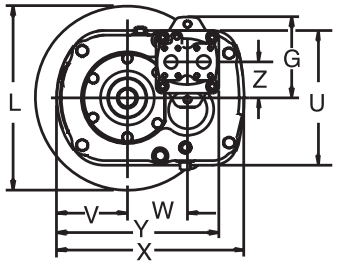
♣ Made to order.

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	RELATED PRODUCTS PAGE G2-152	RENEWAL PARTS PAGE G2-166

SELECTION/DIMENSIONS

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers





HSCT1A Thru HSCXT7A Double Reduction HYDROIL Screw Conveyor Drives †

Reducer Size	Drive Shaft Dia.	To Fit Screw Dia.	HYDROIL Motor		Parts When Ordering Separately											
					Reducer ■			CEMA Drive Shaft ★						Adapter Assy. ▲		
			Size	Wt.	Part Number 15:1	Part Number 25:1	Wt.	Size	Part No.	Wt.	C	D	E	Size	Part No.	Wt.
HSCXT115A	1-1/2	6, 9	A20	11	351191	351192	46	C1 x 1-1/2	351094	7.2	6.00	0.52	2.13	C1A	351086	17
	2	9, 12						C1 x 2	351095	9.1	6.00	0.64	2.13			
HSCXT125A	2-7/16	12, 14	A10				46	C1 x 2-7/16	351096	12.5	6.69	0.64	2.75			
	3	12 thru 20						C1 x 3	351097	17.4	6.88	0.77	2.88			
HSCXT215A	1-1/2	6, 9	A20	11	352191	352192	58	C2 x 1-1/2	352090	11.4	6.00	0.52	2.13	C2A	352052	20
	2	9, 12						C2 x 2	352091	13.8	6.00	0.64	2.13			
HSCXT225A	2-7/16	12, 14					58	C2 x 2-7/16	352092	17.3	6.69	0.64	2.75			
	3	12 thru 20						C2 x 3	352093	22.1	6.88	0.77	2.88			
HSCXT315B	1-1/2	9	B30	11	243528	243529	90	C3A x 1-1/2	243562	13.5	6.00	0.52	2.13	C3	353047	27
	2	9, 12						C3A x 2	243563	16	6.00	0.64	2.13			
HSCXT325B	2-7/16	12, 14	A20	30				C3A x 2-7/16	243564	19.5	6.69	0.64	2.75			
	3	12 thru 20						C3A x 3	243565	26	6.88	0.77	2.88			
HSCXT415B	1-1/2	9	B30	30	244553	244554	113	C4A x 1-1/2	244594	19	6.00	0.52	2.13	C4	354121	31
	2	9, 12						C4A x 2	244595	20.8	6.00	0.64	2.13			
	2-7/16	12, 14						C4A x 2-7/16	244596	24.3	6.69	0.64	2.75			
HSCXT425B	3	12 thru 20						C4A x 3	244597	29.2	6.88	0.77	2.88			
	3-7/16	18 thru 24						C4A x 3-7/16	244598	29.3	9.13	0.89	3.88			
HSCXT515C	2	9, 12	B40	30	245578	245579	165	C5B x 2	355175	29.4	6.00	0.64	2.13	C5	355072	43
	2-7/16	12, 14						C5B x 2-7/16	355176	33	6.69	0.64	2.75			
HSCXT525C	3	12 thru 20	B30	55				C5B x 3	355177	37.9	6.88	0.77	2.88			
	3-7/16	18 thru 24						C5B x 3-7/16	355178	48.3	9.13	0.89	3.88			
HSCXT615A	2-7/16	12, 14	B40	55	356291	356292	225	C6 x 2-7/16	356042	47.7	6.69	0.64	2.75	C6	356055	56
	3	12 thru 20						C6 x 3	356043	52.7	6.88	0.77	2.88			
HSCXT625A	3-7/16	18 thru 24						C6 x 3-7/16	356044	63	9.13	0.89	3.88			
HSCXT715A	2-7/16	12, 14	B50	55	356296	356297	390	C7 x 2-7/16	356182	65	6.69	0.64	2.75	C7	356187	72
	3	12 thru 20						C7 x 3	356183	70	6.88	0.77	2.88			
HSCXT725A	3-7/16	18 thru 24	B40	106				C7 x 3-7/16	356184	80.3	9.13	0.89	3.88			

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HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

HSCXT1A Thru HSCXT7A Double Reduction HYDROIL Screw Conveyor Drives †

Reducer Size	Actual Ratio		Max. RPM of Shaft				A	G	H	K	L	U	V	W	X	Y	Z
			Input		Driven												
	15:1	25:1	15:1	25:1	15:1	25:1											
HSCXT1A	15.35	. . . . 25.64	2149	 2179	140 . . .	. . . 85	15.34	4.47	3.22	7.44	7.00	7.13	3.75	3.38	9.94	9.34	1.91
HSCXT2A	14.97	24.92	2096	2118	140	85	15.94	4.69	3.56	7.44	7.00	8.38	4.09	3.77	11.41	10.27	2.14
HSCXT3B	15.26	. . . . 25.34	2136	 2155	140 . . .	. . . 85	17.81 17.00	5.75 4.88	3.69	7.44	11.38	9.25	4.84	4.17	13.72	11.39 11.42	2.33
HSCXT4B	15.30	24.64	2142	2094	140	85	18.44	6.19	4.00	7.38	11.38	10.38	5.50	4.78	15.31	12.66	2.75
HSCXT5C	15.38	. . . . 25.54	1919	 2043	125 . . .	. . . 80	20.56 19.81	7.25 6.50	4.25	9.19 7.75	11.38	13.13	6.56	5.67	18.31	14.30 14.61	3.05
HSCXT6A	15.33	25.13	1895	1985	125	80	21.81	8.28	5.50	9.31	11.38	15.13	7.56	6.73	21.31	17.36	4.09
HSCXT7A	15.23	. . . . 24.59	1767	 1844	116 . . .	. . . 75	26.28 23.00	8.38 9.31	6.31	10.56 8.81	11.38	18.75	9.38	8.30	25.94	22.11 20.36	5.11

† For a complete HSCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seals. See page G2-122 for adapter bolt pattern details.

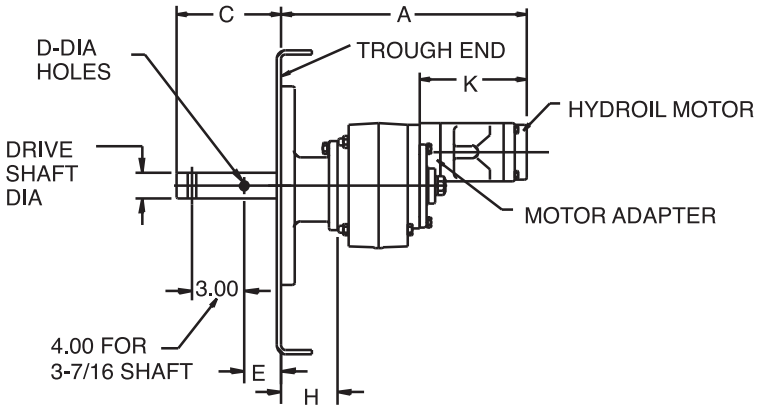
■ Reducer includes hydroil motor adapter.

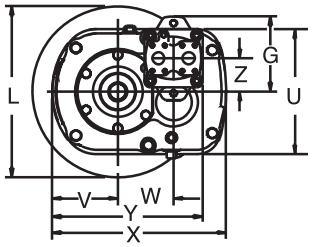
★ CEMA drive shaft and key furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

SELECTION/DIMENSIONS

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers





HSCXT105 Thru HSCXT505A Single Reduction HYDROIL Screw Conveyor Drives †

Reducer Size	Drive Shaft Dia.	To Fit Screw Dia	HYDROIL Motor		Parts When Ordering Separately										
					Reducer ■ ♣		CEMA Drive Shaft ★						Adapter Assy. ▲		
			Size	Wt.	Part No.	Wt.	Size	Part No.	Wt.	C	D	E	Size	Part No.	Wt.
HSCXT105	1-1/2	6, 9	B30	30	**351190**	41	C1 x 1-1/2	**351094**	7.2	6.00	0.52	2.13	C1A	**351086**	17
	2	9, 12				41	C1 x 2	**351095**	9.1	6.00	0.64	2.13			
	2-7/16	12, 14					C1 x 2-7/16	**351096**	12.5	6.69	0.64	2.75			
	3	12 thru 20					C1 x 3	**351097**	14.4	6.88	0.77	2.88			
HSCXT205	1-1/2	6, 9	B30	30	**352190**	53	C2 x 1-1/2	**352090**	11.4	6.00	0.52	2.13	C2A	**352052**	20
	2	9, 12				53	C2 x 2	**352091**	13.8	6.00	0.64	2.13			
	2-7/16	12, 14					C2 x 2-7/16	**352092**	17.3	6.69	0.64	2.75			
	3	12 thru 20					C2 x 3	**352093**	22.1	6.88	0.77	2.88			
HSCXT305A	1-1/2	9	B40	55	**253160**	79	C3A x 1-1/2	**243562**	13.5	6.00	0.52	2.13	C3	**353047**	27
	2	9, 12					C3A x 2	**243563**	16.0	6.00	0.64	2.13			
	2-7/16	12, 14					C3A x 2-7/16	**243564**	19.5	6.69	0.64	2.75			
	3	12 thru 20					C3A x 3	**243565**	26.0	6.88	0.77	2.88			
HSCXT405A	1-1/2	9	B40	55	**254209**	101	C4A x 1-1/2	**244594**	19.0	6.00	0.52	2.13	C4	**354121**	31
	2	9, 12					C4A x 2	**244595**	20.8	6.00	0.64	2.13			
	2-7/16	12, 14					C4A x 2-7/16	**244596**	24.3	6.69	0.64	2.75			
	3	12 thru 20					C4A x 3	**244597**	29.2	6.88	0.77	2.88			
	3-7/16	18 thru 24					C4A x 3-7/16	**244598**	39.3	9.13	0.89	3.88			
HSCXT505A	2	9, 12	B50	106	**255209**	160	C5B x 2	**355175**	29.4	6.00	0.64	2.13	C5	**355072**	43
	2-7/16	12, 14					C5B x 2-7/16	**355176**	33.0	6.69	0.64	2.75			
	3	12 thru 20					C5B x 3	**355177**	37.9	6.88	0.77	2.88			
	3-7/16	18 thru 24					C5B x 3-7/16	**355178**	48.3	9.13	0.89	3.88			

Reducer Size	Actual Ratio	Max. RPM of Shaft		A	H	K	L	U	V	W	X	Y
		Input	Driven									
HSCXT105	5.62	2246	400	16.28	3.22	8.38	7.00	7.13	3.75	3.27	9.94	9.39
HSCXT205	5.62	2246	400	16.50	3.56	8.50	7.00	8.38	4.09	3.86	11.41	10.33
HSCXT305A	5.31	2124	400	20.00	3.69	10.31	11.38	9.25	4.84	4.28	13.72	12.19
HSCXT405A	5.27	2108	400	21.00	4.00	10.63	11.38	10.38	5.50	4.88	15.94	16.50
HSCXT505A	5.69	2275	400	22.00	4.25	11.72	11.38	13.00	6.56	5.86	18.31	16.86

† For a complete HSCXT drive, order a reducer, drive shaft and adapter assembly by their respective part numbers. Drive is shipped unassembled.

▲ Includes adapter, necessary mounting bolts, seal retainer and lip type seals.

■ Reducer includes hydroil motor adapter.

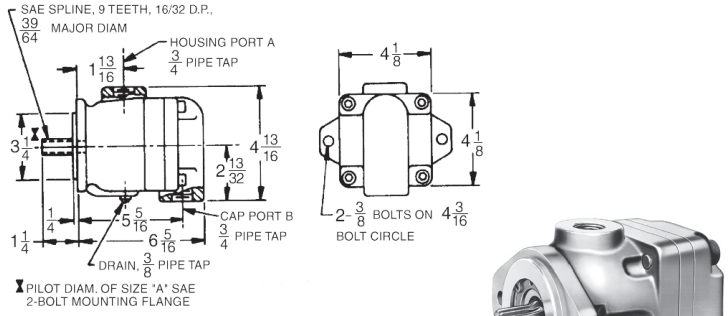
♣ Made to order.

★ CEMA drive shaft and key furnished unless otherwise specified. See pages G2-123 thru G2-125 for optional drive shafts available from DODGE.

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	RELATED PRODUCTS PAGE G2-152	RENEWAL PARTS PAGE G2-166

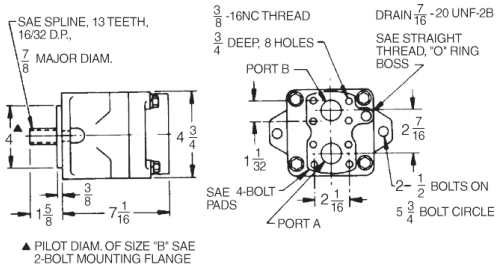
HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

HYDROIL Van Motors

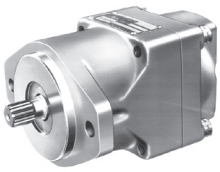


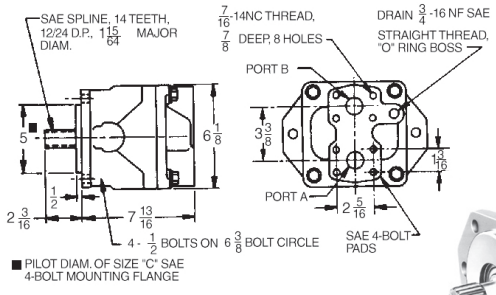
A10 & A20



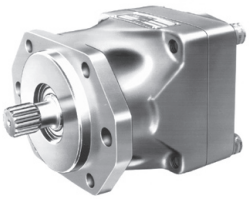


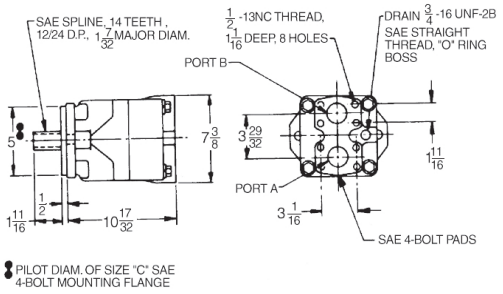
B30 (Port A & Port B, 1" dia.)



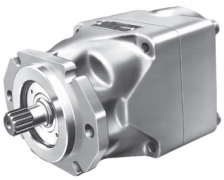


B40 (Port A and Port B, 1' 1/4" dia.)





B50 (Port A & Port B, 2" dia.)



HYDROIL Vane Motors-are superior single stage vane type fluid motor. A series of internal ports admit oil to and carry it from the power element. Complete hydraulic balance of the assembly contributes to the mechanical efficiency and long life of these motors as well as to their unusually quiet operation. Other exclusive features assure a minimum of friction and efficient valving action regardless of operating speeds.

HYDROIL Vane Motors can be run in either direction of rotation. Flow into port A (see drawing) will result in clockwise rotation as viewed from shaft end of motor. Flow into port B will result in counterclockwise rotation.

Inlet and outlet ports on sizes A10 and A20 will accommodate standard tapered pipe fittings. Larger sizes will accommodate SAE split flanges.

Drains should be connected to tank with connections and hoses capable of withstanding 50 psi. No drain is required on sizes A10 and A20 if the housing port is the low pressure port and is never subjected to more than 20 psi, in which case the motor drains internally.

HYDROIL Vane Motors for HXT Reducers

Motor Size	Part Number	Wt. (lbs)
A10	**444049**	11
A20	**444050**	11
B30	**444054**	30
B40	**444055**	55
B50	**444056**	106

NOTE: HXT1A thru HXT7A reducers are available in selected ratios to accommodate H, S and T-Series 6B spline, SAE "A" 2-bolt motors. See Related Products section for information on the HXT6B spline reducers.

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RELATED PRODUCTS

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

CHAR-LYNN* Compatible 6B Spline Reducer

New hydraulically powered DODGE TORQUE-ARM Twin Taper bushed speed reducers with 6B spline, SAE "A" 2-bolt motor flange. Suitable for Char-Lynn H, S, T and 2000 series motors or equal. This is a modified version of the HXT TORQUE-ARM speed reducer

- Twin Tapered Mounting
- Material Cost Savings
- Installed Cost Savings
- Simple Installation
- No Periodic Maintenance Cost Associated with Chain Drives
- Eliminate V-Drives
- Compact Drive Design
- Infinitely Adjustable Speeds/Torque
  - Driven machinery can be inched/jogged
  - Direction of rotation can be reversed
  - Low speed, high torque capability
- Shock Resistant Helical Gearing
- Reduced Motor Costs
- Optimized Pressure, Ratio and Flow
- No Motor Drain

Specifications

Reducer will be modified on the input section to facilitate the mounting of a basic Char-Lynn hydraulic motor or equivalent. This modification allows the mounting of H, S and T series motors which must be equipped with a two-bolt SAE "A" flange (3.25 pilot diameter) and a 6B splined shaft (other comparably equipped motor brands will also work).
Reducer installation shall be accomplished by using ductile iron, fully split Twin Tapered bushings. Reducer removal shall be accomplished by providing jack screw holes in the bushing flanges to mechanically remove the tapered assembly.

*Char-Lynn is a registered trademark of EATON

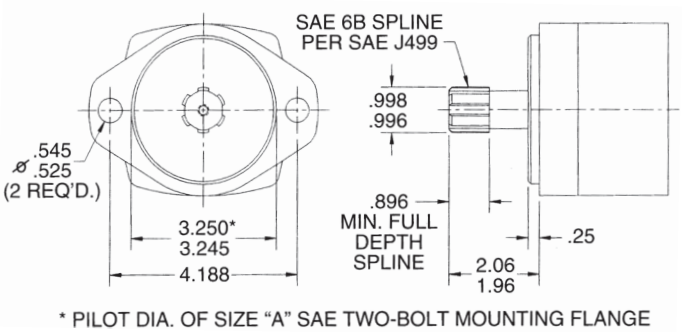
Maximum Input and Driven Speeds for HXT-6B Reducers

Reducer Size	Double Reduction					Single Reduction		
	Input RPM		Driven RPM			Reducer Size	Input RPM	Driven
	15	25	9	15	25			
HXT3 6B	-	2100	200	140	85	HXT105 6B	2246	400
HXT4 6B	2118	2072	200	140	85	HXT205 6B	2116	400
HXT5 6B	-	2044	200	125	80	HXT305 6B	2240	400
HXT6 6B	-	2010	200	125	80	HXT405 6B	2280	400
HXT7 6B	-	1844	200	125	75	HXT505 6B	2287	400

TORQUE-ARM Hydraulic Taper Bushed Speed Reducers

Reducer Size	Part Number	Exact Ratios	Max. Bore
HXT105T C/L 6B	**251140**	5.62	1.44
HXT205T C/L 6B	**252140**	5.29	1.94
HXT305AT C/L 6B	**253140**	5.60	2.19
HXT405AT C/L 6B	**254140**	5.65	2.44
HXT505AT C/L 6B	**255160**	5.67	2.94
HXT325BT CL 6B	**243571**	24.71	2.19
HXT415BT C/L 6B	**244556**	15.13	2.44
HXT425BT C/L 6B	**244557**	24.38	2.44
HXT525CT C/L 6B	**245640**	25.56	2.94
HXT625AT C/L 6B	**246520**	25.13	3.44
HXT725AT C/L 6B	**247520**	24.59	3.94

Motor Mounting Dimensions



* PILOT DIA. OF SIZE "A" SAE TWO-BOLT MOUNTING FLANGE

FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	MODIFICATION/ACCESSORIES PAGE G2-120	RENEWAL PARTS PAGE G2-166



RELATED PRODUCTS

HYDROIL TORQUE-ARM Shaft Mount Speed Reducers

Class I - Refer to pages G2-16 thru G2-18 - to determine appropriate drive service factor for your specific application and duty cycle. Refer to tables below for reducer Class I ratings.

Class II - Refer to pages G2-16 thru G2-18 to determine appropriate drive service factor for your specific application and duty cycle. To obtain Class II reducer ratings, divide Class I ratings from the tables below by 1.4.

Class III - Refer to pages G2-16 thru G2-18 to determine appropriate drive service factor for your specific application and duty cycle. To obtain Class III reducer ratings, divide Class I ratings from the tables below by 2.0.

Continuous Input Horsepower - Class I*

Output RPM	Reducer Size										
	HXT105 C/L	HXT205 C/L	HXT305A C/L	HXT405A C/L	HXT505A C/L	HXT325B C/L	HXT415B C/L	HXT425B C/L	HXT525C C/L	HXT625A C/L	HXT725A C/L
1	0.06	0.11	0.16	0.22	0.33	0.17	0.26	0.26	0.44	0.69	1.00
5	0.26	0.52	0.72	1.01	1.55	0.84	1.29	1.29	2.18	3.46	4.98
10	0.50	0.99	1.41	1.96	3.04	1.68	2.52	2.52	4.35	6.89	9.66
20	0.98	1.95	2.45	3.88	6.05	3.30	4.98	4.98	8.38	13.37	18.68
30	1.47	2090	4.14	5.78	8.74	4.90	7.33	7.33	12.24		
40	1.95	3.85	5.51	7.64	11.13		9.52				
50	2.43	4.81	6.88	9.55	13.51		11.57				
60	2.70	5.34	7.92	11.07							
70	2.95	5.86	8.97	12.46							
80	3.22	6.38	10.01	13.85							
90	3.48	6.92	11.06	15.29							
100	3.75	7.44	12.10	16.83							
110	3.77	7.48	12.53								
120	3.98	7.92	13.46								
130	4.21	8.37	14.41								
140	4.42	8.81									
150	4.66	9.27									
160	4.87	9.71									

* INPUT HP-HP rating of reducer at input shaft under continuous operation after load has been started

Continuous Output Torque - Class I**

Output RPM	Reducer Size										
	HXT105 C/L	HXT205 C/L	HXT305A C/L	HXT405A C/L	HXT505A C/L	HXT325B C/L	HXT415B C/L	HXT425B C/L	HXT525C C/L	HXT625A C/L	HXT725A C/L
1	3470	6980	9580	13500	20100	10400	16000	16000	27000	42700	61600
5	3200	6380	8950	12500	19200	10400	16000	16000	27000	42700	61600
10	3100	6140	8700	12100	18800	10400	15600	15600	26900	42600	59700
20	3040	6020	8580	12000	18700	10200	15400	15400	25900	41300	57700
30	3020	5980	8530	11900	18000	10100	15100	15100	25200		
40	3010	5950	8510	11800	17200		14700				
50	3000	5940	8500	11800	16700		14300				
60	2780	5500	8160	11400							
70	2600	5170	7920	11000							
80	2490	4930	7730	10700							
90	2390	4750	7590	10500							
100	2320	4600	7480	10400							
110	2120	4200	7040								
120	2050	4080	6930								
130	2000	3980	6850								
140	1950	2890									
150	1920	3820									
160	1880	3750									

** OUTPUT TORQUE - Continuous output torque rating of reducer (in-lbs)

PEAK HP - Momentarily, peak horsepower may be very high. For example, in applications with high inertia loads, oversize or high torque motors, etc.

Where this momentary peak exceeds 200% of normal (100% overload) the equivalent HP may be obtained by dividing the peak HP by two. If the results exceed the horsepower obtained from a consideration of service and duty, it should be used to select the reducer size.

NOTE: Below 15 RPM output speed, oil level must be adjusted to reach highest oil level plug (P).

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RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

HARSH DUTY ACCESSORIES
XT CORROSION RESISTANCE

Zinc Plated Fasteners

Includes all housing and TORQUE-ARM rod fasteners. Factory assembled.

TDNC Coated Tapered Busings (Thin Dense Nickel Chrome)

TDNC coating on bushing, backup plate and snap rings provide maximum corrosion resistance. Zinc plated fasteners included. Consult Dodge for price and delivery.

CEMA Stainless Steel Drive Shafts for Screw Conveyor Drives

#316 stainless steel, three hole construction now available on short cycle delivery. Consult DODGE for delivery.

XT Hostile Environments

Filter Breather

Optional 40 micron filter with cap. Combats dust, dirt and wet environments. Replaces standard breather assembly. Stock item.

Enclosed Breather Chamber

Elastic diaphragm enclosed in steel chamber provides closed system. Protects reducer components and lubricant in wet, dusty or hot environments. Install in new reducer installations only. Mounts in uppermost position and replaces standard breather. Stock item.

Oil Sump Heater

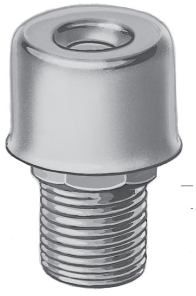
110 volt, single phase, AC cartridge heater, threads into standard tapped drain hole. Provides approximately 70 ° F temperature rise in one hour for cold climates. Simple time phased on/off construction. Standard oil sump heater does not come with thermostat. Factory cycle item.

CEMA AC Packing Adaptor Kit

For tough, abrasive environments. Protects reducer from contamination. Multiple braided felt seal rings. Repack without removal. Stock item.

Long Term Storage

Preparation for long storage or delayed job start-up. Reducer is protected internally with a vapor phase corrosion inhibiting oil. Breather removed and reducer sealed with pipe plug. See page G2-181 for details.



Filter Breather



Enclosed Chamber Breather



Oil Sump Heater

TORQUE-ARM Shaft Mount Speed Reducers

Harsh Duty Accessories



TORQUE-ARM Shaft Mount Speed Reducers HARSH DUTY ACCESSORIES

XT SAFETY & SEALING

Metal End Covers, Open, Closed and Split

Protection for oil seal areas and from rotating components. Enhances seal life.

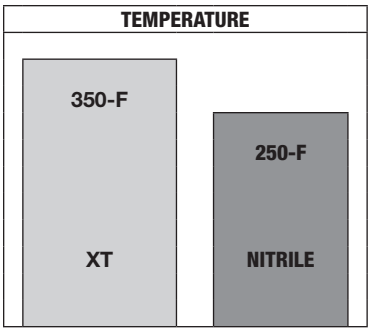
Closed or open for input shaft side. Two piece split for backstop side.

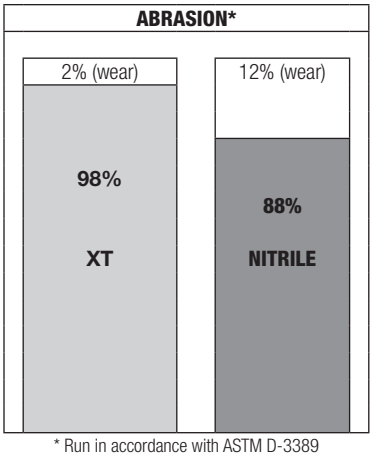
Simply position on reducer, drill holes and insert self tapping screws. Stock item.

Extended life high temperature and abrasion resistant XT harsh duty oil seals (TXT 5B-10A double reduction.) Stocked individually or installed to order.

Optional feature.

The addition of lithium sterate aluminate to the XT harsh duty seal compound acts as a friction-reducing, antiwear additive resulting in extended service life. XT harsh duty seals provide 4 to 6 times the abrasion resistance of standard nitrile seals, resulting in lower seal life and less unscheduled downtime. As oil temperature increases, seal life may be reduced. With standard nitrile seals, the increase in temperature from 200 ° F to 225 ° F can reduce seal life up to 50% as the seal lip gets brittle and cracks. XT harsh duty seals will handle up to 350 ° F (176 ° C), a 40% increase in temperature capability over standard nitrile seals.
Note: Contact DODGE if oil sump temperature exceeds 200 degrees F maximum with petroleum lubricants.





* Run in accordance with ASTM D-3389

Belt Guards, Backstops

Rugged slotted metal construction with welded straps. No drilling required to install. Includes mounting hardware and bolts to reducer and motor mount.

Backstops prevent reversing and allow for either direction of operation.

Stock items.

Input Auxiliary Seal

Metal cover with internal V-Seal/Labyrinth construction. Complete with lubrication filling or no-lub plug. Combats dust, dirt and moisture. Protects high speed oil seal. Stock item.

RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

Harsh Duty Accessories
XT Lubrication

- Oil level sight gauge. Stock item
- New DODGE/AGMA/ISO viscosity standards
- New higher viscosity lubricant selections
- Brand options

Maximizing productivity and uptime is paramount in today's industry. By following some simple recommendations on lubrication, OEMs and users can improve product performance and reduce downtime. Remember, the purpose of speed reducer lubrication is to minimize frictional forces, eliminate wear and dissipate heat.

The American Gear Manufacturing Association (AGMA) and ISO have changed their lubrication standards.

This change was necessitated by the increased horsepower that helical gearing is asked to transmit. As a result, higher ISO viscosity grades have been selected. The proper oil viscosity is based upon ambient temperature and gearing pitch line velocity. DODGE has converted pitch line velocity into reducer output speed (RPM).

Recommended Lubricants For TORQUE-ARM Reducers +				
Brand	With Or Without Backstop		EP Oils Without Backstops	
EXXON				
150	Teresstic	150	Spartan EP	150
220		220		220
320		320		320
CHEVRON				
150	Machine	150	Gear Compound	150
220		220	EP	220
320		320		320
UNICAL				
150	Turbine Oil	150	Extra Duty HL	141
220		220	Gear Lube	207
320		320		300
MOBIL SYNTHETIC				
150	SHC	629	SHC	629
220	SHC	630	SHC	630
320	SHC	632	SHC	632
MOBIL				
150	Mobil DTE	BB	Mobil Gear	629
220	Extra Heavy	AA		630
320				632
TEXACO				
150	Regal Oil R&O	150	Meropa	150
220		220		220
320		320		320
SHELL				
150	Morlina 52B	150	Omala S2G	150
220		220		220
320		320		320

+ Partial list. Consult DODGE or a lubricant manufacturer for further options

For further lubrication information, refer to DODGE TORQUE-ARM Lubrication Manual # 499336 or individual product manuals.



RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

Harsh Duty & Sensorized Accessories

Product	Part #
TXT Encl Breather Sys. Sm (1-10)	**240050**
TXT Encl Breather Sys. Lg. (12-15)	**240051**
TXT 5D Harsh Duty Input Seal	**245543**
TXT 6D, 7D, 705 XT Duty Input Seal	**246543**
TXT8-10D, 805, 905, XT Duty I/P Seal	**248443**
TXT 5D Harsh Duty Output Seal	**245444**
TXT 6D Harsh Duty Output Seal	**246444**
TXT 7D Harsh Duty Output Seal	**247444**
TXT 8D Harsh Duty Output Seal	**248444**
TXT 9D Harsh Duty Output Seal	**249444**
TXT 10D Harsh Duty Output Seal	**250444**
3/8 Filter Breather Plug	**430048**
1/2 Filter Breather Plug	**430049**
Pressure Breather Vent Plug	*** 6-030657**
TXT 1-4 Immersion Heater	**241103**
TXT 5-6 Immersion Heater	**241104**
TXT 7-10 Immersion Heater	**241105**
TXT1 SS Cls Aux Cvr Asy	**246601**
TXT1 SS Opn Aux Cvr Asy	**246602**
TXT1 BS Split Aux Cvr Asy	**246603**
TXT2 SS Cls Aux Cvr Asy	**246604**
TXT2 SS Opn Aux Cvr Asy	**246605**
TXT2 BS Split Aux Cvr Asy	**246606**
TXT3 SS Cls Aux Cvr Asy	**246607**
TXT3 SS Opn Aux Cvr Asy	**246608**
TXT3 BS Split Aux Cvr Asy	**246609**
TXT4 SS Cls Aux Cvr Asy	**246610**
TXT4 SS Opn Aux Asy	**246611**
TXT4 BS Split Aux Cvr Asy	**246612**
TXT5 SS Cls Aux Cvr Asy	**246616**
TXT5 SS Opn Aux Cvr Asy	**246617**
TXT5 SS BS Split Aux Cvr Asy	**246618**
TXT6 SS Cls Aux Cvr Asy	**246619**
TXT6 SS Opn Aux Cvr Asy	**246620**
TXT6 BS Split Aux Cvr Asy	**246621**
TXT7 SS Cls Aux Cvr Asy	**246622**
TXT7 SS Opn Aux Cvr Asy	**246623**
TXT7 BS Split Aux Cvr Asy	**246624**
TXT8 SS Cls Aux Cvr Asy	**246625**
TXT8 SS Opn Aux Cvr Asy	**246625**
TXT8 BS Split Aux Cvr Asy	**246627**
TXT9 SS Cls Aux Cvr Asy	**246628**
TXT9 SS Opn Aux Cvr Asy	**246629**
TXT9 SS Split Aux Cvr Asy	**246630**
TXT10 SS Cls Aux Cvr Asy	**246631**
TXT10 SS Opn Aux Cvr Asy	**246632**
TXT10 SS Split Aux Cvr Asy	**246633**
TXT12 SS Cls Aux Cvr Asy	**246634**
TXT12 SS Opn Aux Cvr Asy	**246635**
TXT12 SS Split Aux Cvr Asy	**246635**
TXT105 BS SPL Aux Cvr Asy	**246613**
TXT205 BS SPL Aux Cvr Asy	**246614**
TXT305 BS SPL Aux Cvr Asy	**246615**
TXT1 Taconite Aux Seal Kit	**272515**
TXT105 Taconite Aux Seal Kit	**272521**
TXT2 Taconite Aux Seal Kit	**272446**
TXT205 Taconite Aux Seal kit	**272459**
TXT305A Taconite Aux Seal Kit	**253186**
TXT3A,3B Taconite Aux Seal Kit	**243577**

Product	Part #
TXT405A Taconite Aux Seal Kit	**254267**
TXT4A,4B Taconite Aux Seal Kit	**244676**
TXT505A Taconite Aux Seal Kit	**255230**
TXT5B,5C Taconite Aux Seal Kit	**245635**
TXT6 Taconite Aux Seal	**272450**
TXT7 Taconite Aux Seal Kit	**272451**
TXT8 Taconite Aux Seal Kit	**272452**
TXT9 Taconite Aux Seal Kit	**272453**
TXT10 Taconite Aux Seal Kit	**272454**
TXT12 Taconite Aux Seal Kit	**272455**
TDT13 Taconite Aux Seal Kit	**272456**
TDT14 Taconite Aux Seal Kit	**272457**
TDT15 Taconite Aux Seal Kit	**272458**
3/8 Sight Oil Level Gauge (TXT1-4)	*** 430120**
1/2 Sight Oil Level Gauge (TXT5-6)	*** 430121**
3/4 Sight Oil Level Gauge (TXT7-TDT15)	*** 430159**
C1x1-1/2 3H SS Drive Shaft	**351025**
C1x2 3H SS Drive Shaft	**351026**
C2x1-1/2 3H SS Drive Shaft	**352186**
C2x2 3H SS Drive Shaft	**352187**
C3Ax2 3H SS Drive Shaft	**353181**
C3Ax2-7/16 3H SS Drive Shaft	**353182**
C4Ax2 3H SS Drive Shaft	**354352**
C4Ax2-7/16 3H SS Drive Shaft	**354353**
C4Ax3 3H SS Drive Shaft	**354354**
C5Bx2-7/16 3H SS Drive Shaft	**355226**
C5Bx3 3H SS Drive Shaft	**355227**
C6x3 3H SS Drive Shaft	**356276**
C7x3-7/16 3H SS Drive Shaft	**356283**
AC1 Adjustable Packing Kit	**356301**
AC2 Adjustable Packing Kit	**356302**
AC3 Adjustable Packing Kit	**356303**
AC4 Adjustable Packing Kit	**356304**
AC5 Adjustable Packing Kit	**356305**
AC6/AC7 Adjustable Packing Kit	**356306**
SCXT1 Taconite Aux Seal Kit	**272721**
SCXT2 Taconite Aux Seal Kit	**272722**
SCXT3A,3BTaconite Aux Seal Kit	**243582**
SCXT4A,4B Taconite Aux Seal Kit	**244677**
SCXT5B,5C Taconite Aux Seal Kit	**245637**
SCXT505A Taconite Aux Seal Kit	**255148**
SCXT6 Taconite Aux Seal Kit	**272726**
SCXT7 Taconite Aux Seal Kit	**272727**
TXT/SCXT1 Input Taconite Seal	**241102**
TXT/SCXT2 Input Taconite Seal	**242102**
TXT/SCXT3A,3B Input Tac. Seal	**243108**
TXT/SCXT4A,4B Input Tac. Seal	**244117**
TXT/SCXT5B,5C Input Tac. Seal	**245104**
TXT/SCXT6, 605 Input Tac. Seal	**246102**
TXT/SCXT7, 705 Input Tac. Seal	**247102**
TXT8, 805 Input Taconite Seal	**248102**
TXT9, 905 Input Taconite Seal	**249102**
TXT10 Input Taconite Seal	**250102**
TXT12 Input Taconite Seal	**242102**
TXT/SCXT105 Input Taconite Seal	**241109**
TXT/SCXT205 Input Taconite Seal	**242109**
TXT/SCXT305A Input Tac. Seal	**243109**
TXT/SCXT405A Input Tac. Seal	**244159**
TXT/SCXT505A Input Tac. Seal	**245106**

* Available as Renewal Parts

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RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

TXT-ABHS Airport Baggage Handling System Reducer For Conveyors

With 60 years of proven dependability and more than 2.0 million units in service throughout the world, DODGE TORQUE-ARM speed reducers are the standard of the industry.

SHAFT MOUNT CONCEPT

Twin-Tapered Mounting to the Driven Shaft

Material Cost Savings
- Eliminates support structures
- Eliminates chain, sprocket or coupling

Installed Cost Savings
- No installation and alignment of chains or coupling
- Simple installation and motor alignment

Compact Flexible Drive Design
- Space Savings
- Reducer mounts 360° around the shaft

Flexibility to Change Output Speed
- Ease of changing V-belt drives
- Economical to change speeds
- Ability to fine tune speeds at a later date

Efficiency
- 98.5% per gear stage

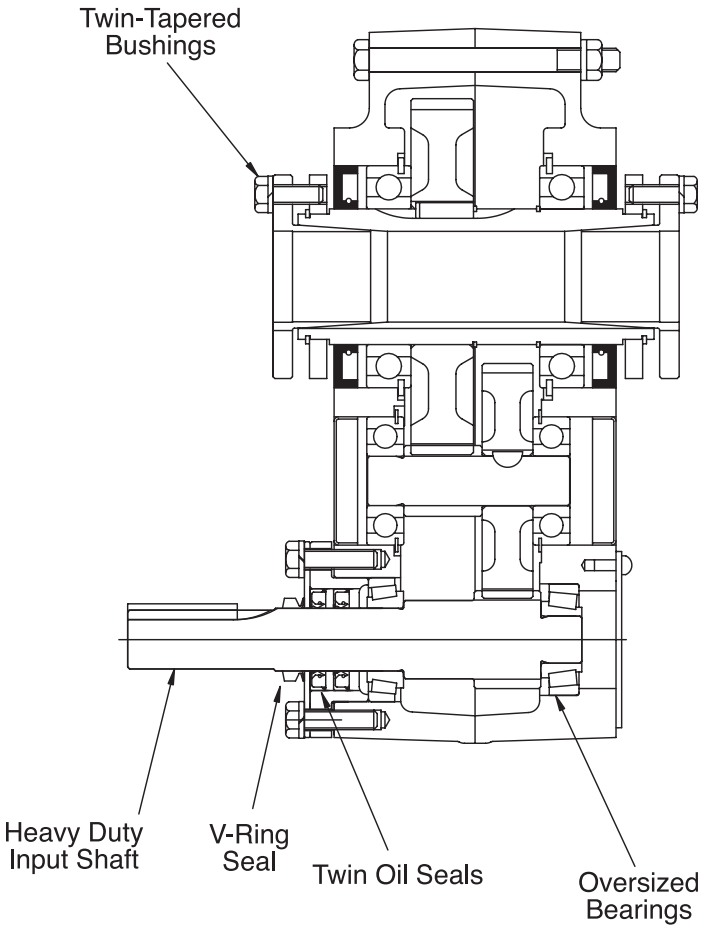
Hollow Bore
- Exclusive Twin-Tapered bushings
- Wide range of bore sizes

Performance
- Oversized input bearings and shaft for extended duty hours and service
- New premium material oil seals for continuous duty operation
- 100% factory tested and shipped with mobil DTE-BB premium lubrication
- Zinc plated torque arm rods for corrosion resistance
- Thousands of units in operation
- Maintenance Free
- Ease of repair, fewer spares, high parts availability
- Designed with years of industry analysis and research

Interchanges with Standard DODGE TXT Dimensions and Ratios

36/12 Warranty

Meets or Exceeds AGMA Standards



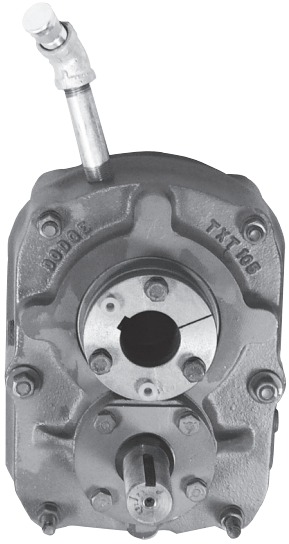
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RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

TXT-ABHS Reducers For Airport Baggage Handling System Conveyors



DODGE TORQUE-ARM Speed Reducer. The speed reducer shall be either a belt driven or direct coupled enclosed shaft mount type unit with a single or double reduction ratio. The reducer shall mount directly on the driven shaft and utilize an adjustable TORQUE-ARM that attaches from the gear case to the support structure or foundation.

The reducer housing shall be constructed of two-piece corrosion resistant, gray or ductile iron. All housings shall be doweled and precision machined.

All gearing shall be helical design and crown shaved. All gears shall be case carburized to ensure a high surface durability with a resilient tooth core for greater impact resistance and longer service life. Gears shall be supported between bearings to maintain proper alignment of gear meshes.

Reducer bearings shall be ball or tapered roller type. All seals are premium material for continuous duty operation. Dual seals and V-ring seal on input.

Reducer gears and bearings shall be splash lubricated using a premium lubricant.

Reducer installation shall be accomplished by using ductile iron, fully split Twin Tapered bushings.

Reducer removal shall be accomplished by providing jack screw holes in the busing flanges to mechanically remove the tapered assembly

TXT-ABHS Reducers

Size	Part Number
TXT 125T ABHS Reducer ▲	**241153+**
TXT 115T ABHS Reducer ▲	**241155+**
TXT 109T ABHS Reducer ▲	**241154+**
TXT 105T ABHS Reducer ▲	**251120**
TXT 225T ABHS Reducer ▲	**242258**
TXT 215T ABHS Reducer ▲	**242257**
TXT 209T ABHS Reducer ▲	**242259**
TXT 205T ABHS Reducer ▲	**252120**
TXT 325T ABHS Reducer	**243251**
TXT 315T ABHS Reducer	**243252**
TXT 309T ABHS Reducer	**243253**
TXT 305T ABHS Reducer	**253199**
TXT 425T ABHS Reducer	**244251**
TXT 415T ABHS Reducer	**244252**
TXT 409T ABHS Reducer	**244253**
TXT 405T ABHS Reducer	**254199**
TXT 525T ABHS Reducer	**245251**
TXT 515T ABHS Reducer	**245252**
TXT 509T ABHS Reducer	**245253**
TXT 505T ABHS Reducer	**255199**
TXT 1 ABHS TA Assembly ★	**241213**
TXT 2 ABHS TA Assembly ★	**242280**
TXT 3 ABHS TA Assembly ★	**243254**
TXT 4 ABHS TA Assembly ★	**244254**
TXT 5 ABHS TA Assembly ★	**245254**

+15/16" diameter input shaft.

▲ Backstops not available.

★ TORQUE-ARM assembly does not come with the TXT ABHS Reducer. It must be ordered separately by the above part number

Taper Bushing Assemblies

Stock Bore	Reducer	Size	Part Number
1-7/16(Max.)	TXT1 ABHS	TDT1	**241292**
1-3/8			**241294**
1-5/16 ▲			**241290**
1-1/4 ▲			**241288**
1-3/16 ▲			**241286**
1-1/8 ▲			**241282**
1-1/16 ▲			**241280**
1 ▲			**241278**
1-15/16(Max.)	TXT2 ABHS	TDT2	**242168**
1-3/4			**242166**
1-11/16			**242164**
1-5/8 ▲			**242162**
1-1/2 ▲			**242158**
1-7/16 ▲			**242156**
1-3/8 ▲			**242154**
1-5/16			**242152**
1-1/4 ▲			**242150**
1-3/16 ▲			**242148**
1-1/8 ▲			**242146**
2-3/16(Max.)	TXT3 ABHS	TDT3	**243276**
2			**243274**
1-15/16			**243272**
1-7/8 ▲			**243270**
1-3/4 ▲			**243266**
1-11/16 ▲			**243268**
1-5/6 ▲			**243264**
1-1/2 ▲			**243262**
1-7/16 ▲			**243260**
1-3/6 ▲			**243284**
1-5/16 ▲			**243282**
2-7/16(Max.)	TXT4 ABHS	TDT4	**244115**
2-1/4 ▲			**244113**
2-3/16 ▲			**244111**
2-1/8 ▲			**244109**
2 ▲			**244095**
1-15/16 ▲			**244093**
1-3/4 ▲			**244087**
1-11/16 ▲			**244085**
1-1/2 ▲			**244081**
1-7/16 ▲			**244079**
2-15/16(Max.)	TXT5 ABHS	TDT5	**245112**
2-11/16			**245110**
2-7/16 ▲			**245094**
2-1/4 ▲			**245092**
2-3/16 ▲			**245090**
2 ▲			**245088**
1-15/16 ▲			**245086**

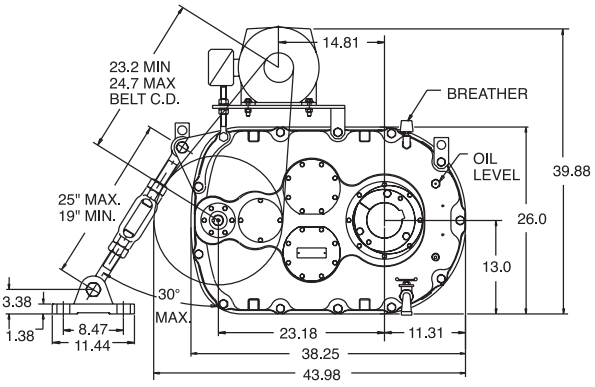
▲ Check driven shaft and key for strength.

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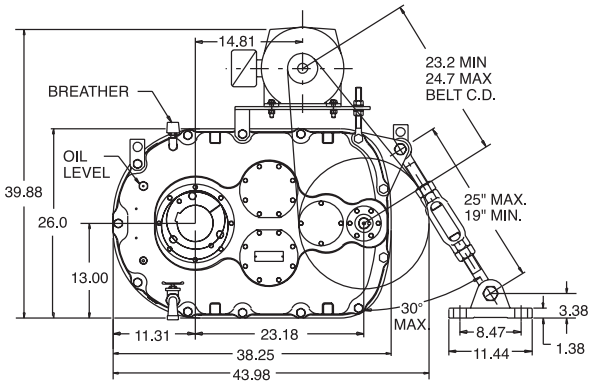
RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

Dodge Biological Contact Drive (BIO-DISC)
Industrial Drive For Wastewater Treatment Industry



#188D L.H. BIO-DISC ASSY



#188D R.H. BIO-DISC ASSY

Product Specification

The speed reducer shall be either a belt driven or direct coupled enclosed shaft mount type unit with a triple reduction ratio of 170.44:1. The reducer shall mount directly on the driven shaft and utilize an adjustable TORQUE-ARM that attaches to the support structure or foundation.

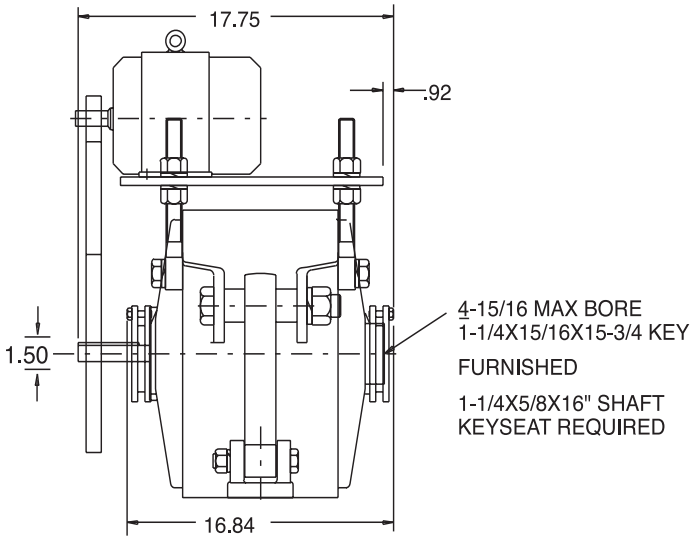
The reducer housing shall be constructed of two-piece corrosion resistant, gray iron and be ribbed for added strength. All housings shall be doweled and precision machined to assure accurate alignment for all gear sets. The reducer housing shall be painted with primer plus two (2) coats of epoxy ester enamel to minimize corrosion.

All gearing shall be of helical or spur design, and crown shaved to provide an elliptoid tooth to eliminate tooth end bearing and assure meshing at the strongest tooth area. All gears shall be case carburized to ensure a high surface durability with a resilient tooth core for greater impact resistance and long service life. Gears shall be supported between bearings to maintain proper alignment on gear meshes, to maximize load carrying capabilities, and eliminate overhung loads imposed on bearings. The gears shall be rated for 7-1/2 horsepower at 1.5 RPM - Class I service and 5 horsepower at 1.5 RPM - Class II Service. Reducer bearings shall be of the straight or tapered roller type and provide a 5,000 hour minimum L-10 life at the 7-1/2 HP Class I rating.

All seals shall be of the lip, spring loaded type, made of nitrile rubber.

Reducer gears and bearings shall be splash lubricated using a quality petroleum base oil, containing anti-foamants and rust inhibitors.

Reducer installation shall be accomplished by using ductile iron, fully split twin-tapered bushings. The maximum and preferred bore shall be 4-15/16 inch. Reducer removal shall be accomplished by providing jack screw holes in the bushing flanges to mechanically remove the tapered assembly.



DODGE 188D BIO-DISC DRIVE PRODUCTS

PRODUCT DESCRIPTION	PART NO.	WEIGHT LBS.
188D BIO DISC REDUCER LH ASSEMBLY	**259166 ***	1392.0
188D BIO DISC REDUCER RH ASSEMBLY	**259164 ***	1392.0
188D BIO DISC REDUCER REPLACEMENT BUSHING ASSY	**021832**	20.8
BIO DISC REDUCER V-DRIVE KIT	**BIO DR KIT ****	50.0
188D LH BELT GUARD ASSEMBLY	**259023**	125.0
188D RH BELT GUARD ASSEMBLY	**259024**	125.0
188D UNIVERSAL BELT GUARD	**963763**	125.0

* Consists of Reducer, Tapered Bushing Assembly and Motor Mount.

** Consists of 3/3V4.12/3V19.0/3VX850 V-drive with Taper Lock Bushings

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RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

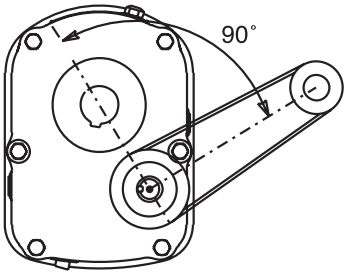
Dodge V-Belt Drives For TORQUE-ARM Reducers And Screw Conveyor Drive Reducers

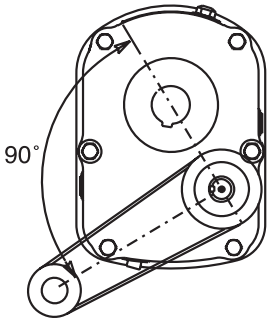
These are typical drives for average service conditions. For other conditions, output speeds or motor speeds, see reducer specifications for minimum driven sheave diameter and use V-belt drive selection tables.

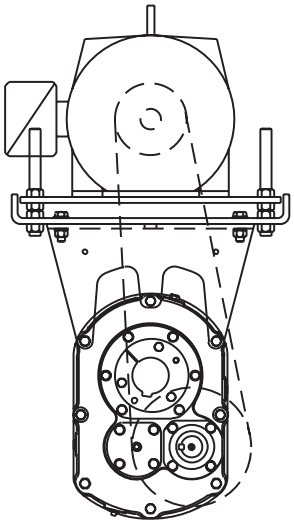
For adequate horsepower, 3v, 5v, and 8v sheaves require 3VX, 5VX and 8VX belts; and A, B, C and D sheaves require AX, BX, CX and DX belts.

Keep driven sheave as close to reducer housing as possible.

The belt drive may be located in any convenient position. If the torque-arm is to be used to tighten the belts, the drive should be at about 90° to a line between the input and output shafts.







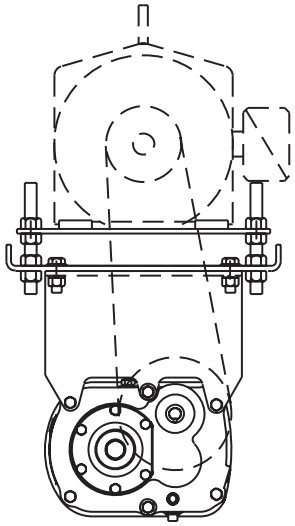


Table 19 - NEMA Motor Information (1750 RPM)

Horsepower	NEMA Motor Frame	Shaft Diameter	Minimum Sheave Diameters
1	143T	7/8	2.20
1-1/2	145T	7/8	2.40
2	145T	7/8	2.40
3	182T	1-1/8	2.40
5	184T	1-1/8	3.00
7-1/2	213T	1-3/8	3.00
10	215T	1-3/8	3.80
15	254T	1-5/8	4.40
20	256T	1-5/8	4.40
25	284T	1-7/8	4.40
30	286T	1-7/8	5.20
40	324T	2-1/8	6.00
50	326T	2-1/8	6.80
60	364T	2-3/8	7.40
75	365T	2-3/8	8.60
100	+405T	2-7/8	8.60
125	+444T	3-3/8	10.50
150	+445T	3-3/8	10.50
200	+447T	3-3/8	13.20

+ Energy Efficient (TEFC-XE) Frame

Table 20 - Minimum Sheave Diameters For Dodge TORQUE-ARM Reducers

TXT, SCXT Reducer	Single Reduction		Double Reduction			
	Shaft Diameter	5:1	Shaft Diameter	9:1	15:1	25:1
1	1-1/8	4.00	3/4	4.0	3.0	3.0
2	1-7/16	3.00	1-1/8	5.0	3.0	3.0
3	1-5/8	7.00	1-1/4	5.0	4.0	4.0
4	1-15/16	7.50	1-7/16	6.5	4.6	4.6
5	2-3/16	9.50	1-15/16	7.0	5.4	5.4
6	2-3/16	6.50	2-3/16	7.0	6.2	6.2
7	2-7/16	7.50	2-7/16	7.0	6.2	6.2
8	2-7/16	9.20	2-7/16		6.2	6.2
9	2-7/16	9.50	2-7/16		8.0	8.0
10			2-11/16		8.5	8.5
12			2-11/16		9.5	9.5
13			2-15/16			12.0
14			2-15/16			15.0
15			3-7/16			20.0

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RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

Table 21 - Nominal Sheave Ratios Required For Dodge TORQUE-ARM Reducers

Reducer Output RPM	5:1 Nominal Reducer Ratio Motor Speed			Reducer Output RPM	9:1 Nominal Reducer Ratio Motor Speed			Reducer Output RPM	15:1 Nominal Reducer Ratio Motor Speed			Reducer Output RPM	25:1 Nominal Reducer Ratio Motor Speed		
	1750	1450	1170		1750	1450	1170		1750	1450	1170		1750	1450	1170
400.00	**1.14**	**1.38**	**1.71**	200.00	**1.03**	**1.24**	**1.54**	120.00	**1.03**	**1.24**	**1.54**	76.00	**1.09**	**1.31**	**1.62**
395.00	**1.13**	**1.36**	**1.69**	198.00	**1.02**	**1.23**	**1.52**	118.00	**1.01**	**1.22**	**1.51**	74.00	**1.06**	**1.28**	**1.58**
390.00	**1.11**	**1.34**	**1.67**	196.00	**1.01**	**1.22**	**1.51**	116.00	1.01	**1.20**	**1.49**	72.00	**1.03**	**1.24**	**1.54**
385.00	**1.10**	**1.33**	**1.65**	194.00	1.00	**1.20**	**1.49**	114.00	1.02	**1.18**	**1.46**	70.00	1.00	**1.21**	**1.50**
380.00	**1.09**	**1.31**	**1.62**	192.00	1.01	**1.19**	**1.48**	112.00	1.04	**1.16**	**1.44**	68.00	1.03	**1.17**	**1.45**
375.00	**1.07**	**1.29**	**1.60**	190.00	1.02	**1.18**	**1.46**	110.00	1.06	**1.14**	**1.41**	66.00	1.06	**1.14**	**1.41**
370.00	**1.06**	**1.28**	**1.58**	188.00	1.03	**1.17**	**1.45**	108.00	1.08	**1.12**	**1.38**	64.00	1.09	**1.10**	**1.37**
365.00	**1.04**	**1.26**	**1.56**	186.00	1.05	**1.15**	**1.43**	106.00	1.10	**1.10**	**1.36**	62.00	1.13	**1.07**	**1.32**
360.00	**1.03**	**1.24**	**1.54**	184.00	1.06	**1.14**	**1.42**	104.00	1.12	**1.08**	**1.33**	60.00	1.17	**1.03**	**1.28**
355.00	**1.01**	**1.22**	**1.52**	182.00	1.07	**1.13**	**1.40**	102.00	1.14	**1.06**	**1.31**	58.00	1.21	1.00	1.24
350.00	1.00	**1.21**	**1.50**	180.00	1.08	**1.12**	**1.38**	100.00	1.17	**1.03**	**1.28**	56.00	1.25	1.04	1.20
345.00	1.01	**1.19**	**1.47**	178.00	1.09	**1.10**	**1.37**	98.00	1.19	**1.01**	**1.26**	54.00	1.30	1.07	1.15
340.00	1.03	**1.17**	**1.45**	176.00	1.10	**1.09**	**1.35**	96.00	1.22	1.01	**1.23**	52.00	1.35	1.12	1.11
335.00	1.04	**1.16**	**1.43**	174.00	1.12	**1.08**	**1.34**	94.00	1.24	1.03	**1.21**	50.00	1.40	1.16	1.07
330.00	1.06	**1.14**	**1.41**	172.00	1.13	**1.07**	**1.32**	92.00	1.27	1.05	**1.18**	48.00	1.46	1.21	1.03
325.00	1.08	**1.12**	**1.39**	170.00	1.14	**1.06**	**1.31**	90.00	1.30	1.07	**1.15**	46.00	1.52	1.26	1.02
320.00	1.09	**1.10**	**1.37**	168.00	1.16	**1.04**	**1.29**	88.00	1.33	1.10	**1.13**	44.00	1.59	1.32	1.06
315.00	1.11	**1.09**	**1.35**	166.00	1.17	**1.03**	**1.28**	86.00	1.36	1.12	**1.10**	42.00	1.67	1.38	1.11
310.00	1.13	**1.07**	**1.32**	164.00	1.19	**1.02**	**1.26**	84.00	1.39	1.15	**1.08**	40.00	1.75	1.45	1.17
305.00	1.15	**1.05**	**1.30**	162.00	1.20	**1.01**	**1.25**	82.00	1.42	1.18	**1.05**	38.00	1.84	1.53	1.23
300.00	1.17	**1.03**	**1.28**	160.00	1.22	1.01	**1.23**	80.00	1.46	1.21	**1.03**	36.00	1.94	1.61	1.30
295.00	1.19	**1.02**	**1.26**	158.00	1.23	1.02	**1.22**	78.00	1.50	1.24	1.00	34.00	2.06	1.71	1.38
290.00	1.21	1.00	**1.24**	156.00	1.25	1.03	**1.20**	76.00	1.54	1.27	1.03	32.00	2.19	1.81	1.46
285.00	1.23	1.02	**1.22**	154.00	1.26	1.05	**1.18**	74.00	1.58	1.31	1.05	30.00	2.33	1.93	1.56
280.00	1.25	1.04	**1.20**	152.00	1.28	1.06	**1.17**	72.00	1.62	1.34	1.08	28.00	2.50	2.07	1.67
275.00	1.27	1.05	**1.18**	150.00	1.30	1.07	**1.15**	70.00	1.67	1.38	1.11	26.00	2.69	2.23	1.80
270.00	1.30	1.07	**1.15**	148.00	1.31	1.09	**1.14**	68.00	1.72	1.42	1.15	24.00	2.92	2.42	1.95
265.00	1.32	1.09	**1.13**	146.00	1.33	1.10	**1.12**	66.00	1.77	1.46	1.18	22.00	3.18	2.64	2.13
260.00	1.35	1.12	**1.11**	144.00	1.35	1.12	**1.11**	64.00	1.82	1.51	1.22	20.00	3.50	2.90	2.34
255.00	1.37	1.14	**1.09**	142.00	1.37	1.13	**1.09**	62.00	1.88	1.56	1.26	18.00	3.89	3.22	2.60
250.00	1.40	1.16	**1.07**	140.00	1.39	1.15	**1.08**	60.00	1.94	1.61	1.30	16.00	4.38	3.63	2.93
245.00	1.43	1.18	**1.05**	138.00	1.41	1.17	**1.06**	58.00	2.01	1.67	1.34	14.00	5.00	4.14	3.34
240.00	1.46	1.21	**1.03**	136.00	1.43	1.18	**1.05**	56.00	2.08	1.73	1.39	12.00	5.83	4.83	3.90
235.00	1.49	1.23	1.00	134.00	1.45	1.20	**1.03**	54.00	2.16	1.79	1.44	10.00	7.00	5.80	4.68
230.00	1.52	1.26	1.02	132.00	1.47	1.22	**1.02**	52.00	2.24	1.86	1.50	8.00	8.75	7.25	5.85
225.00	1.56	1.29	1.04	130.00	1.50	1.24	1.00	50.00	2.33	1.93	1.56	6.00	11.67	9.67	7.80
220.00	1.59	1.32	1.06	128.00	1.52	1.26	1.02	48.00	2.43	2.01	1.63				
215.00	1.63	1.35	1.09	126.00	1.54	1.28	1.03	46.00	2.54	2.10	1.70				
210.00	1.67	1.38	1.11	124.00	1.57	1.30	1.05	44.00	2.65	2.20	1.77				
205.00	1.71	1.41	1.14	122.00	1.59	1.32	1.07	42.00	2.78	2.30	1.86				
200.00	1.75	1.45	1.17	120.00	1.62	1.34	1.08	40.00	2.92	2.42	1.95				

Speed Increase Ratios are shown in bold type



RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

Table 21 - Nominal Sheave Ratios Required For Dodge TORQUE-ARM Reducers (Continued)

Reducer Output RPM	5:1 Nominal Reducer Ratio Motor Speed			Reducer Output RPM	9:1 Nominal Reducer Ratio Motor Speed			Reducer Output RPM	15:1 Nominal Reducer Ratio Motor Speed			Reducer Output RPM	25:1 Nominal Reducer Ratio Motor Speed		
	1750	1450	1170		1750	1450	1170		1750	1450	1170		1750	1450	1170
195.00	1.79	1.49	1.20	118.00	1.65	1.37	1.10	38.00	3.07	2.54	2.05				
190.00	1.84	1.53	1.23	116.00	1.68	1.39	1.12	36.00	3.24	2.69	2.17				
185.00	1.89	1.57	1.26	114.00	1.71	1.41	1.14	34.00	3.43	2.84	2.29				
180.00	1.94	1.61	1.30	112.00	1.74	1.44	1.16	32.00	3.65	3.02	2.44				
175.00	2.00	1.66	1.34	110.00	1.77	1.46	1.18	30.00	3.89	3.22	2.60				
170.00	2.06	1.71	1.38	108.00	1.80	1.49	1.20	28.00	4.17	3.45	2.79				
165.00	2.12	1.76	1.42	106.00	1.83	1.52	1.23	26.00	4.49	3.72	3.00				
160.00	2.19	1.81	1.46	104.00	1.87	1.55	1.25	24.00	4.86	4.03	3.25				
155.00	2.26	1.87	1.51	102.00	1.91	1.58	1.27	22.00	5.30	4.39	3.55				
150.00	2.33	1.93	1.56	100.00	1.94	1.61	1.30	20.00	5.83	4.83	3.90				
145.00	2.41	2.00	1.61					18.00	6.48	5.37	4.33				
140.00	2.50	2.07	1.67					16.00	7.29	6.04	4.88				
135.00	2.59	2.15	1.73					14.00	8.33	6.90	5.57				
130.00	2.69	2.23	1.80					12.00	9.72	8.06	6.50				
125.00	2.80	2.32	1.87					10.00	11.67	9.67	7.80				
120.00	2.92	2.42	1.95												
115.00	3.04	2.52	2.03												
110.00	3.18	2.64	2.13												
105.00	3.33	2.76	2.23												
100.00	3.50	2.90	2.34												

Speed Increase Ratios are shown in bold type

RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers



Table 22 - Nominal Sheave Speed (RPM) At Input For Dodge Reducers 1750 RPM Motor

Reducer Output RPM	5:1 Nominal Reducer Ratio	Reducer Output RPM	9:1 Nominal Reducer Ratio	Reducer Output RPM	15:1 Nominal Reducer Ratio	Reducer Output RPM	25:1 Nominal Reducer Ratio
400.00	2000	200.00	1800	120.00	1800	76.00	1900
395.00	1975	198.00	1782	118.00	1770	74.00	1850
390.00	1950	196.00	1764	116.00	1740	72.00	1800
385.00	1925	194.00	1746	114.00	1710	70.00	1750
380.00	1900	192.00	1728	112.00	1680	68.00	1700
375.00	1875	190.00	1710	110.00	1650	66.00	1650
370.00	1850	188.00	1692	108.00	1620	64.00	1600
365.00	1825	186.00	1674	106.00	1590	62.00	1550
360.00	1800	184.00	1656	104.00	1560	60.00	1500
355.00	1775	182.00	1638	102.00	1530	58.00	1450
350.00	1750	180.00	1620	100.00	1500	56.00	1400
345.00	1725	178.00	1602	98.00	1470	54.00	1350
340.00	1700	176.00	1584	96.00	1440	52.00	1300
335.00	1675	174.00	1566	94.00	1410	50.00	1250
330.00	1650	172.00	1548	92.00	1380	48.00	1200
325.00	1625	170.00	1530	90.00	1350	46.00	1150
320.00	1600	168.00	1512	88.00	1320	44.00	1100
315.00	1575	166.00	1494	86.00	1290	42.00	1050
310.00	1550	164.00	1476	84.00	1260	40.00	1000
305.00	1525	162.00	1458	82.00	1230	38.00	950
300.00	1500	160.00	1440	80.00	1200	36.00	900
295.00	1475	158.00	1422	78.00	1170	34.00	850
290.00	1450	156.00	1404	76.00	1140	32.00	800
285.00	1425	154.00	1386	74.00	1110	30.00	750
280.00	1400	152.00	1368	72.00	1080	28.00	700
275.00	1375	150.00	1350	70.00	1050	26.00	650
270.00	1350	148.00	1332	68.00	1020	24.00	600
265.00	1325	146.00	1314	66.00	990	22.00	550
260.00	1300	144.00	1296	64.00	960	20.00	500
255.00	1275	142.00	1278	62.00	930	18.00	450
250.00	1250	140.00	1260	60.00	900	16.00	400
245.00	1225	138.00	1242	58.00	870	14.00	350
240.00	1200	136.00	1224	56.00	840	12.00	300
235.00	1175	134.00	1206	54.00	810	10.00	250
230.00	1150	132.00	1188	52.00	780	8.00	200
225.00	1125	130.00	1170	50.00	750	6.00	150
220.00	1100	128.00	1152	48.00	720		
215.00	1075	126.00	1134	46.00	690		
210.00	1050	124.00	1116	44.00	660		
205.00	1025	122.00	1098	42.00	630		
200.00	1000	120.00	1080	40.00	600		



RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

Table 22 - Nominal Sheave Speed (RPM) At Input For Dodge Reducers 1750 RPM Motor

Reducer Output RPM	5:1 Nominal Reducer Ratio	Reducer Output RPM	9:1 Nominal Reducer Ratio	Reducer Output RPM	15:1 Nominal Reducer Ratio	Reducer Output RPM	25:1 Nominal Reducer Ratio
195.00	975	118.00	1062	38.00	570		
190.00	950	116.00	1044	36.00	540		
185.00	925	114.00	1026	34.00	510		
180.00	900	112.00	1008	32.00	480		
175.00	875	110.00	990	30.00	450		
170.00	850	108.00	972	28.00	420		
165.00	825	106.00	954	26.00	390		
160.00	800	104.00	936	24.00	360		
155.00	775	102.00	918	22.00	330		
150.00	750	100.00	900	20.00	300		
145.00	725			18.00	270		
140.00	700			16.00	240		
135.00	675			14.00	210		
130.00	650			12.00	180		
125.00	625			10.00	150		
120.00	600						
115.00	575						
110.00	550						
105.00	525						
100.00	500						

RELATED PRODUCTS

TORQUE-ARM Shaft Mount Speed Reducers

Dodge TORQUE-ARM Protection Plan

Pre-Packaged Rebuild Kits for TXT, SCXT & TORQUE-ARM II Reducers

DODGE TORQUE-ARM reducers are designed to achieve optimum service life from all components. Wear does occur over the service life of a reducer, particularly to bearings and seals. To rebuild DODGE TORQUE-ARM reducers to factory tolerances and specifications, use only genuine DODGE replacement parts.

Preventive actions such as scheduled maintenance and on-site inventory of TORQUE-ARM Level 1 or Level 2 Rebuild Kits are recommended to minimize the cost of down time. Having replacement parts available before they are needed contributes to a quick return of the machine to productivity.

Unexpected machine downtime usually means loss of productivity. Consider:

- Time to diagnose and order replacement parts
- Time waiting for parts to arrive

Each Rebuild Kit is assigned a unique part number based on reducer size and ratio making selection easy. Kits components are packaged individually and marked for easy identification. Individual components are then over packed and shipped in one clearly marked container that can be dedicated to a specific reducer.

DODGE Rebuild Kits offer protection and economy. Pricing is structured to offer savings over the purchase of individual components.

Level 1 Kit Includes:

- Input & output Seals
- Complete set of bearings
- Shim kit
- Gearcase sealant
- Instruction manual

Level 2 Kit Includes:

- 1st stage input shaft with pinion
- 1st stage mating gear
- Input & output seals
- Complete set of bearings
- Shim kit
- Gearcase sealant
- Instruction manual

Log on to **ptplace.com** to locate your nearest authorized Key Parts Distributor

Rebuild Kit Accessories Available for Order (not included in kit)



Lubricant:

It is important that a rebuilt reducer be refilled with fresh lubricant of the proper viscosity group.

To make this an easy selection we have prepackaged the required volume of factory standard lubricant which may be ordered along with the rebuild kit. See Accessory table for kit part numbers.



Paint – Touch Up

To restore damaged paint following the rebuild you may order Dodge part number 810001 on PTPlace. This is a 12 oz aerosol spray can of factory original Reliance blue-green paint.



TORQUE-ARM Shaft Mount Speed Reducers

Dodge TDT-TX-SCX TORQUE-ARM Rebuild Kits

Level 1 Kit includes input and output seals, set of bearings, shim kit, sealant and instruction manual. Kit provides protection against down time due to fatigue of high wear components.

Level 2 Kit includes all items in Level 1 along with input pinion and 1st stage gear. Level 2 kit provides maximum protection against down time.

Rebuild kits available for all current sizes as listed below. For older, obsolete sizes not listed it is recommended that seal kit, bearing kit and shim kit be ordered for Level 1 coverage. Add input pinion and gear for Level 2 protection.

TXT-TDT Rebuild Kits			
Size	**Size/Ratio**	**Level 1**	**Level 2**
TXT1	TXT109	**392270**	**392271**
	TXT115		**392272**
	TXT125		**392273**
TXT1A	TXT109A	**392270**	**392271**
	TXT115A		**392272**
	TXT125A		**392273**
TXT2	TXT209	**392274**	**392275**
	TXT215		**392276**
	TXT225		**392277**
TXT2A	TXT209A	**392274**	**392275**
	TXT215A		**392276**
	TXT225A		**392277**
TXT3A	TXT309A	**392278**	**392279**
	TXT315A		**392280**
	TXT325A		**392281**
TXT3B	TXT309B	**392278**	**392279**
	TXT315B		**392280**
	TXT325B		**392281**
TXT4A	TXT409A	**392282**	**392283**
	TXT415A		**392284**
	TXT425A		**392285**
TXT4B	TXT409B	**392282**	**392283**
	TXT415B		**392284**
	TXT425B		**392285**
TXT5B	TXT509B	**392287**	**392288**
	TXT515B		**392289**
	TXT525B		**392290**
TXT5C	TXT509C	**392287**	**392288**
	TXT515C		**392289**
	TXT525C		**392290**

TXT-TDT Rebuild Kits (Continued)			
Size	**Size/Ratio**	**Level 1**	**Level 2**
TXT-TDT6	TXT609	**392291**	**392292**
	TXT615		**392293**
	TXT625		**392294**
TXT6A	TXT609A	**392291**	**392292**
	TXT615A		**392293**
	TXT625A		**392294**
TXT-TDT7	TXT709	**392295**	**392296**
	TXT715		**392297**
	TXT725		**392298**
TXT7A	TXT709A	**392295**	**392296**
	TXT715A		**392297**
	TXT725A		**392298**
TXT-TDT8	TXT815	**392299**	**392300**
	TXT825		**392301**
TXT8A	TXT815A	**392299**	**392300**
	TXT825A		**392301**
TXT-TDT9	TXT915	**392302**	**392303**
	TXT926		**392304**
TXT9A	TXT915A	**392302**	**392303**
	TXT926A		**392304**
TXT-TDT10	TXT1015	**392305**	**392306**
	TXT1024		**392307**
TXT10A	TXT1015A	**392305**	**392306**
	TXT1024A		**392307**
TXT-TDT12	TXT1215	**392308**	**392309**
	TXT1225		**392310**
TDT13	TDT1325	**392311**	**392312**
TDT14	TDT1425	**392313**	**392314**
TDT15	TDT1530	**392315**	**392316**

RELATED PRODUCTS



TORQUE-ARM Shaft Mount Speed Reducers (Continued)

Dodge TDT-TX-SCX TORQUE-ARM Rebuild Kits

SCXT Rebuild Kits			
Size	**Size/Ratio**	**Level 1**	**Level 2**
SCXT1	SCXT109	**392395**	**392398**
	SCXT115		**392399**
	SCXT125		**392400**
SCXT1A	SCXT109A	**392395**	**392398**
	SCXT115A		**392399**
	SCXT125A		**392400**
SCXT2	SCXT209	**392396**	**392401**
	SCXT215		**392402**
	SCXT225		**392403**
SCXT2A	SCXT209A	**392396**	**392401**
	SCXT215A		**392402**
	SCXT225A		**392403**
SCXT3A	SCXT309A	**392278**	**392279**
	SCXT315A		**392280**
	SCXT325A		**392281**
SCXT3B	SCXT309B	**392278**	**392279**
	SCXT315B		**392280**
	SCXT325B		**392281**
SCXT4A	SCXT409A	**392282**	**392283**
	SCXT415A		**392284**
	SCXT425A		**392285**
SCXT4B	SCXT409B	**392282**	**392283**
	SCXT415B		**392284**
	SCXT425B		**392285**
SCXT5B	SCXT509B	**392287**	**392288**
	SCXT515B		**392289**
	SCXT525B		**392290**
SCXT5C	SCXT509C	**392287**	**392288**
	SCXT515C		**392289**
	SCST525C		**392290**
SCXT6	SCXT609	**392291**	**392292**
	SCXT615		**392293**
	SCXT625		**392294**
SCXT6A	SCXT609A	**392291**	**392292**
	SCXT615A		**392293**
	SCXT625A		**392294**

SCXT Rebuild Kits			
Size	**Size/Ratio**	**Level 1**	**Level 2**
SCXT7	SCXT709	**392295**	**392296**
	SCXT715		**392297**
	SCXT725		**392298**
SCXT7A	SCXT709A	**392295**	**392296**
	SCXT715A		**392297**
	SCXT725A		**392298**
SCXT8	SCXT815	**392397**	**392404**
	SCXT825		**392405**
SCXT8A	SCXT815A	**392397**	**392404**
	SCXT825A		**392405**

TXT - SCXT 5:1

TXT Rebuild Kits 5:1 Ratio	
Size	**Level 1**
TXT105	**392379**
TXT205	**392380**
TXT305A	**392381**
TXT405A	**392382**
TXT505A	**392383**
TXT605	**392384**
TXT705	**392385**
TXT805	**392386**
TXT905	**392387**

SCXT Rebuild Kits 5:1 Ratio	
Size	**Level 1**
SCXT105	**392388**
SCXT205	**392389**
SCXT305A	**392390**
SCXT405A	**392391**
SCXT505A	**392392**
SCXT605	**392393**
SCXT705	**392394**



TORQUE-ARM Shaft Mount Speed Reducers

Lubrication Of TORQUE-ARM Reducers

CAUTION: Unit is shipped without oil. Add proper amount of rust and oxidation inhibited (R & O) gear oil before operating. Failure to observe these precautions could result in damage to, or destruction of, the equipment.

Lubrication is extremely important for satisfactory operation. The proper oil level as shown in Table 25, page G2-173, must be maintained at all times. Frequent inspections with the unit not running and allowing sufficient time for the oil to cool and the entrapped air to settle out of the oil should be made by removing the level plug to see that the level is being maintained. If low, add the proper type and viscosity of lubricant through one of the upper openings until it comes out of the oil level hole. Replace the oil level plug securely. Refer to Tables 23 and 24 for viscosity recommendations.

After an initial operation of about two weeks, the oil should be changed. If desired, this oil may be filtered and reused. Very often, small metal particles will show up in the oil due to the wearing process. After the initial break in period, the lubricant should be drained, magnetic drain plug cleaned, gear case flushed and refilled every 2500 hours of operation under average industrial conditions.

CAUTION: Too much oil will cause overheating and too little will result in gear failure. Check oil level regularly.

More frequent oil changes are recommended when operating continuously or at high temperatures or under conditions of extreme dirt or dust. Use only recommended lubricants listed on next page, or equivalent. Special attention should be given to checking of lubricants when any of the following conditions exist:

1. High operating temperatures resulting from heavy intermittent loads causes the temperature of the gear case to rise rapidly and then cool.
2. Unusual ambient conditions, which may tend to cause condensation on the inside of the gearcase thereby contaminating the oil.
3. Operating temperatures that would cause oil to approach 200°F continually.
4. Subjection of reducer to unusual vapors or moist atmosphere.
5. Subjection of reducer to extremely dusty or dirty environment.

Under these extreme operating conditions, the oil should be changed every 1 to 3 months depending on severity of conditions.

Operating Temperatures

Heating is a natural characteristic of enclosed gearing, and a maximum gear case temperature approaching 200°F is not uncommon for some units operating in normal ambient temperatures (80°F). When operating at rated capacity, no damage will result from this temperature as this was taken into consideration in the design of the gear case and in the selection of the lubricants.



TORQUE-ARM Shaft Mount Speed Reducers

Lubrication Of TORQUE-ARM Reducers (Continued)

Table 23: Lubrication Recommendations - ISO Grades For Ambient Temperatures Of 50°F Thru 125°F ✧

Output	TXT, SCXT, HXT Reducers													
RPM	1	2	3	4	5	6	7	8	9	10	12	13	14	15
301-400	320	320	220	220	220	220	220	220	220	220	220	220	220	220
201-300	320	320	220	220	220	220	220	220	220	220	220	220	220	220
151-200	320	320	220	220	220	220	220	220	220	220	220	220	220	220
126-150	320	320	320	220	220	220	220	220	220	220	220	220	220	220
101-125	320	320	320	320	220	220	220	220	220	220	220	220	220	220
81-100	320	320	320	320	320	220	220	220	220	220	220	220	220	220
41-80	320	320	320	320	320	220	220	220	220	220	220	220	220	220
11-40	320	320	320	320	320	320	320	320	320	320	220	220	220	220
1-10	320	320	320	320	320	320	320	320	320	320	320	320	320	320

Table 24: Lubrication Recommendations - ISO Grades For Ambient Temperatures Of 15°F Thru 60°F ✧

Output	TXT, SCXT, HXT Reducers													
RPM	1	2	3	4	5	6	7	8	9	10	12	13	14	15
301-400	220	220	150	150	150	150	150	150	150	150	150	150	150	150
201-300	220	220	150	150	150	150	150	150	150	150	150	150	150	150
151-200	220	220	150	150	150	150	150	150	150	150	150	150	150	150
126-150	220	220	220	150	150	150	150	150	150	150	150	150	150	150
101-125	220	220	220	220	150	150	150	150	150	150	150	150	150	150
81-100	220	220	220	220	220	150	150	150	150	150	150	150	150	150
41-80	220	220	220	220	220	150	150	150	150	150	150	150	150	150
11-40	220	220	220	220	220	220	220	220	220	220	150	150	150	150
1-10	220	220	220	220	220	220	220	220	220	220	220	220	220	220

Lubricant Grade Equivalents

ISO	AGMA
150	4
220	5
320	6

NOTE: Mobil SHC 600 Series oil is recommended for high ambient temperatures

✧ **NOTES:**

1. Assumes auxiliary cooling where recommended in the catalog.
2. Pour point of lubricant selected should be at least 10°F. lower than expected minimum ambient starting temperature.
3. Extreme pressure (EP) lubricants are not necessary for average operating conditions. TORQUE-ARM internal backstops are not suitable for use with EP lubricants.
4. Special lubricants may be required for food and drug industry applications where contact with the product being manufactured may occur. Consult a lubrication manufacturer's representative for his recommendations.
5. Do not use oils containing additives such as graphite or molybdenum disuphide in the reducer when a backstop is used. These additives will destroy sprag action.
6. For reducers operating in ambient temperatures between -22°F (-30°C) and 20°F (-6.6°C) use a synthetic hydrocarbon lubricant, 100 ISO grade or AGMA 35 grade (for example - Mobil SHC627). Above 125°F (51°C), consult DODGE Gear Application Engineering (864) 284-5700 for lubrication recommendation.



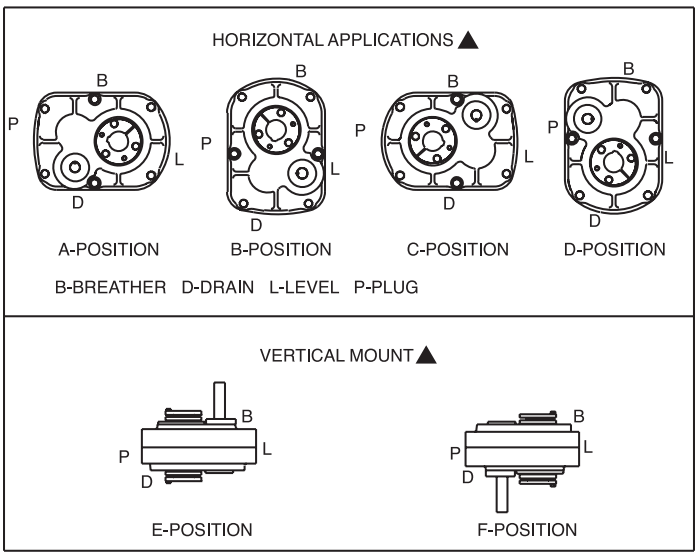
TORQUE-ARM Shaft Mount Speed Reducers

Lubrication Of TORQUE-ARM Reducers (Continued)

Horizontal Installations - Install the magnetic drain plug in the hole closest to the bottom of the reducer. Throw away the tape that covers the filler/ventilation plug in shipment and install plug in topmost hole. Of the remaining plugs on the sides of the reducer, the lowest one is the minimum oil level plug. Vertical installations-Install the filler/ventilation plug in the hole provided in the top face of the reducer housing. Use the hole in the bottom face for the magnetic drain plug. Of the remaining holes on the sides of the reducer, use a plug in the upper housing half for the minimum oil level plug.

The running position of the reducer in a horizontal application is not limited to the four positions shown below. However, if running position is over 20° either way from sketches, the oil level plug cannot be safely used to check the oil level, unless during the checking the torque arm is disconnected and the reducer is swung to within 20° in position B or D, or 5° in position A and C shown below. Because of the many possible positions of the reducer, it may be necessary or desirable to make special adaptations using the lubrication fitting holes furnished along with other standard pipe fittings, stand pipes and oil level gauges as required.

Mounting Positions



▲ **Note:** Below 15 RPM output speed, oil level must be adjusted to reach the highest oil level plug (P)

Vertical Installations - Install the filter/ventilation plug in the hole provided in the top face of the reducer housing. Use the hole in the bottom face for the magnetic drain plug. Of the remaining holes on the sides of the reducer, use a plug in the upper housing half for the minimum oil level plug.

Table 25 - Approx. Oil Capacity in Quarts ■ ◆

Reducer Size TXT SCXT HXT	Reducer Positions					
	Horizontal				Vertical	
	A	B	C	D	E	F
109,115,125	1/2	1/2	5/8	3/4	1	1-1/4
105	5/8	3/4	5/8	3/4	1-1/8	1-3/8
209,215,225	7/8	1	5/8	1	1-5/8	1-3/4
205	3/4	7/8	7/8	7/8	1-3/4	2-1/4
309,315,325	1-1/2	1-1/2	3/4	2-1/4	2-5/8	3
305	7/8	1-1/2	1-3/8	1-3/8	2-1/2	3-1/8
409,415,425	1-7/8	2-1/4	1-1/4	1-3/4	3-3/8	4-1/4
405	1-1/2	2-1/4	2-1/8	1-7/8	4	4-7/8
509,515,525	3-1/4	4	3-1/4	4	7	8-5/8
505	3-3/8	4-1/4	3-7/8	3-3/4	7-3/4	9
609, 615, 625	4-1/4	5	4-1/4	5	8-5/8	9-1/8
605	4-1/2	5-3/4	4-1/2	5	12	11
709,715,725	6-1/2	8	7-1/4	9-1/4	15-3/8	16-3/8
705	7-1/2	9	7-1/2	9-1/4	19	17-1/4
815,825	8-1/2	11	10-1/2	8-1/2	19-1/8	19-1/8
805	6	15	10	8-1/2	22	18-3/4
915,926	13	13	12-1/2	14-1/4	25-3/8	25-3/8
905	14-3/4	15	16-1/4	13-3/4	31-7/8	31-7/8
1015, 1024	23	14	15-3/4	18-3/4	41	41
1215, 1225	59	38	59	36-1/2	100	100
TDT1325	86	62	86	59	110	110
TDT1425	120	88	120	61	150	150
TDT1530	197	138	197	170	281	281

■ U.S. Measure: 1 qt. = 32 fluid oz. = .94616 liters

◆ Consult DODGE for proper oil level for reducers with backstops and which are mounted in C-position or D-position.



TORQUE-ARM Shaft Mount Speed Reducers

TORQUE-ARM Speed Reducer Flange Mounting And Clearance Dimensions

TXT Taper Bushed and Straight Bore Reducers can be supplied with mounting pads on the back of the housing which are drilled and tapped to permit bolting the reducer to the supporting framework. Reducers are now provided from the factory with this feature. They can no longer be field modified. There is no additional charge for the modification. Order flange mount TXT reducers per the part number below. Consult DODGE for delivery. See page G2-179, Tables 32 and 33 or consult DODGE for allowable output shaft overhung loads.

TXT Flange Mount Taper Bushed Reducers (1) (2) (3)

Part No	Reducer Size	Weight
241415	TXT105T Flange Mount Reducer	40
241417	TXT115AT Flange Mount Reducer	45
241419	TXT125AT Flange Mount Reducer	45
242415	TXT205T Flange Mount Reducer	52
242417	TXT215AT Flange Mount Reducer	58
242419	TXT225AT Flange Mount Reducer	58
243620	TXT305AT Flange Mount Reducer	86
243622	TXT315BT Flange Mount Reducer	98
243624	TXT325BT Flange Mount Reducer	98
244381	TXT405AT Flange Mount Reducer	122
244383	TXT415BT Flange Mount Reducer	139
244385	TXT425BT Flange Mount Reducer	139
245341	TXT505AT Flange Mount Reducer	182
245343	TXT515CT Flange Mount Reducer	207
245345	TXT525CT Flange Mount Reducer	207
246428	TXT605T Flange Mount Reducer	251
246430	TXT615AT Flange Mount Reducer	285
246432	TXT625AT Flange Mount Reducer	285
247431	TXT705T Flange Mount Reducer	410
247433	TXT715AT Flange Mount Reducer	462
247435	TXT725AT Flange Mount Reducer	462
248414	TXT805T Flange Mount Reducer	557
248416	TXT815AT Flange Mount Reducer	633
248418	TXT825AT Flange Mount Reducer	633
249414	TXT905T Flange Mount Reducer	668
249416	TXT915AT Flange Mount Reducer	760
249418	TXT926AT Flange Mount Reducer	760
250416	TXT1015AT Flange Mount Reducer	1020
250418	TXT1024AT Flange Mount Reducer	1020

(1) Flange mount reducers are Made-to-order with two week cycle time.

(2) TORQUE-ARM Assembly not included with flange mount reducers.

TXT Flange Mount Straight Bore Reducers (1) (2) (3)

Part No	Reducer Size	Weight
241416	TXT105S Flange Mount Reducer	40
241418	TXT115AS Flange Mount Reducer	45
241420	TXT125AS Flange Mount Reducer	45
242416	TXT205S Flange Mount Reducer	52
242418	TXT215AS Flange Mount Reducer	58
242420	TXT225AS Flange Mount Reducer	58
243621	TXT305AS Flange Mount Reducer	86
243623	TXT315BS Flange Mount Reducer	98
243625	TXT325BS Flange Mount Reducer	98
244382	TXT405AS Flange Mount Reducer	122
244384	TXT415BS Flange Mount Reducer	139
244386	TXT425BS Flange Mount Reducer	139
245342	TXT505AS Flange Mount Reducer	182
245344	TXT515CS Flange Mount Reducer	207
245346	TXT525CS Flange Mount Reducer	207
246429	TXT605S Flange Mount Reducer	251
246431	TXT615AS Flange Mount Reducer	285
246433	TXT625AS Flange Mount Reducer	285
247432	TXT705S Flange Mount Reducer	410
247434	TXT715AS Flange Mount Reducer	462
247436	TXT725AS Flange Mount Reducer	462
248415	TXT805S Flange Mount Reducer	557
248417	TXT815AS Flange Mount Reducer	633
248419	TXT825AS Flange Mount Reducer	633
249415	TXT905S Flange Mount Reducer	668
249417	TXT915AS Flange Mount Reducer	760
249419	TXT926AS Flange Mount Reducer	760
250417	TXT1015AS Flange Mount Reducer	1020
250419	TXT1024AS Flange Mount Reducer	1020

(3) TDT13-TDT15 reducers are supplied from stock already drilled and tapped for flange mounting. See page G2-69 Thru G2-71.



TORQUE-ARM Shaft Mount Speed Reducers

TORQUE-ARM Speed Reducer Flange Mounting Pads And Clearance Dimensions

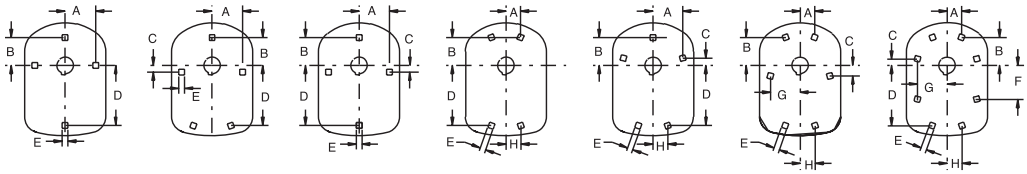


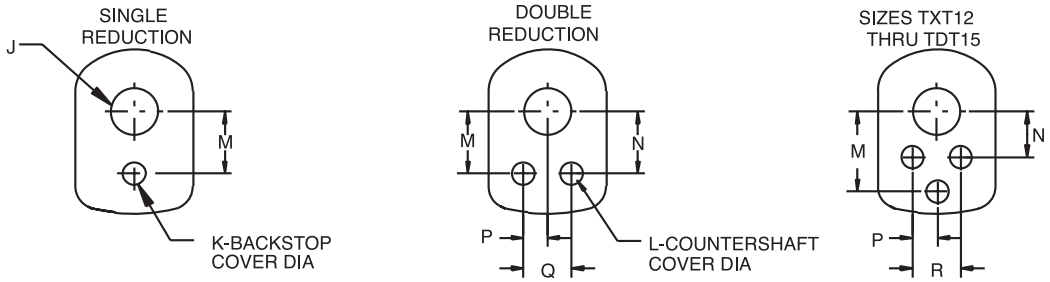
FIG. 1 FIG. 2 FIG. 3 FIG. 4 FIG. 5 FIG. 6 FIG. 7

Table 28 - Flange Mounting Drilling Dimensions For TXT Reducers

Reducer Size	Nominal Ratio	Reference	A	B	C	D	E	F	G	H	Tap Size	Tap Drill Depth	Tap Depth
TXT1	5, 9, 15, 25	Fig. 1	2-13/16	3	.....	5-1/2	7/8	.....	.....	.....	7/16 -14	29/32	17/32
TXT2	9, 15, 25	Fig. 1	3-3/8	3-5/16	.....	5-7/8	13/16	.....	.....	.....	7/16 -14	7/8	1/2
TXT2	5	Fig. 2	3-3/8	3-5/16	.....	4-7/8	7/8	.....	.....	2-17/32	7/16 -14	7/8	1/2
TXT3	9, 15, 25	Fig. 3	3-5/8	3-5/16	7/8	6-3/16	1-1/4	.....	.....	.....	1/2-13	1	5/8
TXT3	5	Fig. 2	3-7/8	3-5/16	1	5-19/32	3/4	.....	.....	2-11/16	1/2-13	29/32	17/32
TXT4	5, 9, 15, 25	Fig. 3	3-5/8	3-7/8	2	7-5/8	1	.....	.....	.....	1/2-13	1	5/8
TXT5	9, 15, 25	Fig. 3	4-5/8	4-9/16	2-9/32	9-1/2	1-1/4	.....	.....	.....	5/8-11	7/8	7/16
TXT5	5	Fig. 3	4-5/8	4-9/16	2-9/32	9-1/4	1-1/4	.....	.....	.....	5/8-11	7/8	7/16
TXT6	5, 9, 15, 25	Fig. 3	6-3/16	5-1/8	2-3/16	11	1-7/8	.....	.....	.....	5/8-11	1-1/8	11/16
TXT7	5, 9, 15, 25	Fig. 3	5-5/8	6-1/4	2-15/16	13-1/4	2	.....	.....	.....	3/4-10	1-3/8	7/8
TXT8	5, 15, 25	Fig. 3	6-5/16	7	3	15-1/16	2	.....	.....	.....	3/4-10	1-11/32	27/32
TXT9	15, 26	Fig. 4	5-7/16	5-15/16	.....	16-7/8	2	.....	.....	3-3/8	3/4-10	1-1/32	17/32
TXT9	5	Fig. 5	8-1/16	8-1/16	5/8	13-7/8	2	.....	.....	7-15/16	3/4-10	1-1/32	15/16
TXT10	15, 24	Fig. 6	5-13/16	7-15/16	3-1/2	19	2	.....	9-13/16	3-1/8	3/4-10	1-7/32	23/32
TXT12	15, 25	Fig. 6	6-1/8	10-3/4	7-1/4	22-11/16	2-1/2	.....	12-9/16	9-1/16	3/4-10	1-25/32	1-9/32
TDT13	25	Fig. 6	7-5/16	12-3/4	6-1/2	25-3/4	2-1/2	.....	15-3/4	7-5/16	1-8	2-3/8	1-3/4
TDT14	25	Fig. 7	8-1/4	12-3/4	1-1/4	28-1/4	2-1/2	16-3/4	18-1/16	8-1/4	1-8	2-5/8	2
TDT15	30	Fig. 7	11	15-1/8	1-1/4	32-3/8	3-1/2	19-5/8	22	11	1-8	2-5/8	2

TABLE 29 - FLANGE MOUNTING CLEARANCE DIMENSIONS

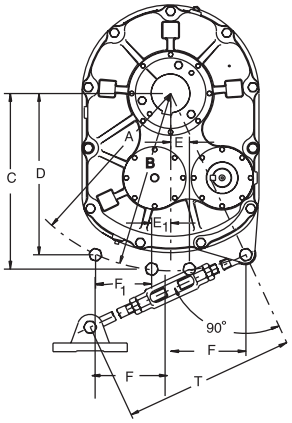
Reducer Size	Nominal Ratio	J	K	L	M	N	P	Q	R	Reducer Size	Nominal Ratio	J	K	L	M	N	P	Q	R
TXT1	9,15,25	3-1/4	2-9/16	.....	3-3/16	3-3/16	1-29/32	2-17/32	...	TXT7	9,15,25	9-1/8	5-1/16	4-11/16	8-5/16	8-5/32	5-1/8	6-3/4	.....
TXT1	5	3-1/4	2-13/16	.....	3-1/4	.....	.....	.....	...	TXT7	5	9-1/8	5-1/16	.....	8-5/16	.....	.....	.....	.....
TXT2	9,15,25	4-1/16	3-1/2	.....	3-3/4	3-3/4	2-1/8	3	...	TXT8	15,25	9-1/2	7-5/8	6	9-1/2	9-1/2	6-1/32	7-23/32	.....
TXT2	5	4-1/16	3-1/2	.....	3-7/8	.....	.....	.....	...	TXT8	5	9-1/2	7-1/2	.....	9-41/64	.....	.....	.....	.....
TXT3	9,15,25	4-3/8	3-1/2	2-11/16	4-3/16	4-3/16	2-5/16	3-5/16	...	TXT9	15,26	10-15/16	8	8	10-13/16	10-13/16	6-19/32	8-5/8	.....
TXT3	5	4-3/8	3-1/2	.....	4-1/4	.....	.....	.....	...	TXT9	5	10-15/16	8	.....	10-31/32	.....	.....	.....	.....
TXT4	9,15,25	4-13/16	3-7/8	3-1/4	4-25/32	4-25/32	2-3/4	3-11/16	...	TXT10	15,24	12-1/4	8	7-5/8	12-1/2	12-1/2	6-9/16	8-23/32	.....
TXT4	5	4-13/16	4-1/16	.....	4-7/8	.....	.....	.....	...	TXT12	15,25	14-1/4	8-5/8	9	22-29/32	13-25/32	5-9/16	.....	11-1/8
TXT5	9,15,25	5-5/8	4-1/4	3-1/4	5-11/16	5-21/32	3-1/16	4-9/16	...	TDT13	25	15-5/8	8-5/8	10-1/4	24-27/64	14-15/32	6-5/16	.....	12-5/8
TXT5	5	5-5/8	4-3/4	.....	5-7/8	.....	.....	.....	...	TDT14	25	17-5/8	10-3/4	11-3/4	26-9/32	15-5/16	7-1/8	.....	14-1/4
TXT6	9,15,25	8-1/8	5-1/16	4	6-3/4	6-23/32	4-3/32	5-5/8	...	TDT15	30	22-1/2	10-3/4	13-1/2	30-9/16	18-1/8	8	.....	16
TXT6	5	8-1/8	5-1/16	.....	6-7/8	.....	.....	.....	...										



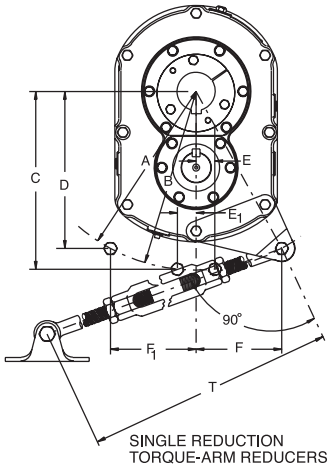
FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	MODIFICATION/ACCESSORIES PAGE G2-120	RENEWAL PARTS PAGE G2-166

TORQUE-ARM Shaft Mount Speed Reducers

Optional TORQUE-ARM Rod Mounting Positions For TORQUE-ARM Reducers



DOUBLE REDUCTION
TORQUE-ARM REDUCERS



SINGLE REDUCTION
TORQUE-ARM REDUCERS

Table 26 - TORQUE-ARM Rod Optional Mounting Positions For TXT1 Thru TXT10 Double Reduction Reducers ★

Reducer Size	A - Radius	B - Radius	C	D	E, E1	F, F1	T	
							Min.	Max.
TXT1A	8.00	-	-	7.25	-	3.41	23.81	29.63
TXT2A	8.75	9.00	8.94	7.50	0.81	4.50	26.94	32.94
TXT3B	10.16	10.38	10.31	8.88	0.97	4.94	26.94	32.94
TXT4B	11.47	11.84	11.78	10.06	1.09	5.50	29.19	35.19
TXT5C	13.75	14.03	13.97	12.06	1.00	6.63	29.19	35.19
TXT6A	15.69	15.88	15.84	13.63	0.94	7.75	29.19	35.19
TXT7A	18.19	18.84	18.81	15.88	1.25	8.94	29.44	35.44
TXT8A	21.00	21.38	21.38	19.56	-	7.63	30.00	36.00
TXT9A	22.72	23.63	23.63	20.63	-	9.50	30.00	36.00
TXT10A	25.20	25.56	25.56	23.56	-	8.94	30.00	36.00

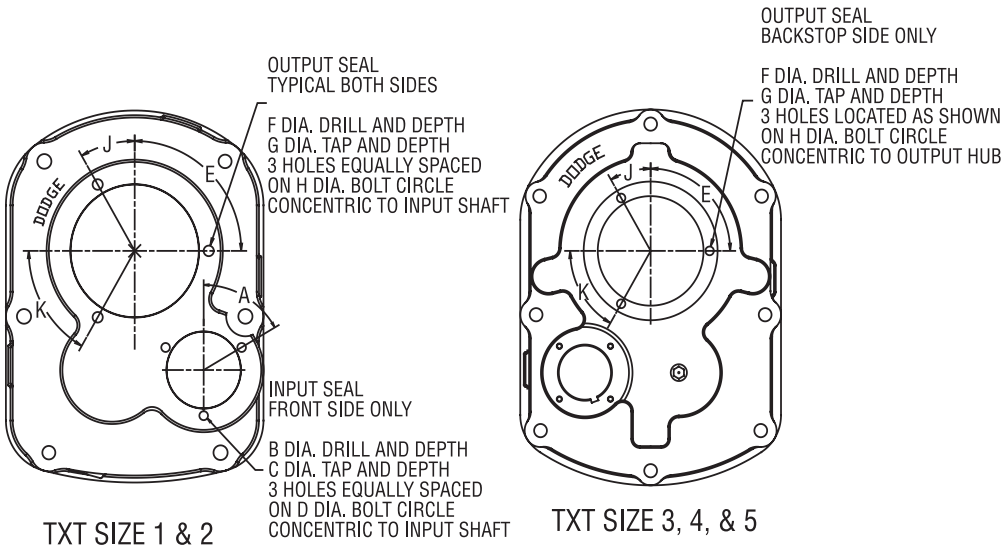
Table 27 - TORQUE-ARM Rod Optional Mounting Positions For TXT105 Thru TXT905 Single Reduction Reducers ★

Reducer Size	A - Radius	B - Radius	C	D	E, E1	F, F1	T	
							Min.	Max.
TXT105	8.00	-	-	7.25	-	3.41	23.81	29.63
TXT205	8.75	9.00	8.94	7.50	0.81	4.50	26.94	32.94
TXT305A	10.16	10.38	10.31	8.88	0.97	4.94	26.94	32.94
TXT405A	11.47	11.84	11.78	10.06	1.09	5.50	29.19	35.19
TXT505A	14.53	14.81	14.78	12.59	0.91	7.25	29.19	35.19
TXT605	16.44	16.66	16.63	14.22	0.88	8.22	29.19	35.19
TXT705	18.19	18.84	18.81	15.88	1.25	8.94	29.44	35.44
TXT805	21.00	21.38	21.38	19.56	-	7.63	30.00	36.00
TXT905	22.70	23.63	23.63	20.63	-	9.50	30.00	36.00

★ It is preferred to mount the TORQUE-ARM rod in tension. However, the design allows mounting in compression as well. If mounted in compression, observe the tolerance ± 20° to the 90° referenced above, to minimize bending. The housing direction will be opposite to the direction of output or driven shaft rotation.

Machining Dimensions for Installation of Taconite Auxiliary Seal Kits

TXT1A Thru TXT5C and TXT105 Thru TXT 505A

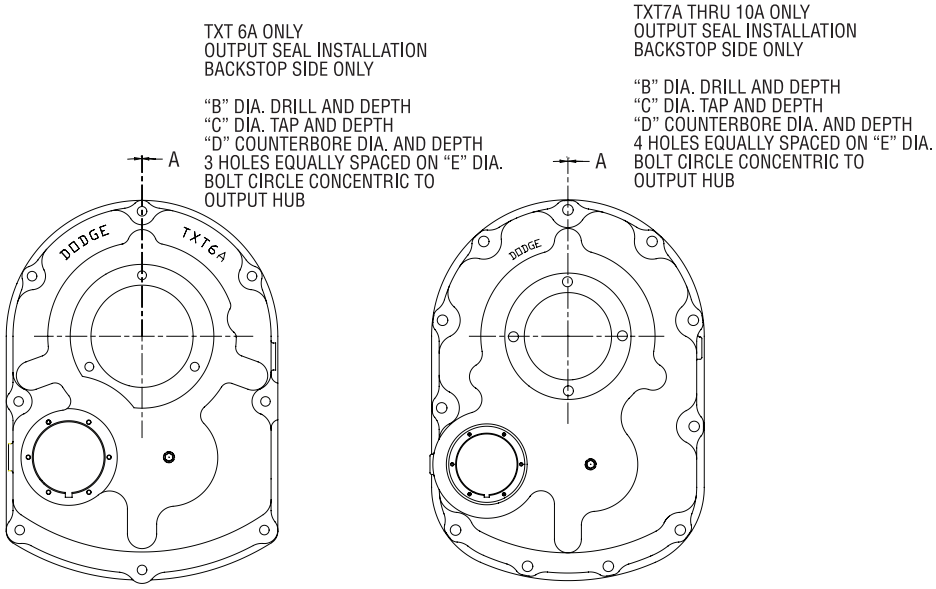


Reducer Size	A (Degrees)	B ▲ (Inches)	C (Inches)	D (Inches)	E (Degrees)	F ▲ (Inches)	G (Inches)	H (Inches)	J (Degrees)	K (Degrees)
TXT1A	60º	#7 DIA 3/4 DP	1/4-20 1/2 DP	2-5/8	120º	#7 DIA 3/4 DP	1/4-20 1/2 DP	4-1/8	0º	30º
TXT2A	60º	#7 DIA 13/16 DP	1/4-20 9/16 DP	2-15/16	120º	#7 DIA 7/8 DP	1/4-20 9/16 DP	4-3/4	0º	30º
TXT3B	N/A	··	··	··	90º	#F DIA 3/4 DP	5/16-18 17/32 DP	5-1/4	30º	50º
TXT4B	N/A	··	··	··	30º	5/16 DIA 15/16 DP	3/8-16 9/16 DP	6.0	90º	130º
TXT5C	N/A	··	··	··	90º	5/16 DIA 15/16 DP	3/8-16 9/16 DP	6-5/8	30º	60º
TXT105	60º	#7 DIA 3/4 DP	1/4-20 1/2 DP	2-15/16	120º	#7 DIA 3/4 DP	1/4-20 1/2 DP	4-1/8	0º	30º
TXT205	60º	#7 DIA 13/16 DP	1/4-20 9/16 DP	3-11/16	120º	#7 DIA 7/8 DP	1/4-20 5/8 DP	4-3/4	0º	30º
TXT305A	N/A	··	··	··	90º	#F DIA 3/4 DP	5/16-18 17/32 DP	5-1/4	30º	50º
TXT405A	N/A	··	··	··	30º	5/16 DIA 15/16 DP	3/8-16 9/16 DP	6.0	90º	130º
TXT505A	N/A	··	··	··	90º	5/16 DIA 15/16 DP	3/8-16 9/16 DP	6-5/8	30º	60º

▲ DRILL DEPTH IS MAXIMUM AND MUST NOT BE EXCEEDED.
·· PLACE AUXILIARY SEAL COVER ON INPUT SEAL CARRIER USING BOLTS PROVIDED.
N/A NOT APPLICABLE.

Machining Dimensions for Installation of Taconite Auxiliary Seal Kits

TXT6A Thru TXT10A



Reducer Size	A (Degrees)	B ▲ (Inches)	C (Inches)	D (Inches)	E (Inches)
TXT6A	0º	5/16 ∅ 1-3/8 DP	3/8-16 1-1/16 DP	7/16 ∅ 3/8 DP	7-1/4 ∅
TXT7A	0º	23/64 ∅ 1-11/16 DP	7/16-14 1-5/16 DP	1/2 ∅ 3/8 DP	8-1/8 ∅
TXT8A	0º	5/16 ∅ 1-11/16 DP	3/8-16 1-3/8 DP	7/16 ∅ 3/8 DP	8-5/8 ∅
TXT9A	0º	5/16 ∅ 1-5/8 DP	3/8-16 1-5/16 DP	7/16 ∅ 3/8 DP	9-15/16 ∅
TXT10A	0º	5/16 ∅ 1-5/8 DP	3/8-16 1-5/16 DP	7/16 ∅ 3/8 DP	11.0 ∅

▲ DRILL DEPTH IS MAXIMUM AND MUST NOT BE EXCEEDED.



TORQUE-ARM Shaft Mount Speed Reducers

Table 31 - Maximum Input and Driven Speeds for TXT and SCXT Reducers

Single Reduction			Double Reduction														
Reducer Size	Input	Driven	Reducer Size	Input RPM			Driven RPM			Reducer Size	Input RPM			Driven RPM		
				Nominal Ratio			Nominal Ratio				Nominal Ratio			Nominal Ratio		
TXT/SCXT1	2248	400														
TXT/SCXT2	2116	400		9	15	25	9	15	25		15	25	30	15	25	30
TXT/SCXT3	2240	400	TXT/SCXT1	1888	2149	2179	200	140	85	TXT/SCXT8	1809	1847	....	120	75	..
TXT/SCXT4	2260	400	TXT/SCXT2	1850	1974	1994	200	140	85	TXT9	1814	1925	....	120	75	..
TXT/SCXT5	2268	400	TXT/SCXT3	1782	2083	2100	200	140	85	TXT10	1819	1823	....	120	75	..
TXT/SCXT6	2268	400	TXT/SCXT4	1934	2118	2072	200	140	85	TXT12	1786	1849	....	120	75	..
TXT/SCXT7	2144	400	TXT/SCXT5	1790	1925	2044	200	125	85	TDT13	....	1855	....	....	75	..
TXT8	2200	400	TXT/SCXT6	1840	1916	2010	200	125	85	TDT14	....	1860	....	....	75	..
TXT9	2154	400	TXT/SCXT7	1922	1827	1844	200	120	75	TDT15	....	....	1746	....	57	..

Table 32 - Output Shaft Overhung Load Ratings for Double Reduction TXT Reducers

Reducer Size	Nominal Ratio	Shaft Size	Overhung Load (Lbs.) @ Various RPM's *										
			10	20	30	50	80	100	120	140	160	180	200
TXT1	9, 15, 25	1-1/4	1990	1520	1300	1100	930	780	760	740	720	700	680
		1-7/16	1700	1300	1110	945	790	665	650	640	630	620	610
TXT2	9, 15, 25	1-7/16	2000	1510	1270	1010	840	820	720	720	710	710	700
		1-15/16	1750	1320	1110	890	730	710	630	630	620	620	610
TXT3	9, 15, 25	1-15/16	5400	4250	3680	3050	2620	2440	2310	2210	2110	2040	1980
		2-3/16	5240	4120	3570	2960	2540	2370	2240	2140	2050	1980	1920
TXT4	9, 15, 25	2-3/16	6520	5180	4510	3800	3230	3000	2830	2710	2600	2510	2430
		2-7/16	6360	5060	4410	3710	3160	2930	2770	2640	2530	2450	2370
TXT5	9, 15, 25	2-7/16	7460	5860	5080	4280	3690	3450	3270	3110	2980	2880	2790
		2-15/16	7060	5540	4800	4040	3490	3260	3090	2940	2820	2720	2640
TXT6	9, 15, 25	2-15/16	9100	7100	6100	5000	4100	4050	3700	3550	3400	3300	3200
		3-7/16	8200	6400	5500	4500	3700	3650	3400	3300	3250	3200	3150
TXT7	9, 15, 25	3-7/16	11,400	9500	7300	5950	4750	5050	4500	4300	4250	4200	4150

Values shown are for loads applied at one output shaft diameter from reducer bushing. Interpolate for values between RPM's listed.

Table 33 - Output Shaft Overhung Load Ratings for Single Reduction TXT Reducers

Reducer Size	Nominal Ratio	Shaft Size	Overhung Load (Lbs.) @ Various RPM's *						
			100	150	200	250	300	350	400
TXT1	5	1-1/4	775	610	600	500	500	500	490
		1-7/16	660	520	520	430	430	420	420
TXT2	5	1-7/16	760	620	530	530	530	530	520
		1-15/16	665	545	470	470	470	460	460
TXT3	5	1-15/16	2370	2100	1950	1840	1760	1700	1660
		2-3/16	2300	2040	1890	1780	1710	1650	1610
TXT4	5	2-3/16	3030	2720	2490	2310	2170	2060	1970
		2-7/16	2930	2640	2400	2240	2100	1990	1900
TXT5	5	2-7/16	3080	2750	2560	2400	2260	2160	2080
		2-15/16	2920	2610	2430	2270	2140	2050	1980
TXT6	5	2-15/16	4350	3850	3500	3250	3200	3100	3050
		3-7/16	3950	3500	3200	2950	2900	2800	2750
TXT7	5	3-7/16	3800	3650	3300	3450	3500	3400	3300

* Values shown are for loads applied at one output shaft diameter from reducer bushing. Interpolate for values between RPM's listed.

Table 1 - WR² (Lb.-FT²) At High Speed Shaft for TXT Reducers *

Reducer Size	Nominal Ratio				Reducer Size	Nominal Ratio			
	5:1	9:1	15:1	25:1		5:1	9:1	15:1	25:1
TXT1	0.002	0.013	0.008	0.007	TXT9	1.66	. . .	1.39	0.794
TXT2	0.013	0.027	0.011	0.007	TXT10	. . .	. . .	1.63	0.927
TXT3	0.034	0.059	0.026	0.013	TXT12	....	. . .	7.71	3.68
TXT4	0.075	0.092	0.043	0.023	TDT13	. . .	. . .	. . .	6.56
TXT5	0.15	0.233	0.099	0.067	TDT14	. . .	. . .	. . .	9.0
TXT6	0.201	0.461	0.197	0.109	TDT15	. . .	. . .	. . .	11.42
TXT7	0.48	1.004	0.417	0.285					
TXT8	0.96	. . .	0.942	0.571					

* For WR^2 at low speed shaft, multiply WR^2 value listed by (actual ratio)^2.

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TORQUE-ARM Shaft Mount Speed Reducers

Thrust Capacity Of Screw Conveyor Drive Reducers

The screw conveyor drive reducer uses tapered roller bearings which take Thrust in either direction from the screw conveyor. This eliminates the need for external Thrust bearings commonly used.

Table 1 - Thrust Capacity Of Screw Conveyor Drive Reducers (Pounds) ●

Reducer Size	Screw Conveyor RPM						
	80	100	120	140	160	180	200
SCXT109A	3986	3765	3588	3434	3303	3192	3092
SCXT209A	5389	5025	4742	4505	4304	4138	3990
SCXT309B	5290	4920	4660	4450	4240	4100	3970
SCXT409B	6000	6000	5800	5500	5200	5000	5000
SCXT509C	6000	6000	6000	6000	5800	5700	5500
SCXT609A	6000	6000	6000	6000	6000	6000	6000
SCXT709A	4863	4527	4244	3959	3713	3520	3335

Reducer Size	Screw Conveyor RPM					
	25	50	75	100	125	140
SCXT115A	6000	4840	4220	3820	3540	3414
SCXT215A	6000	6000	5440	4920	4560	4380
SCXT315B	6000	6000	5400	4920	4600	4450
SCXT415B	6000	6000	6000	6000	5800	5600
SCXT515C	6000	6000	6000	6000	6000	....
SCXT615A	6000	6000	6000	6000	6000	....
SCXT715A †	6000	6000	5220	4530	....	....

Reducer Size	Screw Conveyor RPM				
	25	50	75	80	85
SCXT125A	6000	4840	4220	4130	4040
SCXT225A	6000	6000	5440	5320	5000
SCXT325B	6000	6000	5400	5290	5200
SCXT425B	6000	6000	6000	6000	6000
SCXT525C	6000	6000	6000	6000	....
SCXT625A	6000	6000	6000	6000	....
SCXT725A	6000	6000	5220	....	....

Reducer Size	Screw Conveyor RPM						
	100	150	200	250	300	350	400
SCXT105	6000	5500	5060	4730	4520	4340	4200
SCXT205	5310	4760	4390	4160	3970	3810	3680
SCXT305A	6000	5300	4900	4600	4400	4300	4200
SCXT405A	6000	5900	5500	5000	4600	4500	4500
SCXT505B	6000	6000	6000	6000	5700	5400	5000
SCXT805	6000	6000	6000	6000	6000	6000	6000
SCXT705	5860	5500	4810	4710	4830	4980	4900

† Actual maximum output speed for SCXT715 reducer is 120 rpm

● Consult DODGE for SCXT8 Thrust capacity



TORQUE-ARM Shaft Mount Speed Reducers

Guidelines For Long-Term Storage Of TORQUE-ARM Reducers

During periods of long storage (3 months or more), or when awaiting delivery or installation of other equipment, special care should be taken to protect a gear reducer to have it in the best condition when placed into service.

By taking special precautions, problems such as seal leakage and reducer failure due to the lack of lubrication, improper lubrication quantity, or contamination can be avoided. The following precautions will protect gear reducers during periods of extended storage.

PREPARATION

1. Drain the oil from the unit. Add a vapor phase corrosion inhibiting oil such as VCI-105 oil by Daubert Chemical Co.
2. Seal the unit air tight. Replace the vent plug with a standard pipe plug and wire the vent to the unit.
3. Cover the shaft extension with a waxy rust preventive compound that will keep oxygen away from the bare metal such as Non-Rust X-110 by Daubert Chemical Co.
4. The instruction manuals and lubrication tags are paper and must be kept dry. Either remove these documents and store them inside or cover the unit with a durable waterproof cover which can keep moisture away.
5. Protect the reducer from dust, moisture, and other contaminants by storing the unit in a dry area.
6. In damp environments, the reducer should be packed inside a moisture-proof container or an envelope of plastic containing a desiccant material. If the reducer is to be stored outdoors, cover the entire exterior with a rust preventive.
7. Once a month rotate the input shaft at least 30 revolutions to redistribute the weight of gears and shafts and to prevent brinnelling of the bearings and drying of the seal track.

Table 1 - Vci #105 Oil For TORQUE-ARM Reducers

Case Size	Quarts Or Liters
TXT1	0.1
TXT2	0.1
TXT3	0.1
TXT4	0.2
TXT5	0.3
TXT6	0.4
TXT7	0.5
TXT8	0.6
TXT9	0.9
TXT10	1.3
TXT11	1.9
TXT12	2.5

VCI #105 & #10 are interchangeable, but VCI #105 is more readily available.

WHEN PLACING THE REDUCER INTO SERVICE

1. Assemble the vent plug into the proper hole.
2. Clean the shaft extensions with petroleum solvents.
3. Fill the unit to the proper oil level using a recommended lubricant. The VCI oil will not affect the new lubricant.
4. Follow the installation instructions provided with the unit



TORQUE-ARM Shaft Mount Speed Reducers

Trouble-Shooting Guide For TORQUE-ARM Reducers

Symptom	Probable Cause	Remedy
Excessive Noise and Vibration	Improper arm attachment.	Check instructions and correct. Tighten all fasteners properly.
	Low oil level.	Check level. Fill to proper oil capacity per instruction manual.
	Excessive premature gear wear due to improper size reducer.	Reselect reducer in catalog with proper service factor. Replace worn unit.
	Driven shaft undersized.	Replace shaft or remachine to properly fit next smaller bushing size. (Check shaft strength.)
	Driven shaft bent.	Check runout. Replace or straighten shaft.
	Worn gears and bearings.	Replace gears and bearings as necessary.
	Driven shaft not projecting through output bore or bushings.	Reposition reducer on shaft or replace shaft.
	Tapered reducer bushings improperly tightened.	Check instruction manual and tighten per recommended torque values.
	Improper connection to driver and driven equipment.	Check belt tension and V-belt sheave alignment. Check coupling alignment. Check all fasteners and setscrews; tighten properly. Inspect driven shaft key positioning.
	Worn or cracked V-belts.	Replace with new belts.
	Driven equipment noise.	Check for source, reducer may amplify existing noise.
Overheating Reducers	Improper oil level	Check oil and fill to proper oil capacity per instruction manual. Too much oil causes heat due to churning and friction; too little starves components.
Exceeds 195 Deg F. Housing Temperature	Improper reducer size.	Reselect reducer in catalog. Decrease load or replace reducer with proper unit.
	Excessive V-belt tension.	Tension belts properly. Position sheaves as close to reducer as possible.
	Excessive reducer operating speed.	Check catalog recommendations. If necessary refer all application details to manufacturer.
	Located near high ambient heat source.	Shield reducer from heat source. Relocate reducer. Refer application details to manufacturer.
	No cooling fan installed.	Check catalog recommendation. Instal fan if required.
Oil Leakage	Undetermined source of leak.	Clean reducer and dry all surfaces. Run for one hour and inspect for leak from seals, gaskets, covers and plugs.
	Plugged breather air passage.	Clean air passage. Remove air passage tape on new reducers.
	Loose drain, breather or pipe plugs.	Tighten securely. Check oil level.
	Excessive oil level.	Check level. Fill to proper oil capacity per instruction manual.
	Breather plug below oil.	Relocate breather to highest location. Check oil level.
	Premature seal wear due to hostile environment.	Replace seals. Install auxiliary seal kit.
Excessive Backlash	Worn gears.	Replace worn gears in sets.
	Loose bearings.	Check bearing wear, adjustment and replace.
	Worn shaft keys	Replace worn keys. Check shaft keyway for wear
	Driven equipment backlash	Check equipment for backlash
Excessive Lateral Movement	Worn and loose bearings	Replace bearings.
	Improper bearing adjustment.	Readjust bearing per instruction manual.
	Loose bearing carrier caps.	Check and tighten fasteners.
	Improper reducer mounting.	Check and tighten straight bore reducer set screws to recommended torque values. Check and tighten tapered reducer bearing fasteners to recommended torque values. See instruction manual.
	Reversing duty applications.	Refer application details to manufacturer.
Excessive Reducer Wobble	Driven shaft undersized.	Replace shaft or remachine to properly fit next smaller bushing size. (Check shaft strength.)
	Driven shaft bent.	Check runout. Replace or straighten shaft.
	Improper torque arm attachment.	Check instructions and correct. Tighten all fasteners promptly.
	Driven shaft not projecting through output bore or bushings.	Reposition reducer on shaft or replace shaft.
	Worn or loose driven shaft key.	Check for proper size and replace. Check shaft keyway size.



TORQUE-ARM Shaft Mount Speed Reducers

Trouble-Shooting Guide For TORQUE-ARM Reducers

Symptom	Probable Cause	Remedy
Reducer Shafts Will Not Rotate	Improper backstop installation.	Remove backstop and install properly. (Rotate end for end.)
	Driven equipment locked.	Check for rotation of driven equipment.
	Damaged gearing	Check gearing and replace. Inspect driven equipment and check for rotation.
Premature Input Bearing Failure	Excessive V-belt tension	Tension V-belts properly.
	Excessive overhung load.	Mount sheave as close to reducer as possible. Check minimum sheave requirement and replace if necessary.
	Improper oil level.	Check oil and fill to proper oil capacity per instruction manual.
	Excessive reducer operating speed.	Check catalog recommendations. If necessary, refer application details to manufacturer.
Premature Backstop Wear or Backstop Slips	Improper oil	Check oil. Avoid lubricants with EP additives, e.g., graphite. Check instruction manual for proper type.
	Backstop wear.	Check wear and replace. Inspect periodically.
	Excessive input shaft lateral movement.	Check for bearing, shaft, and housing wear. Replace components and readjust reducer per instruction manual.
	Excessive V-belt tension.	Tension V-belts properly.
	Excessive overhung load.	Mount sheave as close to reducer as possible. Check minimum sheave requirement and replace if necessary.
	Backstop key not installed	Install key or keys.
	Improper installation.	Check for proper direction of shaft rotation in backstop.
	Improper input bearing adjustment	Readjust bearings per instruction manual.
	Contaminated oil.	Flush reducer and replace oil.
	Excessive reducer operating speed.	Check catalog recommendations. Refer application details to manufacturer.

Consult DODGE for other applications.

REPLACEMENT INTERCHANGE TXT SERIES EQUIVALENTS

FOUR GENERATIONS OF DODGE TORQUE-ARM REDUCERS											
AGMA CASE SIZE	RATIO										
	5:1			9:1	15:1				25:1		
-	#10	#10	-	-	-	TD015	-	-	TD025	-	-
107	#11	T11	TXT105	TXT109	#1	TD115	TDT115	TXT115	TD125	TDT125	TXT125
115	#12	T12	TXT205	TXT209	#2	TD215	TDT215	TXT215	TD225	TDT225	TXT225
203	#13	T13	TXT305	TXT309	#3	TD315	TDT315	TXT315	TD325	TDT325	TXT325
207	#14	T14	TXT405	TXT409	#4	TD415	TDT415	TXT415	TD425	TDT425	TXT425
215	#15	T15	TXT505	TXT509	#5	TD515	TDT515	TXT515	TD525	TDT525	TXT525
307	#16	T16	TXT605	TXT609	#6	TD615	TDT615	TXT615	TD625	TDT625	TXT625
315	#17	T17	TXT705	TXT709	#7	TD715	TDT715	TXT715	TD725	TDT725	TXT725
407	#18	T18	TXT805	-	#8	TD815	TDT815	TXT815	TD825	TDT825	TXT825
415	#19	T19	TXT905	-	#9	TD915	TDT915	TXT915	TD926	TDT926	TXT926
507	-	-	-	-	-	TD1015	TDT1015	TXT1015	TD1024	TDT1024	TXT1024
-	-	-	-	-	-	-	TDT1115	-	TD1125	TDT1125	-
608	-	-	-	-	-	-	TDT1215	TXT1215	TD1225	TDT1225	TXT1225
700	-	-	-	-	-	-	-	-	TD1325	TDT1325	TDT1325
800	-	-	-	-	-	-	-	-	TD1425	TDT1425	TDT1425
1000	-	-	-	-	-	-	-	-	-	TDT1530	TDT1530

Notes:

1. The "#" series and TD DODGE TORQUE-ARM reducers were manufactured with straight bore mountings only. The TDT and current TXT DODGE TORQUE-ARM reducers were/are manufactured with both straight bore and twin tapered bore bushings.
2. With the increased HP ratings of the TXT reducer, it may be possible to downsize to a smaller gearbox when replacing an old-style DODGE TORQUE-ARM reducer. Be sure to review the application.

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TORQUE-ARM Shaft Mount Speed Reducers

Backstop Interchange For Dodge TXT-TDT-TD-T-No. TORQUE-ARM Reducers

Part Number	Current TXT Series Housing Redesign 2005	TXT Series Brg Redesign 1991	TXT Series Intro 1985	TDT Series	TD Series	Number Series
241101				TDT115 TDT125	TD115 TD125	No. 1
242101	TXT109A TXT115A TXT125A		TXT105 TXT109 TXT115 TXT125	T11 TDT215 TDT225	TD215 TD225	No. 2 No. 3 No. 11
243101				TDT315 TDT325	TD315 TD325	
243102	Use Part Number **244106**					
243106	TXT309B TXT315B TXT325B	TXT309A TXT315A TXT325A				
244092				TDT415 TDT425	TD415 TD425	
244101						No. 4 No. 5
244106	TXT409B TXT415B TXT425B	TXT409A TXT415A TXT425A	TXT309 TXT315 TXT435			
244148		TXT405A	TXT405 TXT409 TXT415 TXT425			
245101				TDT515 TDT525	TD515 TD525	
245154	TXT509C TXT515C TXT525C	TXT509B TXT515B TXT525B	TXT509A, TXT509 TXT515A, TXT515 TXT525A, TXT525			
246092	TXT609A TXT615A TXT625A	TXT605 TXT609 TXT615 TXT625		T16 TDT615 TDT625	TD615A, TD615 TD625A, TD625	No. 16A



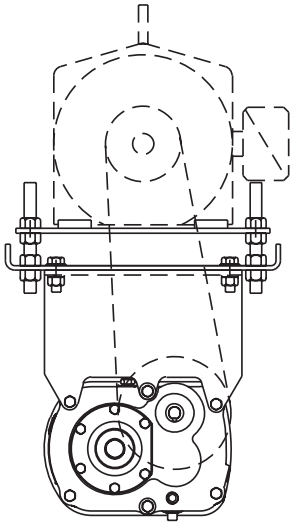
TORQUE-ARM Shaft Mount Speed Reducers

Backstop Interchange For All Dodge TORQUE-ARM Reducers

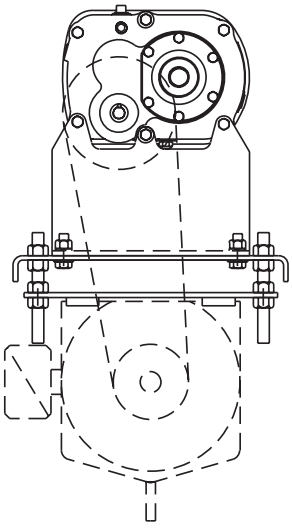
Part Number	Current TXT Series Housing Redesign 2005	TXT Series Brg Redesign 1991	TXT Series Intro 1985	TDT Series	TD Series	Number Series
246101		TXT505A	TXT505	T15		No. 6
247092	Use Part Number **247260**					
247101						No. 7A
247260	TXT709A TXT715A TXT725A	TXT705 TXT709 TXT715 TXT725		T17 TDT715 TDT725	TD715A, TD715 TD725A, TD725	No. 17A
248101	Use Part Number **249260**					
249260	TXT 815A TXT 825A TXT 915A TXT 926A	TXT815 TXT825 TXT915 TXT926		TDT815 TDT825 TDT915 TDT926 TDT1115 TDT1125	TD815A, TD815 TD825A, TD825 TD915 TD926 TD1115 TD1125	No. 8 No. 9 No. 18
250101	Use Part Number **250260**					
250260	TXT1015A TXT1024A	TXT805 TXT1015 TXT1024 TXT1215 TXT1225		T18 TDT1015 TDT1024 TDT1215 TDT1225	TD1015 TD1024 TD1215 TD1225	
252101	TXT209A TXT215A TXT225A	TXT305A	TXT205 TXT209 TXT215 TXT225 TXT305	T12 T13		No. 13
254101				T14		No. 14
255101						No. 15
256101						No. 16
257101						No. 17
272259		TXT905		T19, TDT1325		
272293				TDT1425 TDT1530		

TORQUE-ARM Shaft Mount Speed Reducers

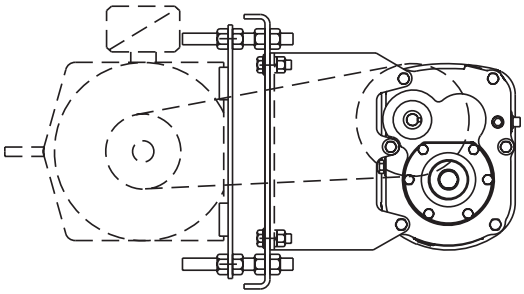
Screw Conveyor Drive Mounting Positions Based On Screw Diameter



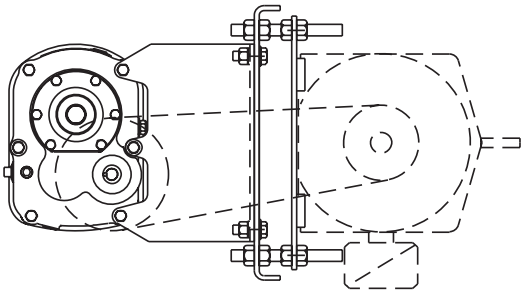
TOP POSITION



BOTTOM POSITION



LEFT SIDE POSITION



RIGHT SIDE POSITION

Reducer Size	Motor Mount No. ★	For Use on Troughs with Screw Diameters of:	
		Top, Right and Left Side Portions	Bottom Position
SCXT1A	M112	6, 9, 12”	6, 9”
SCXT2A	M214	6, 9, 12, 14”	6, 9, 12”
SCXT3B	M316	6, 9, 12, 14, 16”	6, 9, 12, 14”
SCXT4B, SCXT5C	M418, M518	9, 12, 14, 16, 18”	9, 12, 14, 16”
SCXT6A, SCXT7A	M620, M720	12, 14, 16, 18, 20”	12, 14, 16, 18”

★ Long Series Motor Mount to fit troughs with screws up Thru 24” diameter are available from stock.
See pages G2-92 Thru G2-119.

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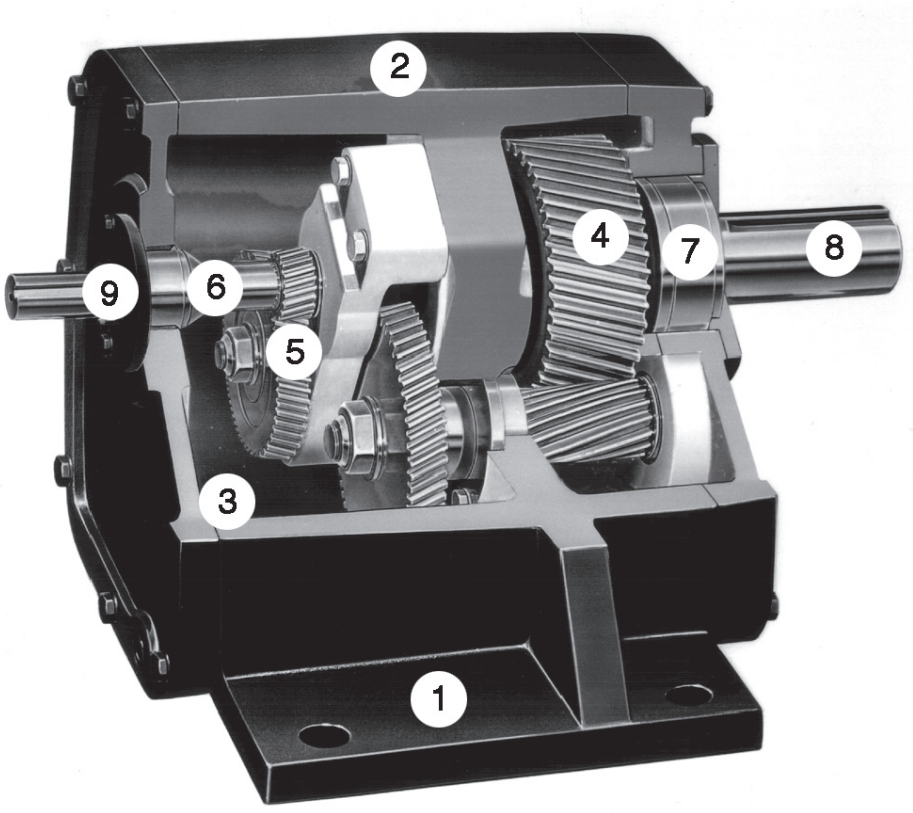
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FEATURES/BENEFITS

MAXUM Concentric Reducers



1. Rugged, compact package generates dependable performance in less space.
   - Maximum capacity design
2. High strength, ductile and cast iron housings provide strength and rigidity for industrial applications
   - Finite element modeled
   - Integral internal walls
3. Precision machined, doweled design provides proper gear alignment under load.
4. All new helical gearing with increased capacity reduces cost or extends service life.
   - Case carburized, precision finished teeth
   - Gears and pinions 98% efficient per stage
5. Balanced gear ratios for the most cost-effective design.
6. Large diameter shafts for added strength.
   - Increased shaft diameters for less deflection
7. All heavy-duty tapered roller bearing design for increased performance.
   - Increased radial and thrust load capabilities
   - Minimum 25,000 hours average life
8. Reducer overhung load capability optimized for total system value.
9. Standard, double-lip and optional Viton) seals help keep lubricants in, contaminants out.
   - 100% Factory tested before shipment
   - Standard seal operating temperatures of -40ºF to 225ºF.

FEATURES/BENEFITS

MAXUM Concentric Reducers







Top quality for maximum reliability. Available options for maximum versatility.

Options

Dodge MAXUM Reducer Size	Ratios Available	Hp@ 1750 Rpm 25:1	Low Speed Shaft Ohl** @ 68 Rpm (Lbs)	Scoop Packages For Motor Frames	Custom Designed Heavy Duty Baseplates	Top Motor Mounts For Motor Frames	External Backstop	Aux. Seals	Viton® Seal Option	Slide Base
4	2.25-194.6	34.7	5,460	143-326T	YES	143-326T	YES	YES	YES	YES
5	2.25-194.6	43.5	7,130	143-365T	YES	182-365T	YES	YES	YES	YES
6	2.25-194.6	71.0	8,660	143-365T	YES	182-365T	YES	YES	YES	YES
7	5.06-194.6	108	13,100	213-445T	YES	213-445T	YES	YES	YES	YES
8	5.06-194.6	125	14,300	213-445T	YES	213-445T	YES	YES	YES	YES
9	5.06-194.6	189	15,800	254-445T	YES	213-445T	YES	YES	YES	YES
10	5.06-194.6	277	16,000	254-445T	YES	254-445T	YES	YES	YES	YES
11	5.06-194.6	375	19,400	284-445T	YES	284-445T	YES	YES	YES	YES
12	5.06-194.6	493	17,500	284-445T	YES	284-445T	YES	YES	YES	YES

* Based on competitive ratings and the Dodge unit it replaces

** Overhung Load

Features

- Maximum Input Horsepower @1750 Rpm - 1600 Hp
- Maximum Output Torque- 502,000 In-Lbs
- Balanced Metric Design
- All Heavy Duty Tapered Roller Bearings
- Standard Double-Lip Seals With Standard Viton Option
- Up To 250 Hp Scoop Packages With Multiple Coupling Options
- Custom Mechanical Power Transmission Packages
- AC/DC Variable Speed Application Expertise
- Warranty Protection Plan - 36/12 Months
- Quick Response Delivery Program
- ISO 9002 Certified

SPECIFICATION



MAXUM Concentric Reducers

MAXUM SPEED REDUCER

The speed reducer shall be a direct coupled, V-belt, or chain driven enclosed concentric type unit with a double or triple reduction ratio. The published rating of the speed reducer shall conform to all applicable AGMA standards.

The reducer housing shall be constructed of corrosion resistant, Class 30 gray iron with cast internal walls for added strength. All housings and end covers shall be doweled and precision machined to assure accurate alignment for all gear sets.

All gearing shall be of single helical design, and crown shaved or ground to provide an ellipsoid tooth form to eliminate tooth end bearing and assure meshing in the strongest tooth area. All gears shall be case carburized to insure a high surface durability and resilient tooth core for greater impact resistance and longer service life. Pinions shall be supported between bearings to maintain proper alignment of the gear meshes, to minimize deflections and to maximize load carrying capabilities.

Reducer bearings shall be the taper roller type, and pro vide a minimum 25,000 hour average life. All seals shall be of the double lip, spring loaded type, made of nitrile rubber.

Reducer gears and bearings shall be splash lubricated using a quality petroleum base oil containing rust and oxidation inhibitors.

MAXUM SPEED REDUCER WITH SCOOP

The speed reducer shall be direct coupled enclosed concentric type unit with a double or triple reduction ratio.

The published rating of the speed reducer shall con form to all applicable AGMA standards. The motor shall be supported by a steel fabricated scoop of rigid design to maintain motor shaft alignment to the input shaft of the speed reducer.

The reducer housing shall be constructed of corrosion resistant, Class 30 gray iron with cast internal walls for added strength. All housings and end covers shall be doweled and precision machined to assure accurate alignment for all gear sets.

All gearing shall be of single helical design, and crown shaved or ground to provide an ellipsoid tooth form to eliminate tooth end bearing and assure meshing in the strongest tooth area. All gears shall be case carburized to insure a high surface durability and resilient tooth core for grater impact resistance and longer service life. Pinions shall be supported between bearings to maintain proper alignment of the gear meshes, to minimize deflections and to maximize load caring capabilities.

Reducer bearings shall be the taper roller type, and pro vide a minimum 25,000 hour average life. All seals shall be of the double lip, spring loaded type, made of nitrile rubber.

Reducer gears and bearings shall be splash lubricated using a quality petroleum base oil containing rust and oxidation inhibitors.

The fabricated steel scoop shall be supported by the reducer housing and shall include a means of accommodating the motor frame required.

A flexible coupling of either the elastomeric or grid type design shall be furnished to couple motor to reducer. The couplings shall be furnished with Taper-Lock bushings, or bored-to-size, for attachment of coupling flange to shafts. The shaft coupling shall be covered by an approved guard as required.

MAXUM SPEED REDUCER WITH BASE PLATES

The speed reducer shall be direct coupled enclosed concentric type unit with a double or triple reduction ratio. The published rating of the speed reducer shall conform to all applicable AGMA standards. The motor shall be supported by a steel fabricated baseplate of rigid design to maintain motor shaft alignment to the input shaft of the speed reducer.

The reducer housing shall be constructed of corrosion resistant, Class 30 gray iron with cast internal walls for added strength. All housing and end covers shall be doweled and precision machined to assure accurate alignment for all gear sets.

All gearing shall be of single helical design, and crown shaved or ground to provide an ellipsoid tooth form to eliminate tooth end bearing and assure meshing in the strongest tooth area. All gears shall be case carburized to insure a high surface durability and resilient tooth core for greater impact resistance and longer service life. Pinions shall be supported between bearings, to maintain proper alignment of the gear meshes, to minimize deflections and to maximize load carrying capabilities.

Reducer bearings shall be the taper roller type, and pro vide a minimum 25,000 hour average life. All seals shall be of the double lip, spring loaded type, made of nitrile rubber.

Reducer gears and bearings shall be splash lubricated using a quality petroleum base oil containing rust and oxidation inhibitors.

The steel baseplate shall be of Heavy Duty design, precision machined and stress relieved, and shall include a means of accommodating the motor frame required and providing the proper alignment with reducer shaft.

A flexible coupling of either the elastomeric or grid type design shall be furnished to couple the motor to the reducer. The couplings shall be furnished with Taper-Lock bushings, or bored-to-size, for attachment of coupling hub to the shafts. The shaft coupling shall be covered by an approved guard as required.

HOW TO ORDER NOMENCLATURE

DODGE®



MAXUM Concentric Reducers

HOW TO ORDER MAXUM REDUCERS

Once the correct DODGE MAXUM Concentric Shaft Reducer and accessories have been selected from information published in this catalog, the complete assembly can be specified or ordered using the nomenclature provided and/or the part numbers listed in the specification section, pages G3-24 through G3-31.

NOTE: If selection cannot be made from information herein, technical assistance is available to recommend drives for new or existing applications. Submit full details to DODGE MAXUM Application Engineering (864) 288-9050; DODGE Customer Service (864) 297-4800.

NOMENCLATURE

XXXX - XXXX - XX - XXX.XX - XX

MOTOR FRAME

STAGES OF REDUCTION

- D = DOUBLE
- T = TRIPLE

GEARCASE CONSTRUCTION

- CR = CONCENTRIC REDUCER

CONFIGURATION

- BLANK = SEPARATE
- B = BASEPLATE
- S = SCOOP KIT
- T = TOP MOTOR MOUNT

GEARCASE SIZE

- 4 THROUGH 12

RATIO 2.25 THROUGH 194.6

ACCESSORIES

- BS = BACKSTOP
- AS = AUXILIARY SEALS
- G = GRIP COUPLING
- P = PARA-FLEX COUPLING
- HE = HEAT EXCHANGER
- CF = COOLING FAN
- SB = SLIDEBASE

NOMENCLATURE EXAMPLES

SEPARATE REDUCER

DCR - 10 - 11.4 - BS

- DOUBLE REDUCTION
- CONCENTRIC REDUCER
- SEPARATE REDUCER
- SIZE 10
- 11.4 NOMINAL RATIO
- BACKSTOP

REDUCER WITH SCOOP

143T - TCRS - 4 - 57.7 - G - BS - SB

- 143T FRAME MOTOR
- TRIPLE REDUCTION
- CONCENTRIC REDUCER
- SCOOP MOUNTING
- SIZE 4
- 57.7 NOMINAL RATIO
- GRID COUPLING
- BACKSTOP
- SLIDE BASE

EASY SELECTION

MAXUM Concentric Reducers



When to Use Easy Selection

The Easy Selection tables for Separate Reducers are for electric motor selections up to 250 HP with input speeds of 1750 rpm using AGMA recommended service factors. For all other motor/prime mover input speeds and horse powers, use the Horsepower/Torque Selection Method on pages G3-55 through G3-56.

NOTE: If your application has unusual requirements (i.e., excessive shock or overloads, extreme ambient temperatures, non-standard motors or oversized equipment), refer to Horsepower/ Torque Selection Method.

How to Select

Step 1: Determine Service Factor – See Table 2 to determine service factor for applications under normal conditions. **Note:** When service factor exceeds 2.0, Horsepower/ Torque Selection Method must be used.

NOTE: AGMA classifies scoop mounted motors as gearmotor applications which are sized using a load classification in place of a service factor. (See Easy Selection Method for scoop mounting, page G3-17.)

Step 2: Determine Unit Size – See tables on pages G3-11 through G3-17. Find the service factor table that is required for the application. Read the unit size under required Horsepower and opposite the required low speed shaft RPM. Note: For applications where fan cooling is unacceptable, use easy selection table with an increased service factor.

Step 3: Check External Thrust and Overhung Load – See information on page G3-56 to calculate high speed and low speed overhung loads. Consult DODGE about external thrust loads.

Step 4: Check Dimensions – See specification/dimension section, pages G3-24 through G3-31 for dimensions, weights and part numbers.

Step 5: Select Accessories – Check matrix for compatibility of combinations of accessories, page G3-32.

Example: Easy Selection Method - Separate Reducers

A 75 hp 1750 rpm motor is used to drive a uniformly loaded belt conveyor at 84 rpm operating 16 hours per day. The reducer is coupling connected at both the input and output shafts.

Step 1: Determine Service Factor - From Table 2, Service Factors, locate “Belt Conveyors - Uniformly Loaded or Fed.” Select the Service Factor of 1.25 under the column headed 10+ hours/day service.

Step 2: Determine Unit Size - Turn to the Easy Selection Table for 1.25 Service Factor (Table 4). Find the column headed by 75 motor horsepower and read down to 83.6 rpm. A MAXUM size 7 is the correct selection and the nominal ratio is 20.93:1.

Step 3: Check External Thrust and Overhung Loads - Since the input and output shafts are coupling connected, thrust and overhung loads will not exist. (An overhung load example is given on page G3-57. Consult DODGE about external thrust loads.)

Step 4: Check Dimensions - Refer to the specifications for the DODGE MAXUM size 7 reducer located on page G3-29. The part number for the reducer is **299145**.

Step 5: Select Accessories - No accessories were required for this example.



MAXUM Concentric Reducers
SERVICE FACTORS

The service factors that follow are adapted from AGMA 6010-E88 Appendix A.

Applications which expose the gear drive to high starting torques, extreme repetitive shock, or where high energy loads must be absorbed as when stalling, require special consideration. Service factors for these special applications should be agreed upon by the user and DODGE since variations of the values in the table may be required.

The service factors in the service factor table are based on the use of an electric or hydraulic motor or the use of a steam or gas turbine as a prime mover. If the prime mover is a single or multi-cylinder engine, then the service factor must be adjusted in accordance with Table 1.

Table 1: Conversion Table For Single or multi-cylinder engines to fnd equivalent single or multi-cylinder application factor or service factor

Steam and Gas Turbines, Hydraulic or Electric Motor	Single Cylinder Engines	Multi Cylinder Engines
1.00	1.50	1.25
1.25	1.75	1.50
1.50	2.00	1.75
1.75	2.25	2.00
2.00	2.50	2.25
2.25	2.75	2.50
2.50	3.00	2.75
2.75	3.25	3.00
3.00	3.50	3.25
3.50	4.00	3.75

Table 2: Service Factors

Application	Service 3-10	Service 10+Hrs/Day
AGITATORS	Hrs/Day	Day
Pure Liquids	1.00	1.25
Liquids & Solids	1.25	1.50
Liquids - Variable Density	1.25	1.50
APRON CONVEYORS		
Uniformly Loaded or Fed	1.00	1.25
Heavy Duty	1.25	1.50
APRON FEEDERS	1.25	1.50
ASSEMBLY CONVEYORS		
Uniformly Loaded or Fed	1.00	1.25
Heavy Duty	1.25	1.50
BALL MILLS	▲	▲
BARGE HAUL PULLERS	1.25	1.50
BARKING		
Drums (coupling connected)		2.00
Mechanical		2.00
BAR SCREENS (Sewage)	1.25	1.25
BATCHERS (Textile)	1.25	1.50
BELT CONVEYORS		
Uniformly Loaded or Fed	1.00	1.25
Heavy Duty	1.25	1.50
BELT FEEDERS	1.25	1.50
BENDING ROLLS (Machine)	1.25	1.50
BLOWERS		
Centrifugal	1.00	1.25
Lobe	1.25	1.50
Vane	1.25	1.50
BOTTLING MACHINERY	1.00	1.25
BREWING & DISTILLING		
Bottling Machinery	1.00	1.25
Brew Kettles, Cont. Duty	1.25	1.25
Can Filling Machines	1.00	1.25
Cookers - Cont. Duty	1.25	1.25
Mash Tubs - Cont. Duty	1.25	1.25
Scale Hoppers - Frequent Starts	1.25	1.50
BRICK PRESS (Clay Working)	1.75	2.00
BRIQUETTE MACHINES (Clay Working)	1.75	2.00
BUCKET		
Conveyors Uniform	1.00	1.25
Conveyors Heavy Duty	1.25	1.50
Elevators Cont.	1.00	1.25
Elevators Uniform	1.00	1.25
Elevators Heavy Duty	1.25	1.50
CALENDERS		
Rubber		1.50
Textile	1.25	1.50
CANE KNIVES		1.50
CAN FILLING MACHINES	1.00	1.25
CARD MACHINES (Textile)	1.25	1.50
CAR DUMPERS	1.75	2.00
CAR PULLERS	1.25	1.50
CEMENT KILNS	▲	▲
CENTRIFUGAL		
Blowers, compressors, Discharge Elevators, Fans or Pumps	1.00	1.25
CHAIN CONVEYORS		
Uniformly Loaded or Fed	1.00	1.25
Heavy Duty	1.25	1.50
CHEMICAL FEEDERS		
(Sewage)	1.25	1.25
CLARIFIERS	1.00	1.25
CLASSIFIERS	1.25	1.50
CLAY WORKING IND.		
Brick Press	1.75	2.00
Briquette Machines	1.75	2.00
Pug Mills	1.25	1.50
COLLECTORS (Sewage)	1.25	1.25
COMPRESSORS		
Centrifugal	1.00	1.25
Lobe	1.25	1.50
Reciprocating:		
Multi-cylinder	1.50	1.75
Single Cylinder	1.75	2.00
CONCRETE MIXERS		
Continuous	1.25	1.50
Intermittent	1.25	1.50
CONVEYORS - Uniformly Loaded or Fed: Apron		
Assembly, Belt, Bucket, chain, Flight		
Oven, Screw	1.00	1.25
CONVEYORS - Heavy Duty		
Not Uniformly Fed:		
Apron, Assembly, Belt, Bucket, Chain, Flight, Oven, Screw	1.25	1.50
CONVEYORS-Severe Duty		
Live Roll Reciprocating	†	†
Shaker	1.75	2.00

EASY SELECTION

DODGE®



MAXUM Concentric Reducers

Table 2: Service Factors

Application	Service 3-10	Service 10+Hrs/Day
COOKERS (Brewing & Distilling), (Food)	1.25	1.25
COOLING TOWER FANS	†	†
CRANES	†	†
CRUSHERS		
Ore or Stone	1.75	2.00
Sugar		1.50
DEWATERING SCREENS (Sewage)	1.50	1.50
DISC FEEDERS	1.00	1.25
DISTILLING (See Brewing)		
DOUBLE ACTING PUMPS		
2 or More Cylinders	1.25	1.50
Single Cylinder	†	†
DOUGH MIXER (Food)	1.25	1.50
DRAW BENCH (Metal Mills) carriage & Main Drive	1.25	1.50
DREDGES		
Cable Reels, Conveyors	1.25	1.50
Cutter Head & Jig Drives	2.00	2.00
Maneuvering Winches	1.25	1.50
Pumps	2.00	2.00
Screen Drives	1.75	2.00
Stackers, Utility Winches	1.25	1.50
DRY DOCK CRANES	†	†
DRYERS & COOLERS (Mills, Rotary)		1.50
DYEING MACHINERY (Textile)	1.25	1.50
ELEVATORS		
Bucket - Uniform Load	1.00	1.25
Bucket - Heavy Duty	1.25	1.50
Centrifugal Discharge	1.00	1.25
Escalators	1.00	1.25
Freight	1.25	1.50
Gravity Discharge	1.00	1.25
Man. Lifts, Passenger	†	†
EXTRUDERS		
General	1.50	1.50
Plastics		
Variable Speed Drive	1.50	1.50
Fixed Speed Drive	1.75	1.75
Rubber		
Continuous Screw Operation	1.75	1.75
Intermittent Screw Operation	1.75	1.75
FANS		
Centrifugal	1.00	1.25
Cooling Towers	†	†
Forced Draft	1.25	1.25
Induced Draft	1.50	1.50
Large (Mine, etc.)	1.50	1.50
Large Industrial	1.50	1.50
Light (Small Diameter)	1.00	1.25
FEEDERS		
Apron, Belt	1.25	1.50
Disc	1.00	1.25
Reciprocating	1.75	2.00
Screw	1.25	1.50
FLIGHT		
Conveyors, Uniform	1.00	1.25
Conveyors, Heavy	1.25	1.50
FOOD/INDUSTRY		
Beet Slicers	1.25	1.50
Bottling, Can Filling Machine	1.00	1.25
Cereal Cookers	1.00	1.25
Dough Mixers, Meat Grinders	1.25	1.50
GENERATORS (Not Welding)	1.00	1.25
GRAVITY DISCHARGE ELEVATORS	1.00	1.25
HAMMER MILLS	1.75	2.00
HOISTS (See Cranes)	†	†
INDUCED DRAFT FANS	1.50	1.50
KILNS	▲	▲
LAUNDRY		
Tumblers	1.25	1.50
Washers	1.50	2.00
LINE SHAFTS		
Driving Processing Equipment	1.25	1.50
Other Line Shafts, Light	1.00	1.25
LIVE ROLL CONVEYORS	†	†
LOBE BLOWERS OR COMPRESSORS	1.25	1.50
LOG HAULS (Lumber)		
Incline-well Type	1.75	1.75
LOOMS (Textile)	1.25	1.50
LUMBER INDUSTRY		
Barkers - Spindle Feed	1.25	1.50
Barkers - Main Drive	1.75	1.75
Carriage Drive	†	†
Conveyors		
Burner	1.25	1.50
Main or Heavy Duty	1.50	1.50
Main Log	1.75	2.00
Re-Saw Merry-Go-Round	1.25	1.50
Slab	1.75	2.00
Transfer	1.25	1.50
Chains - Floor	1.50	1.50
Chains - Green	1.50	1.75
Cut-Off Saws - Chain & Drag	1.50	1.75
Debarking Drums	1.75	2.00
Feeds - Edger	1.25	1.50
Feeds - Gang	1.75	1.75
Feeds - Trimmer	1.25	1.50
Log Deck	1.75	1.75
Log Hauls - Incline, Well Type	1.75	1.75
Log Turning Devices	1.75	1.75
Planer Feed	1.25	1.50
Planer Tilting Hoists	1.25	1.50
Rolls - Live - Off Bearing - Roll cases	1.75	1.75
Sorting Table, Tipple Hoist	1.25	1.50
Transfer - Chain & Craneway	1.50	1.75
Tray Drives	1.25	1.50
Veneer Lathe Drives	†	†
MACHINE TOOLS		
Auxiliary Drives	1.00	1.25
Banding Rolls	1.25	1.50
Main Drives	1.25	1.50
Notching Press (Belted)	†	†
Plate Planers	1.75	2.00
Punch Press (Geared)	1.75	2.00
Tapping Machines	1.75	2.00
MANGLE (Textile)	1.25	1.50
MASH TUBS (Brewing & Distilling	1.25	1.25
MEAT GRINDERS (Food)	1.25	1.50
METAL MILLS		
Draw Bench Carriages & Main Drives	1.25	1.50
Pinch, Dryer & Scrubber Rolls Reversing	†	†
Slitters	1.25	1.50
Table Conveyors, Non-Reversing Group Drives	1.50	1.50
Individual Drives	2.00	2.00
Reversing	†	†



EASY SELECTION

MAXUM Concentric Reducers

Table 2: Service Factors

Application	Service 3-10	Service 10+Hrs/Day
Wire Drawing & Flattening Machines		
Wire Winding Machines	1.50	1.50
MILLS, ROTARY		
Ball and Rod Mills		
with Spur Ring Gear		2.00
with Helical Ring Gear		1.50
Direct connected		2.00
Cement Kilns, Dryers, Coolers, Pebble, Plain & Wedge Bar Mills		1.50
Tumbling Barrels	1.75	2.00
MIXERS (Also see Agitators)		
Concrete, Cont. & Int.	1.25	1.50
Constant Density	1.00	1.25
Variable Density	1.25	1.50
NAPPERS (Textile)	1.25	1.50
OIL INDUSTRY		
Chillers	1.25	1.50
Oil Well Pumping	†	†
Paraffin Filter Press	1.25	1.50
Rotary Kilns	1.25	1.50
ORE CRUSHERS	1.75	2.00
OVEN CONVEYORS		
Uniform	1.00	1.25
Heavy Duty	1.25	1.50
PAPER MILLS (1)		
Agitator (Mixer)		1.50
Agitator for Pure Liquids		1.25
Barking Drums. Barkers -Mech.		2.00
Beater		1.50
Breaker Stack		1.25
Calender (2)		1.25
Chipper		2.00
Chip Feeder		1.50
Coating Rolls		1.25
Conveyors -		
Chip, Bark, Chemical		1.25
Log (Incl. Slab)		2.00
Couch Rolls		1.25
Cutter		2.00
Cylinder Molds		1.25
Dryers (2)		
Paper Mach. & Conveyor Type		1.25
Embosser		1.25
Extruder		1.50
Fourdrinier Rolls -		
Lumpbreaker, Wire		
Turning, Dandy & Return Rolls		1.25
Jordan		1.50
Kiln Drive		1.50
Mt. Hope & Paper Rolls		1.25
Platter		1.50
Presses (Felt & Suction)		1.25
Pulper		2.00
Reel (Surface Type)		1.25
Screens -		
Chip, Rotary		1.50
Vibrating		2.00
Size Press		1.25
Super Calender (3)		1.25
Thickener & Washer -		
AC Motor		1.50
DC Motor		1.25
Vacuum Pumps		1.50
Wind & Unwind Stand		1.25
Winders (Surface Type)		1.25
Yankee Dryer (2)		1.25
PASSENGER ELEVATORS	†	†
PEBBLE MILLS	▲	▲
PLASTICS INDUSTRY		
Primary Processing		
Intensive Internal Mixers		
Batch Mixers	1.75	1.75
Continuous Mixers	1.50	1.50
Batch Drop Mill - 2 Smooth Rolls	1.25	1.25
Continuous Feed, Holding & Blend Mill	1.25	1.25
Compounding Mill	1.25	1.25
Calenders	1.50	1.50
Secondary Processing		
Blow Molders	1.50	1.50
Coating	1.25	1.25
Film	1.25	1.25
Pipe	1.25	1.25
Pre-Plasticizers	1.50	1.50
Rods	1.25	1.25
Sheets	1.25	1.25
Tubing	1.25	1.50
PLATE PLANERS	1.75	2.00
PRINTING PRESSES	†	†
PROPORTIONING PUMPS	1.25	1.50
PUG MILLS (Clay)	1.25	1.50
PULLERS (Barge Haul)	1.25	1.50
PUMPS		
Centrifugal	1.00	1.25
Proportioning	1.25	1.50
Reciprocating		
Single Act., 3 or More Cyl.	1.25	1.50
Double Act, 2 or More Cyl.	1.25	1.50
Single Act., 1 or 2 Cyl.	†	†
Double Act, 1 Cyl.	†	†
Rotary: Gear, Lobe, Vane	1.00	1.25
PUNCH PRESS		
(Gear Driven)	1.75	2.00
RECIPROCATING		
Conveyors, Feeders	1.75	2.00
RECIPROCATING		
COMPRESSORS		
Multi Cylinder	1.50	1.75
Single Cylinder	1.75	2.00
REVERSING DIRECTION	†	†
APPLICATION	▲	▲
ROD MILLS		
ROTARY		
Pumps	1.00	1.25
Screens (Sand and Gravel)	1.25	1.50
RUBBER INDUSTRY		
Intensive Internal Mixers		
Batch Mixers	1.75	1.75
Continuous Mixers	1.50	1.50
Mixing Mill-2smooth rolls (If corrugated rolls are used, then use the same service factors that are used for a Cracker-Warmer)	1.50	1.50
Batch Drop Mill		
2 Smooth Rolls	1.50	1.50
Cracker Warmer-2		
Rolls: 1 corrugated Roll	1.75	1.75
Cracker-2 corrugated		
Rolls	2.00	2.00
Holding, Feed & Blend		
Mill-2 Rolls	1.25	1.25
Refiner-2 Rolls	1.50	1.50
Calenders	1.50	1.50
SAND MULLERS	1.25	1.50
SCREENS		
Air Washing	1.00	1.25
Rotary-Sand or Gravel	1.25	1.50
Traveling Water Intake	1.00	1.25
SCREW CONVEYORS		

EASY SELECTION



MAXUM Concentric Reducers

Table 2: Service Factors

Application	Service 3-10	Service 10+Hrs/ Day
Uniform	1.00	1.25
Heavy Duty or Feeder	1.25	1.50
SCUM BREAKERS		
(Sewage)	1.50	1.50
SEWAGE DISPOSAL		
Bar Screens	1.25	1.25
Chemical Feeders	1.25	1.25
Collectors	1.25	1.25
Dewatering Screens	1.50	1.50
Scum Breakers	1.50	1.50
Slow or Rapid Mixers	1.50	1.50
Thickeners	1.50	1.50
Vacuum Filters	1.50	1.50
SHAKER CONVEYORS	1.75	2.00
SHEETERS (Rubber)		1.50
SINGLE ACTING PUMP		
1 or 2 Cylinders	†	†
3 or More Cylinders	1.25	1.50
SKIP HOIST	†	†
SLAB PUSHERS	1.50	1.50
SLITTERS (metal)	1.25	1.50
SLUDGE COLLECTORS		
(Sewage)	1.25	1.25
SOAPERS (Textile)	1.25	1.50
SPINNERS (Textile)	1.25	1.50
STEERING GEARS		
STOKERS	1.00	1.25
STONE CRUSHERS	1.75	2.00
SUGAR INDUSTRY		
Cane Knives, Crushers		
Mill		1.50

Application	Service 3-10	Service 10+Hrs/ Day
TABLE CONVEYORS		
(Non-Reversing)		
Group Drives	1.50	1.50
Individual Drives	2.00	2.00
Reversing	†	†
TENTER FRAMES (Textile)	1.25	1.50
TEXTILE INDUSTRY		
Batchers, calenders	1.25	1.50
Card Machines	1.25	1.50
Dry Cans, Dryers	1.25	1.50
Dyeing Machinery	1.25	1.50
Knitting Machinery	†	†
Looms, Mangles		
Nappers, Pads	1.25	1.50
Range Drives	†	†
Slashers, Soapers		
Spinners	1.25	1.50
Tenter Framers,		
Washers, Winders	1.25	1.50
THICKNESS (Sewage)	1.50	1.50
TUMBLING BARRELS	1.75	2.00
VACUUM FILTERS		
(Sewage)	1.50	1.50
VANE BLOWERS	1.25	1.50
WINCHES (Dredges)	1.25	1.50
WINDERS (Textile)	1.25	1.50
WINDGLASS	†	†
WIRE		
Drawing Machines	1.25	1.50
Winding Machines	1.50	1.50

† Consult DODGE

▲ See Mill, Rotary

(1) Service factors for paper mill applications are applied to the nameplate rating of the electric motor at the motor rated base speed

(2) Using anti-friction bearings only. Use 1.50 for sleeve bearings

(3) When a super calender operates over a speed range of part constant horsepower and part constant torque and the constant horsepower speed range is greater than 1.5:1, use a service factor of 1.00 at base speed. When operating at constant torque over the entire speed range or when the constant horsepower speed range is less than 1.5:1, a 1.25 service factor should be used.



EASY SELECTION

MAXUM Concentric Reducers

Table 3: Easy Selection - Separate Reducers 1750 RPM - 1.0 Service Factor

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			5	7-1/2	10	15	20	25	30	40
			(184T)	(213T)	(215T)	(254T)	(256T)	(284T)	(286T)	(324T)
2.25	777.8	DOUBLE	1	1	1	1	1	1	1	2
2.75	636.4		1	1	1	1	1	1	1	2
3.37	519.3		1	1	1	1	1	1	2	2
4.13	423.7		1	1	1	1	1	1	1	3
5.06	345.8		1	1	1	1	1	1	2	3
6.20	282.3		1	1	1	1	1	1	2	3
7.59	230.6		1	1	1	1	1	2	2	3
9.30	188.2		1	1	1	1	2	2	3	3
11.39	153.6		1	1	1	1	2	2	3	3 •
13.95	125.4		1	1	1	2	2	3	3	4
17.09	102.4		1	1	1	2	3	3	3	4
20.93	83.6		1	1	2	2	3	3	4	4 •
25.63	68.3		1	1	2	3	3	4	4	5 •
31.39	55.8	TRIPLE	1	2	2	3	4	4	4	6
38.44	45.5		1	2	3	3	4	4	5	6
47.08	37.2		2	2	3	4	4	5	6	6
57.67	30.4		2	3	3	4	5	6	6	7
70.62	24.8		2	3	4	5	6	6	6	7
86.50	20.2		3	4	4	6	6	6	7	9
105.90	16.5		3	4	5	6	6	7	7	9
129.70	13.5		4	4	6	6	7	7	9	9
158.90	11.0		4	5	6	7	7	9	9	10
194.60	9.0		4	6	6	7	9	9	9	10

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			50	60	75	100	125	150	200	250
			(326T)	(364T)	(365T)	(405T)	(444T)	(445T)	(447T)	(449T)
2.25	777.8	DOUBLE	3	3 •	3 •	4 •	4 •	5 •	-	-
2.75	636.4		3	3 •	3 •	4 •	5 •	5 •	6 •	-
3.37	519.3		3	3	4 •	4 •	5 •	6 •	-	-
4.13	423.7		3 •	3 •	4 •	4 •	5 •	6 •	-	-
5.06	345.8		3 •	3 •	4 •	4 •	5 •	6 •	7 •	7 •
6.20	282.3		3 •	4 •	4 •	5 •	5 •	6 •	7 •	7 •
7.59	230.6		3 •	4 •	4 •	5 •	5 •	6 •	7 •	7 •
9.30	188.2		4	4 •	4 •	5 •	6 •	7 •	7 •	7 •
11.39	153.6		4 •	4 •	5 •	6 •	7	7 •	7 •	9 •
13.95	125.4		4 •	5 •	5 •	6 •	7	7 •	9 •	9 •
17.09	102.4		4 •	5 •	6 •	7	7 •	7 •	9 •	10 •
20.93	83.6		5 •	6 •	6 •	7	7 •	9 •	9 •	10 •
25.63	68.3		6	6 •	7	7	9 •	9 •	10 •	10 •
31.39	55.8	TRIPLE	6	7	7	9	9	9 •	10 •	11 •
38.44	45.5		6	7	7	9	9 •	10 •	10 •	11 •
47.08	37.2		7	7	9	9	10 •	10 •	11 •	12 •
57.67	30.4		7	9	9	10 •	10 •	11 •	12 •	-
70.62	24.8		9	9	9	10 •	11 •	11 •	-	-
86.50	20.2		9	9	10	10	11	12	-	-
105.90	16.5		9	10	10	11	12	-	-	-
129.70	13.5		10	10	11	12	-	-	-	-
158.90	11.0		10	11	11	-	-	-	-	-
194.60	9.0		11	11	12	-	-	-	-	-

• Cooling Fan Required

\+ TEFC-XE Frame, Energy Efficient Motors

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EASY SELECTION



MAXUM Concentric Reducers

Table 4: Easy Selection - Separate Reducers 1750 RPM - 1.25 Service Factor

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			5 (184T)	7-1/2 (213T)	10 (215T)	15 (254T)	20 (256T)	25 (284T)	30 (286T)	40 (324T)
2.25	777.8	DOUBLE	1	1	1	1	1	1	2	2
2.75	636.4		1	1	1	1	1	2	2	3
3.37	519.3		1	1	1	1	1	2	2	3
4.13	423.7		1	1	1	1	1	1	2	3
5.06	345.8		1	1	1	1	1	2	2	3
6.20	282.3		1	1	1	1	1	2	2	3
7.59	230.6		1	1	1	1	2	2	2	3
9.30	188.2		1	1	1	1	2	2	3	4
11.39	153.6		1	1	1	2	2	3	3	4
13.95	125.4		1	1	1	2	3	3	4	4
17.09	102.4		1	1	2	2	3	4	4	4
20.93	83.6		1	2	2	3	3	4	4	5
25.63	68.3		1	2	2	3	4	4	5	6
31.39	55.8	TRIPLE	1	2	3	4	4	5	6	6
38.44	45.5		2	2	3	4	4	6	6	6
47.08	37.2		2	3	3	4	5	6	6	7
57.67	30.4		2	3	4	5	6	6	7	7
70.62	24.8		3	4	4	6	6	7	7	9
86.50	20.2		3	4	5	6	6	7	7	9
105.9	16.5		4	4	6	6	7	7	9	9
129.7	13.5		4	5	6	7	7	9	9	10
158.9	11.0		4	6	6	7	9	9	10	10
194.6	9.0		5	6	7	9	9	10	10	11

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			50 (326T)	60 (364T)	75 (365T)	100 (405T)	125 (444T)	150 (445T)	200 (447T)	250 (449T)
2.25	777.8	DOUBLE	3	3 •	4 •	4 •	5 •	6 •	-	-
2.75	636.4		3	3 •	4 •	5 •	5 •	6 •	-	-
3.37	519.3		3	4	4 •	5 •	6 •	6 •	-	-
4.13	423.7		3 •	4 •	4 •	5 •	5 •	6 •	-	-
5.06	345.8		3 •	4 •	4 •	5 •	5 •	6 •	7 •	7 •
6.20	282.3		4	4 •	4 •	5 •	6 •	7	7 •	7 •
7.59	230.6		4	4 •	5 •	5 •	7	7	7 •	7 •
9.30	188.2		4	4 •	5 •	6 •	7	7 •	7 •	9 •
11.39	153.6		4 •	5 •	5 •	7	7	7 •	9 •	9 •
13.95	125.4		5	5 •	6 •	7	7	7 •	9 •	10 •
17.09	102.4		5 •	6	7	7	9	9 •	10 •	10 •
20.93	83.6		6	6 •	7	7	9 •	9 •	10 •	10 •
25.63	68.3		6	7	7	9 •	9	9 •	10 •	11 •
31.39	55.8	TRIPLE	7	7	9	9	9	10 •	11 •	12 •
38.44	45.5		7	7	9	9	10 •	10 •	11 •	12 •
47.08	37.2		7	9	9	10 •	10 •	11 •	12 •	-
57.67	30.4		9	9	9	10 •	11	11 •	-	-
70.62	24.8		9	9	10	11	11 •	12 •	-	-
86.50	20.2		9	10	10	11	12	-	-	-
105.9	16.5		10	10	11	12	-	-	-	-
129.7	13.5		10	11	12	-	-	-	-	-
158.9	11.0		11	11	-	-	-	-	-	-
194.6	9.0		11	12	-	-	-	-	-	-

• Cooling Fan Required

\+ TEFC-XE Frame, Energy Efficient Motors



EASY SELECTION

MAXUM Concentric Reducers

Table 5: Easy Selection - Separate Reducers 1750 RPM - 1.50 Service Factor

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			5 (184T)	7-1/2 (213T)	10 (215T)	15 (254T)	20 (256T)	25 (284T)	30 (286T)	40 (324T)
2.25	777.8	DOUBLE	1	1	1	1	1	2	2	3
2.75	636.4		1	1	1	1	1	2	2	3
3.37	519.3		1	1	1	1	2	2	3	3
4.13	423.7		1	1	1	1	1	2	2	3
5.06	345.8		1	1	1	1	2	2	2	3
6.20	282.3		1	1	1	1	2	2	3	4
7.59	230.6		1	1	1	2	2	2	3	4
9.30	188.2		1	1	1	2	2	3	4	4
11.39	153.6		1	1	1	2	3	3	4	4
13.95	125.4		1	1	2	2	3	4	4	5
17.09	102.4		1	2	2	3	3	4	4	5
20.93	83.6		1	2	2	3	4	4	5	6
25.63	68.3		1	2	3	4	4	5	6	6
31.39	55.8	TRIPLE	2	2	3	4	4	6	6	7
38.44	45.5		2	3	3	4	5	6	6	7
47.08	37.2		2	3	4	5	6	6	7	7
57.67	30.4		3	4	4	6	6	7	7	9
70.62	24.8		3	4	5	6	6	7	7	9
86.50	20.2		4	4	6	6	7	7	9	9
105.9	16.5		4	5	6	7	7	9	9	10
129.7	13.5		4	6	6	7	9	9	10	10
158.9	11.0		5	6	7	9	9	10	10	11
194.6	9.0		6	6	7	9	9	10	10	11

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			50 (326T)	60 (364T)	75 (365T)	100 (405T)	125 (444T)	150 (445T)	200 (447T)	250 (449T)
2.25	777.8	DOUBLE	3	4 •	4 •	5 •	6 •	6 •	-	-
2.75	636.4		3	4	4 •	5 •	6 •	-	-	-
3.37	519.3		4	4	5 •	6 •	6 •	-	-	-
4.13	423.7		4	4 •	4 •	5 •	6 •	-	-	-
5.06	345.8		4	4 •	5 •	5 •	6 •	7 •	7 •	7 •
6.20	282.3		4	4 •	5 •	6 •	7	7	7 •	9 •
7.59	230.6		4	5	5 •	6 •	7	7	7 •	9 •
9.30	188.2		4	5 •	6	7	7	7 •	9 •	10 •
11.39	153.6		5	5 •	6	7	7	7 •	9 •	10 •
13.95	125.4		5	6	7	7	7	9 •	10 •	10 •
17.09	102.4		6	6	7	7	9	9 •	10 •	11 •
20.93	83.6		6	7	7	9 I	9 •	10 •	10 •	11 •
25.63	68.3		7	7	9	9	9 •	10 •	11 •	11 •
31.39	55.8	TRIPLE	7	9	9	9	10 •	10 •	11 •	12 •
38.44	45.5		7	9	9	10	10 •	11	12 •	-
47.08	37.2		9	9	9	10	11	11 •	-	-
57.67	30.4		9	9	10	11	11	12 •	-	-
70.62	24.8		9	10	10	11	12	-	-	-
86.50	20.2		10	10	11	12	-	-	-	-
105.9	16.5		10	11	12	-	-	-	-	-
129.7	13.5		11	11	12	-	-	-	-	-
158.9	11.0		11	12	-	-	-	-	-	-
194.6	9.0		12	-	-	-	-	-	-	-

• Cooling Fan Required

\+ TEFC-XE Frame, Energy Efficient Motors

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EASY SELECTION



MAXUM Concentric Reducers

Table 6: Easy Selection - Separate Reducers 1750 RPM - 1.75 Service Factor

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			5 (184T)	7-1/2 (213T)	10 (215T)	15 (254T)	20 (256T)	25 (284T)	30 (286T)	40 (324T)
2.25	777.8	DOUBLE	1	1	1	1	2	2	2	3
2.75	636.4		1	1	1	1	2	2	3	3
3.37	519.3		1	1	1	2	2	3	3	3
4.13	423.7		1	1	1	1	2	2	2	3
5.06	345.8		1	1	1	1	2	2	3	4
6.20	282.3		1	1	1	2	2	3	3	4
7.59	230.6		1	1	1	2	2	3	4	4
9.30	188.2		1	1	1	2	3	3	4	4
11.39	153.6		1	1	2	2	3	4	4	5
13.95	125.4		1	1	2	3	4	4	4	5
17.09	102.4		1	2	2	3	4	4	5	6
20.93	83.6		1	2	3	4	4	5	5	6
25.63	68.3		2	2	3	4	5	6	6	6
31.39	55.8	TRIPLE	2	3	3	4	5	6	6	7
38.44	45.5		2	3	4	5	6	6	7	7
47.08	37.2		3	4	4	5	6	7	7	9
57.67	30.4		3	4	4	6	6	7	7	9
70.62	24.8		3	4	5	6	7	7	9	9
86.50	20.2		3	5	6	7	7	9	9	10
105.9	16.5		4	6	6	7	8	9	9	10
129.7	13.5		4	6	7	7	9	10	10	11
158.9	11.0		5	6	7	9	9	10	10	11
194.6	9.0		6	7	7	9	10	10	11	12

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			50 (326T)	60 (364T)	75 (365T)	100 (405T)	125 (444T)	150 (445T)	200 (447T)	250 (449T)
2.25	777.8	DOUBLE	4	4 •	5 •	5 •	6 •	-	-	-
2.75	636.4		4	4	5 •	6 •	6 •	-	-	-
3.37	519.3		4	4	5 •	6 •	-	-	-	-
4.13	423.7		4	4 •	5 •	5 •	6 •	-	-	-
5.06	345.8		4	4 •	5 •	6 •	7	7 •	7 •	9 •
6.20	282.3		4	5	5 •	7 •	7	7	9 •	9 •
7.59	230.6		5	5	6	7 •	7	7	9 •	10 •
9.30	188.2		5	5 •	6	7	7	7 •	9 •	10 •
11.39	153.6		5	6	7	7	7	9 •	10 •	10 •
13.95	125.4		6	7	7	7	9 •	9 •	10 •	11 •
17.09	102.4		6	7	7	9	9	10 •	10 •	11 •
20.93	83.6		7	7	7	9	10 •	10 •	11 •	11 •
25.63	68.3		7	7	9	9	10 •	10 •	11 •	12 •
31.39	55.8	TRIPLE	7	9	9	10	10 •	11	12 •	-
38.44	45.5		9	9	9	10	11	11	-	-
47.08	37.2		9	9	10	11	11	12 •	-	-
57.67	30.4		9	10	10	11	12	-	-	-
70.62	24.8		10	10	11	12	-	-	-	-
86.50	20.2		10	11	12		-	-	-	-
105.9	16.5		11	11	12	-	-	-	-	-
129.7	13.5		11	12	-	-	-	-	-	-
158.9	11.0		12	-	-	-	-	-	-	-
194.6	9.0		-	-	-	-	-	-	-	-

• Cooling Fan Required

\+ TEFC-XE Frame, Energy Efficient Motors



EASY SELECTION

MAXUM Concentric Reducers

Table 7: Easy Selection - Separate Reducers 1750 RPM - 2.0 Service Factor

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			5 (184T)	7-1/2 (213T)	10 (215T)	15 (254T)	20 (256T)	25 (284T)	30 (286T)	40 (324T)
2.25	777.8	DOUBLE	1	1	1	1	2	2	3	3
2.75	636.4		1	1	1	1	2	3	3	3
3.37	519.3		1	1	1	2	2	3	3	4
4.13	423.7		1	1	1	1	2	2	3	4
5.06	345.8		1	1	1	2	2	3	3	4
6.20	282.3		1	1	1	2	2	3	4	4
7.59	230.6		1	1	1	2	3	3	4	4
9.30	188.2		1	1	2	2	3	4	4	5
11.39	153.6		1	1	2	3	3	4	4	5
13.95	125.4		1	2	2	3	4	4	5	6
17.09	102.4		1	2	3	3	4	4	5	6
20.93	83.6		2	2	3	4	4	5	6	7
25.63	68.3		2	3	3	4	5	6	6	7
31.39	55.8	TRIPLE	2	3	4	4	6	6	7	7
38.44	45.5		3	3	4	5	6	6	7	9
47.08	37.2		3	4	4	6	6	7	7	9
57.67	30.4		3	4	5	6	7	7	9	9
70.62	24.8		4	5	6	6	7	9	9	10
86.50	20.2		4	6	6	7	9	9	9	10
105.9	16.5		5	6	6	7	9	9	10	10
129.7	13.5		6	6	7	9	9	10	10	11
158.9	11.0		6	7	7	9	10	10	11	12
194.6	9.0		6	7	9	9	10	11	11	-

Norm Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			50 (326T)	60 (364T)	75 (365T)	100 (405T)	125 (444T)	150 (445T)	200 (447T)	250 (449T)
2.25	777.8	DOUBLE	4	4 •	5 •	6 •	-	-	-	-
2.75	636.4		4	4	5 •	6 •	-	-	-	-
3.37	519.3		4	5	6	-	-	-	-	-
4.13	423.7		4	4 •	5 •	6 •	-	-	-	-
5.06	345.8		4	5	5 •	7	7	7 •	7 •	9 •
6.20	282.3		5	5	6	7	7	7	9 •	10 •
7.59	230.6		5	5	6	7	7	7	9 •	10 •
9.30	188.2		5	6	7	7	7	9 •	10 •	10 •
11.39	153.6		6	7	7	7	9 •	9 •	10 •	11 •
13.95	125.4		6	7	7	9	9	10 •	10 •	11 •
17.09	102.4		7	7	7	9	10	10 •	11 •	11 •
20.93	83.6		7	7	9	9	10 •	10 •	11 •	12 •
25.63	68.3		7	9	9	10	10 •	11 •	12 •	-
31.39	55.8	TRIPLE	9	9	9	10	11	11	12 •	-
38.44	45.5		9	9	10	10	11	12	-	-
47.08	37.2		9	10	10	11	12	-	-	-
57.67	30.4		10	10	11	12	-	-	-	-
70.62	24.8		10	11	11	-	-	-	-	-
86.50	20.2		10	11	12	-	-	-	-	-
105.9	16.5		11	12	-	-	-	-	-	-
129.7	13.5		12	-	-	-	-	-	-	-
158.9	11.0		-	-	-	-	-	-	-	-
194.6	9.0		-	-	-	-	-	-	-	-

• Cooling Fan Required

\+ TEFC-XE Frame, Energy Efficient Motors

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EASY SELECTION



MAXUM Concentric Reducer

EASY SELECTION METHOD – SCOOP MOUNT MOTORS/REDUCERS (for 1750 RPM motors)

When to Use Easy Selection

The Easy Selection tables for Scoop Mount Motors/Reducers are for electric motor selections up to 250 HP with constant input speeds of 1750 rpm using AGMA recommended load classifications. For all other motor/prime mover input speeds and horsepowers, use the Horsepower/Torque Selection Method on page G3-55 through G3-56.

NOTE: If your application has unusual requirements (i.e., variable speed, excessive shock or over loads, extreme ambient temperatures, non-standard motors or oversized equipment), refer to Horse power/Torque Selection Method.

How to Select

Step 1: Determine Load Classification – See Table 8 to determine minimum load classification for applications under normal conditions.

NOTE: AGMA classifies scoop mounted motors as gear motor applications which are sized using a load classification in place of a service factor.

Step 2: Determine Unit Size – See tables on pages G3-21 through G3-23. Find the load classification table that is required for the application. Read the unit size under required horsepower and opposite the required low speed shaft RPM. Note: For applications where fan cooling is unacceptable, use an Easy Selection Table with an increased class of service.

Step 3: Check External Thrust and Overhung Load – See information on page G3-56 to calculate high speed and low speed shaft overhung loads.

Step 4: Check Dimensions – See Specification/Dimensions section pages G3-24 through G3-31 for dimensions, weights, and part numbers.

Step 5: Select Accessories – Check matrix for compatibility of combinations of accessories, page G3-32.

Example: Easy Selection Method -

SCOOP MOUNT MOTORS/REDUCERS

A 30 horsepower motor is used to drive a metal mill non-reversing table conveyor at 100 rpm operating 12 hours per day. The reducer is coupling connected at both the high speed and low speed shafts and the motor is to be supported by a scoop. A PARA-FLEX coupling is desired.

Step 1: Determine Load Classification - Refer to Table 8 and note that “Metal Mills - Table Conveyors, Non-Reversing” requires a Class III Load Classification for 10+ hours/day service.

Step 2: Determine Unit Size - Turn to the Easy Selection Table 11 for Class III service. Under 30 motor horsepower and opposite 102.4 rpm, locate the MAXUM Size 5 reducer and note the nominal ratio is 17.09:1. Also note that the motor frame size is 286T

Step 3: Check External Thrust and Overhung Loads - Since the input and output shafts are coupling connected, thrust and overhung loads will not exist. (An overhung load example is given on page G3-57)

Step 4: Check Dimensions and Part Numbers - The dimensions are shown under “Scoop Mount Motor/Reducers with AC motors Sizes 5-9” page G3-55. Part numbers can be found on the DODGE MAXUM Size 5 Specifications/ Dimensions page G3-25. The Reducer part number is **299102**.

Step 5: Select Accessories - The accessories are also found on the DODGE MAXUM Size 5 Specifications/Dimensions page G3-25. The Scoop Package part number is **DCS05280P** and includes the scoop, coupling, coupling guard and mounting hardware.

Drive System Vibration

The probability of a constant speed motor operating at resonant frequency is remote. Should this occur, however, the customer must add stiffening supports to the scoop bottom plate to move the resonant frequency away from the motor operating speed.

When mounting variable speed AC or DC motors, consult guidelines on pages G3-79 through G3-80.

CAUTION: The customer is responsible and Reliance Electric expressly disclaims responsibility for isolation the DODGE MAXUM Scoop Mount Motor/Reducer from any vibratory or transient load induced by the motor or the other equipment that is driven by the motor

The MAXUM Scoop Mount Motor/Reducer is expressly not warranted against failure or unsatisfactory operation resulting from dynamic vibrations of any form imposed upon it whether by the drive system in which it is installed or for any other reason, no matter how induced, unless the nature of such vibrations has been fully defined by the customer on the face of its purchase order and explicitly accepted in writing by DODGE.



EASY SELECTION

MAXUM Concentric Reducers
LOAD CLASSIFICATIONS

The load classifications that follow are adapted from AGMA 6019-E89 Appendix A. Class numbers are minimums and normal conditions are assumed.

Applications which expose the gear drive to high starting torques, extreme repetitive shock, or where high energy loads must be absorbed as when stalling, require special consideration. Load classifications for these special applications should be agreed upon by the user and DODGE since variations of the values in the table may be required.

The load classifications in the table are based upon the use of electric motors with characteristics normally used for that application. Should motors with unusually high starting torques or motors designed for intermittent service be used, adjustments in the load classification selected may be required. Consult DODGE.

Table 8: Load Classification For Scoop Mounted Motor/Reducers

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
AGITATORS		
Paper Mills	II	II
Pure Liquids	II	II
Liquids & Solids	II	II
Liquids - Variable Density	II	II
APRON CONVEYORS		
Uniformly Loaded or Fed	I	II
Heavy Duty	II	II
ASSEMBLY CONVEYORS		
Uniformly Loaded or Fed	I	II
Heavy Duty	II	II
BALL MILLS	▲	▲
BARGE HAUL PULLERS	II	II
BARKING		
Drums		III
Hydraulic Auxiliaries		III
Mechanical		III
BAR SCREENS (Sewage)	II	II
BATCHERS (Textile)	II	II
BEATERS (Paper)		II
BELT CONVEYORS		
Uniformly Loaded or Fed	I	II
Heavy Duty	II	II
BELT FEEDERS	II	II
BENDING ROLLS (Machine)	II	II
BLEACHERS (Paper)		II
BLOWERS		
Centrifugal	I	II
Lobe	II	II
Vane	II	II
BOTTLING MACHINERY	I	II
BREWING & DISTILLING		
Bottling Machinery	I	II
Brew Kettle, Cont. Duty		II
Can Filling Machines	I	II

† - Consult DODGE

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
Cookers - Cont. Duty	II	II
Mash Tubs - Cont. Duty	II	II
Scale Hoppers - Frequent Starts	II	II
BRICK PRESS (Clay Working)	III	III
BRIQUETTE MACHINES (Clay Working)	III	III
BUCKET		
Conveyors Uniform	I	II
Conveyors Heavy Duty	II	II
Elevators Cont.	I	II
Elevators Uniform	I	II
Elevators Heavy Duty	II	II
CALENDERS		
Paper (2)		II
Super (Paper) (3)		II
Rubber	II	II
Textile	II	II
CANE KNIVES	II	II
CAN FILLING MACHINES	II	II
CARD MACHINES (Textile)	II	II
CAR DUMPERS	III	III
CAR PULLERS	II	II
CEMENT KILNS	▲	▲
CENTRIFUGAL		
Blowers, Compressors Discharge Elevators Fans or Pumps	I	II
CHAIN CONVEYORS		
Uniformly Loaded or Fed	I	II
Heavy Duty	II	II
CHEMICAL FEEDERS (Sewage)	II	II
CLARIFIERS	I	II
CLASSIFIERS	II	II
CLAY WORKING IND.		
Brick Press	III	III

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
Briquette Machines	III	III
Pug Mills	II	II
COLLECTORS (Sewage)	II	II
COMPRESSORS		
Centrifugal	I	II
Lobe	II	II
Reciprocating:		
Multi-Cylinder	II	III
Single Cylinder	III	III
CONCRETE MIXERS		
Continuous	II	II
Intermittent	II	
CONVERTING MACHINES (Paper)		II
CONVEYORS - Uniformly		
Loaded or Fed: Apron Assembly, Belt Bucket, Chain, Flight Oven, Screw	I	II
CONVEYORS - Heavy Duty		
Not Uniformly Fed:		
Apron, Assembly, Belt Bucket, Chain, Flight Oven, Screw	II	II
Live Roll (Package)	I	II
Reciprocating, Shaker	III	III
COOKERS (Brewing & Distilling) (Food)	II	II
COUCH (Paper)		II
CRANES	†	†
CRUSHERS - Ore or Stone	III	III
CUTTERS (Paper)		III
CYLINDERS (Paper)		II
DEWATERING SCREENS (Sewage)	II	II
DISC FEEDERS	I	II
DISTILLING (See Brewing)		

▲ - See Mills, Rotary

EASY SELECTION



MAXUM Concentric Reducers

Table 8: Load Classification For Scoop Mounted Motor/Reducers

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
DOUBLE ACTING PUMPS		
2 or More Cylinders	II	II
Single Cylinder	†	†
DOUGH MIXER (Food)	II	II
DRAW BENCH		
(Metal Mills)		
Carriage & Main Drive	II	II
DREDGES		
Cable Reels	II	II
Conveyors	II	II
Cutter Head Drives	III	III
Jig Drives	III	III
Maneuvering Winches	II	II
Pumps	III	III
Screen Drives	III	III
Stackers	II	II
Utility Winches	II	II
DRYERS (Paper) (2)		
DRYERS & COOLERS		
(Mills, Rotary)	▲	▲
DYEING MACHINERY (Textile)	II	II
ELEVATORS		
Bucket - Uniform Load	I	II
Bucket - Heavy Duty	II	II
Centrifugal Discharge	I	II
Escalators	I	II
Freight	II	II
Gravity Discharge	I	II
Man Lifts, Passenger	†	†
ESCALATORS	I	II
FANS		
Centrifugal	I	II
Cooling Towers	†	†
Forced Draft	II	II
Induced Draft	II	II
Large (Mine, etc.)	II	II
Large Industrial	II	II
FEEDERS		
Apron, Belt	II	II
Disc	I	II
Reciprocating	III	III
Screw	II	II
FELT		
Stretchers (Paper)		II
Whippers (Paper)		III
FLIGHT		
Conveyors, Uniform	I	II
Conveyors, Heavy	II	II

† - Consult DODGE

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
FOOD INDUSTRY		
Beet Slicers	II	II
Bottling, Can Filling Machine	I	II
Cereal Cookers	I	II
Dough Mixers	II	II
Meat Grinders	II	II
FORMING MACHINES		
(Metal Mills)	III	III
GENERATORS (Not Welding)	II	II
GRAVITY DISCHARGE ELEVATORS	I	II
GRIT COLLECTORS (Sewage)	II	II
HAMMER MILLS	III	III
HOISTS	†	†
INDUCED DRAFT FANS	II	II
JORDANS (Paper)		II
KILNS (Mills, Rotary) Cement	▲	▲
LAUNDRY TUMBLERS	II	II
LAUNDRY WASHERS	II	III
LINE SHAFTS		
Heavy Shock Load	III	III
Moderate Shock Load	II	II
Uniform Load	I	II
LIVE ROLL CONVEYORS		
Package	I	II
LOBE BLOWERS OR		
COMPRESSORS	II	II
LOG HAULS (Paper & Lumber)	III	III
LOOMS (Textile)	II	II
LUMBER INDUSTRY		
Barkers - Spindle Feed	II	II
Barkers - Main Drive	III	III
Carriage Drive	†	†
Conveyors		
Burner	II	II
Main or Heavy Duty	II	II
Main Log	III	III
Re-Saw Merry-Go-Round	II	II
Slab	III	III
Transfer	II	II
Chains - Floor	II	II
Chains - Green	II	III
Cut-Off Saws - Chain	II	III
Cut-Off Saws - Drag	II	III
Debarking Drums	III	III
Feeds - Edger	II	II
Feeds - Gang	III	III
Feeds - Trimmer	II	II
Log Deck	III	III

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
Log Hauls - Incline, Well Type	III	III
Log Turning Devices	III	III
Planer Feed	II	II
Planer Tilting Hoists	II	II
Rolls - Live - Off		
Bearing - Roll Cases	III	III
Sorting Table	II	II
Tipple Hoist	II	II
Transfer - Chain	II	III
Transfer - Craneway	II	III
Tray Drives	II	II
MACHINE TOOLS		
Auxiliary Drives	I	II
Bending Rolls	II	II
Main Drives	II	II
Notching Press (Belted)	†	†
Plate Planers	III	III
Punch Press (Geared)	III	III
Tapping Machines	III	III
MANGLE (Textile)	II	II
MASH TUBS (Brewing & Distilling)	II	II
MEAT GRINDERS (Food)	II	II
METAL MILLS		
Draw Bench Carriages & Main Drives	II	II
Forming Machines	III	III
Pinch, Dryer & Scrubber Rolls Reversing	†	†
Slitters	II	II
Table Conveyors, Non-Reversing	II	III
Reversing	†	†
Wire Drawing & Flattening Machines	II	II
Wire Winding Machines	II	II
MILLS, ROTARY TYPE		
Ball and Rod		
Spur Ring Gear	III	III
Helical Ring Gear	II	II
Direct Connected	III	III
Cement Kilns	II	II
Dryers & Coolers	II	II
Tumbling Barrels	III	III
MIXERS (Also see Agitators)		
Concrete, Continuous	II	II
Concrete, Intermittent	II	II
Constant Density	I	I
Variable Density	II	II

▲ - See Mills, Rotary



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MAXUM Concentric Reducers

Table 8: Load Classification For Scoop Mounted Motor/Reducers

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
NAPPERS (Textile)	II	II
OIL INDUSTRY		
Chillers	II	II
Oil Well Pumping	†	†
Paraffin Filter Press	II	II
Rotary Kilns	II	II
ORE CRUSHERS	III	III
OVEN CONVEYORS		
Uniform	I	I
Heavy Duty	II	II
PAPER MILLS		
Agitators (Mixers)	II	II
Barker - Auxiliaries - Hyd.		III
Barker, Mechanical		III
Barking Drum		III
Beater		II
Bleacher		II
Converting Machine -		
Except Cutters-Platers		II
Conveyors (Chip, Bark,		
Chemical)		II
Couch		II
Cutters, Platers		III
Cylinders		II
Felt Stretchers		II
Felt Whippers		III
Jordans		II
Log Haul		III
Presses		II
Pulper		III
Pulp Machine Reels		II
Stock Chests		II
Suction Rolls		II
Washers & Thickeners		II
Winders		II
PASSENGER ELEVATORS	†	†
PEBBLE MILLS	▲	▲
PLASTICS INDUSTRY		
Primary Processing		
Intensive Internal		
Mixers		
Batch Mixers	III	III
Continuous Mixers	II	II
Batch Drop Mill -		
2 Smooth Rolls	II	II
Continuous Feed,		
Holding & Blend Mill	II	II
Calenders	II	II

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
Secondary Processing		
Blow Molders	II	II
Coating	II	II
Film	II	II
Pipe	II	II
Pre-Plasticizers	II	II
Rods	II	II
Sheet	II	II
Tubing	II	II
PLATE PLANERS	III	III
PRESSES (Paper)		II
PROPORTIONING PUMPS	II	II
PUG MILLS (Clay)	II	II
PULLERS (Barge Haul)	II	II
PULP MACHINE REELS		II
PUMPS		
Centrifugal	I	II
Proportioning	II	II
Reciprocating		
"Single Act., 3 or"		
More Cyl.	II	II
"Double Act., 2 or"		
More Cyl.	II	II
Single Act., 1 or 2 Cyl.	†	†
"Rotary: Gear, Lobe, Vane"	I	II
PUNCH PRESSES (Gear Driven)	III	III
RECIPROCATING		
"Conveyors, Feeders"	III	III
RECIPROCATING		
COMPRESSORS		
Multi Cylinder	II	III
Single Cylinder	III	III
REVERSING DIRECTION		
APPLICATION	†	†
ROD MILLS	▲	▲
ROTARY		
Pumps: Gear, Lobe, Vane	I	II
Screens (Sand or Gravel)	II	II
RUBBER INDUSTRY		
Intensive Internal Mixers		
Batch Mixers	III	III
Continuous Mixers	II	II
Mixing Mill		
2 smooth rolls	II	II
1 or 2 corrugated rolls	III	III
Batch Drop Mill -		
2 Smooth Rolls	II	II
Cracker Warmer - 2		

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
Rolls; 1 Corrugated Roll	III	III
Cracker - 2 Corrugated Rolls	III	III
Holding. Feed & Blend		
Mill - 2 Rolls	II	II
Refiner-2 Rolls	II	II
Calenders	II	II
SAND MULLERS	II	II
SCREENS		
Air Washing	I	II
Rotary - Sand or Gravel	II	II
Traveling Water Intake	I	II
SCREW CONVEYORS		
Uniform	I	I
Heavy Duty or Feeder	II	II
SEWAGE DISPOSAL		
Aerators	†	†
Bar Screens	II	II
Chemical Feeders	II	II
Collectors	II	II
Dewatering Screens	II	II
Grit Collectors	II	II
Scum Breakers	II	II
Slow or Rapid Mixers	II	II
Sludge Collectors	II	II
Thickeners	II	II
Vacuum Filters	II	II
SHAKER CONVEYORS	III	III
SHEETERS (Rubber)	II	II
SINGLE ACTING PUMP		
1 or 2 Cylinders	†	†
3 or More Cylinders	II	II
SKIP HOIST	II	II
SLAB PUSHERS	II	II
SLITTERS (Metal)	II	II
SLUDGE COLLECTORS (Sewage)	II	II
SOAPERS (Textile)	II	II
SPINNERS (Textile)	II	II
STEERING GEARS	†	†
STOCK CHESTS (Paper)		II
STOKERS	I	I
STONE CRUSHERS	III	III
SUCTION ROLLS (Paper)		II
TABLE CONVEYORS (Metal Mills)		
Non-Reversing	II	III
Reversing	†	†
TEXTILE INDUSTRY		
Batchers	II	II
Calenders	II	II

† - Consult DODGE

▲ - See Mills, Rotary

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MAXUM Concentric Reducers

Table 8: Load Classification For Scoop Mounted Motor/Reducers

APPLICATION	SERVICE 3-10 Hrs. / Day	SERVICE 10+ Hrs. / Day
Card Machines	II	II
Cloth Finishing Mach., (Calenders, Dryers. Pads, Tenters, Washers)	II	II
Dry Cans	II	II
Dyeing Machinery	II	II
Knitting Machinery	†	†
Looms, Mangles, Nappers	II	II
Range Drives	†	†
Tenter Frames	II	II
Winders	II	II
Yarn Preparatory Machinery (Cards, Soapers, Spinners, Slashers)	II	II
THICKENERS (Sewage)	II	II
TUMBLING BARRELS	III	III
VACUUM FILTERS (Sewage)	II	II
VANE BLOWERS	II	II
WINCHES (Dredges)	II	II
WINDERS		
(Paper)		II
(Textile)	II	II
WINDLASS	II	II
WIRE		
Drawing Machines	II	II
Winding Machines	II	II

Reference: AGMA Standard 6021-G89 (11/89). The table of application class numbers has been developed from the experience of manufacturers and users of gear drives for use in common applications and has been found to be generally satisfactory for the listed industries when gears are rated using AGMA standards. It is recommended that class numbers for special applications be agreed upon by the user and the gear manufacturer when variations of the table may be required. Special conditions can be any special type of prime mover, starting or stopping conditions, system conditions, ambient conditions, lubrication, overloads, overspeeds, brake equipped applications, high inertia and reversing loads.

† - Consult DODGE

▲ - See Mills, Rotary



EASY SELECTION

MAXUM Concentric Reducers

Table 9: Easy Selection - Scoop Mount Motors/Reducers 1750 RPM - Class I Service (1.0 Service Factor) ■

Nom Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			5 (184T)	7-1/2 (213T)	10 (215T)	15 (254T)	20 (256T)	25 (284T)	30 (286T)	40 (324T)
2.25	777.8	DOUBLE	1	1	1	2	2	3	3	4
2.75	636.4		1	1	1	2	2	3	3	4
3.37	519.3		1	1	1	2	2	3	3	4
4.13	423.7		1	1	1	2	2	3	3	4
5.06	345.8		1	1	1	2	2	3	3	4
6.20	282.3		1	1	1	2	2	3	3	4
7.59	230.6		1	1	1	2	2	3	3	4
9.30	188.2		1	1	1	2	2	3	3	4
11.39	153.6		1	1	1	2	2	3	3	4
13.95	125.4		1	1	1	2	2	3	3	4
17.09	102.4		1	1	1	2	3	3	3	4
20.93	83.6		1	1	2	2	3	3	4	4 I
25.63	68.3		1	1	2	3	3	4	4	5 I
31.39	55.8	TRIPLE	1	2	2	3	4	4	4	6
38.44	45.5		1	2	3	3	4	4	5	6
47.08	37.2		2	2	3	4	4	5	6	6
57.67	30.4		2	3	3	4	5	6	6	7
70.62	24.8		2	3	4	5	6	6	6	7
86.50	20.2		3	4	4	6	6	6	7	9
105.9	16.5		3	4	5	6	6	7	7	9
129.7	13.5		4	4	6	6	7	7	9	9
158.9	11.0		4	5	6	7	7	9	9	10
194.6	9.0		4	6	6	7	9	9	9	10

Nom Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			50 (326T)	60 (364T)	75 (365T)	100 (405T)	125 (444T)	150 (4455T)	200 (447T)	250 (449T)
2.25	777.8	DOUBLE	4	5 •	5 •	-	-	-	-	-
2.75	636.4		4	5	5 •	-	-	-	-	-
3.37	519.3		4	5	5 •	-	-	-	-	-
4.13	423.7		4	5 •	5 •	-	-	-	-	-
5.06	345.8		4	5	5 •	7	7	7 •	7 •	7 •
6.20	282.3		4	5	5 •	7	7	7	7 •	7 •
7.59	230.6		4	5	5 •	7	7	7	7 •	7 •
9.30	188.2		4	5 •	5 •	7	7	7 •	7 •	7 •
11.39	153.6		4 •	5 •	5 •	7	7	7 •	7 •	9 •
13.95	125.4		4 •	5 •	5 •	7	7	7 •	9 •	9 •
17.09	102.4		4 •	5 •	6 •	7	7 •	7 •	9 •	10 •
20.93	83.6		5 •	6 •	6 •	7	7 •	9 •	9 •	10 •
25.63	68.3		6	6 •	7	7	9 •	9 •	10 •	10 •
31.39	55.8	TRIPLE	6	7	7	9	9	9 •	10 •	11 •
38.44	45.5		6	7	7	9	9 •	10 •	10 •	11 •
47.08	37.2		7	7	9	9	10 •	10 •	11 •	12 •
57.67	30.4		7	9	9	10 •	10 •	11 •	12 •	-
70.62	24.8		9	9	9	10 •	11 •	11 •	-	-
86.50	20.2		9	9	10	10	11	12	-	-
105.9	16.5		9	10	10	11	12	-	-	-
129.7	13.5		10	10	11	12	-	-	-	-
158.9	11.0		10	11	11	-	-	-	-	-
194.6	9.0		11	11	12	-	-	-	-	-

■ Some reducers selections are oversized to accommodate scoop mounting of motor on reducers

• Cooling fan required + TEFC-XE Frame, Energy Efficient Motors

Note: The suggested mounting for motors weighing 700 pounds or more is the MAXUM HD baseplate. See page G3-36

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MAXUM Concentric Reducers

Table 10: Easy Selection - Scoop Mount Motors/Reducers 1750 RPM - Class I Service (1.4 Service Factor) ■

Nom Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			5 (184T)	7-1/2 (213T)	10 (215T)	15 (254T)	20 (256T)	25 (284T)	30 (286T)	40 (324T)
2.25	777.8	DOUBLE	1	1	1	2	2	3	3	4
2.75	636.4		1	1	1	2	2	3	3	4
3.37	519.3		1	1	1	2	2	3	3	4
4.13	423.7		1	1	1	2	2	3	3	4
5.06	345.8		1	1	1	2	2	3	3	4
6.20	282.3		1	1	1	2	2	3	3	4
7.59	230.6		1	1	1	2	2	3	3	4
9.30	188.2		1	1	1	2	2	3	3	4
11.39	153.6		1	1	1	2	3	3	4	4
13.95	125.4		1	1	2	2	3	4	4	4
17.09	102.4		1	1	2	3	3	4	4	5
20.93	83.6		1	2	2	3	4	4	4	6
25.63	68.3		1	2	3	3	4	5	5	6
31.39	55.8	TRIPLE	2	2	3	4	4	5	6	6
38.44	45.5		2	3	3	4	5	6	6	7
47.08	37.2		2	3	4	4	6	6	6	7
57.67	30.4		3	3	4	5	6	6	7	9
70.62	24.8		3	4	4	6	6	7	7	9
86.50	20.2		3	4	5	6	7	7	9	9
105.90	16.5		4	5	6	7	7	9	9	10
129.70	13.5		4	6	6	7	9	9	9	10
158.90	11.0		5	6	7	7	9	9	10	10
194.60	9.0		6	6	7	9	9	10	10	11

Nom Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			50 (326T)	60 (364T)	75 (365T)	100 (405T)	125 (444T)	150 (4455T)	200 (447T)	250 (449T)
2.25	777.8	DOUBLE	4	5 •	5 •	-	-	-	-	-
2.75	636.4		4	5	5 •	-	-	-	-	-
3.37	519.3		4	5	5 •	-	-	-	-	-
4.13	423.7		4	5 •	5 •	-	-	-	-	-
5.06	345.8		4	5	5 •	7	7	7 •	7 •	7 •
6.20	282.3		4	5	5 •	7	7	7	7 •	9 •
7.59	230.6		4	5	5 •	7	7	7	7 •	9 •
9.30	188.2		4	5 •	5 •	7	7	7 •	9 •	9 •
11.39	153.6		5	5 •	6	7	7	7 •	9 •	10 •
13.95	125.4		5	6	7	7	7	9 •	9 •	10 •
17.09	102.4		6	6	7	7	9 •	9 •	10 •	10 •
20.93	83.6		6	7	7	9 •	9 •	9 •	10 •	11 •
25.63	68.3		6	7	7	9	9 •	10 •	11 •	11 •
31.39	55.8	TRIPLE	7	7	9	9	10 •	10 •	11 •	12 •
38.44	45.5		7	9	9	10	10 •	11	12 •	-
47.08	37.2		9	9	9	10 •	11	11 •	12 •	-
57.67	30.4		9	9	10	10 •	11	12 •	-	-
70.62	24.8		9	10	10	11	12	-	-	-
86.50	20.2		10	10	11	12	-	-	-	-
105.90	16.5		10	11	11	-	-	-	-	-
129.70	13.5		11	11	12	-	-	-	-	-
158.90	11.0		11	12	-	-	-	-	-	-
194.60	9.0		12	-	-	-	-	-	-	-

■ Some reducers selections are oversized to accommodate scoop mounting of motor on reducers

• Cooling fan required + TEFC-XE Frame, Energy Efficient Motors

Note: The suggested mounting for motors weighing 700 pounds or more is the MAXUM HD baseplate. See page G3-36



EASY SELECTION

MAXUM Concentric Reducers

Table 11: Easy Selection - Scoop Mount Motors/Reducers 1750 RPM - Class III Service (2.0 Service Factor) ■

Nom Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			5 (184T)	7-1/2 (213T)	10 (215T)	15 (254T)	20 (256T)	25 (284T)	30 (286T)	40 (324T)
2.25	777.8	DOUBLE	1	1	1	2	2	3	3	4
2.75	636.4		1	1	1	2	2	3	3	4
3.37	519.3		1	1	1	2	2	3	3	4
4.13	423.7		1	1	1	2	2	3	3	4
5.06	345.8		1	1	1	2	2	3	3	4
6.2	282.3		1	1	1	2	2	3	4	4
7.59	230.6		1	1	1	2	3	3	4	4
9.3	188.2		1	1	2	2	3	4	4	5
11.39	153.6		1	1	2	3	3	4	4	5
13.95	125.4		1	2	2	3	4	4	5	6
17.09	102.4		1	2	3	3	4	4	5	6
20.93	83.6		2	2	3	4	4	5	6	7
25.63	68.3		2	3	3	4	5	6	6	7
31.39	55.8	TRIPLE	2	3	4	4	6	6	7	7
38.44	45.5		3	3	4	5	6	6	7	9
47.08	37.2		3	4	4	6	6	7	7	9
57.67	30.4		3	4	5	6	7	7	9	9
70.62	24.8		4	5	6	6	7	9	9	10
86.5	20.2		4	6	6	7	9	9	9	10
105.9	16.5		5	6	6	7	9	9	10	10
129.7	13.5		6	6	7	9	9	10	10	11
158.9	11		6	7	7	9	10	10	11	12
194.6	9		6	7	9	9	10	11	11	-

Nom Ratio	Approx Low Speed Shaft RPM	Unit Red.	MAXUM Reducer Size Used with Motor Horsepower of: (With Frame Size References)							
			50 (326T)	60 (364T)	75 (365T)	100 (405T)	125 (444T)	150 (4455T)	200 (447T)	250 (449T)
2.25	777.8	DOUBLE	4	5 •	5 •	-	-	-	-	-
2.75	636.4		4	5	5 •	-	-	-	-	-
3.37	519.3		4	5	6	-	-	-	-	-
4.13	423.7		4	5 •	5 •	-	-	-	-	-
5.06	345.8		4	5	5 •	7	7	7 •	7 •	9 •
6.2	282.3		5	5	6	7	7	7	9 •	10 •
7.59	230.6		5	5	6	7	7	7	9 •	10 •
9.3	188.2		5	6	7	7	7	9 •	10 •	10 •
11.39	153.6		6	7	7	7	9 •	9 •	10 •	11 •
13.95	125.4		6	7	7	9	9	10 •	10 •	11 •
17.09	102.4		7	7	7	9	10	10 •	11 •	11 •
20.93	83.6		7	7	9	9	10 •	10 •	11 •	12 •
25.63	68.3		7	9	9	10	10 •	11 •	12 •	-
31.39	55.8	TRIPLE	9	9	9	10	11	11	12 •	-
38.44	45.5		9	9	10	10	11	12	-	-
47.08	37.2		9	10	10	11	12	-	-	-
57.67	30.4		10	10	11	12	-	-	-	-
70.62	24.8		10	11	11	-	-	-	-	-
86.5	20.2		10	11	12	-	-	-	-	-
105.9	16.5		11	12	-	-	-	-	-	-
129.7	13.5		12	-	-	-	-	-	-	-
158.9	11		-	-	-	-	-	-	-	-
194.6	9		-	-	-	-	-	-	-	-

■ Some reducers selections are oversized to accommodate scoop mounting of motor on reducers

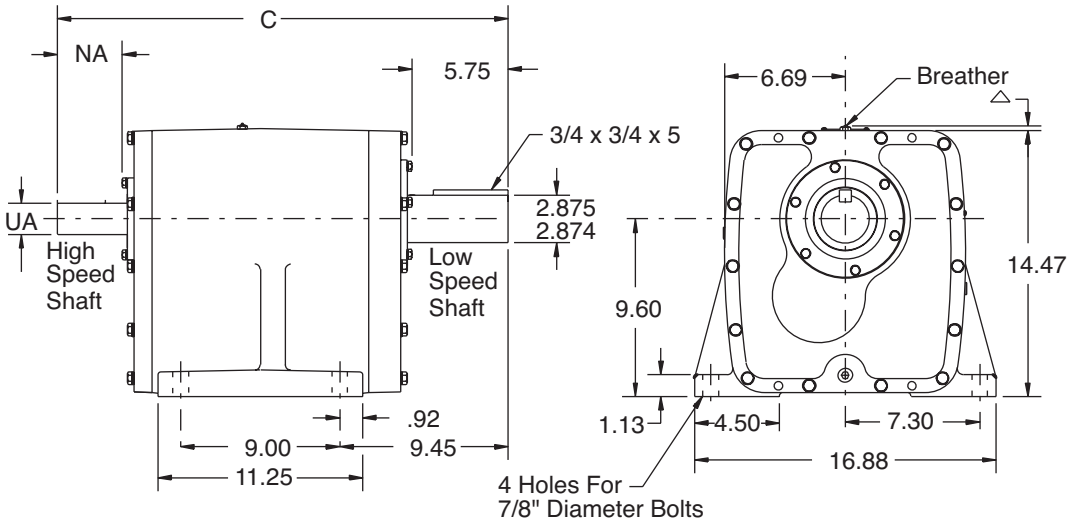
• Cooling fan required + TEFC-XE Frame, Energy Efficient Motors

Note: The suggested mounting for motors weighing 700 pounds or more is the MAXUM HD baseplate. See page G3-36

FEATURES/BENEFITS PAGE G3-2	SPECIFICATION PAGE G3-4	SELECTION/DIMENSIONS PAGE G3-24	MODIFICATION/ACCESSORIES PAGE G3-32

SELECTION/DIMENSIONS

MAXUM Concentric Reducers Size 4



△ 1-1/2" will clear breather on all size units.

Size 4	C	NA	NA (with fan)	UA	Key	Weight (lbs.)
Double Reduction	25.47	3.50	1.78	1.625/1.624	3/8 x 3/8 x 2-1/2	330
Triple Reduction	25.47	3.50	-	1.625/1.624	3/8 x 3/8 x 2-1/2	330

Size 4 Part Numbers

Nominal Ratio		Separate Reducer †
DOUBLE	DCR4 - 2.25	**299069**
	DCR4 - 2.75	**299070**
	DCR4 - 3.37	**299071**
	DCR4 - 4.13	**299072**
	DCR4 - 5.06	**299073**
	DCR4 - 6.2	**299074**
	DCR4 - 7.59	**299075**
	DCR4 - 9.3	**299076**
	DCR4 - 11.39	**299077**
	DCR4 - 13.95	**299078**
	DCR4 - 17.09	**299079**
	DCR4 - 20.93	**299080**
	DCR4 - 25.63	**299081**
TRIPLE	TCR4 - 31.39	**299082**
	TCR4 - 38.44	**299083**
	TCR4 - 47.08	**299084**
	TCR4 - 57.67	**299085**
	TCR4 - 70.62	**299086**
	TCR4 - 86.5	**299087**
	TCR4 - 105.9	**299088**
	TCR4 - 129.7	**299089**
	TCR4 - 158.9	**299090**
	TCR4 - 194.6	**299091**

† Suitable for backstop mounting
See page G3-34 for dimensions

Size 4 Scoop Part Numbers n

NEMA AC-Motor Frame		Scoop Package PARA-FLEX Cplg.	Scoop Package GRID-LIGN Cplg.	Scoop Package Weights PARA/GRID
DOUBLE	143T, 145T	**DCS04140P**	**DCS04140G**	134/132
	182T, 184T	**DCS04180P**	**DCS04180G**	138/132
	213T, 215T	**DCS04210P**	**DCS04210G**	138/132
	254T, 256T	**DCS04250P**	**DCS04250G**	143/137
	284T, 286T	**DCS04280P**	**DCS04280G**	167/158
	324T, 326T	**DCS04320P**	**DCS04320G**	174/170
TRIPLE	143T, 145T	**TCS04140P**	**TCS04140G**	134/132
	182T, 184T	**TCS04180P**	**TCS04180G**	138/132
	213T, 215T	**TCS04210P**	**TCS04210G**	138/132
	254T, 256T	**TCS04250P**	**TCS04250G**	143/137
	284T, 286T	**TCS04280P**	**TCS04280G**	167/158

* Scoop package includes scoop, coupling, coupling guard, and mounting hardware.

Size 4 Accessories* ■

Description	Part Number	Weight (lbs)
AUXILIARY SEAL KIT	**300302**	3
BACKSTOP (13.95-194.6)+	**299375**	28
COOLING FAN	**299520**	6
SLIDE BASE	**304630**	95
TOP MOTOR MOUNT	**299530**	107

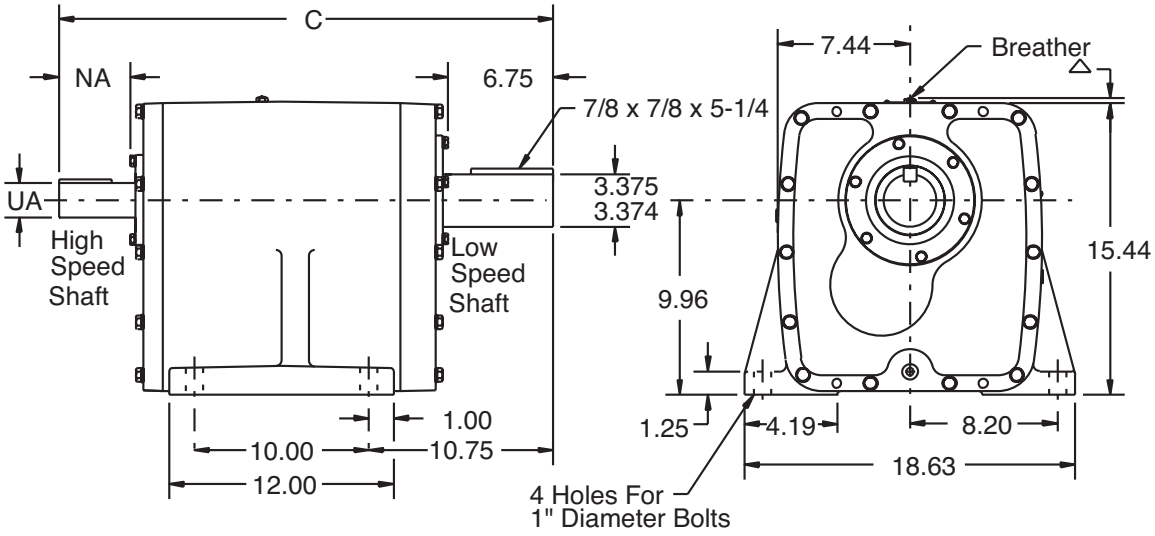
* Baseplates refer to pages G3-37 and G3-38.

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

\+ For backstops on ratios not listed, consult DODGE



MAXUM Concentric Reducers Size 5



△ 1-1/2" will clear breather on all size units.

Size 5	C	NA	NA (with fan)	UA	Key	Weight (lbs.)
Double Reduction	29.14	4.51	2.69	2.125/2.124	1/2 x 1/2 x 3-3/8	420
Triple Reduction	28.05	3.42	-	1.625/1.624	3/8 x 3/8 x 2-1/2	450

Size 5 Part Numbers

	Nominal Ratio	Separate Reducer †
DOUBLE	DCR5 - 2.25	**299092**
	DCR5 - 2.75	**299093**
	DCR5 - 3.37	**299094**
	DCR5 - 4.13	**299095**
	DCR5 - 5.06	**299096**
	DCR5 - 6.2	**299097**
	DCR5 - 7.59	**299098**
	DCR5 - 9.3	**299099**
	DCR5 - 11.39	**299100**
	DCR5 - 13.95	**299101**
	DCR5 - 17.09	**299102**
	DCR5 - 20.93	**299103**
	DCR5 - 25.63	**299104**
TRIPLE	TCR5 - 31.39	**299105**
	TCR5 - 38.44	**299106**
	TCR5 - 47.08	**299107**
	TCR5 - 57.67	**299108**
	TCR5 - 70.62	**299109**
	TCR5 - 86.5	**299110**
	TCR5 - 105.9	**299111**
	TCR5 - 129.7	**299112**
	TCR5 - 158.9	**299113**
	TCR5 - 194.6	**299114**

† Suitable for backstop mounting
See page G3-34 for dimensions

Size 5 Scoop Part Numbers ■

NEMA AC-Motor Frame		Scoop Package PARA-FLEX Cplg.	Scoop Package GRID-LIGN Cplg.	Scoop Package Weights PARA/GRID
DOUBLE	213T, 215T	**DCS05210P**	**DCS05210G**	187/183
	254T, 256T	**DCS05250P**	**DCS05250G**	187/183
	284T, 286T	**DCS05280P**	**DCS05280G**	195/191
	324T, 326T	**DCS05320P**	**DCS05320G**	195/191
	364T, 365T	**DCS05360P**	**DCS05360G**	204/197
TRIPLE	143T, 145T	**TCS05140P**	**TCS05140G**	170/168
	182T, 184T	**TCS05180P**	**TCS05180G**	174/168
	213T, 215T	**TCS05210P**	**TCS05210G**	174/168
	254T, 256T	**TCS05250P**	**TCS05250G**	179/173
	284T, 286T	**TCS05280P**	**TCS05280G**	187/177

*Scoop package includes scoop, coupling, coupling guard, and mounting hardware.

Size 5 Accessories* ■

Description	Part Number	Weight (lbs)
AUXILIARY SEALS (2.25-25.63)	**300906**	4
AUXILIARY SEALS (31.39-194.6)	**300903**	4
BACKSTOP (9.30-194.6)+	**299377**	28
COOLING FAN	**299521**	9
HEAT EXCHANGER	**014148**	55
SLIDE BASE	**304631**	100
TOP MOTOR MOUNT	**299531**	149

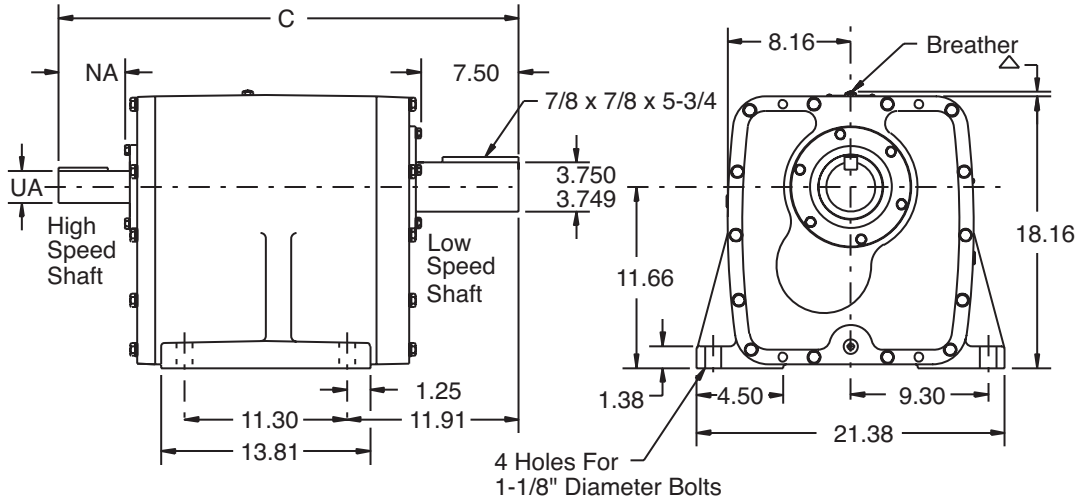
* Baseplates refer to pages G3-37 and G3-38.

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

\+ For backstops on ratios not listed, consult DODGE

SELECTION/DIMENSIONS

MAXUM Concentric Reducers Size 6



△ 1-1/2" will clear breather on all size units.

Size 6	C	NA	NA (with fan)	UA	Key	Weight (lbs.)
Double Reduction	31.44	4.51	2.69	2.125/2.124	1/2 x 1/2 x 3-3/8	600
Triple Reduction	30.36	3.42	-	1.625/1.624	3/8 x 3/8 x 2-1/2	630

Size 6 Part Numbers

Nominal Ratio		Separate Reducer †
DOUBLE	DCR6 - 2.25	**299115**
	DCR6 - 2.75	**299116**
	DCR6 - 3.37	**299117**
	DCR6 - 4.13	**299118**
	DCR6 - 5.06	**299119**
	DCR6 - 6.2	**299120**
	DCR6 - 7.59	**299121**
	DCR6 - 9.3	**299122**
	DCR6 - 11.39	**299123**
	DCR6 - 13.95	**299124**
	DCR6 - 17.09	**299125**
	DCR6 - 20.93	**299126**
	DCR6 - 25.63	**299127**
TRIPLE	TCR6 - 31.39	**299128**
	TCR6 - 38.44	**299129**
	TCR6 - 47.08	**299130**
	TCR6 - 57.67	**299131**
	TCR6 - 70.62	**299132**
	TCR6 - 86.5	**299133**
	TCR6 - 105.9	**299134**
	TCR6 - 129.7	**299135**
	TCR6 - 158.9	**299136**
	TCR6 - 194.6	**299137**

† Suitable for backstop mounting
See page G3-34 for dimensions

Size 6 Scoop Numbers ■

NEMA A-C Motor Frame		Scoop Package PARA-FLEX Cplg	Scoop Package GRID-LIGN Cplg	Scoop Package Weights PARA/GRID
DOUBLE	213T, 215T	**DCS06210P**	**DCS06210G**	198/200
	254T, 256T	**DCS06250P**	**DCS06250G**	198/200
	284T, 286T	**DCS06280P**	**DCS06280G**	206/208
	324T, 326T	**DCS06320P**	**DCS06320G**	206/208
	364T, 365T	**DCS06360P**	**DCS06360G**	215/208
TRIPLE	182T, 184T	**TCS06180P**	**TCS06180G**	185/179
	213T, 215T	**TCS06210P**	**TCS06210G**	185/179
	254T, 256T	**TCS06250P**	**TCS06250G**	190/184
	284T, 286T	**TCS06280P**	**TCS06280G**	197/188
	324T, 326T	**TCS06320P**	**TCS06320G**	204/200
	364T, 365T	**TCS06360P**	**TCS06360G**	218/211

* Scoop package includes scoop, coupling, coupling guard, and mounting hardware.

Size 6 Accessories* ■

Description	Part Number	Weight (lbs)
AUXILIARY SEALS (2.25-25.63)	**300904**	5
AUXILIARY SEALS (31.39-194.6)	**301204**	5
BACKSTOP (13.95-194.6)+	**299377**	28
COOLING FAN	**299522**	10
HEAT EXCHANGER	**014148**	55
SLIDE BASE	**304632**	112
TOP MOTOR MOUNT	**299531**	149

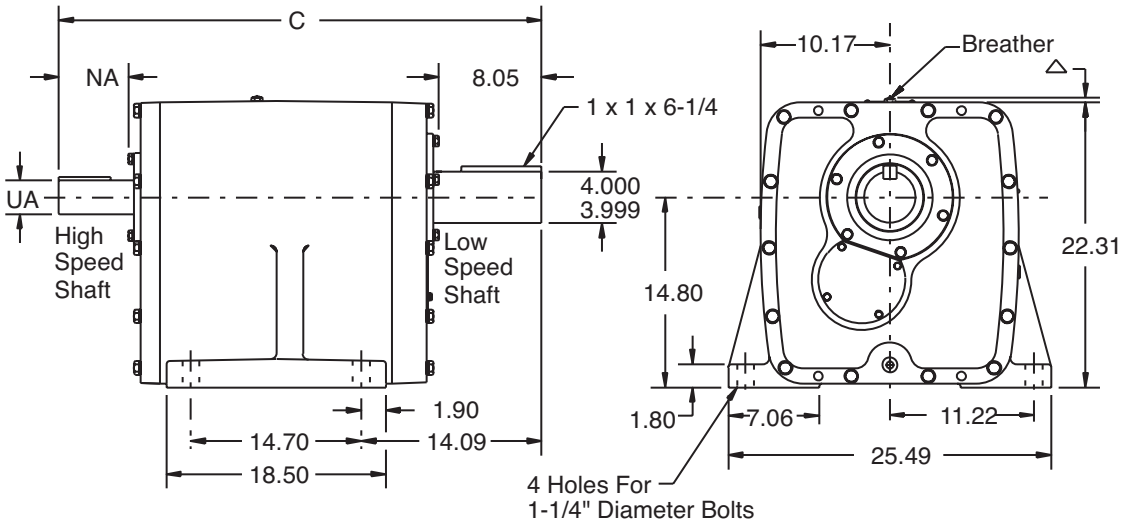
* Baseplates refer to pages G3-37 and G3-38.

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

\+ For backstops on ratios not listed, consult DODGE



MAXUM Concentric Reducers Size 7



△ 1-1/2" will clear breather on all size units.

Size 7	C	NA	NA (with fan)	UA	Key	Weight (lbs.)
Double Reduction	39.06	5.41	3.75	2.625/2.624	5/8 x 5/8 x 4-1/4	1180
Triple Reduction	37.64	3.77	-	1.875/1.874	1/2 x 1/2 x 2-1/2	1220

Size 7 Part Numbers

Nominal Ratio		Separate Reducer	Backstop (1) (2) Reducer
DOUBLE	DCR7 - 5.06	**299138**	**303100**
	DCR7 - 6.2	**299139**	**303101**
	DCR7 - 7.59	**299140**	**303102**
	DCR7 - 9.3	**299141**	**303103**
	DCR7 - 11.39	**299142**	**303104**
	DCR7 - 13.95	**299143**	**303105**
	DCR7 - 17.09	**299144**	**303106**
	DCR7 - 20.93	**299145**	**303107**
	DCR7 - 25.63	**299146**	**303108**
TRIPLE	TCR7 - 31.39	**299147**	**303109**
	TCR7 - 38.44	**299148**	**303110**
	TCR7 - 47.08	**299149**	**303111**
	TCR7 - 57.67	**299150**	**303112**
	TCR7 - 70.62	**299151**	**303113**
	TCR7 - 86.5	**299152**	**303114**
	TCR7 - 105.9	**299153**	**303115**
	TCR7 - 129.7	**299154**	**303116**
	TCR7 - 158.9	**299155**	**303117**
	TCR7 - 194.6	**299156**	**303118**

(1) Backstop dimensions page G3-34.

(2) Reducer includes extended high speed shaft for external backstop. External backstop assembly not included, see accessories.

Size 7 Scoop Part Number n

NEMA A-C Motor Frame		Scoop Package PARA-FLEX Cplg.	Scoop Package GRID-LIGN Cplg.	Scoop Package Weights PARA/GRID
DOUBLE	254T, 256T	**DCS07250P**	**DCS07250G**	253/246
	284T, 286T	**DCS07280P**	**DCS07280G**	253/246
	324T, 326T	**DCS07320P**	**DCS07320G**	253/246
	364T, 365T	**DCS07360P**	**DCS07360G**	253/246
	404T, 405T	**DCS07400P**	**DCS07400G**	356/321
	444T, 445T	**DCS07440P**	**DCS07440G**	436/341
TRIPLE	213T, 215T	**TCS07210P**	**TCS07210G**	230/221
	254T, 256T	**TCS07250P**	**TCS07250G**	230/221
	284T, 286T	**TCS07280P**	**TCS07280G**	243/234
	324T, 326T	**TCS07320P**	**TCS07320G**	243/234
	364T, 365T	**TCS07360P**	**TCS07360G**	252/245

* Scoop package includes scoop, coupling, coupling guard, and mounting hardware.

Size 7 Accessories* ■

Description	Part Number	Weight (lbs)
AUXILIARY SEAL KIT	**301504**	6
BACKSTOP (5.06-25.63)	**299379**	25
BACKSTOP (31.39-194.6)	**299380**	16
COOLING FAN	**299523**	16
HEAT EXCHANGER	**014148**	55
SLIDE BASE	**304633**	245
TOP MOTOR MOUNT	**299532**	257

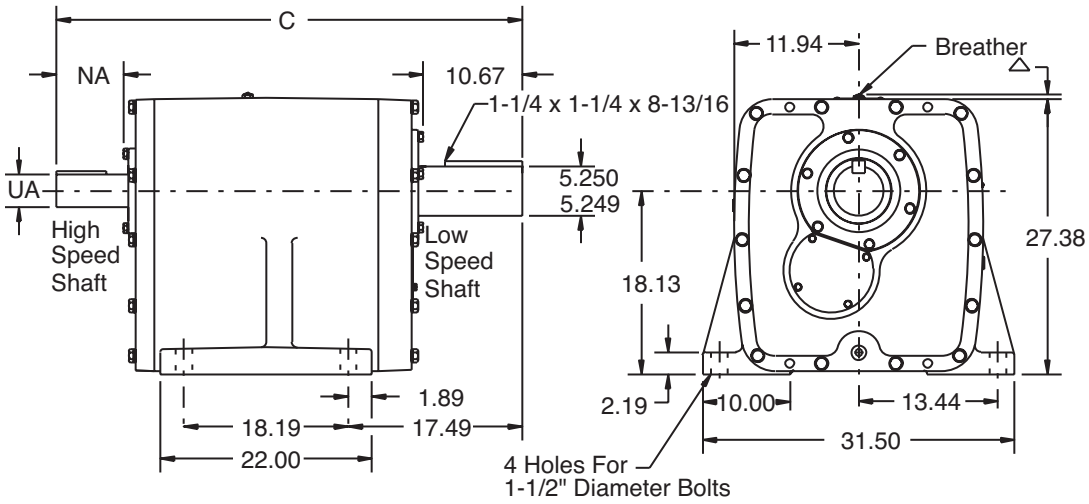
* Baseplates refer to pages G3-37 and G3-38.

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

\+ For backstops on ratios not listed, consult DODGE

SELECTION/DIMENSIONS

MAXUM Concentric Reducers Size 9



△ 1-1/2" will clear breather on all size units.

Size 9	C	NA	NA (with fan)	UA	Key	Weight (lbs.)
Double Reduction	47.39	6.25	3.75	3.000/2.999	3/4 x 3/4 x 4-7/8	2160
Triple Reduction	45.70	4.23	-	2.125/2.124	1/2 x 1/2 x 3-3/8	2240

Size 9 Part Numbers

Nominal Ratio		Separate Reducer	Backstop (1) (2) Reducer
DOUBLE	DCR9 - 5.06	**299176**	**303138**
	DCR9 - 6.2	**299177**	**303139**
	DCR9 - 7.59	**299178**	**303140**
	DCR9 - 9.3	**299179**	**303141**
	DCR9 - 11.39	**299180**	**303142**
	DCR9 - 13.95	**299181**	**303143**
	DCR9 - 17.09	**299182**	**303144**
	DCR9 - 20.93	**299183**	**303145**
	DCR9 - 25.63	**299184**	**303146**
TRIPLE	TCR9 - 31.39	**299185**	**303147**
	TCR9 - 38.44	**299186**	**303148**
	TCR9 - 47.08	**299187**	**303149**
	TCR9 - 57.67	**299188**	**303150**
	TCR9 - 70.62	**299189**	**303151**
	TCR9 - 86.5	**299190**	**303152**
	TCR9 - 105.9	**299191**	**303153**
	TCR9 - 129.7	**299192**	**303154**
	TCR9 - 158.9	**299193**	**303155**
	TCR9 - 194.6	**299194**	**303156**

(1) Backstop dimensions page G3-34.

(2) Reducer includes extended high speed shaft for external backstop. External backstop assembly not included, see accessories.

Size 9 Scoop Part Numbers ■

NEMA A-C Motor Frame		Scoop Package PARA-FLEX Cplg	Scoop Package GRID-LIGN Cplg	Scoop Pkg. Weights PARA/GRID
DOUBLE	324T, 326T	**DCS09320P**	**DCS09320G**	362/327
	364T, 365T	**DCS09360P**	**DCS09360G**	363/327
	404T, 405T	**DCS09400P**	**DCS09400G**	418/382
	444T, 445T	**DCS09440P**	**DCS09440G**	500/405
TRIPLE	254T, 256T	**TCS09250P**	**TCS09250G**	294/290
	284T, 286T	**TCS09280P**	**TCS09280G**	294/290
	324T, 326T	**TCS09320P**	**TCS09320G**	305/301
	364T, 365T	**TCS09360P**	**TCS09360G**	314/307
	404T, 405T	**TCS09400P**	**TCS09400G**	415/380
	444T, 445T	**TCS09440P**	**TCS09440G**	498/403

* Scoop package includes scoop, coupling, coupling guard, and mounting hardware.

Size 9 Accessories* ■

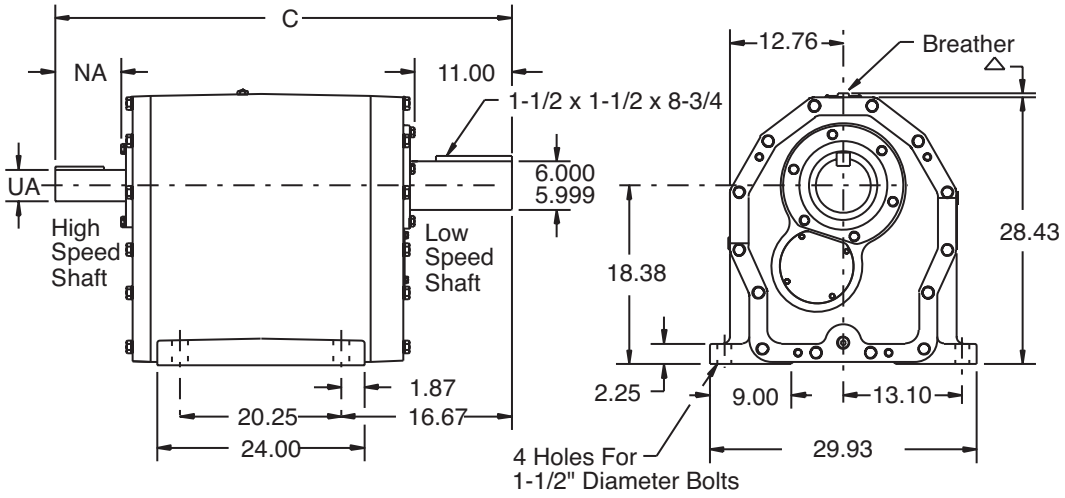
Description	Part Number	Weight (lbs)
AUXILIARY SEAL KIT	**302104**	8
BACKSTOP (5.06-11.39)	**299384**	55
BACKSTOP (13.95-25.63)	**299385**	31
BACKSTOP (31.39-194.6)	**299386**	25
COOLING FAN	**299525**	20
HEAT EXCHANGER	**014148**	55
SLIDE BASE	**304635**	300
TOP MOTOR MOUNT	**299534**	278

* Baseplates refer to pages G3-37 and G3-38.

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.



MAXUM Concentric Reducers Size 10



△ 1-1/2" will clear breather on all size units.

Size 10	C	NA	NA (with fan)	UA	Key	Weight (lbs.)
Double Reduction	48.20	6.31	3.75	3.500/3.499	7/8 x 7/8 x 4-7/8	2420
Triple (31.39-70.62)	48.22	5.90	3.75	2.375/2.374	5/8 x 5/8 x 4-15/16	2550
Triple (86.50-194.6)	47.09	4.78	2.64	2.375/2.374	5/8 x 5/8 x 3-3/4	2550

Size 10 Part Numbers

Nominal Ratio			Separate Reducer	Backstop (1) (2) Reducer
DOUBLE	DCR10 -	5.06	**299195**	**303157**
	DCR10 -	6.2	**299196**	**303158**
	DCR10 -	7.59	**299197**	**303159**
	DCR10 -	9.3	**299198**	**303160**
	DCR10 -	11.39	**299199**	**303161**
	DCR10 -	13.95	**299200**	**303162**
	DCR10 -	17.09	**299201**	**303163**
	DCR10 -	20.93	**299202**	**303164**
	DCR10 -	25.63	**299203**	**303165**
TRIPLE	TCR10 -	31.39	**299204**	**303166**
	TCR10 -	38.44	**299205**	**303167**
	TCR10 -	47.08	**299206**	**303168**
	TCR10 -	57.67	**299207**	**303169**
	TCR10 -	70.62	**299208**	**303170**
	TCR10 -	86.5	**299209**	**303171**
	TCR10 -	105.9	**299210**	**303172**
	TCR10 -	129.7	**299211**	**303173**
	TCR10 -	158.9	**299212**	**303174**
	TCR10 -	194.6	**299213**	**303175**

(1) Backstop dimensions page G3-34.
(2) Reducer includes extended high speed shaft for external backstop.
External backstop assembly not included, see accessories.

Size 10 Scoop Part Numbers ■

NEMA A-C Motor Frame		Scoop Package PARA-FLEX Cplg.	Scoop Package GRID-LIGN Cplg.	Scoop Package Weights GRID-LIGN
DOUBLE	364T, 365T	**DCS10360P**	**DCS10360G**	467/372
	404T, 405T	**DCS10400P**	**DCS10400G**	509/414
	444T, 445T	**DCS10440P**	**DCS10440G**	518/423
TRIPLE	254T, 256T	**TCS10250P**	**TCS10250G**	317/310
	284T, 286T	**TCS10280P**	**TCS10280G**	317/310
	324T, 326T	**TCS10320P**	**TCS10320G**	336/330
	364T, 365T	**TCS10360P**	**TCS10360G**	336/330
	404T, 405T	**TCS10400P**	**TCS10400G**	432/397
	444T, 445T	**TCS10440P**	**TCS10440G**	518/423

* Scoop package includes scoop, coupling, coupling guard, and mounting hardware.

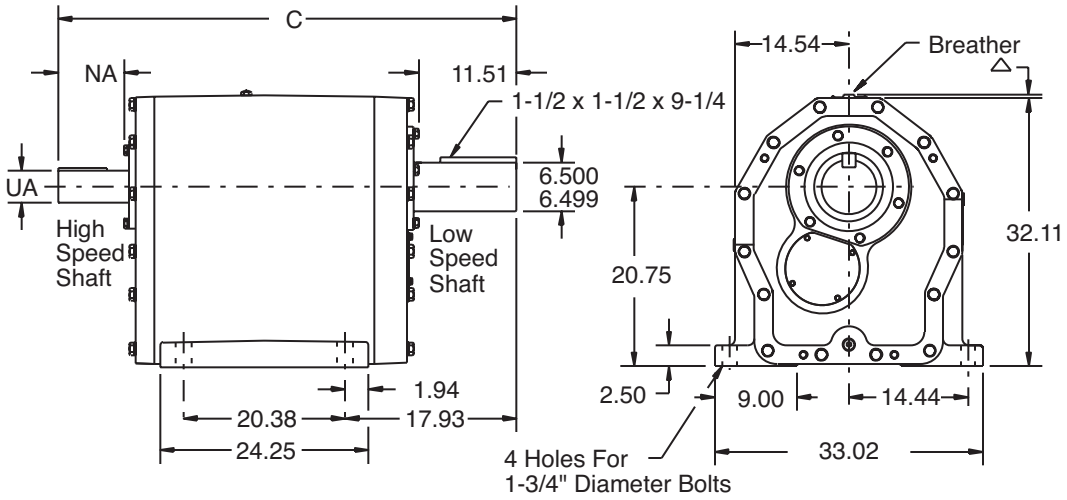
Size 10 Accessories* ■

Description	Part Number	Weight (lbs)
AUXILIARY SEAL KIT	**302408**	9
BACKSTOP (5.06-11.39)	**299387**	57
BACKSTOP (13.95-70.62)	**299388**	33
BACKSTOP (86.50-194.6)	**299389**	27
COOLING FAN (5.06-25.63)	**299526**	23
COOLING FAN (31.39-194.6)	**299842**	23
HEAT EXCHANGER	**014148**	55
SLIDE BASE	**304636**	370
TOP MOTOR MOUNT	**299535**	283

* Baseplates refer to pages G3-37 and G3-38.
■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

SELECTION/DIMENSIONS

MAXUM Concentric Reducers Size 11



△ 1-1/2" will clear breather on all size units.

Size 11	C	NA	NA (with fan)	UA	Key	Weight (lbs.)
Double Reduction	49.84	5.33	3.75	3.750/3.749	7/8 x 7/8 x 4-1/2	3240
Triple (31.39-70.62)	49.84	5.37	3.75	2.375/2.374	5/8 x 5/8 x 4-15/16	3400
Triple (86.50-194.6)	48.65	4.18	2.53	2.375/2.374	5/8 x 5/8 x 3-3/4	3400

Size 11 Part Numbers

	Nominal Ratio	Separate Reducer	Backstop (1) (2) Reducer
DOUBLE	DCR11 - 5.06	**299214**	**303176**
	DCR11 - 6.2	**299215**	**303177**
	DCR11 - 7.59	**299216**	**303178**
	DCR11 - 9.3	**299217**	**303179**
	DCR11 - 11.39	**299218**	**303180**
	DCR11 - 13.95	**299219**	**303181**
	DCR11 - 17.09	**299220**	**303182**
	DCR11 - 20.93	**299221**	**303183**
	DCR11 - 25.63	**299222**	**303184**
TRIPLE	TCR11 - 31.39	**299223**	**303185**
	TCR11 - 38.44	**299224**	**303186**
	TCR11 - 47.08	**299225**	**303187**
	TCR11 - 57.67	**299226**	**303188**
	TCR11 - 70.62	**299227**	**303189**
	TCR11 - 86.5	**299228**	**303190**
	TCR11 - 105.9	**299229**	**303191**
	TCR11 - 129.7	**299230**	**303192**
	TCR11 - 158.9	**299231**	**303193**
	TCR11 - 194.6	**299232**	**303194**

(1) Backstop dimensions page G3-34.
(2) Reducer includes extended high speed shaft for external backstop. External backstop assembly not included, see accessories.

Size 11 Scoop Part Numbers n

NEMA A-C Motor Frame		Scoop Package PARA-FLEX Cplg.	Scoop Package GRID-LIGN Cplg.	Scoop Package Weights PARA-GRID
DOUBLE	364T, 365T	**DCS11360P**	**DCS11360G**	490/395
	404T, 405T	**DCS11400P**	**DCS11400G**	537/442
	444T, 445T	**DCS11440P**	**DCS11440G**	550/455
TRIPLE	284T, 286T	**TCS11280P**	**TCS11280G**	364/357
	324T, 326T	**TCS11320P**	**TCS11320G**	364/357
	364T, 365T	**TCS11360P**	**TCS11360G**	364/357
	404T, 405T	**TCS11400P**	**TCS11400G**	459/423
	444T, 445T	**TCS11440P**	**TCS11440G**	544/449

* Scoop package includes scoop, coupling, coupling guard, and mounting hardware.

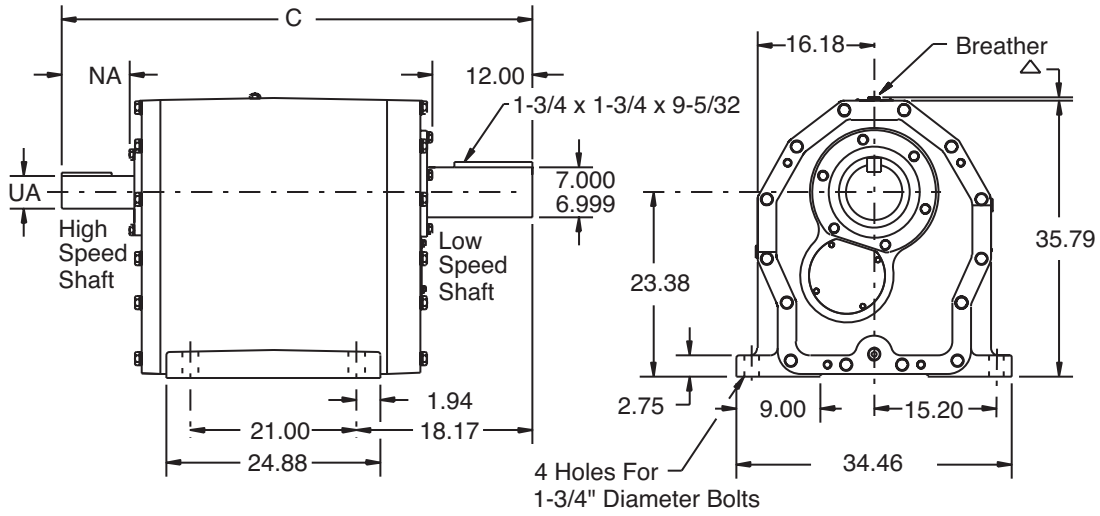
Size 11 Accessories* ■

Description	Part Number	Weight (lbs)
AUXILIARY SEAL KIT	**302711**	11
BACKSTOP (5.06-11.39)	**299390**	101
BACKSTOP (13.95-25.63)	**299391**	59
BACKSTOP (31.39-70.62)	**299392**	36
BACKSTOP (86.50-194.6)	**299845**	30
COOLING FAN (5.06-25.63)	**299527**	27
COOLING FAN (31.39-194.6)	**299843**	27
HEAT EXCHANGER	**014148**	55
SLIDE BASE	**304637**	380
TOP MOTOR MOUNT	**299536**	289

* Baseplates refer to pages G3-37 and G3-38.
■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.



MAXUM Concentric Reducers Size 12



△ 1-1/2" will clear breather on all size units.

Size 12	C	NA	NA (with fan)	UA	Key	Weight (lbs.)
Double Reduction	50.41	5.33	3.75	3.750/3.749	7/8 x 7/8 x 4-1/2	4000
Triple (31.39-70.62)	50.41	5.37	3.75	2.375/2.374	5/8 x 5/8 x 4-15/16	4200
Triple (86.50-194.6)	49.22	4.18	2.56	2.375/2.374	5/8 x 5/8 x 3-3/4	4200

Size 12 Part Numbers

	Nominal Ratio	Separate Reducer	Backstop (1) (2) Reducer
DOUBLE	DCR12 - 5.06	**299233**	**-**
	DCR12 - 6.2	**299234**	**303196**
	DCR12 - 7.59	**299235**	**303197**
	DCR12 - 9.3	**299236**	**303198**
	DCR12 - 11.39	**299237**	**303199**
	DCR12 - 13.95	**299238**	**303200**
	DCR12 - 17.09	**299239**	**303201**
	DCR12 - 20.93	**299240**	**303202**
	DCR12 - 25.63	**299241**	**303203**
TRIPLE	TCR12 - 31.39	**299242**	**303204**
	TCR12 - 38.44	**299243**	**303205**
	TCR12 - 47.08	**299244**	**303206**
	TCR12 - 57.67	**299245**	**303207**
	TCR12 - 70.62	**299246**	**303208**
	TCR12 - 86.5	**299247**	**303209**
	TCR12 - 105.9	**299248**	**303210**
	TCR12 - 129.7	**299249**	**303211**
	TCR12 - 158.9	**299250**	**303212**
	TCR12 - 194.6	**299251**	**303213**

(1) Backstop dimensions page G3-34.

(2) Reducer includes extended high speed shaft for external backstop. External backstop assembly not included, see accessories.

Size 12 Scoop Part Numbers n

NEMA A-C Motor Frame		Scoop Package PARA-FLEX Cplg.	Scoop Package GRID-LIGN Cplg	Scoop Package Weights PARA-GRID
DOUBLE	364T, 365T	**DCS12360P**	**DCS12360G**	505/410
	404T, 405T	**DCS12400P**	**DCS12400G**	552/457
	444T, 445T	**DCS12440P**	**DCS12440G**	565/470
TRIPLE	284T, 286T	**TCS12280P**	**TCS12280G**	379/372
	324T, 326T	**TCS12320P**	**TCS12320G**	379/372
	364T, 365T	**TCS12360P**	**TCS12360G**	379/372
	404T, 405T	**TCS12400P**	**TCS12400G**	474/438
	444T, 445T	**TCS12440P**	**TCS12440G**	559/464

* Scoop package includes scoop, coupling, coupling guard, and mounting hardware.

Size 12 Accessories* ■

Description	Part Number	Weight (lbs)
AUXILIARY SEAL KIT	**302713**	11
BACKSTOP (6.20-11.39)	**299393**	103
BACKSTOP (13.95-25.63)	**299394**	61
BACKSTOP (31.39-70.62)	**299395**	38
BACKSTOP (86.50-194.6)	**299846**	32
COOLING FAN (5.06-25.63)	**299528**	31
COOLING FAN (31.39-194.6)	**299844**	31
HEAT EXCHANGER	**014148**	55
SLIDE BASE	**304638**	410
TOP MOTOR MOUNT	**299537**	301

* Baseplates refer to pages G3-37 and G3-38.

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer

Table 12: Accessory Compatibility For Combinations Of MAXUM Reducers And Accessories ▲

REDUCER		ACCESSORIES				
SIZE	CONFIGURATION	AUX. SEAL	BACKSTOP	COOLING FAN	BS. & C.F.	SLIDE BASE
4	SEPARATE	YES	YES	YES	*	YES
	SCOOP MOUNT	YES	YES**	YES**	*	YES
	BASEPLATE	YES	YES	YES	*	YES*
	TOP MOUNT	YES	YES	*	*	YES

REDUCER		ACCESSORIES				
SIZE	CONFIGURATION	AUX. SEAL	BACKSTOP	COOLING FAN	BS. & C.F.	SLIDE BASE
5	SEPARATE	YES	YES	YES 1	*	YES
	SCOOP MOUNT	YES	YES**	YES**1	*	YES
	BASEPLATE	YES	YES	YES 1	*	YES*
	TOP MOUNT	YES	YES	*	*	YES

REDUCER		ACCESSORIES				
SIZE	CONFIGURATION	AUX. SEAL	BACKSTOP	COOLING FAN	BS. & C.F.	SLIDE BASE
6	SEPARATE	YES	YES	YES 1	*	YES
	SCOOP MOUNT	YES	YES**	YES**1	*	YES
	BASEPLATE	YES	YES	YES 1	*	YES*
	TOP MOUNT	YES	YES	*	*	YES

▲ Consult DODGE for combinations not listed

* Consult DODGE, made-to-order accessory combination

YES Stock accessory combination is compatible

** Non-stock coupling guard required

1 Standard cooling fan compatible only with these reducer sizes and ratios:
MAXUM 5 and 6, 2.25 - 25.63
Contact DODGE for other ratios."



MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer

Table 12: Accessory Compatibility For Combinations of MAXUM Reducers and Accessories ▲

Reducer		Accessories				
Size	Configu-ration	Aux. Seal	Back-stop	Cooling Fan	BS & C.F.	Slide Base
7	Separate	Yes	Yes	Yes1	*	Yes
	Scoop Mount	Yes	Yes **	Yes ** 1	*	Yes
	Baseplate	Yes	Yes	Yes 1	*	Yes *
	Top Mount	Yes	*	*	*	Yes

Reducer		Accessories				
Size	Configu-ration	Aux. Seal	Back-stop	Cooling Fan	BS & C.F.	Slide Base
11	Separate	Yes	Yes	Yes	Yes 2	Yes
	Scoop Mount	Yes	Yes ** 3	Yes **	Yes ** 3 2	Yes
	Baseplate	Yes	Yes	Yes	Yes 2	Yes *
	Top Mount	Yes	*	*	*	Yes

Reducer		Accessories				
Size	Configu-ration	Aux. Seal	Back-stop	Cooling Fan	BS & C.F.	Slide Base
9	Separate	Yes	Yes	Yes1	Yes 2	Yes
	Scoop Mount	Yes	Yes ** 3	Yes ** 1	Yes ** 3 2	Yes
	Baseplate	Yes	Yes	Yes 1	Yes 2	Yes *
	Top Mount	Yes	*	*	*	Yes

Reducer		Accessories				
Size	Configu-ration	Aux. Seal	Back-stop	Cooling Fan	BS & C.F.	Slide Base
12	Separate	Yes	Yes	Yes	Yes 2	Yes
	Scoop Mount	Yes	Yes ** 3	Yes **	Yes 2 3 2	Yes
	Baseplate	Yes	Yes	Yes	Yes 2	Yes *
	Top Mount	Yes	*	*	*	Yes

Reducer		Accessories				
Size	Configu-ration	Aux. Seal	Back-stop	Cooling Fan	BS & C.F.	Slide Base
10	Separate	Yes	Yes	Yes	Yes 2	Yes
	Scoop Mount	Yes	Yes ** 3	Yes **	Yes ** 3 2	Yes
	Baseplate	Yes	Yes	Yes	Yes 2	Yes *
	Top Mount	Yes	*	*	*	Yes

▲ Consult DODGE for combination not listed

* Consult DODGE, made-to-order accessory combination

YES Stock accessory combination is compatible

** Non-stock coupling guard required

1 Standard cooling fan compatible only with these reducer sizes and ratios:
MAXUM 7, 2.25 - 25.63
MAXUM 9, 5.06 - 25.63
Contact DODGE for other ratios.

2 Standard backstop and cooling fan compatible only with these reducer sizes and ratios:
MAXUM 8 and 9, 5.06 - 25.63
MAXUM 10, 5.06 - 70.62
MAXUM 11, 5.06 - 70.62
MAXUM 12, 6.20 - 70.62
Contact DODGE for other ratios.

◆ When using external backstops on sizes 7 through 12 reducers with scoops, see page G3-39 for UA and NA dimensions.
Change out TL Bushing or Finish bore hub to fit smaller input shaft diameter of backstop reducer.

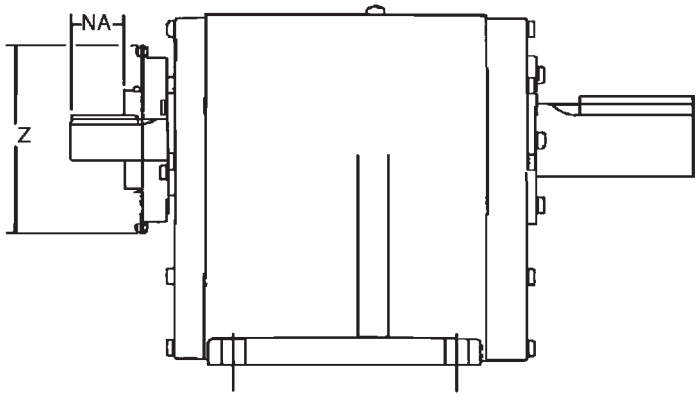
3 Non-Stock motor plate required for these reducers and scoop packages

RED. SIZE	RATIO	MTR FRAME SIZE	MTR. PLT. PART #
MAXUM 9	5.06 - 25.6	213T - 365T	**299488**
MAXUM 9	5.06 - 25.6	404T - 445T	**299489**
MAXUM 10 and 11	5.06 - 70.62	213T - 365T	**299488**
MAXUM 10 and 11	5.06 - 70.62	404T - 445T	**299489**
MAXUM 12	6.20 - 70.62	213T - 365T	**299488**
MAXUM 12	6.20 - 70.62	404T - 445T	**299489**

● Maximum 7 thru 12 Top Motor Mount applications with external backstops must be checked for over hung load.

MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer



BACKSTOP ASSEMBLIES

Optional backstops are offered for service conditions that require the prevention of reverse direction. All backstops are externally mounted on the high speed shaft. On reducer sizes 1 through 6, the backstop is a ratchet and pawl type that does not require additional shaft length to mount. On sizes 7 through 12, a sprag type backstop mounts on an extended high speed shaft which is supplied with the backstop reducer.

NOTE: All backstops have a maximum overrunning speed limitation of 1800 RPM. In addition, the ratchet and pawl type on reducer sizes 1-6 has a minimum over running speed limitation of 400 RPM.

When ordering a reducer with backstop, it will be necessary to indicate on the order the desired direction of rotation of the output shaft, either by designating “CW” for clockwise or “CCW” for counter clockwise, when looking at the output shaft. Backstop is factory installed on sizes 7-12, specify rotation. Sizes 1-6 factory installed upon request. For sizes 1-3, check availability.

External Backstops (sizes 1 thru 6) ■

Unit Size	Ratios +	Part Number	NA	Z	Backstop Max. HP
DCR/TCR 4	13.95-194.6	**299375**	1.97	8.69	50
DCR 5	9.30-25.63	**299377**	2.69	9.75	75
TCR 5	31.39-194.6	**299377**	1.61	9.75	50
DCR 6	13.95-25.63	**299377**	2.69	9.75	75
TCR 6	31.39-194.6	**299377**	1.61	9.75	50

\+ For backstops on ratios not listed, application HP can not exceed the backstop maximum HP rating.

■ Refer to Table 12, page G3-31 for compatibility of various combinations of reducers and accessories.

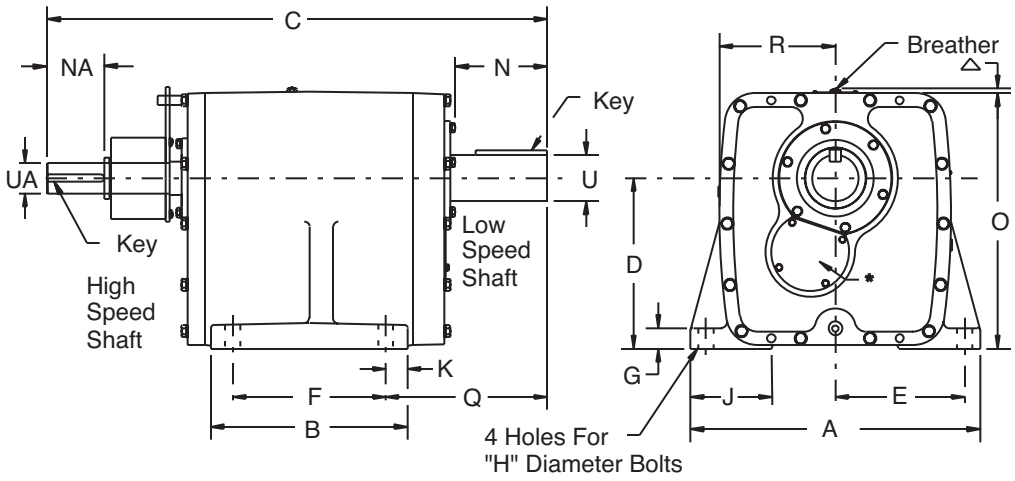
WARNING: Backstops are not to be used for applications involving energy absorption and shock or torque loads in excess of reducer ratings nor on applications such as chair lifts, amusement rides, etc., and where the safety of persons or property is dependent on their function. On such applications, other holding devices must be provided.



MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer

External Backstops (Sizes 7 thru 12) ■



△ 1-1/2" will clear breather on all size units.

Size	Ratios	Part Number *	C	NA	UA	
					Shaft Diameter	Key
DCR 7	5.06-25.63	**299379**	41.97	3.75	1.999/1.998	1/2 x 31/2
TCR 7	31.39-194.6	**299380**	40.79	2.69	1.311/1.310	5/16 x 21/2
DCR 9	5.06-11.39	**299384**	53.46	3.75	2.7485/2.7475	5/8 x 31/2
DCR 9	13.95-25.63	**299385**	52.08	3.75	1.999/1.998	1/2 x 31/2
TCR 9	31.39-194.6	**299386**	49.47	3.75	1.999/1.998	1/2 x 31/2
DCR 10	5.06-11.39	**299387**	54.27	3.75	2.7485/2.7475	5/8 x 31/2
DCR/TCR 10	13.95-70.62	**299388**	52.90	3.75	1.999/1.998	1/2 x 31/2
TCR 10	86.50-194.6	**299389**	50.38	3.75	1.999/1.998	1/2 x 31/2
DCR 11	5.06-11.39	**299390**	57.19	3.75	3.2485/3.2475	3/4 x 31/2
DCR 11	13.95-25.63	**299391**	55.94	3.75	2.7485/2.7475	5/8 x 31/2
TCR 11	31.39-70.62	**299392**	54.57	3.75	1.999/1.998	1/2 x 31/2
TCR 11	86.50-194.6	**299845**	52.79	3.75	1.999/1.998	1/2 x 31/2
DCR 12	6.20-11.39	**299393**	57.72	3.75	3.2485/3.2475	3/4 x 31/2
DCR 12	13.95-25.63	**299394**	56.48	3.75	2.7485/2.7475	5/8 x 31/2
TCR 12	31.39-70.62	**299395**	55.10	3.75	1.999/1.998	1/2 x 31/2
TCR 12	86.50-194.6	**299846**	53.36	3.75	1.999/1.998	1/2 x 31/2

* External backstop assembly only. See Specification/Dimensions Section pages G3-24 through G3-31 for MAXUM Backstop Reducer part numbers. (Reducers have extended high speed shafts for mounting of external backstops.)

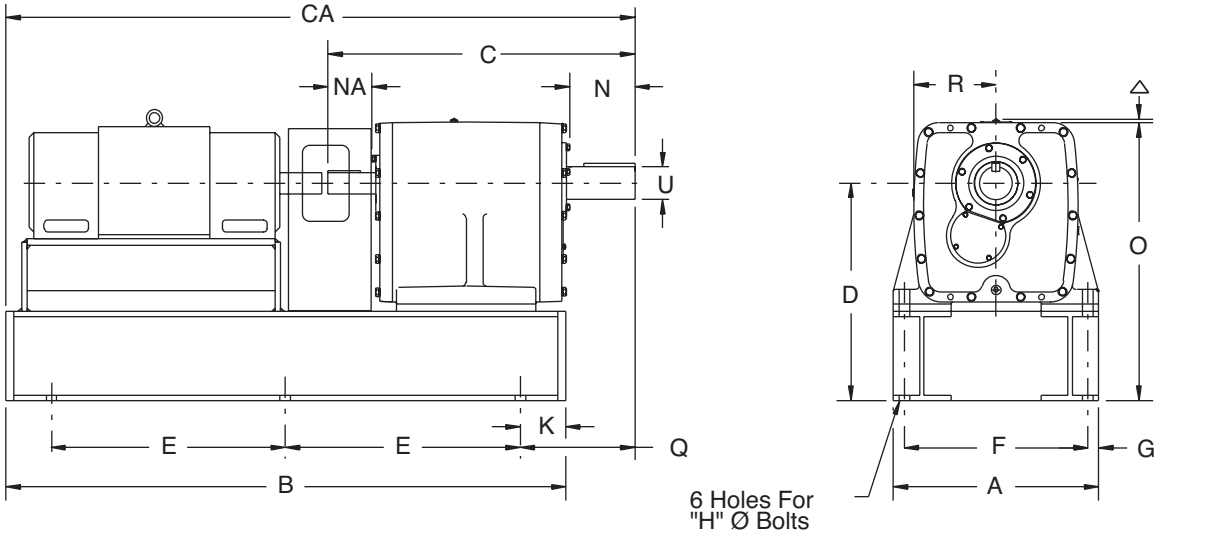
MAXUM Reducer Basic Dimensions

Unit Size	A	B	D	E	F	G	H	J	N	O	Q	R	U	
													Shaft Dia.	Key Size
7	25.49	18.50	14.80	11.22	14.70	1.80	11/4	7.06	8.05	22.31	14.09	10.17	4.00	1 x 1 x 6-1/4
9	31.50	22.00	18.13	13.44	18.19	2.19	11/2	10.00	10.67	27.38	17.49	11.94	5.25	1-1/4 x 1-1/4 x 8-13/16
10	29.93	24.00	18.38	13.10	20.25	2.25	11/2	9.00	11.00	28.43	16.67	12.76	6.00	1-1/2 x 1-1/2 x 8-3/4
11	33.02	24.25	20.75	14.44	20.38	2.50	13/4	9.00	11.51	32.11	17.93	14.54	6.50	1-1/2 x 1-1/2 x 9-1/4
12	34.46	24.88	23.38	15.20	21.00	2.75	13/4	9.00	12.00	35.79	18.17	16.18	7.00	1-3/4 x 1-3/4 x 9-5/32

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories

MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer



△ 1-1/2" will clear breather on all reducers.

HD BASEPLATE ASSEMBLIES

Heavy Duty Baseplates are rigid units fabricated of heavy steel, providing a sturdy mounting base for motor/coupling/ reducer combinations. This accessory is recommended for large motors where the motor weight exceeds the reducer weight or 700 lbs. and for variable speed DC or AC application regardless of the motor weight. The combination of a factory mounted Reliance motor, DODGE coupling, MAXUM reducer and HD baseplate becomes a drive package warranted as a single system.

HD baseplate assemblies include baseplate, Para-Flex coupling and coupling guard.

When mounting variable speed AC or DC motors, consult general guidelines on pages G3-79 and G3-80.

Consult DODGE for size 7-12 baseplate dimensions.





MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer

MAXUM REDUCER HD BASEPLATES WITH RELIANCE RPM III DC MOTORS ▲

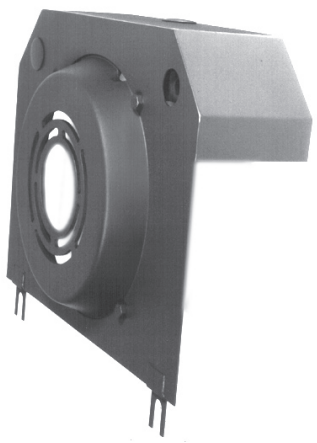
Reducer/Motor*		B	CA	E	A	C	D	F	G	H	K	N	O	R	U	Q	NA
DCR/TCR 4	1811	43.50	49.95	18.75	16.88	25.47	18.10	14.60	1.14	7/8"	3.00	5.75	22.97	6.69	2.875	9.45	3.50
	1812	43.50	49.95	18.75													
	2113	53.00	59.45	23.50													
	2512	56.00	62.45	25.00													
	2812	60.50	66.95	27.25													
	3210	62.50	68.95	28.25													
	3212	62.50	68.95	28.25													
DCR5	1811	45.50	53.25	19.75	18.63	29.14	18.46	16.40	1.11	1"	3.00	6.75	23.94	7.44	3.375	10.75	4.51
	1812	45.50	53.25	19.75													
	2113	55.00	62.75	24.50													
	2512	58.50	66.25	26.25													
	2812	63.00	70.75	28.50													
	3210	64.50	72.25	29.25													
	3212	64.50	72.25	29.25													
TCR5	1811	45.00	52.75	19.50	18.63	28.05	18.46	16.40	1.11	1"	3.00	6.75	23.94	7.44	3.375	10.75	3.42
	1812	45.00	52.75	19.50													
	2113	54.50	62.25	24.25													
	2512	57.50	65.25	25.75													
	2812	62.00	69.75	28.00													
	3210	63.50	71.25	28.75													
	3212	63.50	71.25	28.75													
DCR6	1811	46.50	55.41	20.25	21.38	31.44	20.16	18.60	1.39	11/8"	3.00	7.50	26.66	8.16	3.750	11.91	4.51
	1812	46.50	55.41	20.25													
	2113	56.00	64.91	25.00													
	2512	60.50	69.41	27.25													
	2812	64.00	73.91	29.00													
	3210	65.50	74.41	29.75													
	3212	65.50	74.41	29.75													
	3612	71.00	79.91	32.50													
TCR6	1811	46.00	54.91	20.00	21.38	30.36	20.16	18.60	1.39	11/8"	3.00	7.50	26.66	8.16	3.750	11.91	3.42
	1812	46.00	54.91	20.00													
	2113	55.50	64.41	24.75													
	2512	58.50	67.41	26.25													
	2812	63.00	71.91	28.50													
	3210	64.50	73.41	29.25													
	3212	64.50	73.41	29.25													
	3612	70.00	78.91	32.00													

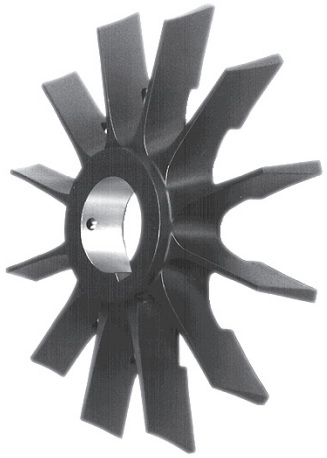
▲ For dimensions on HD Baseplates for sizes 7-12, consult DODGE.

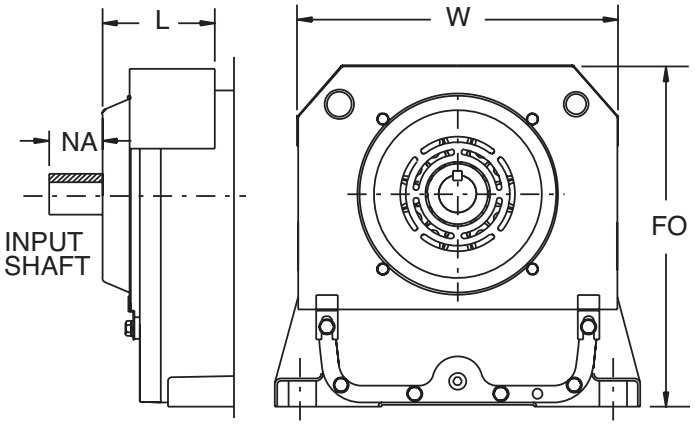
* All motors are suffixed by "ATZ." Reliance RPM III motors used as a guide for dimensions. Consult DODGE when mounting non-Reliance Electric motors.

MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer







COOLING FANS

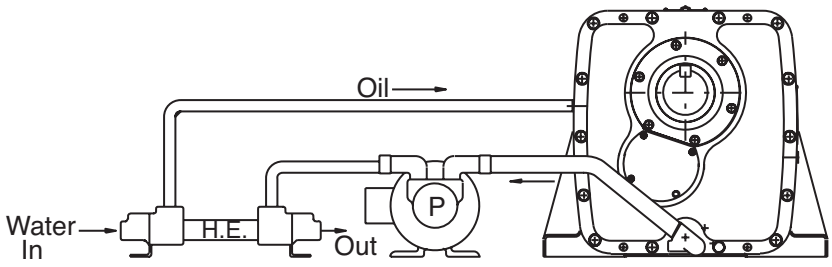
When the thermal capacity of the MAXUM Concentric Shaft Reducer is exceeded, cooling fans provide an optional, inexpensive way of lowering the oil temperature thus increasing the thermal horsepower capacity of the reducer. Selection tables indicate the need for cooling fans. Refer to the thermal tables on pages G3-66 and G3-67. For thermal capacities beyond the range of cooling fans, heat exchangers may be used - see below. Installation of the fan is accomplished simply by attaching formed steel mounting straps to the reducer input cover. The fan assembly, which fastens to the reducer high speed shaft, is simple and compact yet designed to allow an efficient flow of air.

NOTE: When using fans with backstops or top motor mounts, see Accessory Compatibility Matrix, page G3-32, or consult DODGE.

NOTE: Viton seals are available for MAXUM reducers in high temperature applications. Consult DODGE

Dimensions for MAXUM Reducer with Cooling Fan

Unit Size	Part Number	NA	L	W	FO
DCR 4	**299520**	1.78	5.75	14.5	16.13
DCR 5	**299521**	2.69	6.69	17	17.44
DCR 6	**299522**	2.69	6.69	18.75	19.94
DCR 7	**299523**	3.75	7.94	22.44	24
DCR 9	**299525**	3.75	10.19	26.38	29
DCR 10	**299526**	3.75	10.19	28	29.94
TCR 10	**299842**	3.75	10.19	28	29.94
DCR 11	**299527**	3.75	10.19	31.63	33.75
TCR 11	**299843**	3.75	10.19	31.63	33.75
DCR 12	**299528**	3.75	10.19	33.75	37.44
TCR 12	**299844**	3.75	10.19	33.75	37.44



HEAT EXCHANGER COOLING PACKAGES

For thermal capacities beyond the range of cooling fans, an optional heat exchanger cooling package is available to achieve the use of full mechanical HP rating by lowering the oil temperature.

The cooling package is available to cover the basic reducer sizes 3 through 12. (See thermal HP table on pages G3-66 and G3-68.)

Specifications for the heat exchanger motor are as follows: 1/2 HP, 60 Hz, 3 Ph, 230/460 Volt, TEFC, 56 Frame. Minimum coolant (water) flow is 3 G.P.M. based upon a maximum water temperature of 80°F. Minimum oil temperature for operation is 60°F.

Available from stock as part number **014148**.



MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer



SCOOP MOUNT MOTOR/REDUCERS

DODGE MAXUM Scoop Mount Motor/Reducers are available in 12 sizes ranging from 1 to 250 horsepower. Case sizes 4-6 feature AGMA standard speeds 9 to 778 RPM, and case sizes 7-12 feature AGMA standard speeds from 9 to 350 RPM.

DODGE MAXUM Scoop Mount Motor/Reducers can be supplied with factory-mounted Reliance AC motors. Or, if preferred, scoop mount reducers may be ordered separately for use with customer supplied AC motors. Gray iron cases come with steel scoops designed to accept NEMA AC motor frame sizes from 143T through 445T.

DODGE flexible PARA-FLEX® couplings are standard, however, DODGE grid couplings are also available as an optional item.

Thermally limited DODGE MAXUM Scoop Mount Motor/Reducers should be equipped with cooling fan or heat exchanger as required.

Scoops can be used in conjunction with some other accessories. Refer to Table 12 page G3-32.

CAUTION: The customer is responsible and Reliance Electric expressly disclaims responsibility for isolating the DODGE MAXUM Scoop Mount Motor/Reducer from any vibratory or transient load induced by the motor or the other equipment that is driven by the motor.

The MAXUM Scoop Mount Motor/Reducer is expressly not warranted against failure or unsatisfactory operation resulting from dynamic vibrations of any form imposed upon it whether by the drive system in which it is installed or for any other reason, no matter how induced, unless the nature of such vibrations has been fully defined by the customer on the face of its purchase order and explicitly accepted in writing by Reliance Electric.

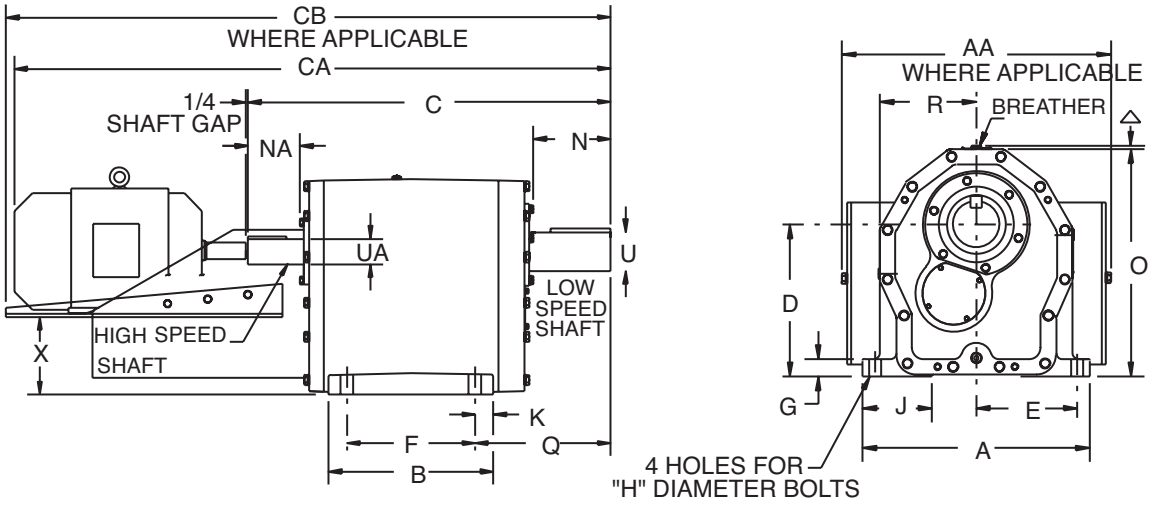
DRIVE SYSTEM VIBRATION

The probability of a constant speed motor operating at resonant frequency is remote. Should this occur however, the customer must add stiffening supports to the scoop bottom plate to move the resonant frequency away from the motor operating speed.

When mounting variable speed AC or DC motors, consult guidelines on page G3-79 and G3-80.

MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer



SCOOP MOUNT MOTOR/REDUCERS WITH AC MOTORS, SIZE 4 (WITHOUT EXTERNAL BACKSTOP)

MAXUM Size	A	B	C		D	E	F	G	H Bolts	J	K	N	NA	
			Double Red. Units	Triple Red. Units									Dbl. Reds. Units w/o Fan	Triple Red. Units
4	16.88	11.25	25.47	25.47	9.60	7.30	9.00	1.13	7/8	4.50	.92	5.75	3.50	3.50

MAXUM Size	O	Q	R	U		UA				Avg. Reducer Wt. (lbs.)
				Shaft Dia	Key Size	Dbl. Reduction Units		Triple Reduction Units		
						Shaft Dia.	Key Size	Shaft Dia.	Key Size	
4	14.47	9.45	6.69	2.875	3/4 x 3/4 x 5	1.625	3/8 x 3/8 x 2-1/2	1.625	3/8 x 3/8 x 2-1/2	340

MAXUM Size	Dimensional Ref.	143T	145T	182T	184T	213T	215T	254T	256T	284T	286T	324T	326T
4	AA ✣	16.90	16.90	16.90	16.90	16.90	16.90	16.90	16.90	20.27	20.27	20.27	20.27
	CA+	37.22	39.22	40.34	41.34	43.53	45.03	48.47	50.22	51.66	53.16	54.66	56.16
	CB	45.94	45.94	45.94	45.94	45.94	45.94	N/A	N/A	N/A	N/A	N/A	N/A
	X	5.79	5.79	4.79	4.79	4.04	4.04	3.04	3.04	2.29	2.29	1.29	1.29

Δ 1-1/2" will clear breather on all size units.

✣ AA = Scoop width plus head thickness of mounting bolts.

\+ Approx. overall length using squirrel cage, induction Reliance AC motor of the fan cooled type and DODGE couplings from page G3-55.

NOTE: Scoops are designed for standard size conduit boxes. Oversize conduit boxes may interfere with side plates.



MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer

SCOOP MOUNT MOTOR/REDUCER WITH AC MOTORS SIZES 5-9 (WITHOUT EXTERNAL BACKSTOP)

MAXUM Size	A	B	C		D	E	F	G	H Bolts	J	K	N	NA	
			Double Red. Units	Triple Red. Units									Dbl. Red. Units w/o Fan	Triple Red Units
5	18.63	12.00	29.14	28.05	9.96	8.20	10.00	1.25	1	4.19	1.00	6.75	4.51	3.42
6	21.38	13.81	31.44	30.36	11.66	9.30	11.30	1.38	1-1/8	4.50	1.25	7.50	4.51	3.42
7	25.49	18.50	39.06	37.64	14.80	11.22	14.70	1.80	1-1/4	7.06	1.90	8.05	5.41	3.77
9	31.50	22.00	47.39	45.70	18.13	13.44	18.19	2.19	1-1/2	10.00	1.89	10.67	6.25	4.23

MAXUM Size	O	Q	R	U		UA				Ave. Reducer Wt. (lbs.)
				Shaft dia.	Key Size	Double Reduction Units		Triple Reduction Units		
						Shaft Dia.	Key Size	Shaft Dia.	Key Size	
5	15.44	10.75	7.44	3.375	7/8 x 7/8 x 51/4	2.125	1/2 x 1/2 x 33/8	1.625	3/8 x 3/8 x 21/2	435
6	18.16	11.91	8.16	3.750	7/8 x 7/8 x 53/4	2.125	1/2 x 1/2 x 33/8	1.625	3/8 x 3/8 x 21/2	615
7	22.31	14.09	10.17	4.000	1 x 1 x 61/4	2.625	5/8 x 5/8 x 41/4	1.875	1/2 x 1/2 x 21/2	1200
9	27.38	17.49	11.94	5.250	11/4 x 11/4 x 813/16	3.000	3/4 x 3/4 x 47/8	2.125	1/2 x 1/2 x 33/8	2200

MAXUM Size	Dimensional Ref.	Red.	182T	184T	213T	215T	254T	256T	284T	286T	324T	326T	364T/ 365T	404T/ 405T	444T/ 445T
5	AA ✣		24.67	24.67	24.67	24.67	24.67	24.67	24.67	24.67	24.67	24.67	24.67		
	CA+	DCR ★	44.01	45.01	47.20	48.70	52.14	53.89	55.33	56.83	58.33	59.83	62.83		
		TCR ■	42.92	43.92	46.11	47.61	51.05	52.80	54.24	55.74					
	CB	DCR ★	56.27	56.27	56.27	56.27	56.27	56.27	56.27	N/A	N/A	N/A	N/A		
		TCR ■	55.18	55.18	55.18	55.18	55.18	55.18	55.18	N/A					
	X		5.01	5.01	4.26	4.26	3.26	3.26	2.51	2.51	1.51	1.51	0.51		
6	AA ✣			24.67	24.67	24.67	24.67	24.67	24.67	24.67	24.67	24.67	24.67		
	CA+	DCR ★		47.31	49.50	51.00	54.44	56.19	57.63	59.13	60.63	62.13	65.13		
		TCR ■		46.23	48.42	49.92	53.36	55.11	56.55	58.05	59.55	61.05	64.05		
	CB	DCR ★		58.57	58.57	58.57	58.57	58.57	58.57	N/A	N/A	N/A	N/A		
		TCR		57.49	57.49	57.49	57.49	57.49	57.49	N/A	N/A	N/A	N/A		
	X			6.72	5.97	5.97	4.97	4.97	4.22	4.22	3.22	3.22	2.22		
7	AA ✣				24.67	24.67	24.67	24.67	24.67	24.67	24.67	24.67	24.67	27.15	27.15
	CA+ ●	DCR ★			57.12	58.62	62.06	63.81	65.25	66.75	68.25	69.75	72.75	77.62	83.93
		TCR ■			55.70	57.20	60.64	62.39	63.83	65.33	66.83	68.33	71.33		
	CB ●	DCR ★			65.68	65.68	65.68	65.68	66.19	N/A	N/A	N/A	N/A	N/A	N/A
		TCR ■			64.26	64.26	64.26	64.26	64.77	N/A	N/A	N/A	N/A		
	X				9.12	9.12	8.12	8.12	7.37	7.37	6.37	6.37	5.37	4.37	3.37
9	AA ✣						34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65
	CA+ ●	DCR ★											81.08	85.95	92.26
		TCR ■					68.70	70.45	71.89	73.39	74.89	76.39	79.39	84.26	90.57
	CB ●	TCR ■					72.58	72.58	72.58	N/A	N/A	N/A	N/A	N/A	N/A
	X						11.82	11.82	11.07	11.07	10.07	10.07	9.07	8.07	7.07

Δ 1-1/2" will clear breather on all size units.

◆ When using external backstops on sizes 7, 8 and 9, see page G3-38 for UA and NA dimensions.

✣ AA = Scoop width plus head thickness of mounting bolts.

\+ Approx. overall length using squirrel cage, induction Reliance AC motor of the fan cooled type and DODGE couplings from page G3-53.

★ Double Reduction reducer only.

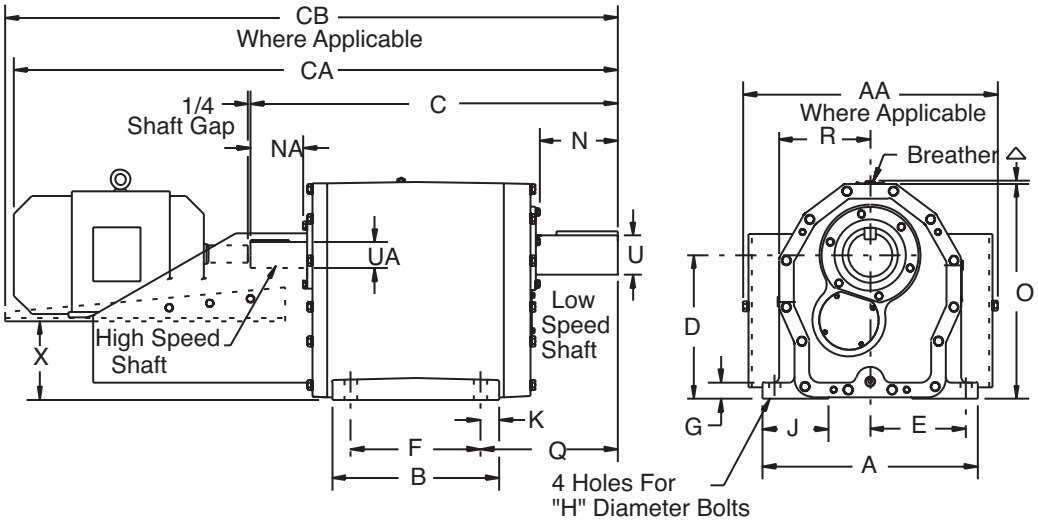
■ Triple Reduction reducer only.

● When using external backstops on sizes 7, 8 and 9, consult DODGE for scoop dimensions.

NOTE: Scoops are designed for standard size conduit boxes. Oversize conduit boxes may interfere with side plates.

MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer



SCOOP MOUNT MOTOR/REDUCER WITH AC MOTORS, SIZES 10 - 12 (WITHOUT EXTERNAL BACKSTOP)

MAXUM Size	A	B	C		D	E	F	G	H Bolts	J	K	N	NA ◆		
			Ratios 5.06-70.62	Ratios 86.50-194.6									Dbl. Red. Units w/o Fan	Triple Red Units 31.39-70.62	Triple Red Units 86.50-194.6
10	29.93	24.00	48.20	47.09	18.38	13.10	20.25	2.25	1-1/2	9.00	1.87	11.00	6.31	5.90	4.78
11	33.02	24.25	49.84	48.65	20.75	14.44	20.38	2.50	1-3/4	9.00	1.94	11.51	5.33	5.37	4.18
12	34.46	24.88	50.41	49.22	23.38	15.20	21.00	2.75	1-3/4	9.00	1.94	12.00	5.33	5.37	4.18

MAXUM Size	O	Q	R	U		UA ◆				Avg. Reducer Wt. (Lbs.)
				Shaft Dia.	Key Size	Dbl. Reduction Units Shaft Dia.	Dbl. Reduction Units Key Size	Triple Reduction Units Shaft Dia.	Triple Reduction Units Key ▲ Size	
10	28.43	16.67	12.76	6.00	1-1/2 x 1-1/2 x 8-3/4	3.500	7/8 x 7/8 x 4-7/8	2.375	5/8 x 5/8 x 3-3/4	2485
11	32.11	17.93	14.54	6.50	1-1/2 x 1-1/2 x 9-1/4	3.750	7/8 x 7/8 x 4-1/2	2.375	5/8 x 5/8 x 3-3/4	3320
12	35.79	18.17	16.18	7.00	1-3/4 x 1-3/4 x 9-5/32	3.750	7/8 x 7/8 x 4-1/2	2.375	5/8 x 5/8 x 3-3/4	4100

MAXUM Size	Dimensional Ref.	Red.	256T	284T	286T	324T	326T	364T	365T	404T	405T	444T/445T
10	AA ✣		34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65
	CA+●	DCR ★									86.76	93.07
		TCR ■	72.97	74.41	75.91	77.41	78.91	81.91	81.91	86.78	86.78	93.09
	CBD	TCR ■	75.42	75.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	X		11.69	10.94	10.94	9.94	9.94	8.94	8.94	7.94	7.94	6.94
11	AA ✣			34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65
	CA+●	DCR ★										
		TCR ■		76.03	77.53	79.03	80.53	83.53	83.53	88.40	88.40	94.71
	CBD	TCR ■		76.97	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	X			13.32	13.32	12.32	12.32	11.32	11.32	10.32	10.32	9.32
12	AA ✣			34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65
	CA+●	DCR ★										
		TCR ■		76.60	78.10	79.60	81.10	84.10	84.10	88.97	88.97	95.28
	CB ●	DCR ★		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	X			15.94	15.94	14.94	14.94	13.94	13.94	12.94	12.94	11.94

Δ 1-1/2, will clear breather on all size units.

✣ AA = Scoop width plus head thickness of mounting bolts.

\+ Approx. overall length using squirrel cage, induction Reliance AC motor of the fan cooled type and DODGE couplings from page G3-53.

▲ On ratios 31.39-70.62 key length is 4-15/16.

★ Double Reduction reducer only.

◆ When using external backstops on sizes 10, 11 and 12, see page G3-39 for UA and NA dimensions.

■ Triple Reduction reducer only.

● On ratios 86.50-194.6, dimension CA will be approximately 1.25" shorter. When using external backstops, consult DODGE for scoop dimensions.

NOTE: Scoops are designed for standard size conduit boxes. Oversize conduit boxes may interfere with side plates.



MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer

COUPLING GUARDS

MAXUM coupling guards, made of fabricated steel, are available for use with MAXUM Concentric Shaft Scoop/ Motor/Reducers sizes 1-12 and are supplied as part of scoop or baseplate package unless specified otherwise. They offer positive protection from objects falling into the rotating coupling.

When considering other combinations or non-DODGE couplings, consult DODGE.

NOTE: Coupling guards are designed for use on reducers without backstops



COUPLING GUARD PART NUMBERS ■

GUARD NUMBER	PART NUMBER	MAXUM CASE SIZE	MOTOR FRAMES
4	**299454**	DCR/TCR 3 & 4 TCR 5 & 6	250-280T
5	**299455**	DCR 4, TCR 6	320T
6	**299456**	TCR 6	360T
7	**299457**	DCR 5 & 6	180-250T
8	**299458**	DCR 5 & 6	280-360T
11	**299461**	TCR 7	210-250T
12	**299462**	TCR 7 DCR 7	280-360T 250T
14	**299464**	DCR 7	280-360T
15	**304938**	DCR 7	400T
16	**304939**	DCR 7	440T
17	**299467**	TCR 9	250-280T
18	**299468**	TCR 9	320-360T
19	**299469**	TCR 9	400T
20	**299470**	TCR 9	440T
21	**299471**	DCR 9	360T
22	**304940**	DCR 9	400T
23	**304941**	DCR 9	440T
24	**299474**	TCR 10	250-280T
25	**299475**	TCR 10	320-360T
26	**299476**	TCR 10 ▲	400T
27	**299477**	TCR 10 ▲	440T
28	**304942**	DCR/TCR 10 ★	400T
29	**304943**	DCR/TCR 10 ★	440T
30	**299480**	TCR 11 & 12	280-360T
31	**299481**	TCR 11 & 12 ▲	400T
32	**299482**	TCR 11 & 12 ▲	440T
33	**304947**	DCR/TCR 11 &12 ★	400T
34	**304950**	DCR/TCR 11 &12 ★	440T
35	**304936**	DCR 10, 11 & 12	360T

‡ Refers to maximum size coupling that guard is designed to cover. Actual coupling supplied by DODGE in scoop or baseplate package may be a smaller size.

★ Triple reduction ratios 31.39-70.62.

▲ Triple reduction ratios 86.50-194.6.

■ Refer to Table 12, page G3-31 for compatibility of various combinations of reducers and accessories. See pages G3-53 and G3-54 for listing of coupling sizes.

Motor Mtg. Hardware Kit

AC Motor Frame Size	Ordering Number	Description †
140T	**014524**	5/16" Bolt Kit
180T, 210T	**014525**	3/8" Bolts Kit
250T, 280T	**014526**	1/2" Bolts Kit
320T, 360T	**014527**	5/8" Bolts Kit
400T, 440T	**014528**	3/4" Bolts Kit

† Bolt Kits include bolts and shims for mounting motor to scoop

MODIFICATIONS/ACCESSORIES



MAXUM Concentric Reducer
SCOOP PACKAGES WITH PARA-FLEX COUPLINGS ■ ◆

MAXUM Size	Scoop Package Part Number	Side Plate	Bottom Plate	Motor Mounting Bolt Kit	Coupling Element	Quantity (2) Coupling Flange	Reducer Bushing	Motor Bushing	Coupling Guard Assembly	Scoop Package Weight (lbs.)
4	**DCS04140P**	299504	299590	014524	011106	(1)	009212	009208	299453	135.4
4	**DCS04180P**	299504	299590	014525	011107	010603	119229	119221	299453	138.0
4	**DCS04210P**	299504	299590	014525	011107	010603	119229	119225	299453	138.0
4	**DCS04250P**	299504	299590	014526	011107	010603	119229	119229	299454	143.0
4	**DCS04280P**	299504	299591	014526	011108	010604	117092	117095	299454	166.6
4	**DCS04320P**	299504	299591	014527	011108	010604	117092	117177	299455	173.6
4	**TCS04140P**	299504	299590	014524	011106	(1)	009212	009208	299453	135.4
4	**TCS04180P**	299504	299590	014525	011107	010603	119229	119221	299453	138.0
4	**TCS04210P**	299504	299590	014525	011107	010603	119229	119225	299453	138.0
4	**TCS04250P**	299504	299590	014526	011107	010603	119229	119229	299454	143.0
4	**TCS04280P**	299504	299591	014526	011108	010604	117092	117095	299454	166.6
5	**DCS05210P**	299505	299592	014525	011108	010604	117177	117091	299454	186.6
5	**DCS05250P**	299505	299592	014526	011108	010604	117177	117092	299457	186.6
5	**DCS05280P**	299505	299592	014526	011108	010604	117177	117095	299458	194.6
5	**DCS05320P**	299505	299592	014527	011108	010604	117177	117177	299458	194.6
5	**DCS05360P**	299505	299592	014527	011109	010605	119126	117098	299458	203.8
5	**TCS05140P**	299505	299592	014524	011106	(1)	009212	009208	299453	165.0
5	**TCS05180P**	299505	299592	014525	011107	010603	119229	119221	299453	174.0
5	**TCS05210P**	299505	299592	014525	011107	010603	119229	119225	299453	174.0
5	**TCS05250P**	299505	299592	014526	011107	010603	119229	119229	299454	179.0
5	**TCS05280P**	299505	299592	014526	011108	010604	117092	117095	299454	185.6
6	**DCS06210P**	299506	299592	014525	011108	010604	117177	117091	299457	197.6
6	**DCS06250P**	299506	299592	014526	011108	010604	117177	117092	299457	197.6
6	**DCS06280P**	299506	299592	014526	011108	010604	117177	117095	299458	205.6
6	**DCS06320P**	299506	299592	014527	011108	010604	117177	117177	299458	205.6
6	**DCS06360P**	299506	299592	014527	011109	010605	119126	117098	299458	214.8
6	**TCS06180P**	299506	299592	014525	011107	010603	119229	119221	299453	185.0
6	**TCS06210P**	299506	299592	014525	011107	010603	119229	119225	299453	185.0
6	**TCS06250P**	299506	299592	014526	011107	010603	119229	119229	299454	190.0
6	**TCS06280P**	299506	299592	014526	011108	010604	117092	117095	299454	196.6
6	**TCS06320P**	299506	299592	014527	011108	010604	117092	117177	299455	203.6
6	**TCS06360P**	299506	299592	014527	011109	010605	119144	117098	299456	217.8
7	**DCS07250P**	299507	299592	014526	011109	010605	117111	119144	299462	252.8
7	**DCS07280P**	299507	299592	014526	011109	010605	117111	119122	299464	252.8
7	**DCS07320P**	299507	299592	014527	011109	010605	117111	119126	299464	252.8
7	**DCS07360P**	299507	299592	014527	011109	010605	117111	117098	299464	252.8
7	**DCS07400P**	299507	299593	014528	011112	010608	117128	117132	304938	356.4
7	**DCS07440P**	299507	299593	014528	011114	011134	117224	117233	304939	436.0
7	**TCS07210P**	299507	299592	014525	011108	010604	117095	117091	299461	229.6
7	**TCS07250P**	299507	299592	014526	011108	010604	117095	117092	299461	229.6
7	**TCS07280P**	299507	299592	014526	011108	010604	117095	117095	299462	242.6
7	**TCS07320P**	299507	299592	014527	011108	010604	117095	117177	299462	242.6
7	**TCS07360P**	299507	299592	014527	011109	010605	119122	117098	299462	251.8

(1) Finished Bore PARA-FLEX Coupling. Part numbers listed in bushing columns are for the PX60FB hubs required to make a complete coupling.

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

◆ When using external backstops on sizes 7 through 12 reducers with scoops, see page G3-36 for UA and NA dimensions. Change out TL Bushing or Finish bore hub to fit smaller input shaft diameter of backstop reducer.



MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer

SCOOP PACKAGES WITH PARA-FLEX COUPLINGS ■ ◆

MAXUM Size	Scoop Package Part Number	Side Plate	Bottom Plate	Motor Mounting Bolt Kit	Coupling Element	Quantity (2) Coupling Flange	Reducer Bushing	Motor Bushing	Coupling Guard Assembly	Scoop Package Weight (lbs.)
9	**DCS09360P**	299509	299594	014527	011112	010608	117134	117124	299471	362.4
9	**DCS09400P**	299509	299595	014528	011112	010608	117134	117132	304940	417.4
9	**DCS09440P**	299509	299595	014528	011114	011134	117229	117233	304941	500.0
9	**TCS09250P**	299509	299594	014526	011108	010604	117177	117092	299467	293.6
9	**TCS09280P**	299509	299594	014526	011108	010604	117177	117095	299467	293.6
9	**TCS09320P**	299509	299594	014527	011108	010604	117177	117177	299468	304.6
9	**TCS09360P**	299509	299594	014527	011109	010605	119126	117098	299468	313.8
9	**TCS09400P**	299509	299595	014528	011112	010608	117120	117132	299469	415.4
9	**TCS09440P**	299509	299595	014528	011114	011134	117218	117233	299470	498.0
10	**DCS10360P**	299510	299594	014527	011114	011134	117235	117221	304936	467.0
10	**DCS10400P**	299510	299595	014528	011114	011134	117235	117227	304942	509.0
10	**DCS10440P**	299510	299595	014528	011114	011134	117235	117233	304943	518.0
10	**TCS10250P**	299510	299594	014526	011109	010605	117098	119144	299474	316.8
10	**TCS10280P**	299510	299594	014526	011109	010605	117098	119122	299474	316.8
10	**TCS10320P**	299510	299594	014527	011109	010605	117098	119126	299475	335.8
10	**TCS10360P**	299510	299594	014527	011109	010605	117098	117098	299475	335.8
10	**TCS10400P**	299510	299595	014528	011112	010608	117124	117132	299476	432.4
10	**TCS10440P**	299510	299595	014528	011114	011134	117221	117233	299477	518.0
11	**DCS11360P**	299511	299594	014527	011114	011134	117709	117221	304936	490.0
11	**DCS11400P**	299511	299595	014528	011114	011134	117709	117227	304947	537.0
11	**DCS11440P**	299511	299595	014528	011114	011134	117709	117233	304950	550.0
11	**TCS11280P**	299511	299594	014526	011109	010605	117098	119122	299480	363.8
11	**TCS11320P**	299511	299594	014527	011109	010605	117098	119126	299480	363.8
11	**TCS11360P**	299511	299594	014527	011109	010605	117098	117098	299480	363.8
11	**TCS11400P**	299511	299595	014528	011112	010608	117124	117132	299481	458.4
11	**TCS11440P**	299511	299595	014528	011114	011134	117221	117233	299482	544.0
12	**DCS12360P**	299512	299594	014527	011114	011134	117709	117221	304936	505.0
12	**DCS12400P**	299512	299595	014528	011114	011134	117709	117227	299481	552.0
12	**DCS12440P**	299512	299595	014528	011114	011134	117709	117233	304950	565.0
12	**TCS12280P**	299512	299594	014526	011109	010605	117098	119122	299480	378.8
12	**TCS12320P**	299512	299594	014527	011109	010605	117098	119126	299480	378.8
12	**TCS12360P**	299512	299594	014527	011109	010605	117098	117098	299480	378.8
12	**TCS12400P**	299512	299595	014528	011112	010608	117124	117132	299481	473.4
12	**TCS12440P**	299512	299595	014528	011114	011134	117221	117233	299482	559.0

(1) Finished Bore PARA-FLEX Coupling. Part numbers listed in bushing columns are for the PX60FB hubs required to make a complete coupling.

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

◆ When using external backstops on sizes 7 through 12 reducers with scoops, see page G3-38 for UA and NA dimensions. Change out TL Bushing or Finish bore hub to fit smaller input shaft diameter of backstop reducer.

MODIFICATIONS/ACCESSORIES



MAXUM Concentric Reducer

SCOOP PACKAGES WITH GRID-LIGN COUPLINGS ■ ◆

MAXUM Size	Scoop Package Part Number	Side Plate	Bottom Plate	Motor Mounting Bolt Kit	Grid & Cover Assembly	Reducer Hub	Motor Hub	Coupling Guard Assy.	Scoop Package Weight (lbs.)
4	**DCS04140G**	299504	299590	014524	006752	006598	006592	299453	132.0
4	**DCS04180G**	299504	299590	014525	006752	006598	006594	299453	132.0
4	**DCS04210G**	299504	299590	014525	006752	006598	006596	299453	132.0
4	**DCS04250G**	299504	299590	014526	006752	006598	006598	299454	137.0
4	**DCS04280G**	299504	299591	014526	006753	006603	006605	299454	158.0
4	**DCS04320G**	299504	299591	014527	006754	006608	006611	299455	169.5
4	**TCS04140G**	299504	299590	014524	006752	006598	006592	299453	132.0
4	**TCS04180G**	299504	299590	014525	006752	006598	006594	299453	132.0
4	**TCS04210G**	299504	299590	014525	006752	006598	006596	299453	132.0
4	**TCS04250G**	299504	299590	014526	006752	006598	006598	299454	137.0
4	**TCS04280G**	299504	299591	014526	006753	006603	006605	299454	158.0
5	**DCS05210G**	299505	299592	014525	006754	006611	006606	299454	182.5
5	**DCS05250G**	299505	299592	014526	006754	006611	006608	299457	182.5
5	**DCS05280G**	299505	299592	014526	006754	006611	006610	299458	190.5
5	**DCS05320G**	299505	299592	014527	006754	006611	006611	299458	190.5
5	**DCS05360G**	299505	299592	014527	006755	006616	006618	299458	197.0
5	**TCS05140G**	299505	299592	014524	006752	006598	006592	299453	168.0
5	**TCS05180G**	299505	299592	014525	006752	006598	006594	299453	168.0
5	**TCS05210G**	299505	299592	014525	006752	006598	006596	299453	168.0
5	**TCS05250G**	299505	299592	014526	006752	006598	006598	299454	173.0
5	**TCS05280G**	299505	299592	014526	006753	006603	006605	299454	177.0
6	**DCS06210G**	299506	299592	014525	006754	006611	006606	299457	200.0
6	**DCS06250G**	299506	299592	014526	006754	006611	006608	299457	200.0
6	**DCS06280G**	299506	299592	014526	006754	006611	006610	299458	208.0
6	**DCS06320G**	299506	299592	014527	006754	006611	006611	299458	208.0
6	**DCS06360G**	299506	299592	014527	006755	006616	006618	299458	208.0
6	**TCS06180G**	299506	299592	014525	006752	006598	006594	299453	179.0
6	**TCS06210G**	299506	299592	014525	006752	006598	006596	299453	179.0
6	**TCS06250G**	299506	299592	014526	006752	006598	006598	299454	184.0
6	**TCS06280G**	299506	299592	014526	006753	006603	006605	299454	188.0
6	**TCS06320G**	299506	299592	014527	006754	006608	006611	299455	199.5
6	**TCS06360G**	299506	299592	014527	006755	006612	006618	299456	211.0
7	**DCS07250G**	299507	299592	014526	006755	006479	006612	299462	246.0
7	**DCS07280G**	299507	299592	014526	006755	006479	006614	299464	246.0
7	**DCS07320G**	299507	299592	014527	006755	006479	006616	299464	246.0
7	**DCS07360G**	299507	299592	014527	006755	006479	006618	299464	246.0
7	**DCS07400G**	299507	299593	014528	006756	006625	006627	304938	321.0
7	**DCS07440G**	299507	299593	014528	006757	006796	006802	304939	341.0
7	**TCS07210G**	299507	299592	014525	006753	006605	006601	299461	221.0
7	**TCS07250G**	299507	299592	014526	006753	006605	006603	299461	221.0
7	**TCS07280G**	299507	299592	014526	006753	006605	006605	299462	234.0
7	**TCS07320G**	299507	299592	014527	006754	006610	006611	299462	239.0
7	**TCS07360G**	299507	299592	014527	006755	006614	006618	299462	245.0

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

▲ When using external backstops on sizes 7 through 12 reducers with scoops, see page G3-37 for UA and NA dimensions. Change out TL Bushing or Finish bore hub to fit smaller input shaft diameter of backstop reducer.



MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer

SCOOP PACKAGES WITH GRID-LIGN COUPLINGS ■ ◆

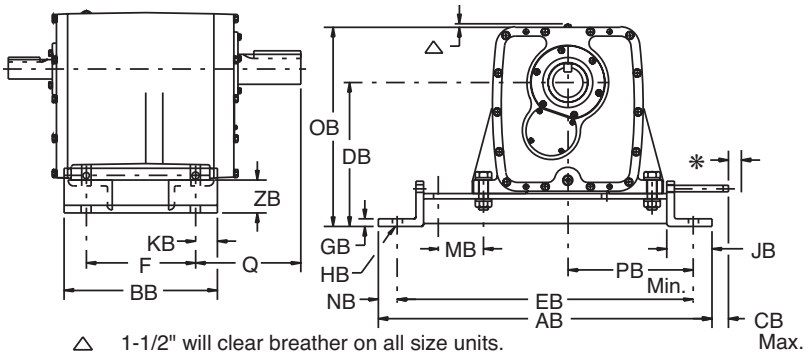
MAXUM Size	Scoop Package Part Number	Side Plate	Bottom Plate	Motor Mounting Bolt Kit	Grid & Cover Assembly	Reducer Hub	Motor Hub	Coupling Guard Assy.	Scoop Package Weight (lbs.)
9	**DCS09360G**	299509	299594	014527	006756	006628	006623	299471	327.0
9	**DCS09400G**	299509	299595	014528	006756	006628	006627	304940	382.0
9	**DCS09440G**	299509	299595	014528	006757	006799	006802	304941	405.0
9	**TCS09250G**	299509	299594	014526	006754	006611	006608	299467	290.0
9	**TCS09280G**	299509	299594	014526	006754	006611	006610	299467	290.0
9	**TCS09320G**	299509	299594	014527	006754	006611	006611	299468	301.0
9	**TCS09360G**	299509	299594	014527	006755	006616	006618	299468	307.0
9	**TCS09400G**	299509	299595	014528	006756	006621	006627	299469	380.0
9	**TCS09440G**	299509	299595	014528	006757	006656	006802	299470	403.0
10	**DCS10360G**	299510	299594	014527	006757	006803	006804	304936	371.5
10	**DCS10400G**	299510	299595	014528	006757	006803	006798	304942	413.5
10	**DCS10440G**	299510	299595	014528	006757	006803	006802	304943	422.5
10	**TCS10250G**	299510	299594	014526	006755	006618	006612	299474	310.0
10	**TCS10280G**	299510	299594	014526	006755	006618	006614	299474	310.0
10	**TCS10320G**	299510	299594	014527	006755	006618	006616	299475	329.0
10	**TCS10360G**	299510	299594	014527	006755	006618	006618	299475	329.0
10	**TCS10400G**	299510	299595	014528	006756	006623	006627	299476	397.0
10	**TCS10440G**	299510	299595	014528	006757	006804	006802	299477	422.5
11	**DCS11360G**	299511	299594	014527	006757	006480	006804	304936	394.5
11	**DCS11400G**	299511	299595	014528	006757	006480	006798	304947	441.5
11	**DCS11440G**	299511	299595	014528	006757	006480	006802	304950	454.5
11	**TCS11280G**	299511	299594	014526	006755	006618	006614	299480	357.0
11	**TCS11320G**	299511	299594	014527	006755	006618	006616	299480	357.0
11	**TCS11360G**	299511	299594	014527	006755	006618	006618	299480	357.0
11	**TCS11400G**	299511	299595	014528	006756	006623	006627	299481	423.0
11	**TCS11440G**	299511	299595	014528	006757	006804	006802	299482	448.5
12	**DCS12360G**	299512	299594	014527	006757	006480	006804	304936	409.5
12	**DCS12400G**	299512	299595	014528	006757	006480	006798	299481	456.5
12	**DCS12440G**	299512	299595	014528	006757	006480	006802	304950	469.5
12	**TCS12280G**	299512	299594	014526	006755	006618	006614	299480	372.0
12	**TCS12320G**	299512	299594	014527	006755	006618	006616	299480	372.0
12	**TCS12360G**	299512	299594	014527	006755	006618	006618	299480	372.0
12	**TCS12400G**	299512	299595	014528	006756	006623	006627	299481	438.0
12	**TCS12440G**	299512	299595	014528	006757	006804	006802	299482	463.5

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

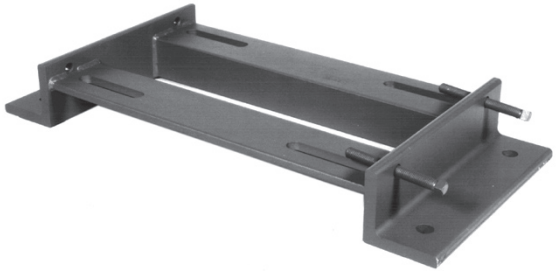
▲ When using external backstops on sizes 7 through 12 reducers with scoops, see page G3-37 for UA and NA dimensions. Change out TL Bushing or Finish bore hub to fit smaller input shaft diameter of backstop reducer.

MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer



△ 1-1/2" will clear breather on all size units.
✳ Minimum distance required to remove adjusting stud.



SLIDE BASES

The MAXUM Reducer Slide Base positions the reducer, providing simplified installation and servicing of belt and chain drives. When a change in reducer position is desired, simply loosen reducer hold-down bolts and slide reducer by using the adjusting screw provided. After desired belt or chain tension has been obtained, retighten reducer bolts and unit is ready to operate.

NOTE: For Slide Bases for MAXUM HD Baseplates, consult DODGE.

MAXUM REDUCER SLIDE BASES ■

Reducer Size	Part Numbers	AB	BB	CBG	DB	ED	F	GB	HB Bolts	JB
4	**304630**	30.88	13.25	3.11	14.10	28.13	9.00	0.75	7/8”	4.00
5	**304631**	32.63	13.75	3.11	14.46	29.88	10.00	0.75	1”	4.00
6	**304632**	35.38	15.50	3.22	16.16	32.63	11.30	0.75	1-1/8”	4.00
7	**304633**	44.44	20.50	2.25	19.18	39.44	14.70	1.00	11/4”	6.00
9	**304635**	50.38	24.00	2.25	22.50	45.38	18.19	1.00	11/2”	6.00
10	**304636**	49.94	26.00	3.34	24.63	44.94	20.25	1.00	11/2”	6.00
11	**304637**	53.31	26.25	3.34	27.00	48.31	20.38	1.00	13/4”	6.00
12	**304638**	56.16	26.88	3.34	29.63	51.16	21.00	1.00	13/4”	6.00

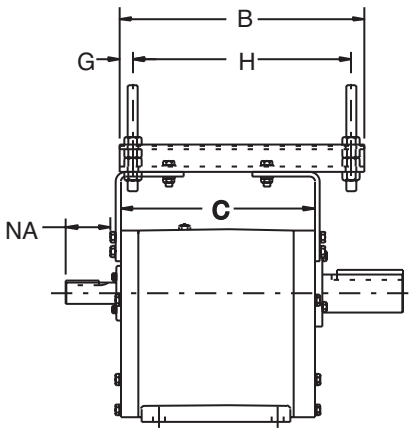
Reducer Size	KB	MB	NB	OB	PB Min.	Q	ZB	H	Wt. (lbs.)
4	2.13	5.00	1.38	18.97	11.55	9.45	4.50	1”	95
5	1.88	5.00	1.38	19.94	12.42	10.75	4.50	1”	100
6	2.09	5.00	1.38	22.66	13.80	11.91	4.50	1”	112
7	2.88	6.00	2.50	26.69	16.72	14.09	4.38	11/4”	245
9	2.91	6.00	2.50	31.76	19.69	17.49	4.38	11/4”	300
10	2.88	7.00	2.50	34.68	18.94	16.67	6.25	11/4”	370
11	2.94	7.00	2.50	38.36	20.66	17.93	6.25	11/4”	380
12	2.94	7.00	2.50	42.04	22.08	18.17	6.25	11/4”	410

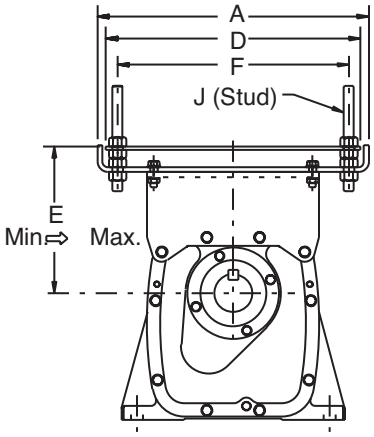
■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

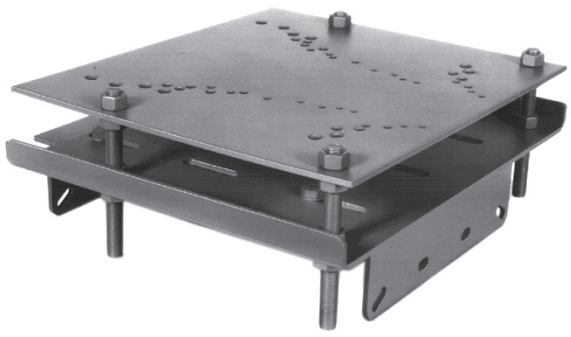


MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer







TOP MOTOR MOUNTS

The MAXUM Motor Mount is a rugged all steel unit which requires no drilling or foundation. It bolts directly to the top of the MAXUM Concentric Shaft Reducer. Each mount accommodates a wide variety of NEMA AC motor frames.

For initial belt installation the adjusting screws can be set at a minimum position which offers adequate future V-belt adjustment.

TOP MOTOR MOUNTS SIZES 4-6 ■

Motor Mount Size	Motor Mount Part Number	Wt.	MAXUM Size	To Accommodate NEMA Motor Frame Sizes ★	A	B	C Nom.	D	E ▲	
									Min.	Max.
MAXUM 4	**299530**	107	3	143 thru 286	20.50	18.50	12.77	19.25	9.89	13.60
			4	143 thru 326			14.67		9.77	13.48
MAXUM 5-6	**299531**	149	5	182 thru 365	22.50	19.00	16.20	21.25	10.78	15.73
			6	182 thru 365			17.77		11.78	16.73

Motor Mount Size	F	G	H	J-Stud		NA	
				Dia.	Lgth.	Double	Triple
MAXUM 4	17.50	1.00	16.50	3/4-10	8	3.37	3.37
MAXUM 5-6	19.25	1.13	16.50	1-8	9	4.50	3.41

★ Select motor size to suit horsepower requirements. See table below for V-belt center distances.

▲ Provides for V-belt adjustment.

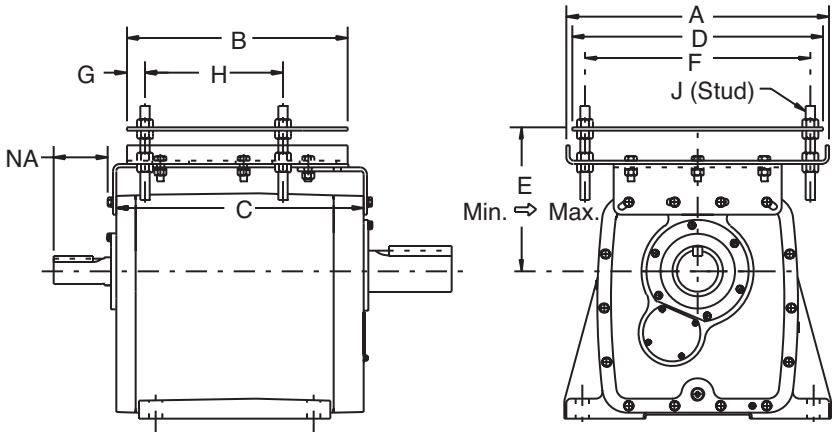
V-BELT CENTER DISTANCES FOR MAXUM MOTOR MOUNTS

Motor Mount Size	MAXUM Size	Center Distances for NEMA Motor Mounts													
		140		180		210		250		280		320		360	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
MAXUM 4	4	13.77	16.98	14.77	17.98	15.52	18.73	16.52	19.73	17.27	20.48	18.27	21.48		
MAXUM 5-6	5			15.78	20.23	16.53	20.98	17.53	21.98	18.28	22.73	19.28	23.73	20.28	24.73
	6			16.78	21.23	17.53	21.98	18.53	22.98	19.28	23.73	20.28	24.73	21.28	25.73

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.

MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer



TOP MOTOR MOUNTS SIZES 7-12 ■

Motor Mount Size	Motor Mount Part Number	Wt.	MAXUM Size	To Accommodate NEMA Motor Frame Sizes H	A	B	C Nom.	D	Es	
									Min	Max
MAXUM 7	**299532**	257	7	213 thru 445	28.50	24.00	23.69	27.25	13.41	18.91
MAXUM 9	**299534**	278	9	213 thru 445	28.50	24.00	28.45	27.25	15.53	21.03
MAXUM 10	**299535**	283	10	254 thru 445	28.50	24.00	28.82	27.25	16.59	22.09
MAXUM 11	**299536**	289	11	284 thru 445	28.50	24.00	30.51	27.25	19.37	24.87
MAXUM 12	**299537**	301	12	284 thru 445	28.50	24.00	30.57	27.25	20.37	25.87

Motor Mount Size	F	G	H	J-Stud		NA		
				Dia.	Lgth.	Double	Triple	
							31.39-70.62	86.50-194.6
MAXUM 7	24.25	2.00	15.00	1-8	101/4	5.41	3.77	3.77
MAXUM 9	24.25	2.00	15.00	1-8	101/4	6.15	4.23	4.23
MAXUM 10	24.25	2.00	15.00	1-8	101/4	6.23	5.90	4.78
MAXUM 11	24.25	2.00	15.00	1-8	101/4	5.33	5.37	4.18
MAXUM 12	24.25	2.00	15.00	1-8	101/4	5.33	5.37	4.18

★ Select motor size to suit horsepower requirements. See table below for V-belt center distances.

▲ Provides for V-belt adjustment.

V-BELT CENTER DISTANCES FOR MAXUM MOTOR MOUNTS

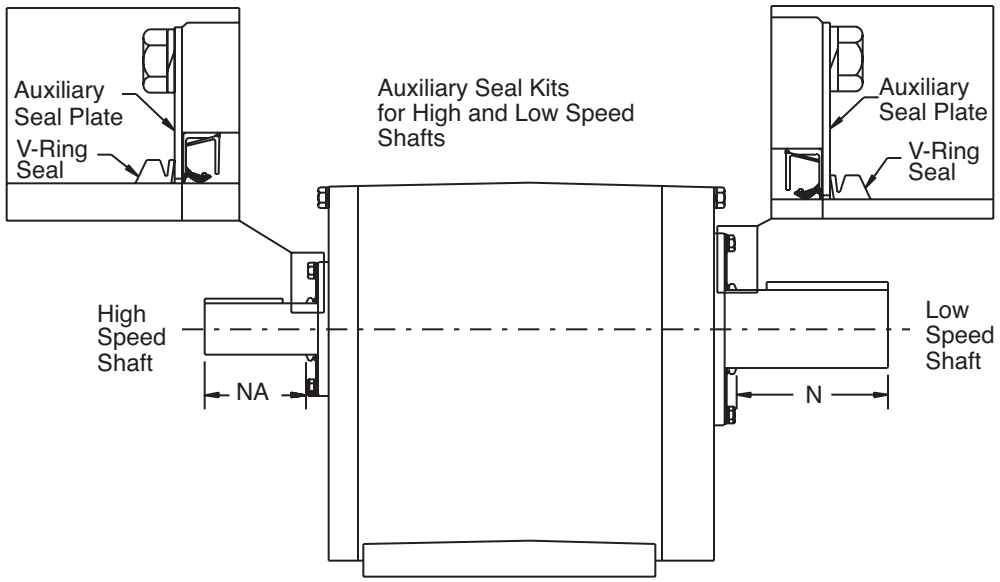
Motor Mount Size	MAXUM Size	Center Distances for NEMA Motor Mounts													
		210		250		280		320		360		400		440	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
MAXUM 7	7	19.66	24.16	20.66	25.16	21.41	25.91	22.41	26.91	23.41	27.91	24.41	28.91	25.41	29.91
MAXUM 9	9	21.78	26.28	22.78	27.28	23.53	28.03	24.53	29.03	25.53	30.03	26.53	31.03	27.53	32.03
MAXUM 10	10			23.84	28.34	24.59	29.09	25.59	30.09	26.59	31.09	27.59	32.09	28.59	33.09
MAXUM 11	11					27.73	31.87	28.37	32.87	29.37	33.87	30.37	34.87	31.37	35.87
MAXUM 12	12					28.37	32.87	29.37	33.87	30.37	34.87	31.37	35.87	32.37	36.87

■ Refer to Table 12, page G3-32 for compatibility of various combinations of reducers and accessories.



MODIFICATIONS/ACCESSORIES

MAXUM Concentric Reducer



AUXILIARY SEAL KITS

Where exposure to dust, moisture or other types of contamination is a potential problem, the optional MAXUM Reducer Auxiliary Seal Kit is recommended.

Kits consist of auxiliary seal plates and V-ring seals for both high speed and low speed shafts. The seal plate protects the seal from accidental damage and the V-ring provides extra sealing protection from external contaminants. Kits mount with no additional drilling and tapping.

Filter Breathers*

Reduced Size	Part Number	Housing Hole Dimensions
DCR/TCR 1-4	**430048**	3/8 - 18 NPSF
DCR/TCR 5-6	**430049**	1/2 - 14 NPSF
DCR/TCR 7-12	**430049** ●	1-11 NPSF

* Breathers fit all reducer ratios

● Order 1" x 1/2" adapter, part number **A45631** for mounting Filter Breather to reducer housing.

Unit Size	Ratios	Part Number	NA	N
DCR/TCR 4	2.25-194.6	**300302**	3.23	5.45
DCR 5	2.25-25.63	**300906**	4.31	6.45
TCR 5	31.39-194.6	**300903**	3.23	6.45
DCR 6	2.25-25.63	**300904**	4.31	7.25
TCR 6	31.39-194.6	**301204**	3.23	7.25
DCR 7	5.06-25.63	**301504**	5.25	7.73
TCR 7	31.39-194.6	**301504**	3.77*	7.73
DCR 9	5.06-25.63	**302104**	6.00	10.46
TCR 9	31.39-194.6	**302104**	4.23*	10.46
DCR 10	5.06-25.63	**302408**	6.06	10.79
TCR 10	31.39-70.62	**302408**	5.90*	10.79
TCR 10	86.50-194.6	**302408**	4.78*	10.79
DCR 11	5.06-25.63	**302711**	5.33*	11.34
TCR 11	31.39-70.62	**302711**	5.37*	11.34
TCR 11	86.50-194.6	**302711**	4.18*	11.34
DCR 12	5.06-25.63	**302713**	5.33*	11.84
TCR 12	31.39-70.62	**302713**	5.37*	11.84
TCR 12	86.50-194.6	**302713**	4.18*	11.84

* NA dimensions are the same with or without auxiliary seals.

MODIFICATIONS/ACCESSORIES



MAXUM Concentric Reducer

MODIFICATIONS OR ASSEMBLY FOR MAXUM CONCENTRIC REDUCERS CONSULT DODGE FOR THESE ASSEMBLIES, ACCESSORIES, AND MODIFICATIONS

1.	MAXUM Reducer Modified For Inclined Or Vertical Shaft, Exceeding 10-. Advise If Input Shaft Up Or Down.
2.	MAXUM Reducer With Auxiliary Seals Installed
3.	MAXUM Reducer With Cooling Fan Installed
4.	MAXUM Reducer With External Backstop Assembly Installed. (Specify Direction Of Rotation On Order.)
5.	MAXUM Reducer And Accessories Packaged For Shipment On One Pallet.
6.	MAXUM Scoop Package Assembled With Reliance Motor.
7.	MAXUM Hd (Heavy Duty) Base Plate Package Assembled With Reliance Motor.
8.	MAXUM Reducer With Special Bearing Adjustment
9.	MAXUM Reducer Prepared For Long-Term Storage
10.	MAXUM Reducer Assembled With Fluid Coupling Or Fluid Drive.
11.	MAXUM Reducer Options For Harsh Environments
	Reducer Paint Options
	Optional Breathers
	Oil Sight & Window Gauges
	Specialty Lubricants
	Oil Sump Heaters
	Standard Oil Seal Replacement Kits



RELATED PRODUCTS

MAXUM Concentric Reducer

PARA-FLEX COUPLING SELECTION ◆

RED. SIZE	RED. INPUT SHFT. DIA.	Coupling Sizes Used on Various HP A-C Motors @ 1750 RPM ■										
		1	1-1/2	2	3	5	7-1/2	10	15	20	25	30
		143T (7/8)	145T (7/8)	145T (7/8)	182T (1-1/8)	184T (1-1/8)	213T (1-3/8)	215T (1-3/8)	254T (1-5/8)	256T (1-5/8)	284T (1-7/8)	286T (1-7/8)
DCR 4	1-5/8	PX60FB	PX60FB	PX60FB	PX70	PX70	PX70	PX70	PX70	PX70	PX80	PX80
TCR 4	1-5/8	PX60FB	PX60FB	PX60FB	PX70	PX70	PX70	PX70	PX70	PX70	PX80	
DCR 5	2-1/8				PX80	PX80	PX80	PX80	PX80	PX80	PX80	PX80
TCR 5	1-5/8	PX60FB	PX60FB	PX60FB	PX70	PX70	PX70	PX70	PX70	PX70	PX80	PX80
DCR 6	2-1/8						PX80	PX80	PX80	PX80	PX80	PX80
TCR 6	1-5/8				PX70	PX70	PX70	PX70	PX70	PX70	PX80	PX80
DCR 7	2-5/8								PX90	PX90	PX90	PX90
TCR 7	1-7/8						PX80	PX80	PX80	PX80	PX80	PX80
DCR 9	3											
TCR 9	2-1/8								PX80	PX80	PX80	PX80
DCR 10	3-1/2											
TCR 10	2-3/8								PX90	PX90	PX90	PX90
DCR 11	3-3/4											
TCR 11	2-3/8								PX90	PX90	PX90	PX90
DCR 12	3-3/4											
TCR 12	2-3/8										PX90	PX90

RED. SIZE	RED. INPUT SHFT. DIA.	Coupling Sizes Used on Various HP A-C Motors @ 1750 RPM ■								
		40	50	60	75	100	125	150	200	250
		324T (2-1/8)	326T (2-1/8)	364T (2-3/8)	365T (2-3/8)	405T+ (2-7/8)	444T+ (3-3/8)	445T+ (3-3/8)	447T+ (3-3/8)	449T+ (3-3/8)
DCR 4	1-5/8	PX80	PX80							
TCR 4	1-5/8									
DCR 5	2-1/8	PX80	PX80	PX90	PX90					
TCR 5	1-5/8									
DCR 6	2-1/8	PX80	PX80	PX90	PX90					
TCR 6	1-5/8	PX80	PX80	PX90						
DCR 7	2-5/8	PX90	PX90	PX90	PX90	PX120	PX140	PX140	PX140	
TCR 7	1-7/8	PX80	PX80	PX90	PX90					
DCR 9	3	PX120	PX120	PX120	PX120	PX120X	PX140	PX140	PX140	PX140
TCR 9	2-1/8	PX80	PX80	PX90	PX90	PX12	PX140	PX140		
DCR 10	3-1/2			PX140	PX140	PX140	PX140	PX140	PX140	
TCR 10	2-3/8	PX90	PX90	PX90	PX90	PX120	PX140	PX140	PX140	PX140
DCR 11	3-3/4			PX140	PX140	PX140	PX140	PX140	PX140	PX140
TCR 11	2-3/8	PX90	PX90	PX90	PX90	PX120	PX140	PX140	PX140	PX140
DCR 12	3-3/4			PX140	PX140	PX140	PX140	PX140	PX140	PX140
TCR 12	2-3/8	PX90	PX90	PX90	PX90	PX120	PX140	PX140	PX140	PX140

■ Frame size reference with motor shaft diameter shown in parentheses

◆ For Backstop reducer, size 7 thru 12, see UA and NA dimension page G3-35; change out TL Bushing or Finish bore hub to fit smaller input shaft diameter of Backstop reducer.

\+ TEFC-XE Frame, Energy Efficient Motors"

RELATED PRODUCTS



MAXUM Concentric Reducer

GRID-LIGN COUPLING SELECTION ◆

RED. SIZE	RED. INPUT SHFT. DIA.	Coupling Sizes Used on Various HP A-C Motors @ 1750 RPM ■										
		1	1-1/2	2	3	5	7-1/2	10	15	20	25	30
		143T (7/8)	145T (7/8)	145T (7/8)	182T (1-1/8)	184T (1-1/8)	213T (1-3/8)	215T (1-3/8)	254T (1-5/8)	256T (1-5/8)	284T (1-7/8)	286T (1-7/8)
DCR 4	1-5/8	1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1050T10	1050T10
TCR 4	1-5/8	1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1050T10	
DCR 5	2-1/8	1040T10	1040T10	1040T10	1060T10	1060T10	1060T10	1060T10	1060T10	1060T10	1060T10	1060T10
TCR 5	1-5/8				1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1050T10	1050T10
DCR 6	2-1/8						1060T10	1060T10	1060T10	1060T10	1060T10	1060T10
TCR 6	1-5/8				1040T10	1040T10	1040T10	1040T10	1040T10	1040T10	1050T10	1050T10
DCR 7	2-5/8						1050T10	1050T10	1070T10	1070T10	1070T10	1070T10
TCR 7	1-7/8								1050T10	1050T10	1050T10	1050T10
DCR 9	3											
TCR 9	2-1/8								1060T10	1060T10	1060T10	1060T10
DCR 10	3-1/2											
TCR 10	2-3/8								1070T10	1070T10	1070T10	1070T10
DCR 11	3-3/4											
TCR 11	2-3/8								1070T10	1070T10	1070T10	1070T10
DCR 12	3-3/4											
TCR 12	2-3/8										1070T10	1070T10

RED. SIZE	RED. INPUT SHFT. DIA.	Coupling Sizes Used on Various HP A-C Motors @ 1750 RPM ■								
		40	50	60	75	100	125	150	200	250
		324T (2-1/8)	326T (2-1/8)	364T (2-3/8)	365T (2-3/8)	405T+ (2-7/8)	444T+ (3-3/8)	445T+ (3-3/8)	447T+ (3-3/8)	449T+ (3-3/8)
DCR 4	1-5/8	1060T10	1060T10							
TCR 4	1-5/8									
DCR 5	2-1/8	1060T10	1060T10	1070T10	1070T10					
TCR 5	1-5/8									
DCR 6	2-1/8	1060T10	1060T10	1070T10	1070T10					
TCR 6	1-5/8	1060T10	1060T10	1070T10						
DCR 7	2-5/8	1070T10	1070T10	1070T10	1070T10	1080T10	1090T10	1090T10	1090T10	1090T10
TCR 7	1-7/8	1060T10	1060T10	1070T10	1070T10					
DCR 9	3	1080T10	1080T10	1080T10	1080T10	1080T10	1090T10	1090T10	1090T10	1090T10
TCR 9	2-1/8	1060T10	1060T10	1070T10	1070T10	1080T10	1090T10	1090T10		
DCR 10	3-1/2	1070T10	1070T10	1090T10	1090T10	1090T10	1090T10	1090T10	1090T10	1090T10
TCR 10	2-3/8			1070T10	1070T10	1080T10	1090T10	1090T10	1090T10	
DCR 11	3-3/4	1070T10	1070T10	1090T10	1090T10	1090T10	1090T10	1090T10	1090T10	1090T10
TCR 11	2-3/8			1070T10	1070T10	1080T10	1090T10	1090T10	1090T10	1090T10
DCR 12	3-3/4	1070T10	1070T10	1090T10	1090T10	1090T10	1090T10	1090T10	1090T10	1090T10
TCR 12	2-3/8			1070T10	1070T10	1080T10	1090T10	1090T10	1090T10	1090T10

■ Frame size reference with motor shaft diameter shown in parentheses

◆ For Backstop reducer, size 7 thru 12, see UA and NA dimension page G3-35; change out TL Bushing or Finish bore hub to fit smaller input shaft diameter of Backstop reducer.

\+ TEFC-XE Frame, Energy Efficient Motors"



MAXUM Concentric Reducer

HORSEPOWER METHOD OF SELECTION

Step 1: Determine Service Factor - See Table 2 for electric motor, hydraulic motor, steam turbine or gas turbine driven applications operating up to 10 hours per day or over 10 hours per day. If the application is engine driven, refer to Table 1 to convert the service factor obtained from Table 2 to the service factor required for engine driven applications. Service factor recommendations are minimum. (For extreme shock or high energy loads which must be absorbed, as when stalling, or for power sources not listed, consult DODGE for special consideration.)

Step 2: Calculate Equivalent Horsepower - Multiply the actual horsepower to be transmitted by the service factor obtained from Step 1.

CAUTION:	Instantaneous gear loading is limited to 200% of the reducer rating. Do not allow starting load or other peak loads to exceed this value. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

Step 3: Calculate Required Ratio - Divide the high speed shaft rpm by the low speed shaft rpm.

Step 4: Determine Unit Size and Ratio - Refer to the horsepower tables on pages G3-58, G3-61 and G3-65. From the high speed input shaft rpm in the left hand column and desired ratio and output speed in the next two columns, trace right into the table and find the horsepower rating equal to or greater than the equivalent horsepower obtained from Step 2. (When the required input speed falls between those tabulated, use straight line interpolation to determine the unit rating.)

Step 5: Check Thermal Ratings - When the horsepower rating of the reducer selected from Step 4 falls in the shaded area, compare the actual horsepower required (without service factor) with the thermal horsepower capacity by referring to the thermal horsepower rating tables on pages G3-66 and G3-67. If the actual transmitted horsepower exceeds the thermal capacity, an auxiliary cooling fan or a heat exchanger may be added to provide additional thermal capacity or a larger reducer may be required.

NOTE: On applications where the continuous running time never exceeds three hours and the idle time is equal to or greater than the running time, thermal limitations can be disregarded and the unit operated at loads up to the listed mechanical rating modified by applicable service factors.

Step 6: Check Overhung and Thrust Loads - Refer to the Overhung Load explanation on page G3-56. Overhung loads may be imposed on the input or output shafts when connected by means other than a coupling. If overhung loads are present, refer to the method and example for calculating overhung loads.

External thrust loads may exist in applications such as agitators, mixers and similar equipment. Calculate the direction and magnitude of the thrust as well as the direction of the shaft rotation and consult DODGE.

Step 7: Variable Speed Applications - When mounting variable speed AC or DC motors, consult the guidelines on pages G3-79 and G3-80.

Step 8: Check Dimensions - See applicable pages for dimensions, weights, part numbers and instructions on how to order.

TORQUE METHOD OF SELECTION

Determine service factor, equivalent torque and unit size using the same steps as outlined above for the horsepower method, except in Step 4 refer to the torque tables on pages G3-59 and G3-65. Interpolate for speeds not listed. When ratings are shown in the shaded area, convert the required torque without service factor to horsepower by using the following formula:

$$\text{Horsepower} = \frac{\text{Torque (lb-in) x Low Speed Shaft rpm}}{63025}$$

and compare the computed results with the thermal capacities shown in Table 20, page G3-66 and G3-67.

EXAMPLES OF SELECTION

Horsepower Method

A centrifugal pump operating at 230 rpm is driven by a 200 horsepower 1750 rpm motor. The duty cycle is 24 hours per day. Both the input and output reducer shafts are coupling connected.

Step 1: Determine Service Factor - From Table 2, Service Factors, locate “Pumps - Centrifugal” and under the column headed “10+ Hrs/Day Service” find the Service Factor which is 1.25.

Step 2: Calculate Equivalent Horsepower - Multiply the motor horsepower by the service factor (200 x 1.25 = 250) to get the equivalent horsepower of 250.

Step 3: Calculate Required Ratio - Divide the high speed shaft rpm by the low speed shaft rpm (1750 / 230 = 7.6) to get the required ratio of 7.6:1.

Step 4: Determine Unit Size and Ratio - Locate the horsepower table for 1750 high speed shaft rpm (Table 14, page G3-57). Trace down the ratio column to the closest nominal ratio to the 7.6:1 required ratio and find 7.59:1 ratio. Trace to the right until the horsepower equals or exceeds the calculated equivalent horsepower of 250 and find 323 horsepower listed under a MAXUM size 7 reducer.

Step 5: Check Thermal Ratings - Because the 323 mechanical horsepower rating for the MAXUM size 7 reducer fell in the shaded area, the thermal capacity must be checked. Refer to the thermal horsepower rating tables on page G3-66. Locate the table for 1750 high speed shaft rpm and find the thermal ratings for the MAXUM size 7 reducer. Note that the thermal rating without a fan is 150 horsepower and that the thermal rating with a fan is 273 horsepower. When a dash (-) is shown, the dash means that the thermal capacity exceeds the mechanical capacity. Since the actual transmitted horsepower



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of 200 exceeds the 150 thermal rating without a fan, an auxiliary cooling fan is required.

Step 6: Check Overhung and Thrust Loads - Since both shafts are coupling connected, overhung or thrust loads are not applied.

Step 7: Variable Speed Applications - Since this is a constant speed application, variable speed does not apply.

Step 8: Check Dimensions - Refer to the specifications/ dimensions page G3-29 for DODGE MAXUM size 7 reducers. The part number for the reducer is **299140** and for the auxiliary cooling fan is **299523**. The exact ratio of the reducer is given in Table 25, page G3-72 and is 7.527:1.

TORQUE METHOD

Running 10 hours a day, a scum breaker for a sewage disposal system requires 51,350 lb-in of torque at 230 rpm and has an overhung load of 6,710 pounds on the low speed shaft. The overhung load is located 4inches out from the reducer on the usable shaft extension. The motor speed is 1170 rpm and is coupling connected.

Step 1: Determine Service Factor - From Table 2, Service Factors, locate “Sewage Disposal - Scum Breakers” and under the column headed “3-10 Hrs/Day Service” locate the service factor which is 1.50.

Step 2: Calculate Equivalent Torque - Multiply the system torque of 51,350 by the service factor of 1.50 (51,350 x 1.50 = 77,025) to get 77,025 lb-in equivalent torque.

Step 3: Calculate Required Ratio - Divide the high speed shaft rpm by the low speed shaft rpm (1170 / 230 = 5.09) to get the required ratio of 5.09:1.

Step 4: Determine Unit Size and Ratio - Locate the torque table for 1170 high speed shaft rpm (Table 14, G3-58). Trace down the ratio column to the closest nominal ratio to the 5.09:1 required ratio and find 5.06:1 ratio. Trace to the right until the torque equals or exceeds the calculated equivalent torque of 77,025 and find 77,700 listed under a MAXUM size 7 reducer.

Step 5: Check Thermal Ratings - Because the 77,700 mechanical rating falls in the shaded area, the thermal ratings must be checked. First, convert the required torque without service factor (51,350) to horsepower at 230 rpm as follows:

$$\text{Horsepower} = \frac{510350 \times 230}{63025} = 187 \text{ hp}$$

Locate the table for the thermal horsepower ratings at 1170 high speed shaft rpm and find the MAXUM size 7 reducer with a 5.06 ratio. Since the 187 calculated horsepower exceeds the thermal rating shown without a fan, an auxiliary cooling fan is required.

Step 6: Check Overhung and Thrust Loads - An overhung load of 6,710 pounds is on the low speed shaft. It must first be adjusted for it’s position on the shaft. Turn to Table 22, page G3-69 load location factors for low speed shafts and locate the 4 inch distance in the left hand column. Under the MAXUM 7 column find the load location factor of 1.06. Multiply the 6,710 overhung load by this factor (6,710 x 1.06 = 7,113) to get an equivalent overhung load of 7,113 pounds. Now turn to the output shaft overhung load Table 24, page G3-72 and locate 230 low speed shaft rpm in the left column. Trace right to the MAXUM size 7 reducer and find the overhung load capacity of 7,480 pounds. Since the capacity exceeds the equivalent overhung load, the selection is acceptable.

Step 7: Variable Speed Applications - Since this is a constant speed application, variable speed does not apply.

Step 8: Check Dimensions - Refer to the specifications/ dimensions page G3-27 for DODGE MAXUM size 7 reducers. The part number for the reducer is 299138 and for the auxiliary cooling fan is 299523. The exact ratio of the reducer is given in Table 24, page G3-72 and is 5.065:1.

THRUST AND OVERHUNG LOADS - HOW TO CALCULATE

Thrust Loads as defined here are external axial forces applied to the input or output shafts. They may exist in applications such as agitators, mixers and similar equipment. Calculate the direction and magnitude of the thrust load, determine the direction of shaft rotation and consult DODGE.

Overhung Loads as defined here are external radial forces applied to the input or output shafts. They may occur in any angular position and at any distance out on the shaft from the reducer. Overhung loads may be calculated by the use of the following formula:

$$\text{OHL} = \frac{126{,}000 \times \text{hp} \times \text{Fc} \times \text{Lf}}{\text{PD} \times \text{rpm}}$$

Where:
- OHL = Overhung Load (lbs.).
- hp = Horsepower.
- Fc = Load Connection Factor. (See Table 13, page G3-57)
- Lf = Load Location Factor. (See Table 23 for High Speed Shafts) (See Table 24 for Low Speed Shafts)
- PD = Pitch Diameter of the Item Mounted on the Shaft (inches).
- rpm = Speed of Shaft with Overhung Load on it in Revolutions Per Minute. (Interpolate for shaft speeds not listed)

Use the above formula to calculate the overhung load on the shaft. Compare the calculated OHL results with the values published for the reducer shaft and condition. If the calculated OHL results exceed the published values, consult DODGE or consider a larger size reducer.

Location of Load Centerline - To minimize the affects of overhung loads and to increase bearing life, the centerline of the overhung load should always be located as close to the reducer oil seal as possible. For many applications the unit will accommodate more overhung load than is published. Overhung load ratings have been established for the most unfavorable combination of conditions that will be encountered.



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Overhung Loads - Examples

High Speed Shaft Example - A MAXUM size 4 reducer with a 47.08:1 ratio is driven by a 1750 rpm 71/2 hp electric motor through a set of V-Belts at 870 rpm of the high speed shaft. The V-Belt drive consists of a 4.0" PD driver (2A3.6B4.0-1610) and a 8.6" PD driven sheave (2A8.2B8.6-2517). The driven sheave is mounted as close to the reducer oil seal as possible while allowing 1/4" for a guard thereby making the centerline of the belt pull 1.125" out from the reducer on the high speed shaft.

High Speed Shaft Calculation - Using the OHL equation previously given and substituting for the values as follows:

hp	=	7.5 (Motor Horsepower)
Fc	=	1.5 (From Table 13 for V-Belts)
Lf	=	0.975 (From Table 23 for MAXUM size 4 at 1.125,)
PD	=	8.6 (Driven sheave pitch diameter)
rpm	=	870 (High speed shaft rpm)

$$OHL = \frac{126{,}000 \times 7.5 \times 1.5 \times 0.975}{8.6 \times 870} = 185 \text{ pounds}$$

Turn to Table 23, High Speed Shaft Overhung Load, and in the left hand column locate 870 rpm and in the ratio column locate the 47.08 ratio. Trace right to the MAXUM size 4 and note that the High Speed Shaft Overhung Load capacity is 540 pounds. Since the 540 pound capacity exceeds the calculated overhung load of 185 pounds, the overhung load capacity is acceptable.

Low Speed Shaft Example - A MAXUM size 6 reducer is used to drive a uniformly loaded belt conveyor 24 hours per day. The reducer is driven by a 50 hp, 1750 rpm, electric motor coupled to the high speed shaft. The low speed shaft is rotating at 83.6 rpm and has a 160BTL26-3535 single strand sprocket with an oil tight chain casing mounted on it. The sprocket has a pitch diameter of 16.592 inches and the centerline of the teeth is located 4 inches out on the shaft.

Low Speed Calculation - Using the OHL equation previously given and substituting for the values as follows:

hp	=	50.0 (Motor Horsepower)
Fc	=	1.0 (From Table 13 for Sprockets)
Lf	=	1.11 (From Table 22 for MAXUM size 6 at 4,)
PD	=	16.592 (Driving sprocket pitch diameter)
rpm	=	83.6 (Low speed shaft rpm)

$$OHL = \frac{126{,}000 \times 50.0 \times 1.0 \times 1.11}{16{,}592 \times 83.6} = 5041 \text{ pounds}$$

Turn to Table 24, page G3-72, Low Speed Shaft Overhung Load, and in the left hand column locate the low speed shaft speed of 83.6 rpm. Trace right to the MAXUM size 6 and note that the low speed shaft overhung load capacity is 8250 pounds. Since the 8025 pound capacity exceeds the calculated overhung load of 5041 pounds, the overhung load capacity is acceptable.

Table 13: Load Connection Factors - Fc

Drive Type	Fc
Roller Chain Sprocket	1.0
Machined Pinion or Gear	1.25
Synchronous Belt	1.3
V-Belt	1.5
V-Ribbed Belt	1.7
Flat Belt	2.5

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Table 14: 1750, 1450 RPM Input - Input Horsepower Ratings

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	Rating Data @ 1.0 Service Factor for MAXUM unit size of:							
				4	5	6	7	9	10	11	12
1750	2.25	777.8	DOUBLE	127	183	248					
	2.75	636.4		122	165	224					
	3.37	519.3		109	147	199					
	4.13	423.7		123	184	221					
	5.06	345.8		111	165	197	402	506	789	1111	1602
	6.20	282.3		97.3	146	174	345	468	699	1000	1428
	7.59	230.6		86.0	127	153	323	417	613	884	1284
	9.30	188.2		75.8	111	135	270	367	538	790	1105
	11.39	153.6		66.2	95.4	119	230	325	477	690	964
	13.95	125.4		58.4	78.3	102	190	283	418	604	814
	17.09	102.4		51.0	63.9	91.4	156	247	370	531	696
	20.93	83.6		43.1	53.0	79.7	132	216	319	458	596
	25.63	68.3		34.7	43.5	71.0	108	189	277	375	493
	31.39	55.8	TRIPLE	30.1	35.2	57.4	87.5	163	233	301	403
	38.44	45.5		25.1	30.9	50.0	76.8	138	204	272	346
	47.08	37.2		21.0	26.8	43.6	65.0	114	173	228	291
	57.67	30.4		17.6	22.3	36.2	54.9	94.2	141	189	242
	70.62	24.8		14.1	18.3	30.8	45.8	78.2	116	158	198
	86.50	20.2		11.8	14.6	25.1	37.7	63.9	100	131	164
	105.90	16.5		9.90	11.9	20.0	31.8	52.7	81.7	108	134
	129.70	13.5		8.21	9.7	16.9	26.5	43.7	67.2	90.3	112
	158.90	11.0		6.84	8.05	13.8	21.5	36.3	56.1	75.1	93.1
	194.60	9.0		5.38	6.60	11.6	17.9	30.1	46.1	62.5	75.7
1450	2.25	644.4	DOUBLE	106	154	218					
	2.75	527.3		103	138	196					
	3.37	430.3		92.2	124	175					
	4.13	351.1		106	161	194					
	5.06	286.6		96.9	144	173	349	427	692	974	1404
	6.20	233.9		85.3	128	153	300	399	613	877	1252
	7.59	191.0		75.4	112	134	275	365	538	775	1126
	9.30	155.9		66.4	96.7	119	231	322	471	693	961
	11.39	127.3		58.1	80.9	104	195	285	418	605	830
	13.95	103.9		51.2	66.3	89.6	162	248	366	529	700
	17.09	84.8		43.2	54.2	80.1	132	216	325	466	601
	20.93	69.3		36.4	44.9	69.9	112	189	280	389	506
	25.63	56.6		29.3	36.9	62.2	92.0	163	242	324	416
	31.39	46.2	TRIPLE	25.2	30.9	50.3	76.7	142	205	263	354
	38.44	37.7		21.2	27.1	42.8	67.3	116	172	230	291
	47.08	30.8		17.6	22.5	36.7	54.8	95.5	146	193	245
	57.67	25.1		14.8	18.7	30.5	46.2	79.0	119	159	203
	70.62	20.5		11.8	15.3	25.9	38.5	65.5	98.0	133	166
	86.50	16.8		9.94	12.3	21.0	31.8	53.5	84.3	110	137
	105.90	13.7		8.31	9.97	16.8	26.7	44.1	68.7	90.9	112
	129.70	11.2		6.89	8.14	14.2	22.2	36.5	56.5	76.0	94.0
	158.90	9.1		5.75	6.75	11.6	18.0	30.4	47.2	63.0	77.9
	194.60	7.5		4.51	5.54	9.70	15.0	25.1	38.7	52.5	63.3

Mechanical HP ratings shown in shaded areas exceed the unit thermal HP ratings.

Refer to Thermal HP Table 20, page G3-66.

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Table 15: 1750, 1450 RPM Input - Output Torque Ratings (In. - Lb.)

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	Rating Data @ 1.0 Service Factor for MAXUM unit size of (multiply value shown by 1000):							
				4	5	6	7	9	10	11	12
1750	2.25	777.8	DOUBLE	9.81	14.3	19.5					
	2.75	636.4		11.3	15.7	21.5					
	3.37	519.3		12.5	17.0	23.4					
	4.13	423.7		17.5	26.2	31.6					
	5.06	345.8		19.0	28.5	34.3	70.4	89.3	135	196	282
	6.20	282.3		20.7	30.7	37.2	73.1	99.5	148	212	307
	7.59	230.6		22.6	33.1	40.5	84.1	108	161	231	332
	9.30	188.2		24.3	35.4	43.4	86.0	117	175	248	356
	11.39	153.6		26.2	37.5	46.6	89.1	126	187	269	377
	13.95	125.4		28.1	37.9	50.4	91.6	136	201	290	394
	17.09	102.4		30.0	37.9	53.3	94.3	146	214	310	407
	20.93	83.6		30.6	37.9	57.0	96.3	157	231	330	425
	25.63	68.3		31.4	37.9	60.5	95.6	167	248	328	436
	31.39	55.8	Triple	32.1	37.4	62.3	90.4	169	250	319	427
	38.44	45.5		32.5	40.5	68.0	98.5	178	268	355	453
	47.08	37.2		33.3	43.0	70.1	105	181	273	362	460
	57.67	30.4		33.7	43.0	71.4	107	184	279	370	467
	70.62	24.8		34.3	43.0	72.4	108	186	285	377	474
	86.50	20.2		34.8	43.0	73.2	110	188	289	384	480
	105.90	16.5		35.3	43.0	73.2	112	190	294	391	486
	129.70	13.5		35.9	43.0	73.2	114	192	300	397	491
	158.90	11.0		36.2	43.0	73.2	116	194	304	405	496
	194.60	9.0		36.2	43.0	73.2	117	196	309	410	502
1450	2.25	644.4	DOUBLE	9.81	14.5	20.7					
	2.75	527.3		11.5	15.9	22.7					
	3.37	430.3		12.8	17.2	24.7					
	4.13	351.1		18.2	27.7	33.5					
	5.06	286.6		20.1	30.1	36.3	73.8	90.9	143	208	298
	6.20	233.9		21.9	32.5	39.3	76.5	103	156	225	325
	7.59	191.0		23.9	35.1	42.9	86.5	114	170	244	351
	9.30	155.9		25.7	37.4	45.9	89.0	124	185	262	374
	11.39	127.3		27.8	38.4	49.3	91.3	133	198	285	392
	13.95	103.9		29.7	38.8	53.3	93.8	144	213	307	409
	17.09	84.8		30.6	38.8	56.4	96.4	155	227	328	424
	20.93	69.3		31.2	38.8	60.3	98.4	166	245	338	435
	25.63	56.6		32.0	38.8	64.1	98.6	174	262	342	444
	31.39	46.2	Triple	32.5	39.6	65.9	95.7	178	265	337	451
	38.44	37.7		33.1	42.8	70.2	104	181	273	362	460
	47.08	30.8		33.7	43.6	71.3	107	183	278	369	467
	57.67	25.1		34.2	43.6	72.5	108	186	284	376	473
	70.62	20.5		34.8	43.6	73.6	110	188	289	383	480
	86.50	16.8		35.3	43.6	74.2	112	190	294	390	486
	105.90	13.7		35.8	43.6	74.2	114	192	299	397	491
	129.70	11.2		36.3	43.6	74.2	115	194	304	403	496
	158.90	9.1		36.7	43.6	74.2	117	196	308	410	501
	194.60	7.5		36.7	43.6	74.2	119	197	313	416	506

Torque ratings shown in shaded areas exceed the unit thermal HP ratings.

Convert torque (without service factor) to HP per the formula given on page G3-56.
Refer to Thermal HP Table 20, page G3-66.

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Table 16: 1170, 870, 720 RPM Input - Input Horsepower Ratings

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	Rating Data @ 1.0 Service Factor for MAXUM unit size of:							
				4	5	6	7	9	10	11	12
1170	2.25	520.0	DOUBLE	85.2	126	182					
	2.75	425.5		84.7	113	163					
	3.37	347.2		75.5	101	144					
	4.13	283.3		85.2	139	167					
	5.06	231.2		83.4	124	149	297	351	595	838	1209
	6.20	188.7		73.4	110	131	255	329	527	755	1077
	7.59	154.2		64.8	96.1	115	229	304	463	667	969
	9.30	125.8		57.1	80.1	102	192	276	406	596	816
	11.39	102.7		50.0	66.9	89.4	162	245	360	520	699
	13.95	83.9		42.7	54.3	77.1	134	213	315	455	589
	17.09	68.5		35.6	44.4	68.9	109	186	279	387	499
	20.93	55.9		30.0	36.8	60.1	92.4	161	241	322	417
	25.63	45.6		24.1	30.2	52.5	76.8	135	200	270	342
	31.39	37.3	Triple	20.8	26.6	43.2	66.0	116	171	227	291
	38.44	30.4		17.4	22.4	35.2	55.5	95.2	142	189	239
	47.08	24.9		14.5	18.3	30.2	45.1	78.1	120	159	200
	57.67	20.3		12.1	15.2	25.0	38.0	64.5	97.8	131	166
	70.62	16.6		9.7	12.5	21.2	31.6	53.5	80.5	110	136
	86.50	13.5		8.15	9.97	17.1	26.0	43.6	69.3	90.5	112
	105.90	11.0		6.81	8.10	13.6	21.9	35.9	56.4	74.6	91.8
	129.70	9.0		5.64	6.61	11.5	18.2	29.7	46.3	62.3	76.7
	158.90	7.4		4.67	5.49	9.4	14.8	24.7	38.7	51.6	63.5
	194.60	6.0		3.67	4.5	7.88	12.3	20.4	31.7	43.1	51.6
870	2.25	386.7	DOUBLE	63.4	95.6	139					
	2.75	316.4		63.4	86.2	124					
	3.37	258.2		57.3	77.0	109					
	4.13	210.7		63.4	113	136					
	5.06	171.9		63.4	101	121	236	269	484	681	982
	6.20	140.3		59.4	89.6	107	203	252	429	613	875
	7.59	114.6		52.7	74.2	93.5	177	232	376	542	769
	9.30	93.5		46.4	61.6	82.9	148	211	330	484	643
	11.39	76.4		38.9	50.5	72.7	124	190	293	423	548
	13.95	62.4		32.7	41.0	62.7	103	173	256	354	453
	17.09	50.9		27.2	33.5	56.0	83.7	148	227	298	381
	20.93	41.6		22.9	27.8	47.2	70.7	123	186	247	318
	25.63	33.9		18.4	22.8	39.6	59.1	102	153	207	260
	31.39	27.7	Triple	15.8	20.7	33.0	51.6	88.2	131	175	221
	38.44	22.6		13.2	16.8	26.8	42.3	72.1	108	145	181
	47.08	18.5		11.0	13.7	23.0	34.3	59.1	91.5	121	152
	57.67	15.1		9.21	11.4	19.0	28.9	48.7	74.6	100	126
	70.62	12.3		7.36	9.32	15.9	24.1	40.4	61.3	83.6	103
	86.50	10.1		6.18	7.46	12.8	19.8	32.9	52.7	68.9	84.7
	105.90	8.2		5.16	6.06	10.2	16.6	27.1	42.9	56.8	69.2
	129.70	6.7		4.23	4.95	8.62	13.8	22.4	35.2	47.4	57.8
	158.90	5.5		3.49	4.11	7.03	11.2	18.6	29.4	39.2	47.8
	194.60	4.5		2.74	3.37	5.89	9.3	15.4	24.1	32.7	38.8

Mechanical HP ratings shown in shaded areas exceed the unit thermal HP ratings.

Refer to Thermal HP Table 20, page G3-66.



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Table 16: 1170, 870, 720 RPM Input - Input Horsepower Ratings (Continued)

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	Rating Data @ 1.0 Service Factor for MAXUM unit size of:							
				4	5	6	7	9	10	11	12
	2.25	320.0		52.4	80.2	116					
	2.75	261.8		52.4	72.3	104					
	3.37	213.6		48.1	64.6	91.6					
	4.13	174.3		52.4	95.4	119					
	5.06	142.3		52.4	85.9	106	204	226	424	597	861
	6.20	116.1		50.0	75.9	93.6	175	212	375	537	765
	7.59	94.9	DOUBLE	46.2	62.7	81.9	150	196	329	475	661
	9.30	77.4		39.6	52.0	72.6	125	178	289	424	550
	11.39	63.2		32.8	42.7	63.7	105	161	256	360	462
	13.95	51.6		27.5	34.6	54.9	86.7	151	224	300	381
	17.09	42.1		22.9	28.3	48.8	70.6	125	191	251	321
720	20.93	34.4		19.3	23.5	39.9	59.6	103	157	208	267
	25.63	28.1		15.4	19.2	33.4	49.7	85.8	129	175	218
	31.39	22.9		13.3	17.2	27.7	43.4	73.8	110	147	185
	38.44	18.7		11.1	14.0	22.5	35.6	60.3	91.0	122	152
	47.08	15.3		9.23	11.4	19.3	28.9	49.4	77.0	102	127
	57.67	12.5		7.73	9.46	15.8	24.3	40.7	62.7	84.0	105
	70.62	10.2	Triple	6.17	7.76	13.2	20.2	33.7	51.5	70.2	85.7
	86.50	8.3		5.18	6.22	10.7	16.6	27.4	44.2	57.8	70.8
	105.90	6.8		4.31	5.05	8.5	13.9	22.6	35.9	47.6	57.8
	129.70	5.6		3.52	4.12	7.18	11.6	18.7	29.5	39.7	48.2
	158.90	4.5		2.91	3.42	5.86	9.38	15.5	24.6	32.9	39.9
	194.60	3.7		2.29	2.80	4.91	7.76	12.8	20.2	27.4	32.3

Mechanical HP ratings shown in shaded areas exceed the unit thermal HP ratings.

Refer to Thermal HP Table 20, page G3-66.

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Table 17: 1170, 870, 720 RPM Input - Output Torque Ratings (In. - Lb.)

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	Rating Data @ 1.0 Service Factor for MAXUM unit size of (multiply value shown by 1000):							
				4	5	6	7	9	10	11	12
1170	2.25	520.0	DOUBLE	9.81	14.7	21.4					
	2.75	425.5		11.7	16.1	23.3					
	3.37	347.2		13.0	17.5	25.2					
	4.13	283.3		18.2	29.5	35.7					
	5.06	231.2		21.4	32.1	38.7	77.7	92.8	153	221	318
	6.20	188.7		23.4	34.7	41.9	80.5	105	167	239	347
	7.59	154.2		25.5	37.4	45.7	89.1	118	182	261	374
	9.30	125.8		27.4	38.4	49.0	91.5	131	197	280	394
	11.39	102.7		29.6	39.3	52.6	93.8	142	211	304	409
	13.95	83.9		30.7	39.3	56.8	96.2	153	227	327	426
	17.09	68.5		31.3	39.3	60.1	98.7	165	242	338	436
	20.93	55.9		31.9	39.3	64.3	101	175	261	347	444
	25.63	45.6		32.6	39.3	66.9	102	178	268	354	453
	31.39	37.3	Triple	33.2	42.3	70.2	102	181	273	360	460
	38.44	30.4		33.7	43.9	71.6	106	184	279	370	468
	47.08	24.9		34.3	43.9	72.6	109	186	284	377	474
	57.67	20.3		34.8	43.9	73.8	110	188	289	384	480
	70.62	16.6		35.4	43.9	74.7	112	190	295	390	486
	86.5	13.5		35.9	43.9	74.7	114	192	299	397	491
	105.9	11.0		36.4	43.9	74.7	116	194	304	404	497
	129.7	9.0		36.9	43.9	74.7	117	196	309	410	501
	158.9	7.4		36.9	43.9	74.7	119	197	313	416	506
	194.6	6.0		36.9	43.9	74.7	121	199	318	422	511
870	2.25	386.7	DOUBLE	9.81	15.00	21.9					
	2.75	316.4		11.8	16.5	23.9					
	3.37	258.2		13.2	17.9	25.8					
	4.13	210.7		18.2	32.3	39.0					
	5.06	171.9		21.9	35.1	42.3	83.3	95.4	167	242	348
	6.20	140.3		25.4	37.8	45.8	86.2	108	182	262	379
	7.59	114.6		27.8	38.8	50.0	92.6	121	199	285	400
	9.30	93.5		30.0	39.8	53.5	94.9	135	215	306	417
	11.39	76.4		31.0	39.9	57.5	97.1	148	231	332	431
	13.95	62.4		31.6	39.9	62.1	99.4	168	248	342	440
	17.09	50.9		32.2	39.9	65.7	102	176	264	350	448
	20.93	41.6		32.8	39.9	67.9	104	180	270	358	456
	25.63	33.9		33.5	39.9	67.9	106	182	276	365	464
	31.39	27.7	Triple	34.0	44.2	72.0	107	184	281	373	470
	38.44	22.6		34.5	44.2	73.3	109	187	287	380	477
	47.08	18.5		35.0	44.2	74.3	111	189	291	387	483
	57.67	15.1		35.5	44.2	75.2	113	191	297	394	488
	70.62	12.3		36.2	44.2	75.2	115	193	302	400	494
	86.5	10.1		36.6	44.2	75.2	116	195	306	407	499
	105.9	8.2		37.1	44.2	75.2	118	197	311	413	504
	129.7	6.7		37.1	44.2	75.2	120	198	316	419	508
	158.9	5.5		37.1	44.2	75.2	121	200	320	425	512
	194.6	4.5		37.1	44.2	75.2	123	201	324	431	517

Torque ratings shown in shaded areas exceed the unit thermal HP ratings. Refer to Thermal HP Table 20, page G3-66

Convert torque (without service factor) to HP per the formula on page G3-56.



MAXUM Concentric Reducer

Table 17: 1170, 870, 720 RPM Input - Output Torque Ratings (In. - Lb.)

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	Rating Data @ 1.0 Service Factor for MAXUM unit size of (multiply value shown by 1000):							
				4	5	6	7	9	10	11	12
720	2.25	320.0	DOUBLE	9.81	15.3	22.2					
	2.75	261.8		11.80	16.7	24.2					
	3.37	213.6		13.4	18.1	26.1					
	4.13	174.3		18.2	33.0	41.3					
	5.06	142.3		21.9	36.1	44.8	86.9	97.1	177	256	368
	6.20	116.1		25.9	38.7	48.5	89.9	110	193	277	400
	7.59	94.9		29.4	39.7	52.9	94.8	123	210	302	415
	9.30	77.4		30.9	40.6	56.6	97.0	138	228	324	431
	11.39	63.2		31.6	40.8	60.9	99.1	151	244	342	439
	13.95	51.6		32.2	40.8	65.7	101	176	263	350	448
	17.09	42.1		32.8	40.8	69.2	104	180	269	357	456
	20.93	34.4		33.3	40.8	69.4	106	182	275	365	463
	25.63	28.1		34.0	40.8	69.4	107	185	281	372	470
	31.39	22.9	Triple	34.5	44.5	73.1	109	187	286	379	476
	38.44	18.7		35.0	44.5	74.4	111	189	291	387	483
	47.08	15.3		35.5	44.5	75.4	113	191	296	393	488
	57.67	12.5		36.0	44.5	75.7	115	193	301	400	493
	70.62	10.2		36.6	44.5	75.7	116	195	306	406	499
	86.5	8.3		37.1	44.5	75.7	118	196	310	413	503
	105.9	6.8		37.4	44.5	75.7	120	198	315	419	508
	129.7	5.6		37.4	44.5	75.7	121	200	320	425	512
	158.9	4.5		37.4	44.5	75.7	123	201	324	431	516
	194.6	3.7		37.4	44.5	75.7	124	202	328	436	521

Torque ratings shown in shaded areas exceed the unit thermal HP ratings. Refer to Thermal HP Table 20, page G3-66

Convert torque (without service factor) to HP per the formula on page G3-56.

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Table 18: 580, 100 RPM Input - Input Horsepower Ratings

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	Rating Data @ 1.0 Service Factor for MAXUM unit size of:							
				4	5	6	7	9	10	11	12
580	2.25	257.8	DOUBLE	42.2	65.6	95.2					
	2.75	210.9		42.2	59.2	85.0					
	3.37	172.1		39.3	52.9	75.0					
	4.13	140.4		42.2	78.1	102.0					
	5.06	114.6		42.2	70.3	90.9	172	186	358	513	739
	6.20	93.5		41.1	62.6	80.4	147	174	323	462	643
	7.59	76.4		38.5	51.7	70.4	124	161	283	408	553
	9.30	62.4		32.6	42.4	62.4	103	146	248	360	453
	11.39	50.9		27.0	34.6	54.7	86.6	132	220	297	380
	13.95	41.6		22.6	28.1	46.7	71.3	124	186	247	313
	17.09	33.9		18.8	22.9	39.7	58.0	102	158	207	263
	20.93	27.7		15.8	19.0	32.4	48.9	84.3	129	171	219
	25.63	22.6		12.6	15.6	27.1	40.8	70.0	106	144	179
	31.39	18.5	Triple	10.9	13.9	22.70	35.60	60.2	90.2	121	151
	38.44	15.1		9.1	11.3	18.4	29.2	49.1	74.7	100	124
	47.08	12.3		7.55	9.25	15.7	23.6	40.2	63.1	83.5	104
	57.67	10.1		6.32	7.67	12.8	19.9	33.1	51.3	68.8	85.8
	70.62	8.2		5.05	6.29	10.7	16.5	27.4	42.1	57.5	69.7
	86.5	6.7		4.23	5.04	8.64	13.6	22.3	36.2	47.3	57.5
	105.9	5.5		3.49	4.09	6.89	11.4	18.3	29.4	38.9	47
	129.7	4.5		2.85	3.34	5.82	9.47	15.2	24.1	32.5	39.2
	158.9	3.7		2.36	2.77	4.75	7.62	12.6	20.1	26.8	32.4
	194.6	3.0		1.85	2.27	3.98	6.29	10.4	16.5	22.4	26.3
100	2.25	44.4	DOUBLE	7.28	11.3	16.4					
	2.75	36.4		7.28	10.2	14.7					
	3.37	29.7		6.77	9.1	12.9					
	4.13	24.2		7.28	13.5	17.6					
	5.06	19.8		7.28	12.1	15.7	29.7	32.1	61.8	88.4	127.5
	6.20	16.1		7.09	10.8	13.9	25.4	30.1	55.6	79.6	110.9
	7.59	13.2		6.63	8.92	12.1	21.3	27.8	48.8	70.4	95.3
	9.30	10.8		5.63	7.31	10.8	17.8	25.2	42.8	62.1	78.0
	11.39	8.8		4.65	5.96	9.43	14.9	22.8	38.0	51.2	65.5
	13.95	7.2		3.90	4.84	8.06	12.3	21.4	32.0	42.6	53.9
	17.09	5.9		3.25	3.96	6.84	10.0	17.6	27.2	35.7	45.3
	20.93	4.8		2.72	3.28	5.58	8.44	14.5	22.2	29.6	37.7
	25.63	3.9		2.18	2.69	4.68	7.04	12.1	18.3	24.8	30.8
	31.39	3.2	Triple	1.88	2.40	3.92	6.13	10.4	15.6	20.8	26.1
	38.44	2.6		1.57	1.95	3.18	5.03	8.47	12.9	17.2	21.3
	47.08	2.1		1.30	1.59	2.71	4.07	6.93	10.9	14.4	17.8
	57.67	1.7		1.09	1.32	2.21	3.43	5.71	8.85	11.9	14.8
	70.62	1.4		.870	1.08	1.85	2.85	4.72	7.26	9.91	12.0
	86.50	1.2		.730	.869	1.49	2.34	3.84	6.24	8.16	9.9
	105.9	.9		.602	.706	1.19	1.97	3.16	5.07	6.71	8.1
	129.7	.8		.492	.576	1.00	1.63	2.61	4.15	5.60	6.75
	158.9	.6		.407	.478	.819	1.31	2.17	3.47	4.63	5.58
	194.6	.5		.319	.392	.686	1.09	1.79	2.84	3.86	4.53

Torque ratings shown in shaded areas exceed the unit thermal HP ratings. Refer to Thermal HP Table 20, page G3-66

Convert torque (without service factor) to HP per the formula on page G3-56.

MAXUM Concentric Reducer



Table 19: 580, 100 RPM Input - Output Torque Ratings (In. - Lb.)

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	Rating Data @ 1.0 Service Factor for MAXUM unit size of (multiply value shown by 1000):							
				4	5	6	7	9	10	11	12
580	2.25	257.8	DOUBLE	9.81	15.5	22.6					
	2.75	210.9		11.8	17.0	24.6					
	3.37	172.1		13.6	18.4	26.5					
	4.13	140.4		18.2	33.5	44.1					
	5.06	114.6		21.9	36.7	47.8	91.1	99.1	185	273	393
	6.20	93.5		26.4	39.7	51.8	94.1	112	206	296	417
	7.59	76.4		30.5	40.6	56.4	97.2	126	224	322	431
	9.30	62.4		31.6	41.0	60.4	99.3	141	243	341	440
	11.39	50.9		32.2	41.0	64.9	101	154	260	350	448
	13.95	41.6		32.8	41.0	69.5	104	180	270	358	457
	17.09	33.9		33.4	41.0	69.8	106	182	275	365	463
	20.93	27.7		33.9	41.0	69.8	108	185	281	373	470
	25.63	22.6		34.5	41.0	69.8	109	187	287	380	477
	31.39	18.5	Triple	35.1	44.7	74.4	111	189	292	387	483
	38.44	15.1		35.6	44.7	75.7	113	191	297	394	489
	47.08	12.3		36.1	44.7	76.2	115	193	301	400	494
	57.67	10.1		36.6	44.7	76.2	116	195	306	407	499
	70.62	8.2		37.2	44.7	76.2	118	196	311	413	504
	86.50	6.7		37.6	44.7	76.2	120	198	315	419	508
	105.9	5.5		37.6	44.7	76.2	121	200	320	425	513
	129.7	4.5		37.6	44.7	76.2	123	201	324	431	517
	158.9	3.7		37.6	44.7	76.2	124	203	328	437	521
	194.6	3.0		37.6	44.7	76.2	125	204	333	442	525
100	2.25	44.4	DOUBLE	9.81	15.5	22.6					
	2.75	36.4		11.8	17.0	24.6					
	3.37	29.7		13.6	18.4	26.5					
	4.13	24.2		18.2	33.5	44.1					
	5.06	19.8		21.9	36.7	47.8	91.1	99.1	185	273	393
	6.20	16.1		26.4	39.7	51.8	94.1	112	206	296	417
	7.59	13.2		30.5	40.6	56.4	97.2	126	224	322	431
	9.30	10.8		31.6	41.0	60.4	99.3	141	243	341	440
	11.39	8.8		32.2	41.0	64.9	101	154	260	350	448
	13.95	7.2		32.8	41.0	69.5	104	180	270	358	457
	17.09	5.9		33.4	41.0	69.8	106	182	275	365	463
	20.93	4.8		33.9	41.0	69.8	108	185	281	373	470
	25.63	3.9		34.5	41.0	69.8	109	187	287	380	477
	31.39	3.2	Triple	35.1	44.7	74.4	111	189	292	387	483
	38.44	2.6		35.6	44.7	75.7	113	191	297	394	489
	47.08	2.1		36.1	44.7	76.2	115	193	301	400	494
	57.67	1.7		36.6	44.7	76.2	116	195	306	407	499
	70.62	1.4		37.2	44.7	76.2	118	196	311	413	504
	86.50	1.2		37.6	44.7	76.2	120	198	315	419	508
	105.9	.9		37.6	44.7	76.2	121	200	320	425	513
	129.7	.8		37.6	44.7	76.2	123	201	324	431	517
	158.9	.6		37.6	44.7	76.2	124	203	328	437	521
	194.6	.5		37.6	44.7	76.2	125	204	333	442	525

Torque ratings shown in shaded areas exceed the unit thermal HP ratings

Convert torque (without service factor) to HP per the formula given on page G3-56.

Refer to Thermal HP Table 20, page G3-65.

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Table 20: Thermal Horsepower Ratings *

High Speed Shaft RPM	AGMA Nominal Ratio	Thermal Horsepower Ratings Without Fan †								Thermal Horsepower Ratings With Fan ‡							
		4	5	6	7	9	10	11	12	4	5	6	7	9	10	11	12
1750	2.25	55	55	44						-	155	185					
	2.75	62	66	72						-	-	211					
	3.37	67	74	89						-	-	-					
	4.13	51	57	61						116	138	170					
	5.06	53	61	71	143	72	0	0	0	-	137	174	285	373	299	362	256
	6.20	54	61	76	150	101	43	0	0	-	131	173	284	381	344	433	393
	7.59	54	61	81	150	121	90	69	39	-	-	-	273	385	376	473	500
	9.30	52	58	79	147	132	115	112	118	-	-	-	262	-	379	493	543
	11.39	48	55	76	140	137	126	140	158	-	-	-	-	-	368	489	548
	13.95	45	51	70	131	132	129	149	181	-	-	-	-	-	349	462	536
	17.09	41	46	64	121	126	127	151	189	-	-	-	-	-	326	436	513
	20.93	37	42	58	111	115	121	148	184	-	-	-	-	-	300	405	475
	25.63	-	39	54	100	106	110	137	179	-	-	-	-	-	268	364	445
	31.39	-	-	-	-	125	114	179	169	-	-	-	-	-	-	-	-
	38.44	-	-	-	-	111	106	161	157	-	-	-	-	-	-	-	-
	47.08	-	-	-	-	103	98	147	147	-	-	-	-	-	-	-	-
	57.67	-	-	-	-	-	90	133	135	-	-	-	-	-	-	-	-
	70.62	-	-	-	-	-	81	118	125	-	-	-	-	-	-	-	-
1450	2.25	68	72	77						-	-	204					
	2.75	72	80	95						-	-	-					
	3.37	72	82	105						-	-	-					
	4.13	56	66	78						-	136	174					
	5.06	57	66	82	159	120	60	30	0	-	132	-	280	388	352	440	406
	6.20	55	64	83	160	136	101	89	55	-	126	-	274	389	375	476	484
	7.59	55	63	84	155	144	128	131	135	-	-	-	261	-	384	493	545
	9.30	52	59	81	150	147	140	154	180	-	-	-	-	-	374	495	556
	11.39	47	55	76	142	146	142	166	199	-	-	-	-	-	358	478	547
	13.95	44	51	69	131	137	139	165	206	-	-	-	-	-	334	445	522
	17.09	41	46	64	121	129	132	160	204	-	-	-	-	-	309	413	493
	20.93	-	42	58	111	116	123	153	194	-	-	-	-	-	-	384	454
	25.63	-	-	53	-	106	111	139	185	-	-	-	-	-	-	-	-
	31.39	-	-	-	-	124	119	191	183	-	-		-	-	-	-	-
	38.44	-	-	-	-	113	111	172	170	-	-		-	-	-	-	-
	47.08	-	-	-	-	-	103	156	159	-	-		-	-	-	-	-
	57.67	-	-	-	-	-	95	142	146	-	-		-	-	-	-	-
	70.62	-	-	-	-	-	85	126	136	-	-			-	-	-	-
1170	2.25	77	84	104						-		169					
	2.75	77	88	113						-		-					
	3.37	75	87	115						-		-					
	4.13	60	69	88						-	104	136					
	5.06	58	68	89	168	155	123	122	101	-	101	135	219	316	295	373	371
	6.20	55	65	87	165	160	144	153	157	-	96	130	212	310	306	390	409
	7.59	54	63	85	158	160	154	172	203	-	91	-	202	299	304	392	442
	9.30	51	59	81	150	155	154	182	221	-	-	-	191	-	292	389	442
	11.39	46	55	75	142	150	151	182	226	-	-	-	-	-	278	372	430
	13.95	-	51	68	130	138	143	172	220	-	-	-	-	-	258	342	406
	17.09	-	-	62	-	129	142	165	212	-	-	-	-	-	254	320	383
	20.93	-	-	56	-	116	123	155	198	-	-	-	-	-	217	296	352
	25.63	-	-	52	-	106	111	139	187	-	-	-	-	-	193	264	328
	31.39	-	-	-	-	-	122	195	192	-	-	-	-	-	-	-	-
	38.44	-	-	-	-	-	113	175	178	-	-	-	-	-	-	-	-
	47.08	-	-	-	-	-	110	-	167	-	-	-	-	-	-	-	-
	57.67	-	-	-	-	-	96	-	154	-	-	-	-	-	-	-	-

* Actual horsepower, without service factor, that reducer will transmit continuously without overheating.

† Values shown are horsepower ratings when thermal HP is less than mechanical HP.

\- No values listed if thermal HP is equal to or greater than mechanical HP.

‡ For thermal capacities beyond the range of cooling fans, refer to heat exchanger page G3-38 or consult DODGE.



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Table 20: Thermal Horsepower Ratings (Continued)

High Speed Shaft RPM	AGMA Nominal Ratio	Thermal Horsepower Ratings Without Fan †								Thermal Horsepower Ratings With Fan							
		4	5	6	7	9	10	11	12	4	5	6	7	9	10	11	12
870	2.25	-	92	121						-	-	-					
	2.75	-	-	123						-	-	-					
	3.37	-	-	-						-		-					
	4.13	61	71	94						-	104	-					
	5.06	57	67	91	169	180	166	189	211	-	99	-	217	-	330	426	465
	6.2	54	64	87	163	176	170	198	231	-	-	-	-	-	323	421	467
	7.59	52	61	84	155	169	169	199	248	-	-	-	-	-	310	406	475
	9.3	-	57	79	146	159	162	197	247	-	-	-	-	-	292	392	456
	11.39	-	-	-	-	150	154	189	240	-	-	-	-	-	273	367	434
	13.95	-	-	-	-	134	142	175	227	-	-	-	-	-	250	336	403
	17.09	-	-	-	-	125	131	165	215	-	-	-	-	-	-	-	377
	20.93	-	-	-	-	113	121	153	197	-	-	-	-	-	-	-	-
	25.63	-	-	-	-	-	108	136	189	-	-	-	-	-	-	-	-
	31.39	-	-	-	-	-	122	-	195	-	-	-	-	-	-	-	-
720	2.25	-	-	-						-	-	-					
	2.75	-	-	-						-	-	-					
	3.37	-	-	-						-	-	-					
	4.13	-	70	93						-	-	-					
	5.06	-	67	90	167	186	177	209	246	-	-	-	-	-	334	436	488
	6.2	-	63	90	160	180	176	210	251	-	-	-	-	-	322	424	477
	7.59	-	60	-	-	170	170	206	259	-	-	-	-	-	306	405	476
	9.3	-	-	-	-	158	160	199	252	-	-	-	-	-	284	386	452
	11.39	-	-	-	-	148	150	189	241	-	-	-	-	-	-	-	428
	13.95	-	-	-	-	131	139	180	226	-	-	-	-	-	-	-	-
	17.09	-	-	-	-	122	129	163	212	-	-	-	-	-	-	-	-
	20.93	-	-	-	-	-	118	150	194	-	-	-	-	-	-	-	-
	25.63		-	-	-	-	105	133	180	-	-	-	-	-	-	-	-
580	2.25	-	-	-	-	-				-	-	-					
	2.75	-	-	-	-	-				-	-	-					
	3.37	-	-	-	-	-				-	-	-					
	4.13	-	-	-	-	-				-	-	-					
	5.06	-	-	-	161	-	183	217	264	-	-	-	-	-	-	-	-
	6.2	-	-	-	-	-	176	214	262	-	-	-	-	-	-	-	-
	7.59	-	-	-	-	-	167	204	263	-	-	-	-	-	-	-	-
	9.3	-	-	-	-	-	156	196	251	-	-	-	-	-	-	-	-
	11.39	-	-	-	-	-	145	185	238	-	-	-	-	-	-	-	-
	13.95	-	-	-	-	-	134	170	221	-	-	-	-	-	-	-	-
	17.09	-	-	-	-	-	124	158	206	-	-	-	-	-	-	-	-
	20.93	-	-	-	-	-	113	145	187	-	-	-	-	-	-	-	-
	25.63	-	-	-	-	-	101	128	174	-	-	-	-	-	-	-	-

* Actual horsepower, without service factor, that reducer will transmit continuously without overheating.

† Values shown are horsepower ratings when thermal HP is less than mechanical HP.

- No values listed if thermal HP is equal to or greater than mechanical HP.

‡ For thermal capacities beyond the range of cooling fans, refer to heat exchanger page G3-38 or consult DODGE.

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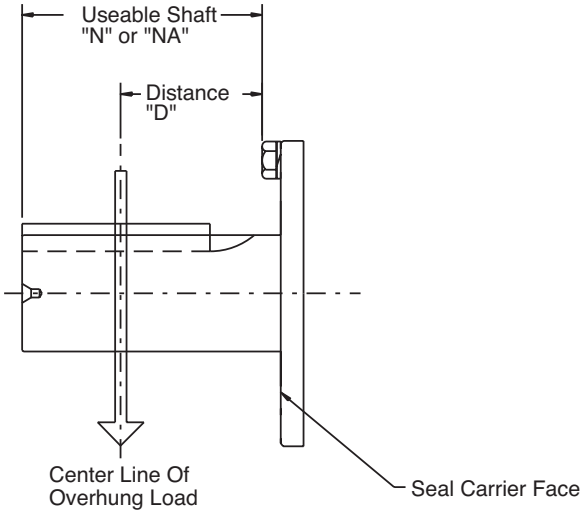
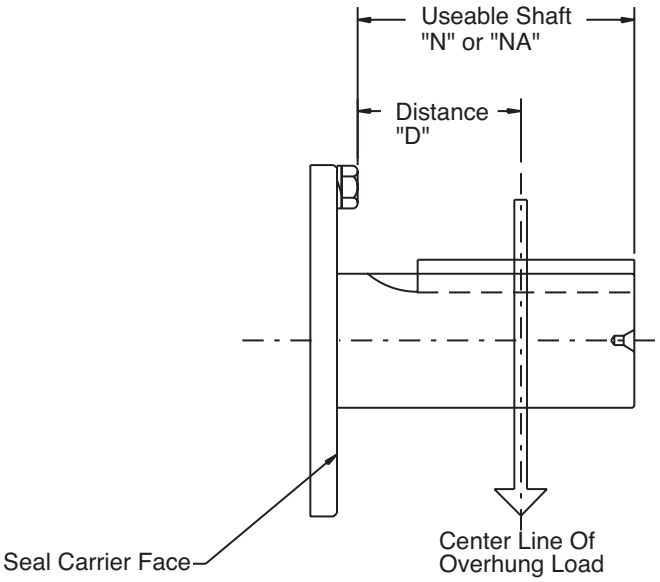


Table 21: Load Location Factors for High Speed Shafts

Distance In Inches	MAXUM Reducer Size								
	4	5		6		7		9	
	DCR4								
	TCR4	DCR5	TCR5	DCR6	TCR6	DCR7	TCR7	DCR9	TCR9
1.00	0.96	0.93	0.96	0.93	0.95	0.92	0.92	0.91	0.91
1.25	0.99	0.95	1.00	0.95	0.98	0.94	0.95	0.93	0.93
1.50	1.06	0.97	1.08	0.98	1.04	0.95	0.97	0.94	0.95
1.75	1.14	1.00	1.16	1.00	1.12	0.97	0.99	0.95	0.97
2.00	1.23	1.07	1.24	1.07	1.20	0.99	1.03	0.97	0.99
2.25	1.31	1.13	1.31	1.13	1.28	1.01	1.09	0.98	1.03
2.50	1.40	1.20	1.39	1.20	1.35	1.06	1.14	1.00	1.07
2.75	1.49	1.27	1.47	1.27	1.43	1.12	1.20	1.03	1.12
3.00	1.57	1.34	1.55	1.34	1.51	1.18	1.25	1.08	1.17
3.50	1.74	1.48	1.71	1.48	1.66	1.29	1.36	1.17	1.26
4.00		1.62		1.62		1.40	1.47	1.26	1.36
4.50		1.75		1.75		1.51		1.35	1.45
5.00						1.63		1.45	
5.50						1.74		1.54	
6.00								1.63	
6.50								1.72	

Distance In Inches	10		11		12	
	DCR10	TCR10	DCR11	TCR11	DCR12	TCR12
1.00	0.89	0.87	0.87	0.88	0.87	0.90
1.25	0.90	0.89	0.88	0.90	0.88	0.91
1.50	0.92	0.91	0.89	0.92	0.89	0.93
1.75	0.93	0.93	0.91	0.93	0.90	0.95
2.00	0.94	0.94	0.92	0.95	0.92	0.97
2.25	0.96	0.96	0.93	0.97	0.93	0.99
2.50	0.97	0.98	0.94	0.99	0.94	1.02
2.75	0.98	1.00	0.95	1.01	0.95	1.07
3.00	1.00	1.04	0.96	1.05	0.96	1.11
3.50	1.07	1.12	0.99	1.14	0.99	1.20
4.00	1.16	1.21	1.04	1.22	1.04	1.29
4.50	1.25	1.29	1.11	1.31	1.11	1.38
5.00	1.34	1.38	1.18	1.39	1.18	1.47
5.50	1.43		1.25		1.25	
6.00	1.52		1.32		1.32	
6.50	1.60		1.39		1.39	

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$$OHL = \frac{126{,}000 \times hp \times Fc \times Lf}{PD \times rpm}$$

Where: OHL = Overhung Load
hp = Horsepower
Fc = Load Connection Factor
(See Table 13, page G3-59)
Lf = Load Location Factor
(See Table 21 for High Speed Shafts)
(See Table 22 for Low Speed Shafts)
PD = Pitch Diameter of the Item mounted on the Shaft
rpm = Speed of Shaft with Overhung Load on it in Revolutions Per Minute
(Interpolate for shaft speeds not listed)

Table 22: Load Location Factors For Low Speed Shafts

Distance In Inches	MAXUM Reducer Size							
	4	5	6	7	9	10	11	12
1.00	0.83	0.85	0.79	0.79	0.76	0.73	0.72	0.70
1.25	0.86	0.88	0.82	0.81	0.78	0.74	0.74	0.72
1.50	0.88	0.90	0.84	0.83	0.79	0.76	0.75	0.73
1.75	0.91	0.93	0.86	0.85	0.81	0.77	0.77	0.74
2.00	0.94	0.95	0.88	0.87	0.83	0.79	0.78	0.76
2.25	0.97	0.98	0.90	0.89	0.84	0.80	0.80	0.77
2.50	1.00	1.01	0.93	0.91	0.86	0.82	0.81	0.79
2.75	1.05	1.05	0.95	0.93	0.87	0.83	0.82	0.80
3.00	1.10	1.10	0.97	0.95	0.89	0.85	0.84	0.81
3.50	1.21	1.19	1.03	0.99	0.92	0.88	0.87	0.84
4.00	1.32	1.28	1.11	1.06	0.95	0.91	0.90	0.87
4.50	1.42	1.37	1.20	1.14	0.99	0.94	0.92	0.90
5.00	1.53	1.46	1.28	1.22	1.03	0.97	0.95	0.93
5.50	1.64	1.55	1.37	1.30	1.09	1.00	0.98	0.95
6.00	1.74	1.64	1.45	1.38	1.14	1.06	1.02	0.98
6.50		1.74	1.54	1.45	1.20	1.11	1.07	1.02
7.00		1.83	1.62	1.53	1.25	1.17	1.12	1.07
7.50			1.71	1.61	1.31	1.23	1.17	1.12
8.00				1.69	1.36	1.28	1.22	1.16
8.50					1.42	1.34	1.27	1.21
9.00					1.48	1.39	1.32	1.26
9.50					1.53	1.45	1.37	1.31
10.00					1.59	1.50	1.42	1.36
10.50					1.64	1.56	1.47	1.41
11.00					1.70	1.61	1.52	1.46
11.50							1.57	1.51
12.00								1.56



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Table 23: High Speed Shaft Overhung Loads

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	High Speed Shaft Overhung Load (pounds) for MAXUM Reducer Size.							
				4	5	6	7	9	10	11	12
1450	5.06	286.6	DOUBLE	270	1080	960	1400	30	1750	2000	600
	6.2	233.9		420	1080	1000	1400	30	1750	2000	640
	7.59	191		660	1080	1250	1400	100	1750	2000	1930
	9.3	155.9		700	1080	1250	1400	400	1750	2000	2000
	11.39	127.3		810	1080	1250	1400	550	1750	2000	2000
	13.95	103.9		770	1080	1250	1400	1750	1750	1900	2000
	17.09	84.8		800	1080	1190	1400	1750	1750	1590	2000
	20.93	69.3		850	1080	1040	1400	1750	1750	1750	2000
	25.63	56.6		0	1000	1250	670	1500	1750	2000	2000
	31.39	46.2	TRIPLE	150	0	80	280	1000	1200	1200	0
	38.44	37.7		310	190	410	670	1180	1200	1200	1200
	47.08	30.8		420	370	600	900	1180	1200	1200	1200
	57.67	25.1		500	490	760	900	1180	1200	1200	1200
	70.62	20.5		540	580	800	900	1180	1200	1200	1200
	86.5	16.8		270	160	280	600	800	900	1080	1000
	105.9	13.7		270	290	470	600	800	900	1080	1180
	129.7	11.2		270	290	470	600	800	900	1080	1180
	158.9	9.1		270	290	470	250	270	0	400	1180
	194.6	7.5		270	290	470	420	550	520	900	1180
1170	5.06	231.2	DOUBLE	90	1080	1020	1400	30	1750	2000	640
	6.2	188.7		250	1080	1070	1400	30	1750	2000	690
	7.59	154.2		530	1080	1250	1400	30	1750	2000	2000
	9.3	125.8		590	1080	1250	1400	30	1750	2000	2000
	11.39	102.7		870	1080	1250	1400	200	1750	2000	2000
	13.95	83.9		900	1080	1250	1400	1750	1750	2000	2000
	17.09	68.5		900	1080	1250	1400	1750	1750	2000	2000
	20.93	55.9		900	1080	1110	1400	1750	1750	2000	2000
	25.63	45.6		0	950	1250	650	1500	1750	2000	2000
	31.39	37.3	TRIPLE	210	0	90	300	1180	1200	1200	420
	38.44	30.4		360	260	510	820	1180	1200	1200	1200
	47.08	24.9		480	440	690	900	1180	1200	1200	1200
	57.67	20.3		540	550	800	900	1180	1200	1200	1200
	70.62	16.6		540	600	800	900	1180	1200	1200	1200
	86.5	13.5		270	260	420	600	800	900	1080	1000
	105.9	11		270	290	470	600	800	900	1080	1180
	129.7	9		270	290	470	600	800	900	1080	1180
	158.9	7.4		270	290	470	250	270	0	370	1180
	194.6	6		270	290	470	420	520	500	850	1180
870	5.06	171.9	DOUBLE	80	1080	1110	1400	50	1200	2000	700
	6.2	140.3		20	1080	1170	1400	50	1750	2000	750
	7.59	114.6		320	1080	1250	1400	50	1750	2000	2000
	9.3	93.5		410	1080	1250	1400	50	1750	2000	2000
	11.39	76.4		900	1080	1250	1400	50	1750	2000	2000
	13.95	62.4		900	1080	1250	1400	1750	1750	2000	2000
	17.09	50.9		900	1080	1250	1400	1750	1750	2000	2000
	20.93	41.6		900	1080	1250	1400	1750	1750	2000	2000
	25.63	33.9		0	900	1250	650	1400	1750	2000	2000
	31.39	27.7	TRIPLE	300	80	280	490	1180	1200	1200	1070
	38.44	22.6		450	370	640	900	1180	1200	1200	1200
	47.08	18.5		540	540	800	900	1180	1200	1200	1200
	57.67	15.1		540	600	800	900	1180	1200	1200	1200
	70.62	12.3		540	600	800	900	1180	1200	1200	1200
	86.5	10.1		270	290	470	600	800	900	1080	900
	105.9	8.2		270	290	470	600	800	900	1080	1180
	129.7	6.7		270	290	470	600	800	900	1080	1180
	158.9	5.5		270	290	470	250	250	0	350	1180
	194.6	4.5		270	290	470	420	500	470	800	1180

† Capacities listed are for pure radial loads on a reducer. If overhung load exceeds the value shown or if overhung load is applied at the same time as thrust loads, consult DODGE Application Engineering.



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Table 23: High Speed Shaft Overhung Loads (continued)

High Speed Shaft RPM	AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	High Speed Shaft Overhung Load (pounds) † for MAXUM Reducer Size							
				4	5	6	7	9	10	11	12
	5.06	142.3		170	1080	1180	1400	50	500	1650	740
	6.2	116.1		20	1080	1240	1400	50	1500	2000	860
	7.59	94.9		180	1080	1250	1400	50	1750	2000	2000
	9.3	77.4	DOUBLE	370	1080	1250	1400	50	1750	2000	2000
	11.39	63.2		900	1080	1250	1400	50	1750	2000	2000
	13.95	51.6		900	1080	1250	1400	1750	1750	2000	2000
	17.09	42.1		900	1080	1250	1400	1750	1750	2000	2000
	20.93	34.4		900	1080	1250	1400	1750	1750	2000	2000
	25.63	28.1		0	850	1250	600	1300	1750	2000	2000
720	31.39	22.9		360	180	390	670	1180	1200	1200	1200
	38.44	18.7		500	440	740	900	1180	1200	1200	1200
	47.08	15.3		540	600	800	900	1180	1200	1200	1200
	57.67	12.5		540	600	800	900	1180	1200	1200	1200
	70.62	10.2	TRIPLE	540	600	800	900	1180	1200	1200	1200
	86.5	8.3		270	290	470	600	800	900	1080	800
	105.9	6.8		270	290	470	600	800	900	1080	1180
	129.7	5.6		270	290	470	600	800	900	1080	1180
	158.9	4.5		270	290	470	250	220	0	320	1180
	194.6	3.7		270	290	470	420	450	450	750	1180
	5.06	114.6		270	1080	1250	1400	50	50	1000	800
	6.2	93.5		20	1080	1250	1400	50	650	1700	1600
	7.59	76.4		100	1080	1250	1400	50	1600	2000	2000
	9.3	62.4	DOUBLE	360	1080	1250	1400	50	1750	2000	2000
	11.39	50.9		900	1080	1250	1400	50	1750	2000	2000
	13.95	41.6		900	1080	1250	1400	1750	1750	2000	2000
	17.09	33.9		900	1080	1250	1400	1750	1750	2000	2000
	20.93	27.7		900	1080	1250	1400	1750	1750	2000	2000
	25.63	22.6		0	750	1250	600	1200	1750	2000	2000
580	31.39	18.5		430	300	530	880	1180	1200	1200	1200
	38.44	15.1		540	530	800	900	1180	1200	1200	1200
	47.08	12.3		540	600	800	900	1180	1200	1200	1200
	57.67	10.1		540	600	800	900	1180	1200	1200	1200
	70.62	8.2	TRIPLE	540	600	800	900	1180	1200	1200	1200
	86.5	6.7		270	290	470	600	800	900	1080	700
	105.9	5.5		270	290	470	600	800	900	1080	1180
	129.7	4.5		270	290	470	600	800	900	1080	1180
	158.9	3.7		270	290	470	200	200	0	300	1180
	194.6	3		270	290	470	400	400	400	700	1180

† Capacities listed are for pure radial loads on a reducer. If overhung load exceeds the value shown or if overhung load is applied at the same time as thrust loads, consult DODGE Application Engineering.

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Table 24: Low Speed Overhung Loads

Approx. Low Speed Shaft RPM	Unit Red.	Overhung Load Capacity MAXUM Reducer Size (multiply value shown by 1000) ♣							
		4	5	6	7	9	10	11	12
777.8	DOUBLE	2.87	3.69	4.84	•	•	•	•	•
636.4		2.96	3.87	5.07	•	•	•	•	•
519.3		3.12	4.08	5.33	•	•	•	•	•
423.7		3.17	3.98	5.39	•	•	•	•	•
345.8		3.32	4.18	5.65	7.05	10.3	10.3	12.2	10.4
282.3		3.51	4.39	5.95	7.56	10.7	10.9	12.8	10.9
230.6		3.70	4.66	6.29	7.48	11.2	11.5	13.4	11.3
188.2		3.91	4.95	6.61	8.27	11.9	12.1	14.1	12.0
153.6		4.14	5.27	6.98	8.97	12.5	12.7	14.9	12.7
125.4		4.37	5.71	7.43	9.88	13.3	13.5	15.7	13.8
102.4		4.63	6.16	7.78	10.9	14.1	14.2	16.6	14.9
83.6		4.98	6.62	8.25	11.8	14.9	15.1	17.7	16.0
68.3		5.46	7.13	8.66	13.1	15.8	16.0	19.4	17.5
55.8	TRIPLE	5.86	8.03	9.64	14.6	16.9	17.5	21.7	19.6
45.5		6.31	8.51	10.2	15.4	18.2	18.5	22.6	21.0
37.2		6.80	8.85	10.5	16.6	19.7	19.9	24.4	22.8
30.4		6.98	8.88	10.5	17.8	20.0	21.8	26.5	24.8
24.8		6.98	8.90	10.5	17.8	20.0	23.7	28.6	27.1
20.2		6.98	8.95	10.6	17.9	20.0	24.6	29.5	29.4
16.5		6.98	8.98	10.6	17.9	20.0	24.6	29.5	29.4
13.5		6.98	9.00	10.6	17.9	20.0	24.6	29.5	29.4
11.0		6.98	9.03	10.6	18.0	20.0	24.6	29.5	29.4
9.0		6.98	9.05	10.7	18.0	20.0	24.6	29.5	29.4

* Interpolate for intermediate values.

♣ Capacities are for pure radial loads.
If overhung loads are applied at the same time as thrust loads, consult DODGE Application Engineering.

• Consult DODGE.

Table 25: Actual Ratios

AGMA Nominal Ratio	Approx. Low Speed Shaft RPM	Unit Red.	Actual Ratio of Reduction MAXUM Reducer Size							
			4	5	6	7	9	10	11	12
2.25	777.8	DOUBLE	2.225	2.263	2.273					
2.75	636.4		2.679	2.750	2.770					
3.37	519.3		3.320	3.338	3.392					
4.13	423.7		4.125	4.114	4.133					
5.06	345.8		4.966	5.000	5.037	5.065	5.103	4.958	5.104	5.089
6.20	282.3		6.154	6.069	6.167	6.115	6.154	6.109	6.134	6.220
7.59	230.6		7.586	7.520	7.680	7.527	7.478	7.589	7.552	7.464
9.30	188.2		9.280	9.273	9.273	9.217	9.200	9.385	9.077	9.325
11.39	153.6		11.45	11.37	11.37	11.21	11.20	11.33	11.28	11.31
13.95	125.4		13.89	14.00	14.25	13.91	13.88	13.93	13.89	13.98
17.09	102.4		17.00	17.14	16.86	17.47	17.14	16.73	16.90	16.90
20.93	83.6		20.57	20.67	20.67	21.06	21.00	20.92	20.83	20.60
25.63	68.3		26.18	25.20	24.67	25.68	25.60	25.89	25.32	25.59
31.39	55.8	TRIPLE	31.50	31.38	32.00	30.50	30.68	31.61	31.29	31.21
38.44	45.5		38.21	38.64	40.11	37.83	38.03	38.86	38.51	38.60
47.08	37.2		46.75	47.31	47.45	47.53	46.96	46.68	46.85	46.63
57.67	30.4		56.57	57.04	58.17	57.29	57.52	58.36	57.77	56.85
70.62	24.8		72.00	69.55	69.43	69.86	70.12	72.21	70.21	70.63
86.50	20.2		86.86	86.81	86.21	86.27	86.94	85.07	86.60	86.36
105.9	16.5		105.4	106.9	108.1	104	106.5	106.4	106.8	106.8
129.7	13.5		128.9	130.9	127.8	126.8	129.8	131.6	129.8	129
158.9	11.0		156	157.8	156.7	158.9	157.5	159.8	159.1	157.3
194.6	9.0		198.5	192.4	187.1	193.8	192	197.7	193.4	195.4

† Based on 1750 high speed shaft RPM.

MAXUM Concentric Reducer



Table 26: WR² Values

AGMA Nominal Ratio	Approx. † Low Speed Shaft RPM	Unit Red.	WR² (lb. - In2) at high Speed Shaft ★ MAXUM Reducer Size							
			4	5	6	7	9	10	11	12
2.25	777.8		77.41	125.4	253.9					
2.75	636.4		59.02	94.8	189.3					
3.37	519.3		43.48	73.97	141.5					
4.13	423.7		57.81	93.81	184.3					
5.06	345.8		45.49	73.42	142.4	309.3	768.4	1469	2529	4140
6.2	282.3		34.67	59.45	110.3	259.9	611.2	1127	2008	3201
7.59	230.6	DOUBLE	26.33	46.29	82.57	205.8	487.2	868.0	1559	2559
9.3	188.2		21.03	37.06	66.14	164.5	387.7	683.6	1272	1959
11.39	153.6		16.09	29.44	50.6	133.1	309.6	558.5	1003	1564
13.95	125.4		13	24.09	39.11	106.4	258.8	455.0	813.6	1234
17.09	102.4		10.45	19.65	32.35	85.34	209.7	373.0	655.3	986.5
20.93	83.6		8.541	17.24	25.92	72.74	173.7	298.5	525.0	784.6
25.63	68.3		6.967	15.01	21.9	61.73	148.5	244.9	428.2	622.0
31.39	55.8		8.648	11.88	19.57	48.58	106.9	185.8	337.9	493.5
38.44	45.5		8.272	11.25	18.20	45.38	99.01	172.3	311.5	449.4
47.08	37.2		7.972	10.73	17.42	42.93	93.41	163.0	293.2	419.0
57.67	30.4		7.746	10.38	16.69	41.39	89.04	154.7	278.4	394.2
70.62	24.8	TRIPLE	7.549	10.11	16.18	40.11	86.03	148.5	267.6	374.5
86.50	20.2		3.333	4.771	6.594	27.36	52.16	84.71	145.5	144.1
105.9	16.5		3.284	4.689	6.406	26.89	50.89	82.20	141.2	138.4
129.7	13.5		3.244	4.621	6.298	26.50	50.01	80.33	138.0	134.4
158.9	11.0		3.214	4.576	6.197	22.60	40.82	62.58	107.0	131.2
194.6	9.0		3.189	4.541	6.127	22.43	40.42	61.76	105.5	128.6

★ For WR² at low speed shaft, multiply the WR2 value listed by (Actual Ratio)². See Table 25 for actual ratios.

† Based on 1750 high speed shaft RPM.



MAXUM Concentric Reducer

CAUTION: Unit is shipped without oil. Add proper amount of recommended lubricant before operating. Failure to observe these precautions could result in damage to, or destruction of, the equipment.

Lubrication is extremely important for satisfactory operation. The proper oil level as shown in Table 29 page G3-75, must be maintained at all times. Frequent inspections with the unit not running and allowing sufficient time for the oil to cool and the entrapped air to settle out of the oil should be made by removing the level plug to see that the level is being maintained. If low, add the proper type and viscosity of lubricant through one of the upper openings until it comes out of the oil level hole. Replace the oil level plug securely. Refer to Table 27 and Table 28 below for viscosity recommendations.

After an initial operation of about two weeks, the oil should be changed. If desired, this oil may be filtered and reused. Very often, small metal particles will show up in the oil due to the wearing in process. After the initial break in period, the lubricant should be drained, magnetic drain plug cleaned, gear case flushed and refilled every 2500 hours of operation under average industrial conditions. More frequent oil changes are recommended when operating continuously or at high temperatures or under conditions of extreme dirt or dust. Use only recommended lubricants listed on this page, or equivalent. Special attention should be given to checking of lubricants when any of the following conditions exist:

- High operating temperatures resulting from heavy intermittent loads causing the temperature of the gear case to rise rapidly and then cool.
- Unusual ambient conditions, which may tend to cause condensation on the inside of the gear case thereby contaminating the oil.
- Operating temperatures that would cause oil to approach 200ºF continually.
- If the reducer is subjected to unusual vapors or moist atmosphere.

Operating Temperatures

Heating is a natural characteristic of enclosed gearing, and a maximum gear case temperature approaching 200ºF is not uncommon for some units operating in normal ambient temperatures (80ºF). When operating at rated capacity, no damage will result from this temperature as this was taken into consideration in the design of the gear case and in the selection of the lubricants.

Table 27: Lubrication Recommendations - ISO Grades for Ambient Temperatures of 50 thru 125 Degrees F *

Output RPM	MAXUM Reducer Size							
	4	5	6	7	9	10	11	12
230	220	220	220	220	220	220	220	220
190	220	220	220	220	220	220	220	220
155	220	220	220	220	220	220	220	220
125	320	320	220	220	220	220	220	220
100	320	320	320	220	220	220	220	220
84	320	320	320	220	220	220	220	220
68	320	320	320	320	220	220	220	220
56	320	320	320	320	320	320	320	220
45	320	320	320	320	320	320	320	320

* **NOTES**

1. Use ISO 220 above 230 Output RPM.
2. Use ISO 320 below 45 Output RPM.
3. Assumes Auxiliary Cooling where Recommended in the Catalog.

Lubricant Grade Equivalents

ISO	AGMA
150	4
220	5
320	6

NOTE: Mobil SHC 630 Series oil is recommended for high ambient temperatures. For a wide range of ambient temperatures (-10ºF/120ºF) use Mobil SHC 629,

Table 28: Lubrication Recommendations ISO Grades For Ambient Temperatures Of 15 Thru 60 Degrees F*

Output RPM	MAXUM Reducer Size							
	4	5	6	7	9	10	11	12
230	150	150	150	150	150	150	150	150
190	150	150	150	150	150	150	150	150
155	150	150	150	150	150	150	150	150
125	220	220	150	150	150	150	150	150
100	220	220	220	150	150	150	150	150
84	220	220	220	150	150	150	150	150
68	220	220	220	220	150	150	150	150
56	220	220	220	220	220	220	220	150
45	220	220	220	220	220	220	220	220

* **NOTES:**

1. Use ISO 150 above 230 Output RPM.
2. Use ISO 220 below 45 Output RPM.
3. Assumes Auxiliary Cooling where Recommended in the Catalog.



MAXUM Concentric Reducer

OIL LEVEL LOCATIONS FOR POSITION A-1

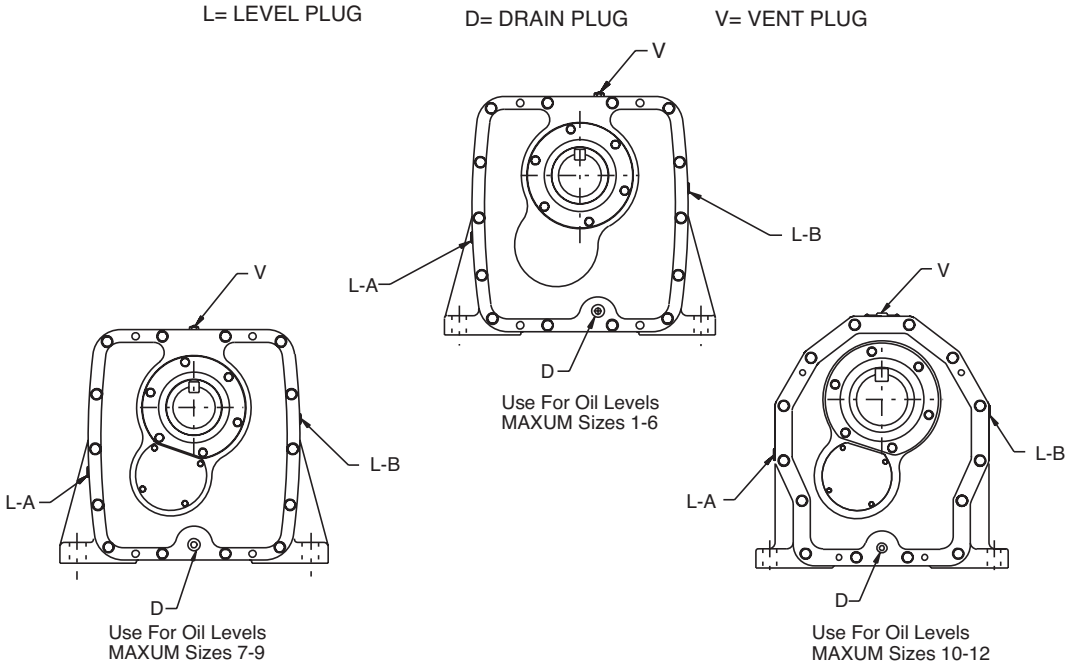


Table 29: Approximate Oil Capacities And Oil Levels*
VS Output RPM'S For Floor Mounted Position

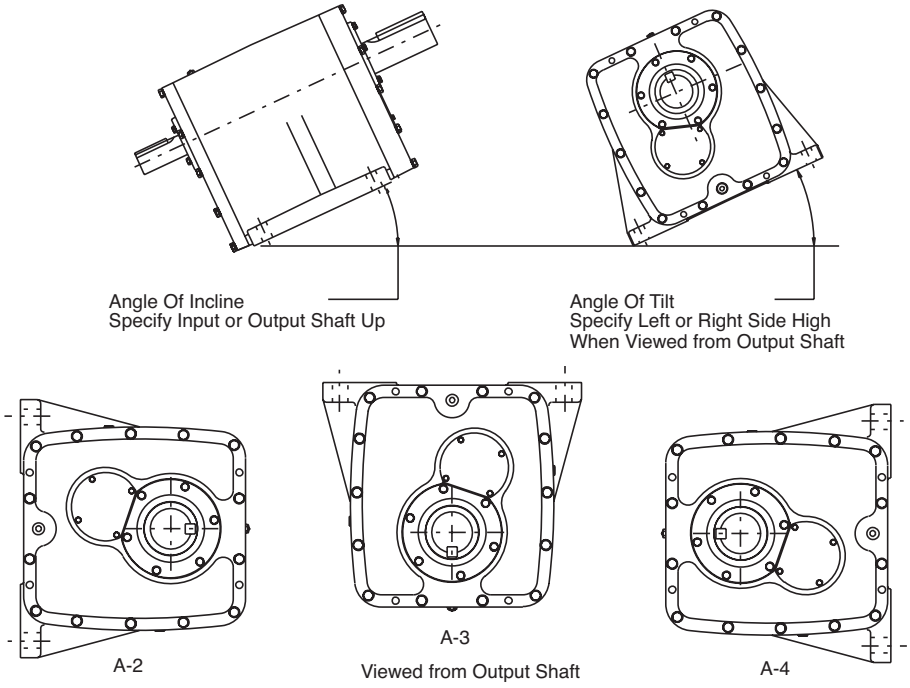
MAXUM Size	Output RPM	Approximate Oil Capacity	Level Position
4	ABOVE 270 BELOW 270	9.0 QUARTS 16.6 QUARTS	L-A, L-B
5	ABOVE 250 BELOW 250	10.9 QUARTS 21.2 QUARTS	L-A, L-B
6	ABOVE 215 BELOW 215	15.7 QUARTS 30.7 QUARTS	L-A, L-B
7	ABOVE 175 BELOW 175	8.3 GALLONS 17.6 GALLONS	L-A, L-B

MAXUM Size	Output RPM	Approximate Oil Capacity	Level Position
9	ABOVE 140 BELOW 140	12.6 GALLONS 27.2 GALLONS	L-A, L-B
10	ABOVE 120 BELOW 120	12.9 GALLONS 29.8 GALLONS	L-A, L-B
11	ABOVE 110 BELOW 110	16.3 GALLONS 36.9 GALLONS	L-A, L-B
12	ABOVE 95 BELOW 95	20.0 GALLONS 42.5 GALLONS	L-A, L-B

* Always fill to the oil plug regardless of the stated quantities. Refer to instruction manual for more information.
The lubrication instructions on pages G3-79 and G3-80 are offered for general guidelines. Refer to the instruction manual shipped with the reducer for specific lubrication instructions

ENGINEERING/TECHNICAL

MAXUM Concentric Reducer



DODGE MAXUM Concentric Shaft Reducers can be modified to permit mounting in positions other than the conventional (A-1) floor mounting. Some of these include ceiling (A-3) and wall (A-2 and A-4) and various inclined, vertical and tilted positions. Consult DODGE to determine what modifications are required for your specific application.

In order for DODGE to make recommendations on the required modifications, the following information must be provided:

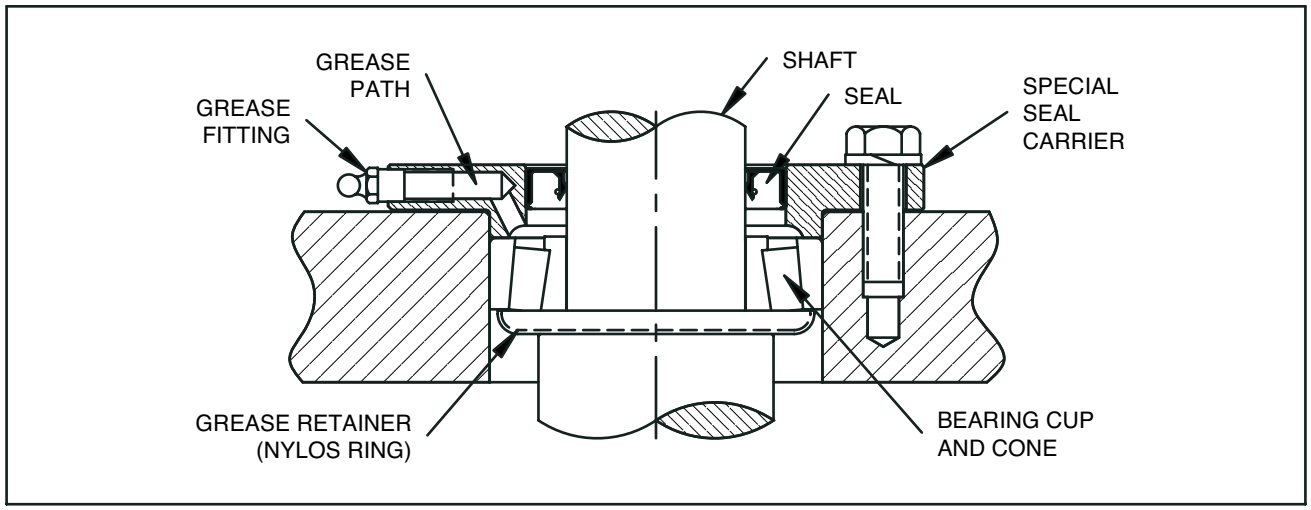
- Reducer Size.
- Ratio.
- Input and/or output speed.
- Transmitted Horsepower.
- Duty cycle. Continuous or intermittent operation. If intermittent, running time vs. idle time.
- Mounting position, such as A-2, A-3 or A-4 with shafts level, or a more complete description of the mounting arrangement including the angle of tilt of the housing, the incline of the shafts and whether the output shaft is higher or lower than the input shaft.



MAXUM Concentric Reducer Vertical and Inclined Application

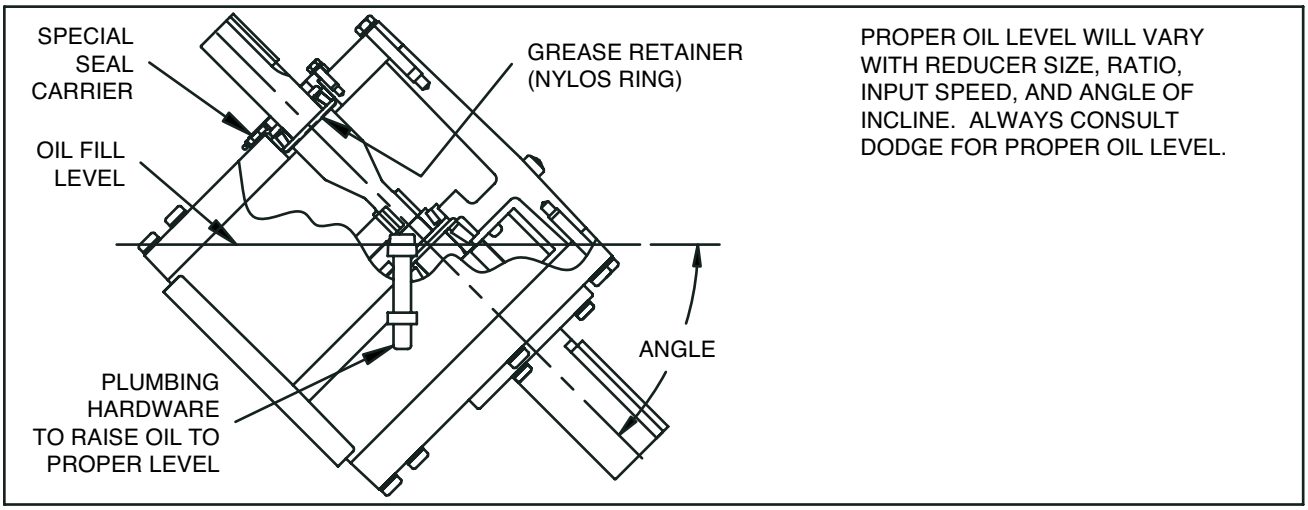
When the reducer is mounted vertically, the upper bearings will not receive adequate lubrication from normal means of splash lubrication. The MAXUM reducer design uses a center web in the housing to support the inside bearings. This center web becomes a splash baffle when the reducer is mounted in a vertical position so other alternatives for lubrication need to be considered.

The MAXUM solution to this problem is to use a Nylos Ring - a thin dish or cup mounted between the shaft shoulders and the Timken cone (see Drawing A). The purpose of this cup is to hold a reservoir of grease to lubricate the upper bearings. If the low speed shaft is up, we provide this modification for both the low speed pinion bearing and the countershaft bearing.



DRAWING A

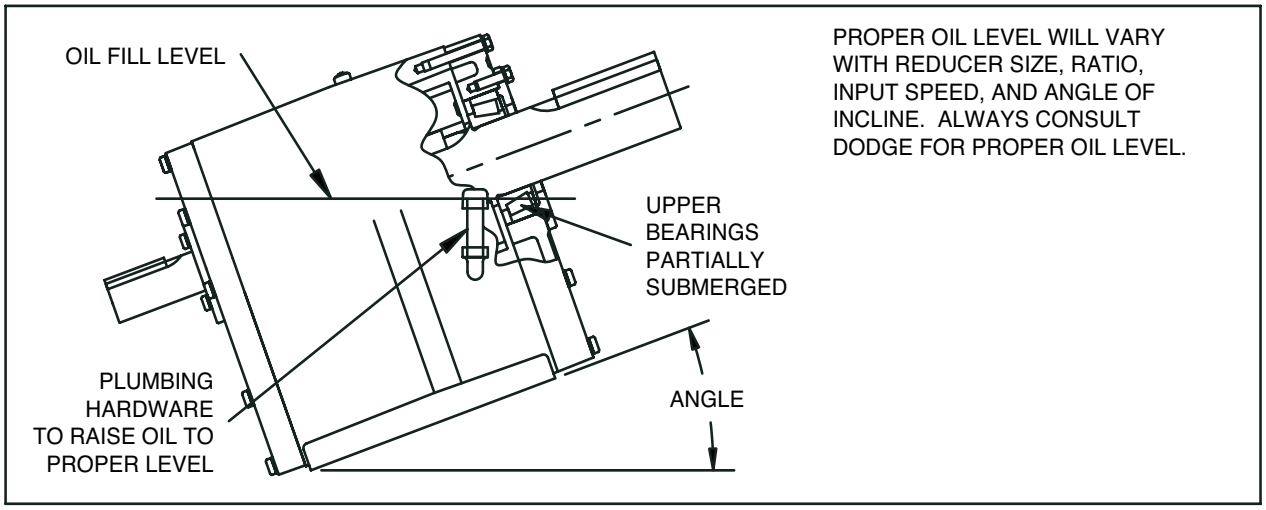
In addition to the Nylos Ring, we provide a means to initially charge and replace the grease reservoir. The seal carrier of the housing is drilled, and a grease fitting is provided to maintain a level of lubricant in this cavity. Lubrication of the upper gearset also needs to be considered, and this is provided for by increasing the lubricant level to make contact with the upper gearset. We provide this information for each application, by a drawing similar to Drawing B below.



DRAWING B

ENGINEERING/TECHNICAL

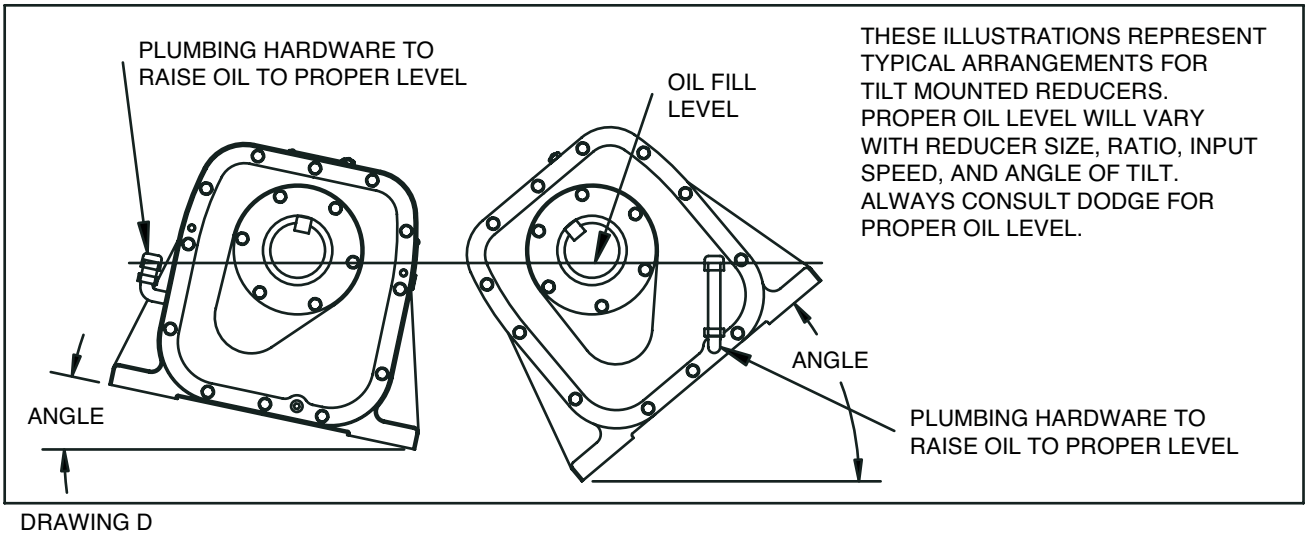
MAXUM Concentric Reducer Vertical and Inclined Application



DRAWING C

We are frequently asked at what angle of incline should the vertical modification be considered. On the list price modification page, we state “exceeding 10° of incline”. This is conservative and would provide the lubrication required at very slow output speeds where there would be minimum splash generated. If the MAXUM reducer is operating at moderate to high speed, this minimum guideline may be increased. See Drawing C.

Another area where special lubrication needs to be considered is “tilt mounting”. The input and output shafts are horizontal but the reducer may be mounted in an A-2, A-3 or A-4 position or at some angle in between. The solution for this type of mounting is one of using the proper oil level only (no modification needed). Drawing D illustrates the use of a standpipe to meed oil level requirements.



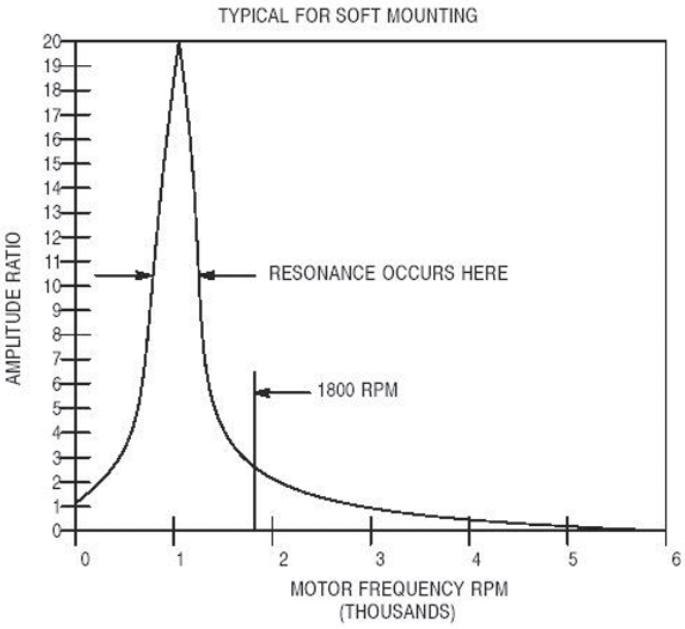
DRAWING D

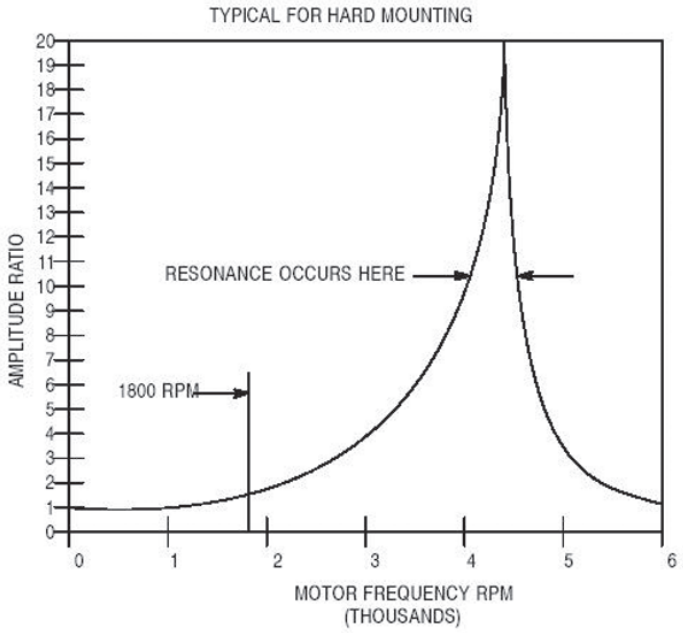


MAXUM Concentric Reducer

GENERAL GUIDELINES FOR MOUNTING VARIABLE SPEED AC OR DC MOTORS

AMPLITUDE RATIO





DEFINITIONS:

FUNDAMENTAL NATURAL FREQUENCY is the lowest number of times per minute that the motor and supporting structure will maintain a periodic oscillation, once displaced, under the sole influence of its own mass and stiffness.

RESONANCE is a vibration of large amplitude caused by the small periodic stimulus of the unbalance force when the motor speed is the same or nearly the same frequency as the fundamental natural frequency of the motor and support structure.

SOFT MOUNTING - The fundamental natural frequency is below the motor operating speed.

HARD MOUNTING - The fundamental natural frequency is above the motor operating speed.

(Continued on page G3-80)



MAXUM Concentric Reducer

GENERAL GUIDELINES FOR MOUNTING VARIABLE SPEED AC OR DC MOTORS

SCOOP MOUNT ACCESSORY

- This is a soft mounting of the motor.
- The benefits obtained by using this accessory are low cost and isolation of the reducer support structure from the motor vibration.
- This motor mount was designed for use with a constant speed motor at 1750 RPM. Use of motors with lower base speeds increases the chance of producing resonance. Stiffening techniques within the scoop structure can increase the fundamental natural frequency about 20% which is generally enough to eliminate resonance should it occur.
- This accessory is NOT recommended for variable speed DC or AC applications.
- Customers who prefer to use the scoop mount accessory to mount variable speed AC or DC motors must state on the face of the purchase order that they plan to support scoop and assume full responsibility for any vibratory or transient load induced by the motor. For recommended scoop support, contact Reliance Electric and reference drawing #A31512.

NOTE: For more information on DODGE MAXUM Concentric Reducer Scoop Mount Reducers, refer to page G3-39.

TOP MOUNT ACCESSORY

- This may be a soft or hard mounting of the motor depending on the size of the motor and the distance that the adjusting screws are extended.
- The benefits obtained by using this accessory are low cost, minimum floor space used for the motor/reducer assembly, and greater flexibility to obtain the required output RPM of the reducer than concentric coupling.
- This motor mount was designed for use with a constant speed motor at 1750 RPM.
- This accessory is NOT recommended for variable speed DC or AC applications. Consult Reliance.

NOTE: For more information on DODGE MAXUM Concentric Reducer Motor Mounts, refer to pages G3-49 throughG3-50.

HD BASEPLATE ACCESSORY

1. This is a hard mounting of the motor.
2. The benefits obtained by using this accessory are:
   a. resonance problems are minimized
   b. accurate assembly of motor/coupling/reducer can be done at the factory instead of the job site.

      Note: Alignment must always be rechecked at job site prior to start-up.

   c. large motors can be rigidly mounted to keep deflection under control and provide longer service life.
3. This accessory is recommended for large motors where the motor weight exceeds the reducer weight or 700 lbs., and for variable speed DC or AC applications regardless of the motor weight. For mounting dimensions see page G3-37.

NOTE: For more information on DODGE MAXUM Concentric Reducer HD Baseplates, refer to pages G3-36.

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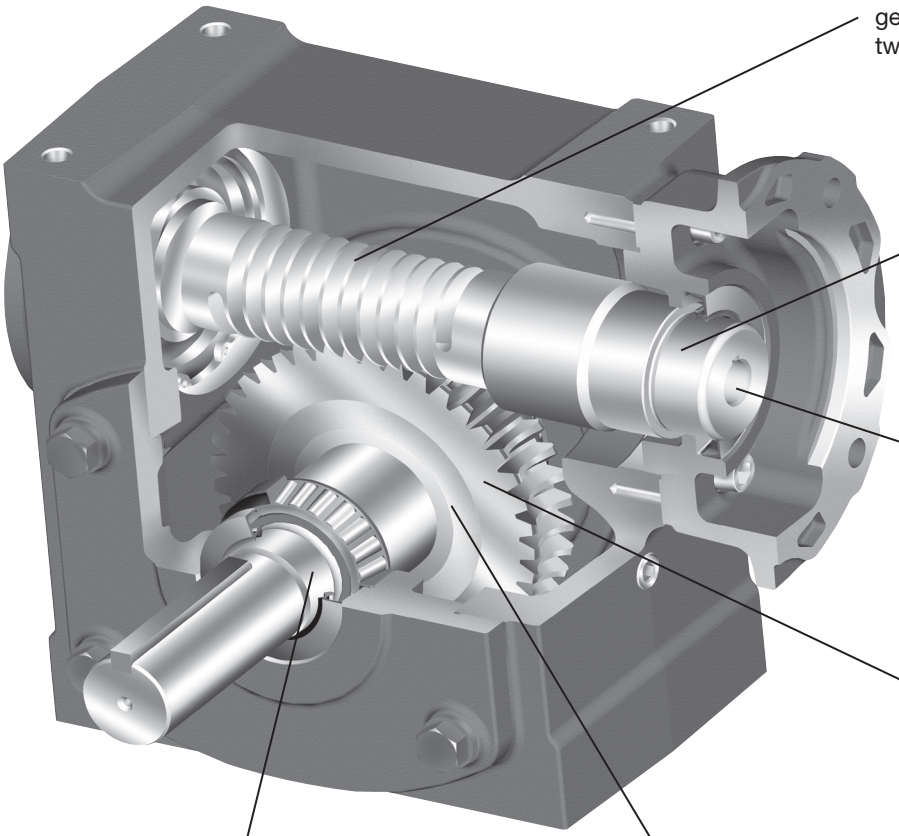
FEATURES/BENEFITS

TIGEAR-2 Speed Reducers

- 10 Case Sizes
- 1.33” to 4.75” Center Distances
- 5:1 to 60:1 Reductions
- Quill Input
- Separate Input
- 3-Piece Coupled Input
- Solid Output
- Hollow Output

On average, TIGEAR-2 delivers more torque than competitive, same-sized models. This permits downsizing and helps reduce total cost of ownership.

TIGEAR-2 reducers share the same footprint and most critical mounting dimensions with original TIGEAR and many competitive models.



Worm shaft machining process increases gear precision and accuracy by more than twice the “norm”.

Seal journals are held to exacting tolerances for diameter and surface finish (8-17 Ra). Precise plunge grinding process eliminates invisible lead and assures cool-running, long-life seals.

Unique internal design of input quill, along with a special factory-applied anti-seize compound, helps to reduce chances for fretting corrosion with motor shaft.

State-of-the-art computer modeling and optimization of multiple gear parameters in TIGEAR-2 gear geometry allow higher torque capacity, greater efficiency, and cooler operating temperatures. End result: long life and lower operating costs for user.

Bronze gear material has an extremely fine grain structure for maximum durability and minimum wear.

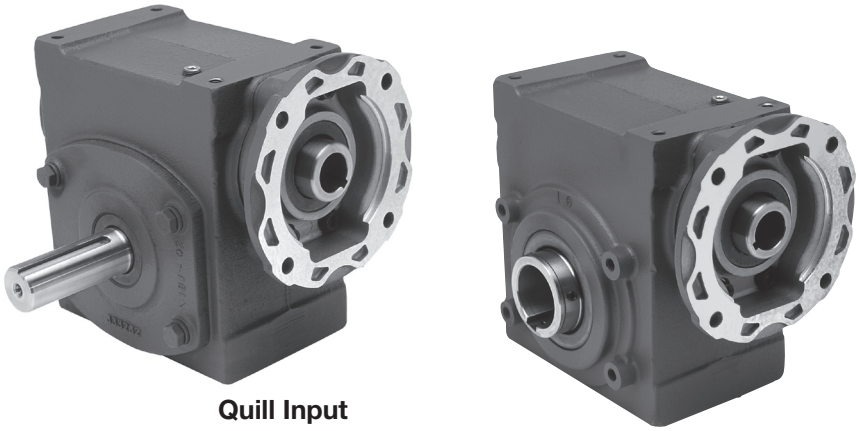
Generous step between diameter of output bearing journal and diameter of seal journal prevents bearing from scuffing seal journal during assembly.

FEATURES/BENEFITS

TIGEAR-2 Reducers

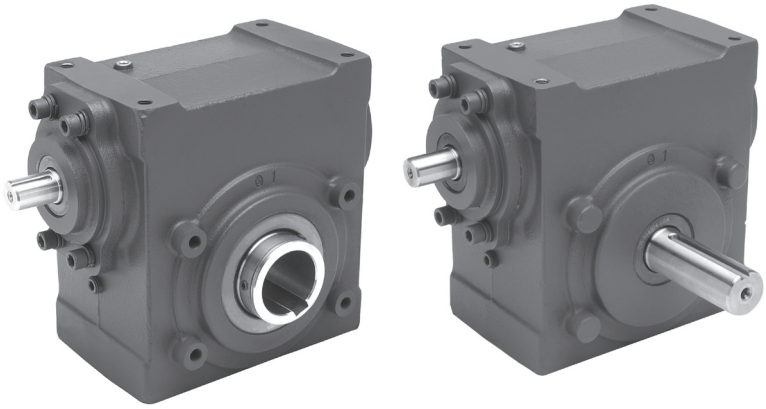
CONFIGURATION OPTIONS

The advanced design concept of the TIGEAR-2 reducer product line provides extreme flexibility for applications that require from 100 to more than 6,800 lb.-in of torque. Whether the application requires the compactness of a quill-style input, the durability of a 3-piece coupled input, or a separate keyed input shaft for belt-driven equipment, TIGEAR-2 is the answer. With four basic reducer configurations that are dimensionally interchangeable with most competitive brands and stock, and bolt-on accessories, the TIGEAR-2 reducer line is truly a complete line that is full of value.



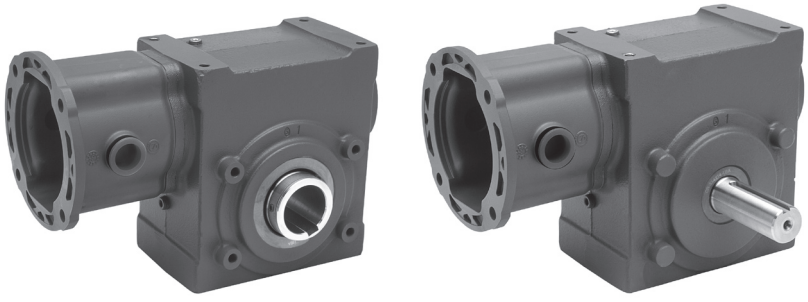
Quill Input

Space-saving quill-style input reducers for NEMA C-face motors in both solid and hollow output designs



Separate Input

Separate style input reducers with solid or hollow output shafts are suitable for either belted or direct-coupled motor connections



3-Piece Coupled Input

Attaching a stock, 3-piece coupled motor adapter kit to a separate style reducer creates a durable drive package that facilitates easy motor removal and provides protection against shock loads and other unpredictable vibrations

FEATURES/BENEFITS

TIGEAR-2 Reducers

TIGEAR-2 Sealing System

The totally enclosed, ventless sealing system operates effectively with no pressure vent, no compression chamber. TIGEAR-2 contains a factory-filled synthetic lubricant that actually runs cooler, as well as eliminates the need for routine oil changes. All reducers are filled with the proper amount of lubricant for any approved mounting position. Simply install it, then forget it.

Custom-Formulated HNBR Wave Seal
Hydrogenated Nitrile Butadiene Rubber (HNBR) material has been proven to be a better all-round choice for oil compatibility, wear, and temperature range. Overall, it provides up to 6 times greater wear resistance than industry standard nitrile seals.

Special Hydrodynamic Wave Seal Design
The special wave shape (molded into the seal lip) generates a better hydrodynamic film, which is required between the seal and the shaft for long life. This special wave design generates less drag, less heat, and virtually eliminates shaft grooving created by the single-point wear track, which is common with conventional trimmed lip seal designs, The sinusoidal lip of the wave seal effectively pushes external contaminants away and pumps lubricant back into the oil sump.

Special Lip Construction
Optimized lip-to-shaft contact pressures ensure maximum life, In addition, special sealing elements operate under pressure without detrimental effect on service life or sealing performance.

Factory-Filled Synthetic Lubricant
The standard synthetic lubricant used in TIGEAR-2 meets H1 food grade requirements and accommodates a wide range of operating temperatures. In extensive laboratory test, it lowered operating temperatures by 20°F over other popular synthetics. No routine scheduled oil changes are required.

GRIP TIGHT™ TAPERED Adapter Bushing System Eliminates Hop and Wobble



Locking System
The TIGEAR-2 reducer's GRIP TIGHT tapered bushing system uses concepts that have proven to be effective in the locking mechanism of the DODGE GRIP TIGHT bearing to simplify installation and removal and prevent fretting corrosion problems. There are no loose fasteners to misplace during installation, and the locking nut creates a positive means for easy removal.

Minimum Shaft Length
The system's tapered bushings allow for mounting in some of the tightest places on almost any size shaft. (Driven shafts need not protrude completely through the reducer bore.)

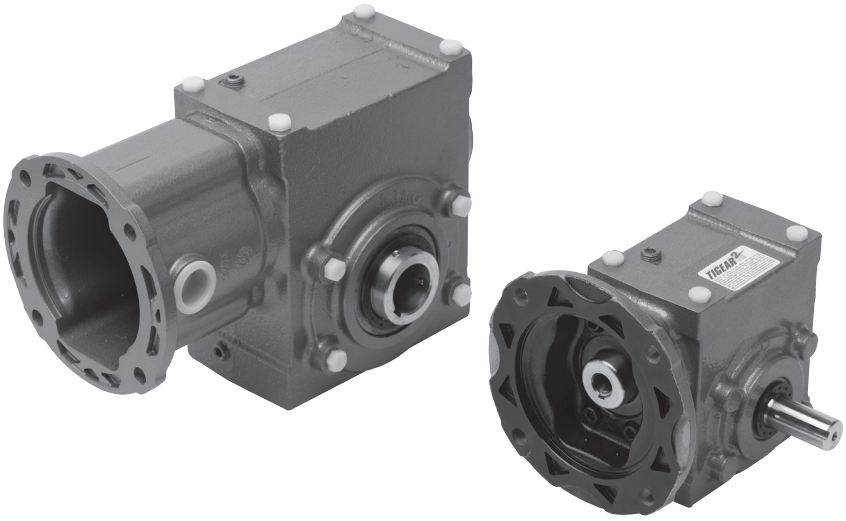
Bushing Options
When used in pairs, the tapered bushings can be used without output keys. Corrosion resistant options are available for severe washdown applications.

FEATURES/BENEFITS

TIGEAR-2 Washdown Reducers

TIGEAR-2 E-Z KLEEN REDUCERS

TIGEAR-2 E-Z KLEEN reducers offer superior corrosion resistance and sealing to meet the harsh washdown applications associated with the food and beverage industry.



Standard features include:

- A 13-step coating system which provides greater than three times the corrosion resistance of standard epoxy painted units
- Stainless color top coat -- White finish also available
- Available in solid and hollow output shafts
- 300 series Stainless Steel solid and hollow output shafts and stainless hardware
- Two-piece harsh duty output seals
- Factory filled H1 food grade synthetic lubrication
- Offered in sizes 13 through 35 in Quill and 3-Piece Coupled input with solid or hollow output configurations

Availability:

- Wide selection of units available from stock
- Same day air shipment offered on most sizes if order received by Noon EST, or next business day air if order received after Noon EST

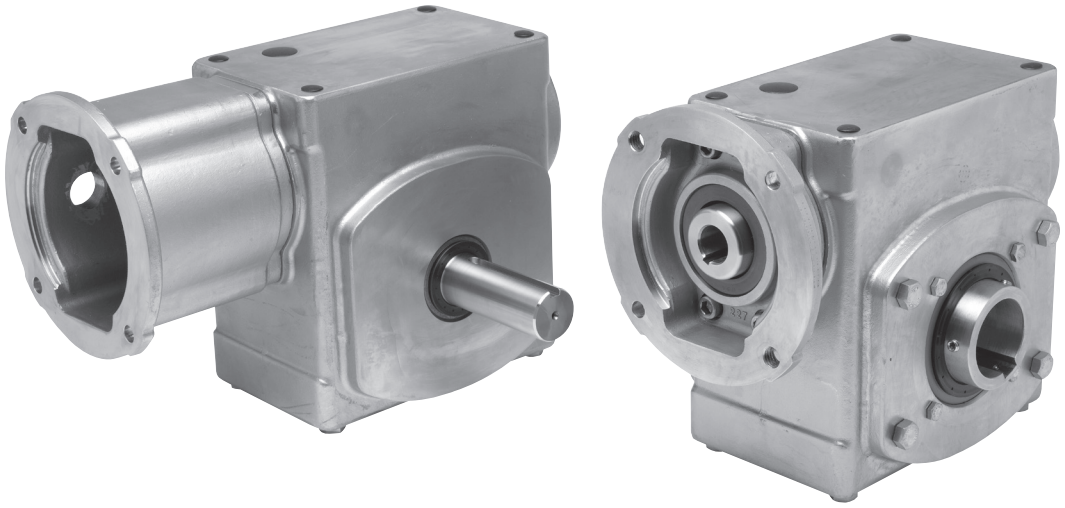
Washdown accessories include:

- Stainless steel Straight Bore bushings
- Stainless steel GRIP TIGHT bushings (as available)
- E-Z KLEEN bolt-on base kit
- E-Z KLEEN riser block kit
- E-Z KLEEN J-mount kit
- E-Z KLEEN output flange kit



FEATURES/BENEFITS

TIGEAR-2 Washdown Reducers



TIGEAR-2 and DODGE ULTRA KLEEN STAINLESS STEEL REDUCERS

ULTRA KLEEN stainless steel reducers are the best choice for ultimate washdown protection or where “paint free” specification is required.

Standard features include:

- Premium 316 stainless steel housings
- Available in solid and hollow output shafts
- 300 series Stainless Steel solid and hollow output shafts and stainless hardware
- Two-piece harsh duty output seals
- Factory filled H1 food grade synthetic lubrication
- Heavy-duty mylar nameplate standard on all units
- Gasket used on input between the motor flange and motor on sizes 17, 23, 30
- O-ring used on input between the motor flange and motor on sizes 21 and 26 Input/Output Configurations:
- Quill input and solid or hollow output configurations in sizes 17, 21, 23, 26 and 30
- 3-Piece Coupled input available in sizes 17, 23, and 30

Availability:

- Wide selection of units available from stock
- Same day air shipment offered on most sizes if order received by Noon EST, or next business day air if order received after Noon EST

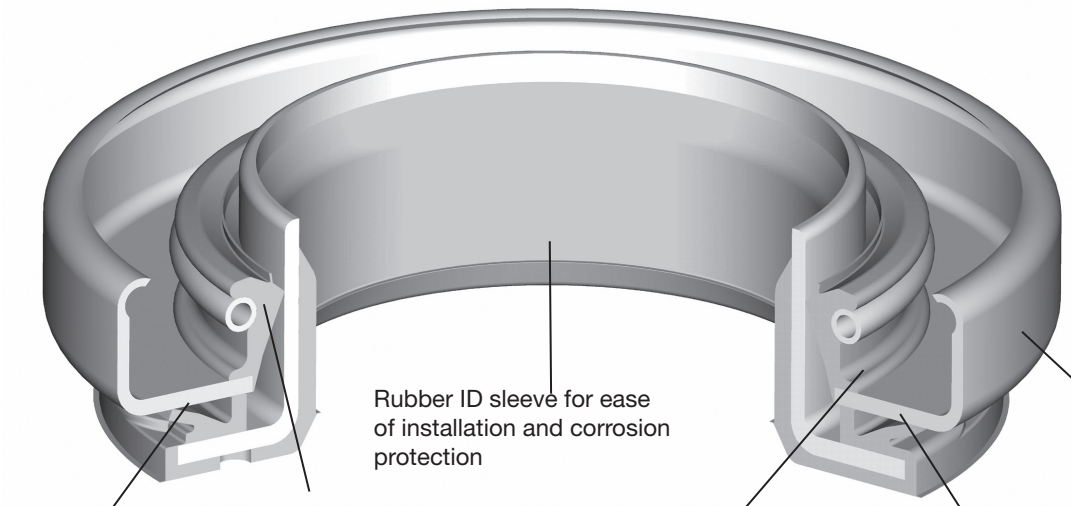
Washdown accessories include:

- Stainless steel straight bore bushings
- Stainless steel GRIP TIGHT bushings (as available)
- Stainless steel bolt-on base kit
- Stainless steel output flange kit

FEATURES/BENEFITS

TIGEAR-2 Washdown Reducers

SEALING SYSTEM FOR WASHDOWN REDUCERS



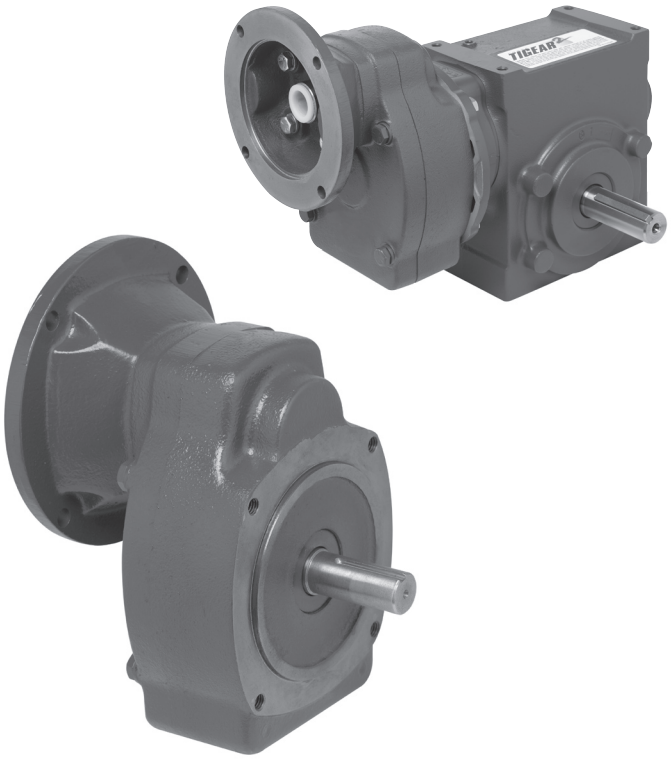
TIGEAR-2 Reducers

HELICAL ATTACHMENT

A new, double NEMA 56 and 140 C-face helical gear attachment is now available for Tigear-2 reducers, providing gear ratios from 75:1 to 300:1.

The new helical attachment has a quill input coupling for quick and easy motor attachment. It easily attaches to a Tigear-2 reducer with 56C or 140TC quill or 3-piece coupled input.

- Available with NEMA 56 and 140 C-face input and output
- Available in 4:1 and 5:1 ratios
- Factory filled with food grade synthetic lubricant
- Lubed for life
- No breather
- Suitable for all mounting positions right out of the box
- Cast iron construction



With the helical attachment, customers can now take advantage of all the Tigear-2 features with available ratios up to 300:1.

For Selection And Dimensions Refer To Pages G3-110 Thru G3-112

SPECIFICATION

General Specification - DODGE TIGEAR-2 Speed Reducers

The speed reducer shall be a single reduction worm gear reducer incorporating three input configurations - a quill style for direct attachment of electric motors, a separate keyed input shaft suitable for flexible coupling to a footed motor or belt and pulley input configuration and a motor adapter style input that employs a three piece coupling to connect electric motors to the reducer. These input configurations shall be available in both solid and hollow output shaft designs. The reducer shall be manufactured in the United States of America.

GEARING

Worm gear geometry shall be highly optimized for rating and efficiency and precision manufactured with a single enveloping design.

The gear set shall consist of a hardened steel worm shaft. The worm gear shall be a fine grain, copper-tin bronze -specially alloyed for superior durability and wear resistance. All units shall have the worm gear set properly centered during assembly to produce an optimum contact pattern.

Gear design and power transmission ratings conform to globally accepted rating standards.

CASTINGS

The gear case and bearing housing shall be manufactured from Class 30 gray iron. The optional bolt-on base, motor flange and other accessories shall be available in either cast iron, aluminum or steel.

A riser block kit, designed for mounting to the top surface, shall be available to provide a method for avoiding a mounting arrangement that would position the input shaft below the level of the output shaft.

The reducer shall be sealed with no direct passage from the oil sump to the ambient atmosphere - (a closed system). This ventless design ensures no contamination of lubricant from external environment.

LUBRICATION

The standard lubrication shall be a synthetic type that is suitable for USDA Class H1 environments. The manufacturer must state in writing that the lubrication shall require no periodic changing. Alternate synthetic lubricants made from the same base material as the standard shall be available to accommodate extreme temperature applications.

All reducers shall be factory filled by the manufacturer with the proper volume of synthetic lubricant so that the reducer can be applied in any approved mounting position without any modifications to the reducer.

BEARINGS

Output shafts shall incorporate tapered roller bearings shimmed for proper running clearances and be designed for maximizing over hung load rating.

SEALING

Oil seals shall be made of premium materials and shall operate on plunge ground seal journals having an 8-17 Ra, 65-115 Rz micro finish. Seals made using Nitrile or Fluoroelastomer materials are not acceptable.

Oil seals shall have a minimum temperature range of -40° to 300° F. (-40° to 149° C).

All sealing-joints, except fill plug, shall be o-rings. Reducers shall incorporate no silicone rubber sealant of any kind.

HARDWARE

All fasteners shall be minimum Grade 5 and have locking provisions. Motor mounting bolts and input/output keys shall be provided.

EXTERNAL CONDITIONS

When properly service factored to account for the thermal limitations of the reducer, the standard construction shall be suitable for use in ambient temperatures from -10° F to +165° F.

The thermal ratings listed on ratings pages are based on the gear unit continuously operating in an ambient temperature of 75° F. For the ambient condition above 75° F, the derating factor needs to be applied to the thermal rating, or contact DODGE Application Engineering.

When used without the optional aluminum bolt-on foot the reducer shall be BISSC certified.

Washdown operating environments shall be addressed with a special coated gear case incorporating stainless steel hardware and stainless steel output shaft

Severe washdown operating environments shall be addressed with a stainless steel gear case incorporating stainless steel hardware and stainless steel output shaft.

HOW TO ORDER TIGEAR-2 Reducers

All TIGEAR-2 reducers and accessories have a part number. Reducer part numbers are found in the ratings/dimensions tables and accessories are listed in the modification/ accessories section. When placing an order specify the reducer part number and part number(s) of selected accessories.

Part Number Example:

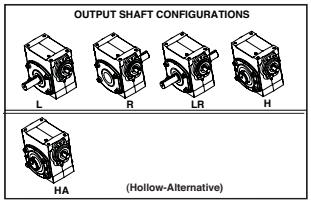
30Q15L14 Size-30, Quill input, 15:1 ratio, left hand output, 140TC input

30BASE Size-30 Bolt-on base kit

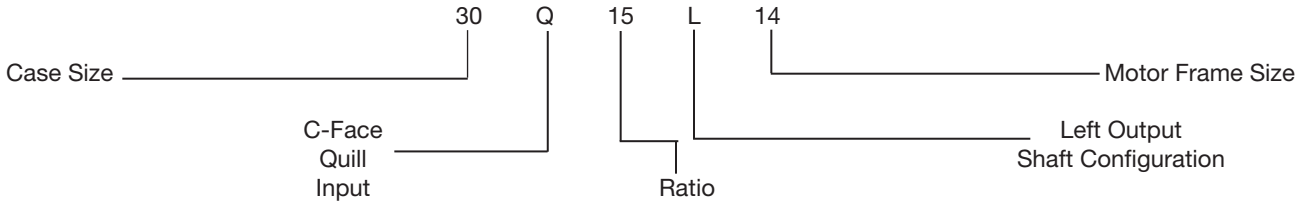
REDUCER NOMENCLATURE AND PART NUMBER

Size	Input Style	Washdown Option	Ratio	Output	Motor Frame
13 = 1.33 c.d.	Q Quill	Z E-Z KLEEN	05	L	56 = 56C
15 = 1.50 c.d.	S Separate	S ULTRA KLEEN	07	R	14 = 140TC
17 = 1.75 c.d	A 3-Piece Coupled		10	LR	18 = 180TC
20 = 2.00 c.d			12	H	21 = 210TC
21* = 2.06 c.d			15	HA	25 = 250TC
23 = 2.31 c.d			18		
26 = 2.62 c.d			20		
30 = 3.00 c.d			25		
35 = 3.50 c.d			30		
40 = 4.00 c.d			40		
47 = 4.75 c.d			50		
			60		

* ULTRA KLEEN only



EXAMPLE



SELECTION PROCEDURES

TIGEAR-2 Reducers

Selection Using Rating Tables

Because the efficiency of worm gear speed reducers varies from approximately 60 to 95%, it is important to consider the horsepower/torque conditions at both input and output in a given application. In a situation where motor horsepower is known (e.g., competitive interchange or when a particular motor is available), selection can be done based on input ratings. Where a gearbox is being selected by a designer who knows driven equipment loads, the reducer is selected from the output torque capacity.

NOTE: Although many customers successfully use quill style reducers for the application listed below, we strongly recommend using 3-piece coupled reducers. This will minimize any unusual noise conditions or aggravated wear in the input quill, which makes motor removal difficult.

- Use of single phase motors
- Frequent starts and stops, more than 10 per hour
- Brakemotor applications
- Variable speed motors
- Clutch/Brake units always require 3-piece coupled reducers

Prime Mover	Duration of Service Per Day	Driven Machine Load Classification		
		Uniform	Medium Shock	Heavy Shock
Electric Motor	Occasional 1/2 hour	Note (1)	Note (1)	1
	Less than 3 hours	1.00	1.00	1.25
	3 - 10 hours	1.00	1.25	1.50
	Over 10 hours	1.25	1.50	1.75
Electric Motor With Up To 10 Starts And Stops Per Hour	Occasional 1/2 hour	Note (1)	1.00	1.25
	Less than 3 hours	1.00	1.25	1.50
	3 - 10 hours	1.25	1.50	1.75
	Over 10 hours	1.50	1.75	2.00

NOTE (1) - Unspecified service factors should be 1.00 or as agreed upon by user and manufacturer.

NOTE (2) - Frequent Start and Stop applications, more than 10 Starts and Stops per hour, require special consideration in selecting a service factor. Contact DODGE Application Engineering for proper selection of TIGEAR-2 Reducers. The brake torque should be limited to two times the normal operating Motor torque.

Overhung Load

To determine overhung load, divide the torque required by the pitch radius of the sprocket, sheave, etc. and multiply by the appropriate factor as follows:

Chain drive	1.00
Synchronous Belt Drive	1.30
Spur or Helical Gear	1.25
V-Belt	1.50
Flat Belt	2.50

The calculated overhung load must not exceed the output overhung load rating.

For loads acting at more than one shaft diameter from the seal face use the following conversion factors:

Distance in Shaft Diameters from Output Seal Face	Multiply Overhung Load Capacity by this Factor
1D	1.00
2D	0.62
3D	0.42
4D	0.32
5D	0.26

Thermal Rating	
Ambient Temp, degree F	Derating Factor
75	1.00
90	.87
100	.79
110	.71
120	.62

The thermal ratings listed on selection pages are based on the gear unit continuously operating in an ambient temperature of 75° F. For the ambient condition above 75° F, the derating factor needs to be applied to the thermal rating, or contact DODGE Application Engineering.

CAUTION: Always refer to the Installation, Operation & Maintenance Manual before operating the reducer

TIGEAR-2 Reducers

Horsepower Method Of Selection

Step 1: **Determine Service Factor** Referring to the reducer service factor table, determine the appropriate service factor.

Step 2: **Determine Equivalent Horsepower** Multiply the motor horsepower by the service factor obtained in Step 1.

Step 3: **Calculate Required Ratio** Divide the motor shaft rpm by the reducer output shaft rpm.

Step 4: **Determine Unit Size** Refer to the rating tables and read across from ratio row and down from motor rpm column to select a unit whose mechanical input horsepower rating meets or exceeds the equivalent horsepower.

Step 5 **Check Thermal Rating** Compare the thermal input horsepower rating of the reducer selected to the motor horsepower. Thermal rating should always equal or exceed applied motor horsepower. For continuous duty operation in ambient temperature above 75°F derate the thermal rating per table on page G4-8 or contact DODGE Engineering.
Contact DODGE Engineering for use with non-ventilated motors.

Torque Method Of Selection

Step 1: **Determine Service Factor** Referring to the reducer service factor table, determine the appropriate service factor.

Step 2: **Determine Equivalent Torque** Multiply the torque required to drive the load at the output of the reducer by the service factor obtained in Step 1. (If drive components, e.g, chain or belt drives are used between reducer and driven equipment be sure to account for them when calculating output torque at the reducer).

Step 3: **Calculate Required Ratio** Divide the motor shaft rpm by the reducer output shaft rpm.

Step 4: **Determine Unit Size** Refer to the rating tables and read across from ratio row and down from motor rpm column to select a unit whose mechanical output torque rating meets or exceeds the equivalent torque.

Step 5: **Determine Required Motor Horsepower** First, calculate the output horsepower using the following equation where output torque is the torque required to drive the load at the output of the reducer.

$$\text{Output HP} = \frac{\text{Output Speed x Output Torque}}{63025}$$

Then calculate the required motor horsepower using the following equation to account for reducer efficiency:

$$\text{Required Motor Horsepower} = \frac{\text{Output Hp x Rated Input Hp of Reducer}}{\text{Rated Output HP of Reducer}}$$

Step 6: **Select Motor Hp** From available motors, select a horsepower that is equal to or greater than the value from Step 5: When the nearest motor horsepower is greater, check service factor at input by dividing rated input of reducer horsepower by actual motor horsepower. If the service factor is less than the value from Step 1, a larger reducer may be required.

Step 7: **Check Thermal Rating** Compare the thermal input horsepower rating of the reducer selected to the motor horsepower. Thermal rating should always equal or exceed applied motor horsepower. For continuous duty operation in ambient temperatures above 75°F contact DODGE Engineering.
Contact DODGE Engineering for use with non-ventilated motors.

SELECTION TABLES BY HORSE-POWER AND SERVICE FACTOR

DODGE®

TIGEAR-2 Selection Table

1.00 Reducer Service Factor

1750 RPM Input

Output Rpm	Ratio		Motor Horsepower												
			0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00	5.00	7.50	10.00	15.00	20.00
350	5	SIZE	13	13	13	13	13	15	17	20	23	30	30	35	40
		Torque	42	55	83	125	166	250	332	502	840	1279	1706	2563	3408
		OHL	650	650	650	650	650	710	1050	1380	1330	1330	1330	2120	2860
233	7.5	SIZE	13	13	13	13	13	17	17	23	26	30	35	40	47
		Torque	60	79	120	180	240	364	485	736	1231	1863	2495	3727	4969
		OHL	650	650	650	650	650	1190	1190	1520	1520	1540	2430	3280	5600
175	10	SIZE	13	13	13	13	15	17	20	23	30	35	35	47	
		Torque	80	105	160	240	321	480	644	972	1650	2498	3331	4973	
		OHL	650	650	650	650	710	1190	1560	1610	1720	2700	2700	5600	
117	15	SIZE	13	13	13	15	17	20	23	26	30	40	40		
		Torque	114	150	227	343	459	701	935	1417	2391	3599	4799		
		OHL	650	650	650	710	1190	1560	1610	1610	2300	4190	4190		
88	20	SIZE	13	13	13	17	17	23	23	30	35	40	47		
		Torque	143	189	286	438	583	898	1198	1845	3125	4665	6156		
		OHL	650	650	650	1190	1190	1610	1610	2300	2760	4300	5600		
70	25	SIZE	13	13	15	17	20	23	26	30	40	47			
		Torque	169	223	341	517	707	1074	1485	2245	3719	5489			
		OHL	650	650	710	1190	1560	1610	1610	2300	4300	5600			
58	30	SIZE	13	13	15	17	23	26	26	35	40				
		Torque	200	264	404	607	847	1312	1750	2662	4365				
		OHL	650	650	710	1190	1610	1610	1610	2760	4300				
44	40	SIZE	13	15	17	20	23	26	30	35	47				
		Torque	249	333	520	793	1071	1630	2224	3361	5350				
		OHL	650	710	1190	1560	1610	1610	2300	2760	5600				
35	50	SIZE	13	15	17	23	26	30	35	40					
		Torque	289	388	600	929	1262	1940	2637	3767					
		OHL	650	710	1190	1610	1610	2300	2760	4300					
29	60	SIZE	15	17	20	23	26	30	35	40					
		Torque	329	442	691	1037	1432	2179	2923	4234					
		OHL	710	1190	1560	1610	1610	2300	2760	4300					

Torque = Actual output torque in lb. - in

OHL - Maximum OHL capacity in lbs

SELECTION TABLES BY HORSE-POWER AND SERVICE FACTOR

TIGEAR-2 Selection Table

1.25 Reducer Service Factor

1750 RPM Input

Output Rpm	Ratio		Motor Horsepower												
			0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00	5.00	7.50	10.00	15.00	20.00
350	5	**SIZE**	**13**	**13**	**13**	**13**	**13**	**17**	**17**	**23**	**26**	**30**	**35**	**40**	**47**
		Torque	42	55	83	125	166	249	332	504	846	1279	1709	2556	3397
		OHL	520	520	520	520	520	840	840	1064	1064	1064	1696	2288	4080
233	7.5	**SIZE**	**13**	**13**	**13**	**13**	**15**	**17**	**20**	**23**	**30**	**35**	**40**	**47**	
		Torque	60	79	120	180	241	364	489	736	1242	1871	2485	3727	
		OHL	520	520	520	520	568	952	1248	1216	1232	1944	2624	4480	
175	10	**SIZE**	**13**	**13**	**13**	**15**	**17**	**20**	**23**	**26**	**30**	**35**	**40**	**47**	
		Torque	80	105	160	241	320	483	648	979	1650	2498	3315	4973	
		OHL	520	520	520	568	952	1248	1288	1288	1376	2160	2912	4480	
117	15	**SIZE**	**13**	**13**	**13**	**17**	**17**	**23**	**23**	**30**	**35**	**40**	**47**		
		Torque	114	150	227	345	459	701	935	1434	2418	3599	4796		
		OHL	520	520	520	952	952	1288	1288	1840	2208	3352	4480		
88	20	**SIZE**	**13**	**13**	**15**	**17**	**20**	**23**	**26**	**30**	**40**	**47**			
		Torque	143	189	292	438	596	898	1236	1845	3110	4617			
		OHL	520	520	568	952	1248	1288	1288	1840	3440	4480			
70	25	**SIZE**	**13**	**13**	**17**	**20**	**23**	**26**	**30**	**35**	**40**				
		Torque	169	223	345	530	716	1114	1497	2279	3719				
		OHL	520	520	952	1248	1288	1288	1840	2208	3440				
58	30	**SIZE**	**13**	**150**	**17**	**20**	**23**	**26**	**30**	**35**	**47**				
		Torque	200	267	404	625	847	1312	1766	2662	4308				
		OHL	520	568	952	1248	1288	1288	1840	2208	4480				
44	40	**SIZE**	**13**	**150**	**20**	**23**	**26**	**30**	**35**	**40**					
		Torque	249	333	529	803	1087	1668	2241	3253					
		OHL	520	568	1248	1288	1288	1840	2208	3440					
35	50	**SIZE**	**150**	**17**	**20**	**23**	**26**	**35**	**35**	**47**					
		Torque	294	396	617	929	1262	1978	2637	3705					
		OHL	568	952	1248	1288	1288	2208	2208	4480					
29	60	**SIZE**	**17**	**17**	**23**	**26**	**30**	**35**	**40**	**47**					
		Torque	335	442	692	1074	1453	2192	2822	4143					
		OHL	952	952	1288	1288	1840	2208	3440	4480					

Torque = Actual output torque in lb. - in

OHL - Maximum OHL capacity in lbs

SELECTION TABLES BY HORSE-POWER AND SERVICE FACTOR

DODGE®

TIGEAR-2 Selection Table

1.50 Reducer Service Factor

1750 RPM Input

Output Rpm	Ratio		Motor Horsepower												
			0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00	5.00	7.50	10.00	15.00	20.00
350	5	SIZE	13	13	13	13	15	17	20	23	30	35	35	47	
		Torque	42	55	83	125	167	249	335	504	853	1281	1709	2548	
		OHL	433	433	433	433	473	700	700	887	887	1413	1413	3400	
233	7.5	SIZE	13	13	13	15	17	20	23	26	30	35	40	47	
		Torque	60	79	120	181	243	367	491	739	1242	1871	2485	3727	
		OHL	433	433	433	473	793	1040	1013	1013	1027	1620	2187	3733	
175	10	SIZE	13	13	13	15	17	20	23	26	35	40	47		
		Torque	80	105	160	241	320	483	648	979	1666	2486	3315		
		OHL	433	433	433	473	793	1040	1073	1073	1800	2427	3733		
117	15	SIZE	13	13	15	17	20	23	26	30	40	47			
		Torque	114	150	228	345	467	701	944	1434	2400	3597			
		OHL	433	433	473	793	1040	1073	1073	1533	2793	3733			
88	20	SIZE	13	13	17	20	23	26	30	35	40				
		Torque	143	189	292	447	599	927	1230	1875	3110				
		OHL	433	433	793	1040	1073	1073	1533	1840	2867				
70	25	SIZE	13	15	17	23	23	26	30	35	47				
		Torque	169	225	345	537	716	1114	1497	2279	3659				
		OHL	433	473	793	1073	1073	1073	1533	1840	3733				
58	30	SIZE	13	15	17	23	26	30	35	40	47				
		Torque	200	267	404	635	875	1324	1775	2619	4308				
		OHL	433	473	793	1073	1073	1533	1840	2867	3733				
44	40	SIZE	15	17	20	26	26	35	35	47					
		Torque	252	343	529	815	1087	1680	2241	3210					
		OHL	473	793	1040	1073	1073	1840	1840	3733					
35	50	SIZE	17	17	23	26	30	35	40	47					
		Torque	300	396	619	947	1293	1978	2511	3705					
		OHL	793	793	1073	1073	1533	1840	2867	3733					
29	60	SIZE	17	20	23	30	30	40	40						
		Torque	335	456	692	1090	1453	2117	2822						
		OHL	793	1040	1073	1533	1533	2867	2867						

Torque = Actual output torque in lb. - in
OHL - Maximum OHL capacity in lbs

SELECTION TABLES BY HORSE-POWER AND SERVICE FACTOR

TIGEAR-2 Selection Table

2.00 Reducer Service Factor

1750 RPM Input

Output Rpm	Ratio		Motor Horsepower												
			0.25	0.33	0.50	0.75	1.00	1.50	2.00	3.00	5.00	7.50	10.00	15.00	20.00
350	5	SIZE	13	13	13	15	17	20	23	26	30	35	40		
		Torque	42	55	83	125	166	251	336	508	853	1281	1704		
		OHL	325	325	325	355	525	690	665	665	665	1060	1430		
233	7.5	SIZE	13	13	13	17	17	23	23	30	35	40	47		
		Torque	60	79	120	182	243	368	491	745	1248	1863	2485		
		OHL	325	325	325	595	595	760	760	770	1215	1640	2800		
175	10	SIZE	13	13	15	17	20	23	26	30	35	47			
		Torque	80	105	160	240	322	486	653	990	1666	2487			
		OHL	325	325	355	595	780	805	805	860	1350	2800			
117	15	SIZE	13	15	17	20	23	26	30	35	40				
		Torque	114	151	230	350	468	708	956	1451	2400				
		OHL	325	355	595	780	805	805	1150	1380	2095				
88	20	SIZE	13	15	17	23	23	30	35	40	47				
		Torque	143	193	292	449	599	922	1250	1866	3078				
		OHL	325	355	595	805	805	1150	1380	2150	2800				
70	25	SIZE	15	17	20	23	26	30	35	40					
		Torque	170	227	354	537	743	1122	1519	2231					
		OHL	355	595	780	805	805	1150	1380	2150					
58	30	SIZE	150	17	23	26	26	35	35	47					
		Torque	202	267	424	656	875	1331	1775	2585					
		OHL	355	595	805	805	805	1380	1380	2800					
44	40	SIZE	17	20	23	26	30	35	40	47					
		Torque	260	349	536	815	1112	1680	2168	3210					
		OHL	595	780	805	805	1150	1380	2150	2800					
35	50	SIZE	17	23	26	30	35	40	47						
		Torque	300	409	631	970	1318	1884	2470						
		OHL	595	805	805	1150	1380	2150	2800						
29	60	SIZE	20	23	26	30	35	40	47						
		Torque	345	456	716	1090	1462	2117	2762						
		OHL	780	805	805	1150	1380	2150	2800						

Torque = Actual output torque in lb. - in

OHL - Maximum OHL capacity in lbs

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 13

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Shaft Position
5	350	Mechanical Input Hp	1.32	**13Q05L56**	L
		Thermal Input Hp	2.94	**13Q05R56**	R
		Output Torque (lb in.)	219	**13Q05LR56**	LR
		Mechanical Output Hp	1.22	**13Q05H56**	HOLLOW
		Output OHL (lbs.)	650		
7.5	233	Mechanical Input Hp	1.04	**13Q07L56**	L
		Thermal Input Hp	2.27	**13Q07R56**	R
		Output Torque (lb in.)	251	**13Q07LR56**	LR
		Mechanical Output Hp	0.94	**13Q07H56**	HOLLOW
		Output OHL (lbs.)	650		
10	175	Mechanical Input Hp	0.85	**13Q10L56**	L
		Thermal Input Hp	1.96	**13Q10R56**	R
		Output Torque (lb in.)	270	**13Q10LR56**	LR
		Mechanical Output Hp	0.75	**13Q10H56**	HOLLOW
		Output OHL (lbs.)	650		
15	117	Mechanical Input Hp	0.64	**13Q15L56**	L
		Thermal Input Hp	1.38	**13Q15R56**	R
		Output Torque (lb in.)	293	**13Q15LR56**	LR
		Mechanical Output Hp	0.54	**13Q15H56**	HOLLOW
		Output OHL (lbs.)	650		
20	88	Mechanical Input Hp	0.53	**13Q20L56**	L
		Thermal Input Hp	1.06	**13Q20R56**	R
		Output Torque (lb in.)	304	**13Q20LR56**	LR
		Mechanical Output Hp	0.42	**13Q20H56**	HOLLOW
		Output OHL (lbs.)	650		
25	70	Mechanical Input Hp	0.46	**13Q25L56**	L
		Thermal Input Hp	0.86	**13Q25R56**	R
		Output Torque (lb in.)	311	**13Q25LR56**	LR
		Mechanical Output Hp	0.35	**13Q25H56**	HOLLOW
		Output OHL (lbs.)	650		
30	58	Mechanical Input Hp	0.39	**13Q30L56**	L
		Thermal Input Hp	0.85	**13Q30R56**	R
		Output Torque (lb in.)	314	**13Q30LR56**	LR
		Mechanical Output Hp	0.29	**13Q30H56**	HOLLOW
		Output OHL (lbs.)	650		
40	44	Mechanical Input Hp	0.32	**13Q40L56**	L
		Thermal Input Hp	0.7	**13Q40R56**	R
		Output Torque (lb in.)	319	**13Q40LR56**	LR
		Mechanical Output Hp	0.22	**13Q40H56**	HOLLOW
		Output OHL (lbs.)	650		
50	35	Mechanical Input Hp	0.27	**13Q50L56**	L
		Thermal Input Hp	0.61	**13Q50R56**	R
		Output Torque (lb in.)	313	**13Q50LR56**	LR
		Mechanical Output Hp	0.17	**13Q50H56**	HOLLOW
		Output OHL (lbs.)	650		
60	29	Mechanical Input Hp	0.23	**13Q60L56**	L
		Thermal Input Hp	0.54	**13Q60R56**	R
		Output Torque (lb in.)	298	**13Q60LR56**	LR
		Mechanical Output Hp	0.14	**13Q60H56**	HOLLOW
		Output OHL (lbs.)	650		

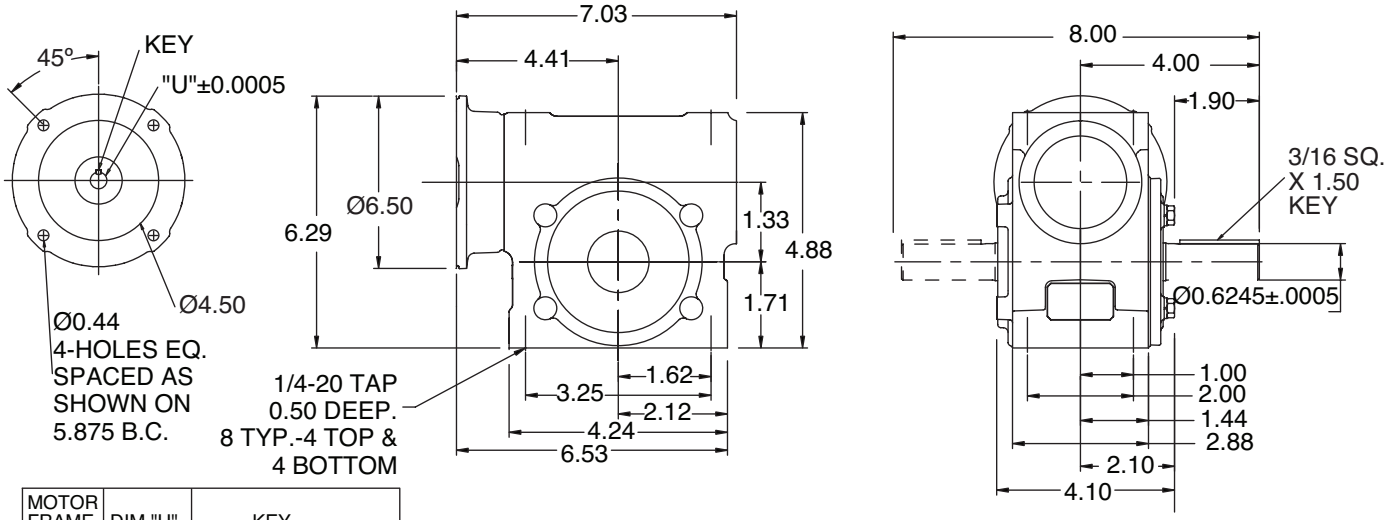
Note: Reducers are shipped without a mounting base. Order bolt-on base kit **13BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

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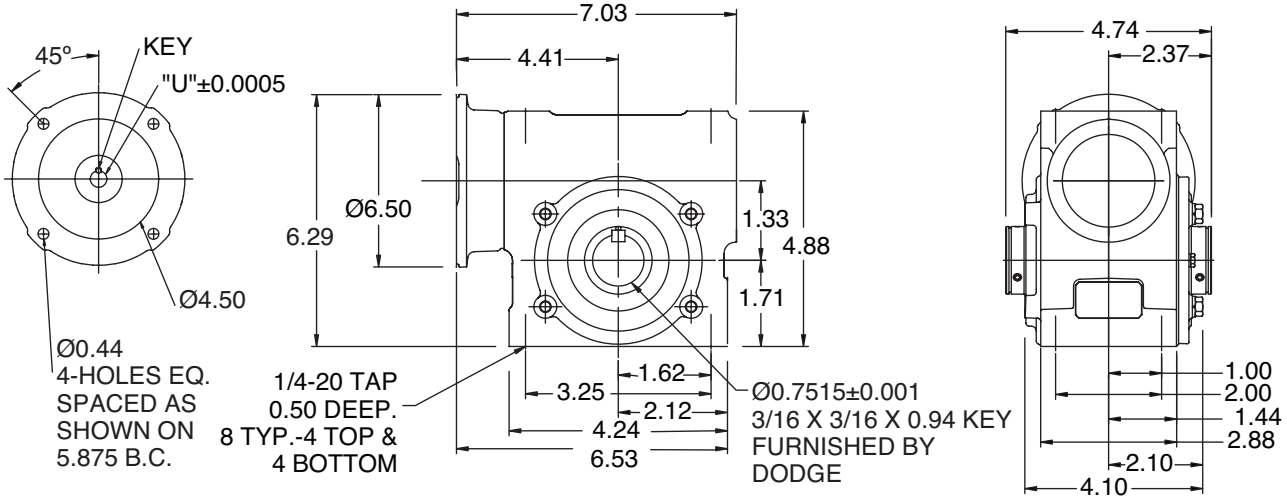
TIGEAR-2 Reducers With Quill Input - Size 13

SOLID OUTPUT

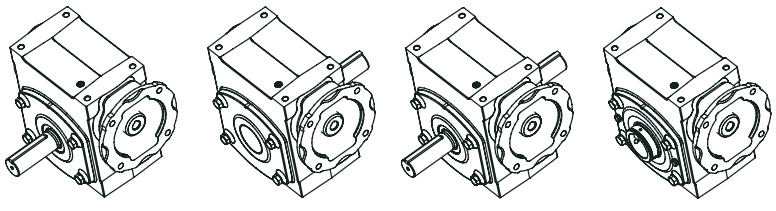


MOTOR FRAME	DIM "U"	KEY
48Y 56C	ˇ 0.626	3/16 SQ. X 1.72 KEY

HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H

FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	WASHDOWN PRODUCT PAGE G4-80

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Separate Input - Size 13

Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit	
						56C	140TC
5	350	Mechanical Input Hp	1.32	13S05L	L	1315MTR56	1315MTR14
		Thermal Input Hp	2.94	13S05R	R		
		Output Torque (lb in.)	219	13S05LR	LR		
		Mechanical Output Hp	1.22	13S05H	HOLLOW		
		Output OHL (lbs.)	650				
7.5	233	Mechanical Input Hp	1.04	13S07L	L	1315MTR56	1315MTR14
		Thermal Input Hp	2.27	13S07R	R		
		Output Torque (lb in.)	251	13S07LR	LR		
		Mechanical Output Hp	0.94	13S07H	HOLLOW		
		Output OHL (lbs.)	650				
10	175	Mechanical Input Hp	0.85	13S10L	L	1315MTR56	1315MTR14
		Thermal Input Hp	1.96	13S10R	R		
		Output Torque (lb in.)	270	13S10LR	LR		
		Mechanical Output Hp	0.75	13S10H	HOLLOW		
		Output OHL (lbs.)	650				
15	117	Mechanical Input Hp	0.64	13S15L	L	1315MTR56	
		Thermal Input Hp	1.38	13S15R	R		
		Output Torque (lb in.)	293	13S15LR	LR		
		Mechanical Output Hp	0.54	13S15H	HOLLOW		
		Output OHL (lbs.)	650				
20	88	Mechanical Input Hp	0.53	13S20L	L	1315MTR56	
		Thermal Input Hp	1.06	13S20R	R		
		Output Torque (lb in.)	304	13S20LR	LR		
		Mechanical Output Hp	0.42	13S20H	HOLLOW		
		Output OHL (lbs.)	650				
25	70	Mechanical Input Hp	0.46	13S25L	L	1315MTR56	
		Thermal Input Hp	0.86	13S25R	R		
		Output Torque (lb in.)	311	13S25LR	LR		
		Mechanical Output Hp	0.35	13S25H	HOLLOW		
		Output OHL (lbs.)	650				
30	58	Mechanical Input Hp	0.39	13S30L	L	1315MTR56	
		Thermal Input Hp	0.85	13S30R	R		
		Output Torque (lb in.)	314	13S30LR	LR		
		Mechanical Output Hp	0.29	13S30H	HOLLOW		
		Output OHL (lbs.)	650				
40	44	Mechanical Input Hp	0.32	13S40L	L	1315MTR56	
		Thermal Input Hp	0.70	13S40R	R		
		Output Torque (lb in.)	319	13S40LR	LR		
		Mechanical Output Hp	0.22	13S40H	HOLLOW		
		Output OHL (lbs.)	650				
50	35	Mechanical Input Hp	0.27	13S50L	L	1315MTR56	
		Thermal Input Hp	0.61	13S50R	R		
		Output Torque (lb in.)	313	13S50LR	LR		
		Mechanical Output Hp	0.17	13S50H	HOLLOW		
		Output OHL (lbs.)	650				
60	29	Mechanical Input Hp	0.23	13S60L	L	1315MTR56	
		Thermal Input Hp	0.54	13S60R	R		
		Output Torque (lb in.)	298	13S60LR	LR		
		Mechanical Output Hp	0.14	13S60H	HOLLOW		
		Output OHL (lbs.)	650				
All Ratios		Input OHL (lbs)	120	One diameter from seal surface			

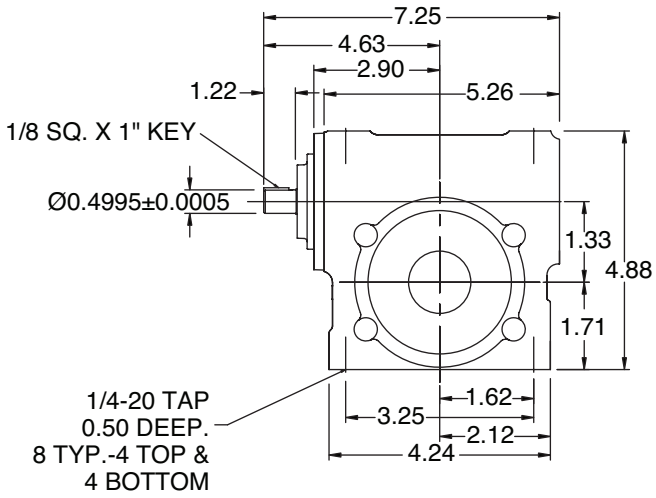
Note: TIGEAR-2 separate reducers cannot be used with the old Adaptable TIGEAR motor adapter kits.
Refer to page G4-118 for hollow bore bushing selections

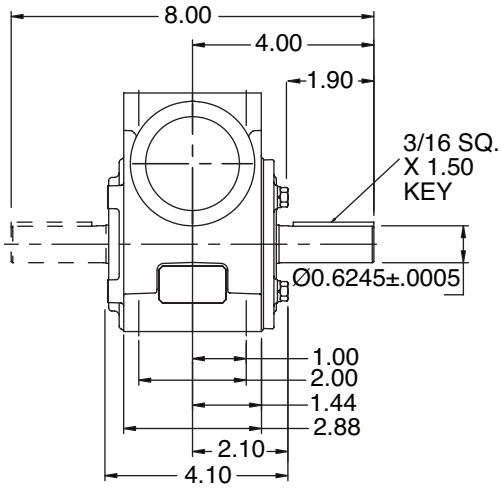


RATINGS/DIMENSIONS

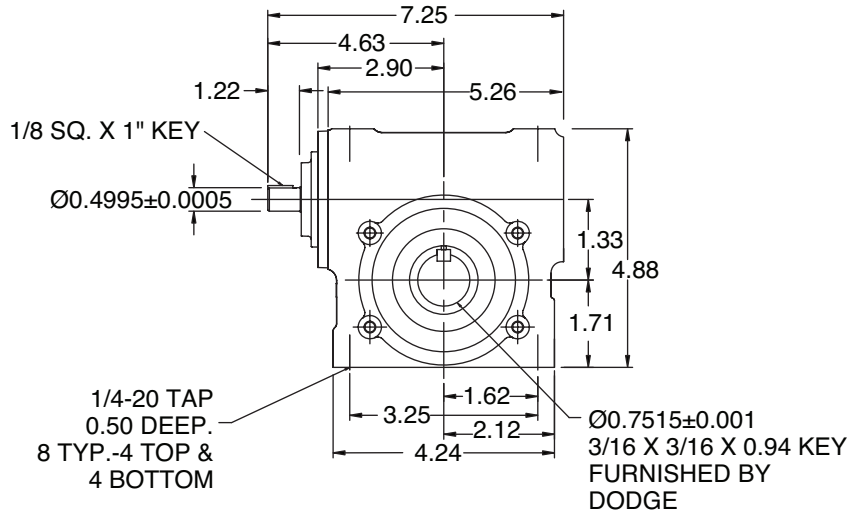
TIGEAR-2 Reducers With Separate Input - Size 13

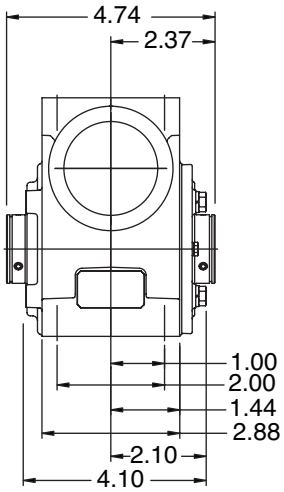
SOLID OUTPUT



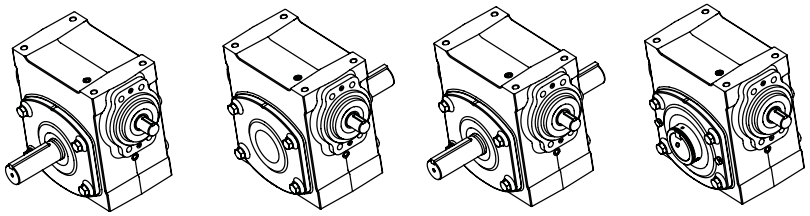


HOLLOW OUTPUT

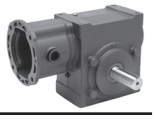




OUTPUT SHAFT CONFIGURATIONS



RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 13

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

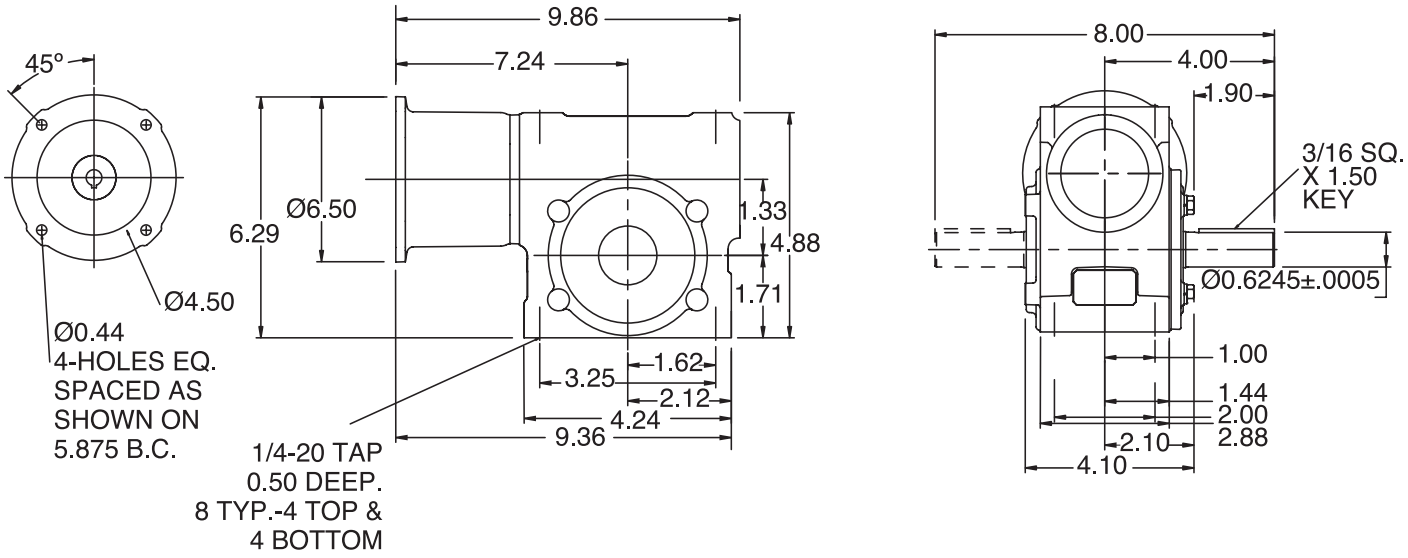
Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	1.32	13A05L56	13A05L14	L
		Thermal Input Hp	2.94	13A05R56	13A05RL14	R
		Output Torque (lb in.)	219	13A05LR56	13A05LR14	LR
		Mechanical Output Hp	1.22	13A05H56	13A05H14	HOLLOW
		Output OHL (lbs.)	650			
7.5	233	Mechanical Input Hp	1.04	13A07L56	13A07L14	L
		Thermal Input Hp	2.27	13A07R56	13A07RL14	R
		Output Torque (lb in.)	251	13A07LR56	13A07LR14	LR
		Mechanical Output Hp	0.94	13A07H56	13A07H14	HOLLOW
		Output OHL (lbs.)	650			
10	175	Mechanical Input Hp	0.85	13A10L56	13A10L14	L
		Thermal Input Hp	1.96	13A10R56	13A10RL14	R
		Output Torque (lb in.)	270	13A10LR56	13A10LR14	LR
		Mechanical Output Hp	0.75	13A10H56	13A10H14	HOLLOW
		Output OHL (lbs.)	650			
15	117	Mechanical Input Hp	0.64	13A15L56		L
		Thermal Input Hp	1.38	13A15R56		R
		Output Torque (lb in.)	293	13A15LR56		LR
		Mechanical Output Hp	0.54	13A15H56		HOLLOW
		Output OHL (lbs.)	650			
20	88	Mechanical Input Hp	0.53	13A20L56		L
		Thermal Input Hp	1.06	13A20R56		R
		Output Torque (lb in.)	304	13A20LR56		LR
		Mechanical Output Hp	0.42	13A20H56		HOLLOW
		Output OHL (lbs.)	650			
25	70	Mechanical Input Hp	0.46	13A25L56		L
		Thermal Input Hp	0.86	13A25R56		R
		Output Torque (lb in.)	311	13A25LR56		LR
		Mechanical Output Hp	0.35	13A25H56		HOLLOW
		Output OHL (lbs.)	650			
30	58	Mechanical Input Hp	0.39	13A30L56		L
		Thermal Input Hp	0.85	13A30R56		R
		Output Torque (lb in.)	314	13A30LR56		LR
		Mechanical Output Hp	0.29	13A30H56		HOLLOW
		Output OHL (lbs.)	650			
40	44	Mechanical Input Hp	0.32	13A40L56		L
		Thermal Input Hp	0.70	13A40R56		R
		Output Torque (lb in.)	319	13A40LR56		LR
		Mechanical Output Hp	0.22	13A40H56		HOLLOW
		Output OHL (lbs.)	650			
50	35	Mechanical Input Hp	0.27	13A50L56		L
		Thermal Input Hp	0.61	13A50R56		R
		Output Torque (lb in.)	313	13A50LR56		LR
		Mechanical Output Hp	0.17	13A50H56		HOLLOW
		Output OHL (lbs.)	650			
60	29	Mechanical Input Hp	0.23	13A60L56		L
		Thermal Input Hp	0.54	13A60R56		R
		Output Torque (lb in.)	298	13A60LR56		LR
		Mechanical Output Hp	0.14	13A60H56		HOLLOW
		Output OHL (lbs.)	650			

Note: Reducers are shipped without a mounting base. Order bolt-on base kit 13BASE if required.
Refer to page G4-118 for hollow bore bushing selections

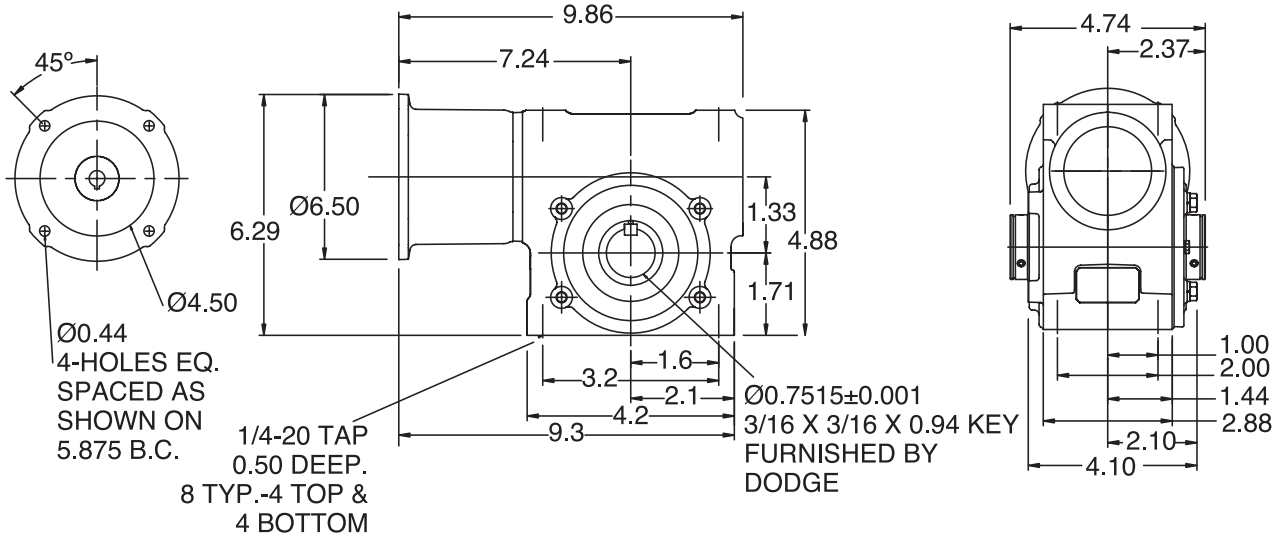


TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 13

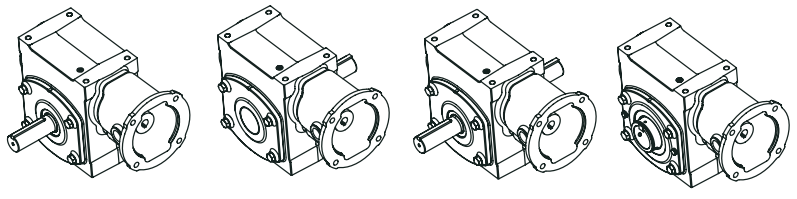
SOLID OUTPUT



HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H

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RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 15

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Shaft Position
5	350	Mechanical Input Hp	1.75	**15Q05L56**	L
		Thermal Input Hp	3.34	**15Q05R56**	R
		Output Torque (lb in.)	293	**15Q05LR56**	LR
		Mechanical Output Hp	1.63	**15Q05H56**	HOLLOW
		Output OHL (lbs.)	710		
7.5	233	Mechanical Input Hp	1.40	**15Q07L56**	L
		Thermal Input Hp	2.55	**15Q07R56**	R
		Output Torque (lb in.)	337	**15Q07LR56**	LR
		Mechanical Output Hp	1.26	**15Q07H56**	HOLLOW
		Output OHL (lbs.)	710		
10	175	Mechanical Input Hp	1.13	**15Q10L56**	L
		Thermal Input Hp	2.22	**15Q10R56**	R
		Output Torque (lb in.)	361	**15Q10LR56**	LR
		Mechanical Output Hp	1.00	**15Q10H56**	HOLLOW
		Output OHL (lbs.)	710		
15	117	Mechanical Input Hp	0.86	**15Q15L56**	L
		Thermal Input Hp	1.58	**15Q15R56**	R
		Output Torque (lb in.)	392	**15Q15LR56**	LR
		Mechanical Output Hp	0.73	**15Q15H56**	HOLLOW
		Output OHL (lbs.)	710		
20	88	Mechanical Input HP	0.70	**15Q20L56**	L
		Thermal Input Hp	1.26	**15Q20R56**	R
		Output Torque (lb in.)	407	**15Q20LR56**	LR
		Mechanical Output Hp	0.56	**15Q20H56**	HOLLOW
		Output OHL (lbs.)	710		
25	70	Mechanical Input Hp	0.60	**15Q25L56**	L
		Thermal Input Hp	0.99	**15Q25R56**	R
		Output Torque (lb in.)	410	**15Q25LR56**	LR
		Mechanical Output Hp	0.46	**15Q25H56**	HOLLOW
		Output OHL (lbs.)	710		
30	58	Mechanical Input Hp	0.51	**15Q30L56**	L
		Thermal Input Hp	0.96	**15Q30R56**	R
		Output Torque (lb in.)	413	**15Q30LR56**	LR
		Mechanical Output Hp	0.38	**15Q30H56**	HOLLOW
		Output OHL (lbs.)	710		
40	44	Mechanical Input Hp	0.41	**15Q40L56**	L
		Thermal Input Hp	0.80	**15Q40R56**	R
		Output Torque (lb in.)	417	**15Q40LR56**	LR
		Mechanical Output Hp	0.29	**15Q40H56**	HOLLOW
		Output OHL (lbs.)	710		
50	35	Mechanical Input Hp	0.34	**15Q50L56**	L
		Thermal Input Hp	0.70	**15Q50R56**	R
		Output Torque (lb in.)	402	**15Q50LR56**	LR
		Mechanical Output Hp	0.22	**15Q50H56**	HOLLOW
		Output OHL (lbs.)	710		
60	29	Mechanical Input Hp	0.29	**15Q60L56**	L
		Thermal Input Hp	0.62	**15Q60R56**	R
		Output Torque (lb in.)	381	**15Q60LR56**	LR
		Mechanical Output Hp	0.18	**15Q60H56**	HOLLOW
		Output OHL (lbs.)	710		

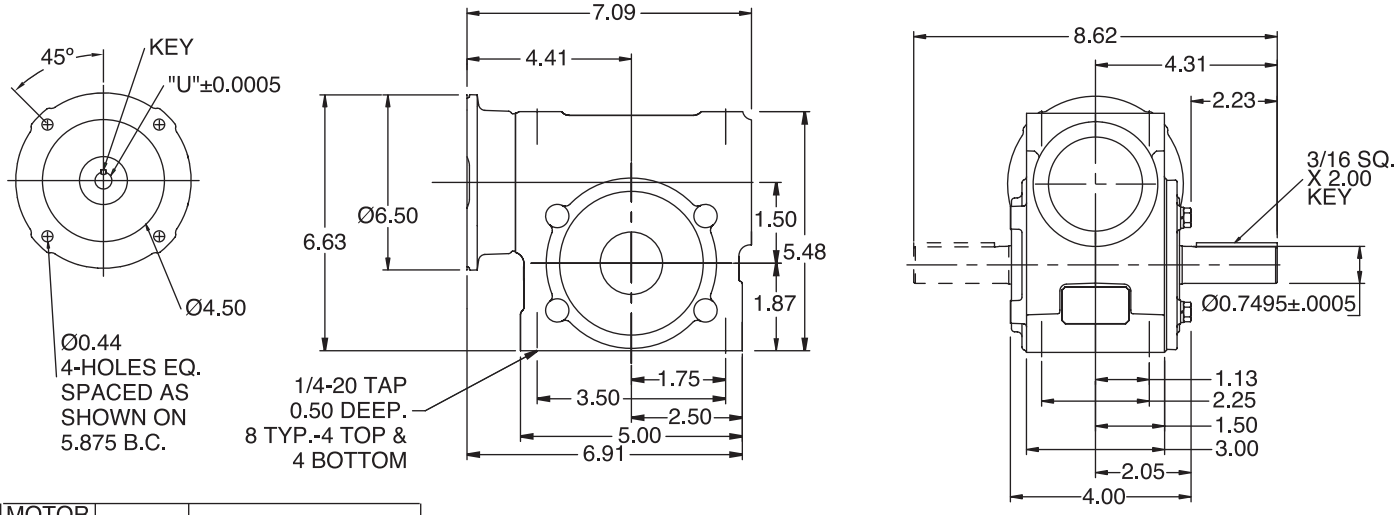
Note: Reducers are shipped without a mounting base. Order bolt-on base kit **15BASE** if required.
Refer to page G4-118 for hollow bore bushing selections.



RATINGS/DIMENSIONS

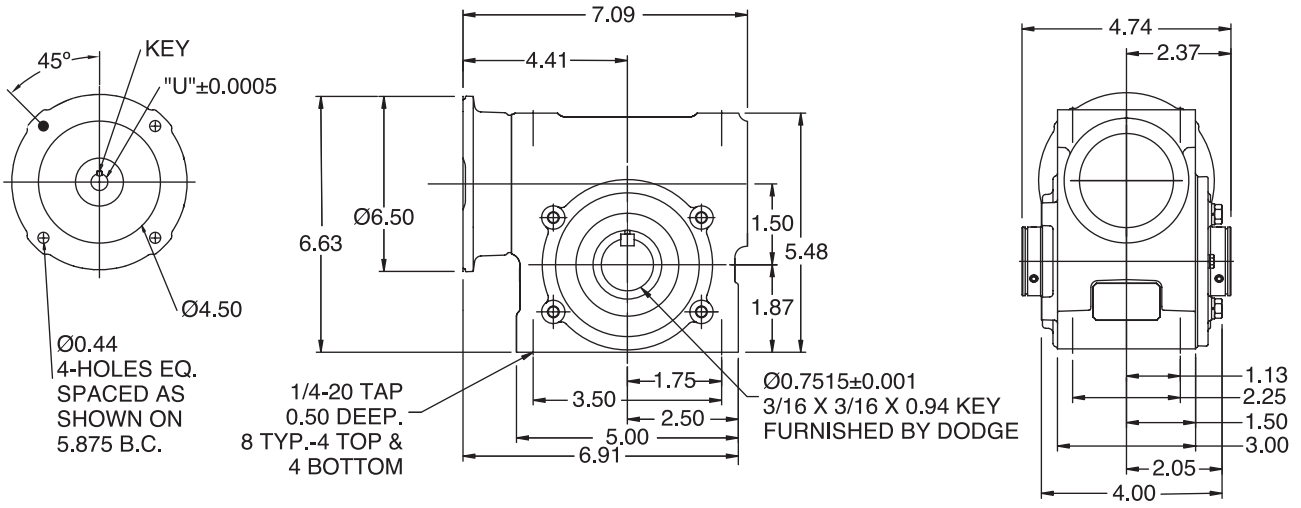
TIGEAR-2 Reducers With Quill Input - Size 15

SOLID OUTPUT

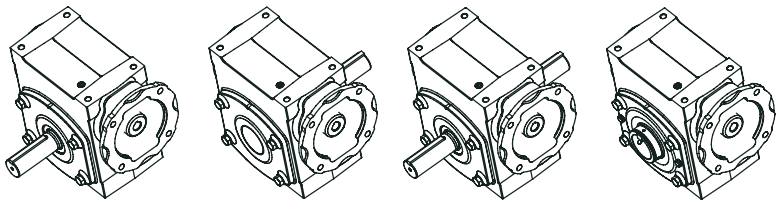


MOTOR FRAME	"U"	KEY
48Y 56C	Ø0.626	3/16 SQ. X 1.72 KEY

HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H

FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	WASHDOWN PRODUCT PAGE G4-80

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Separate Input - Size 15

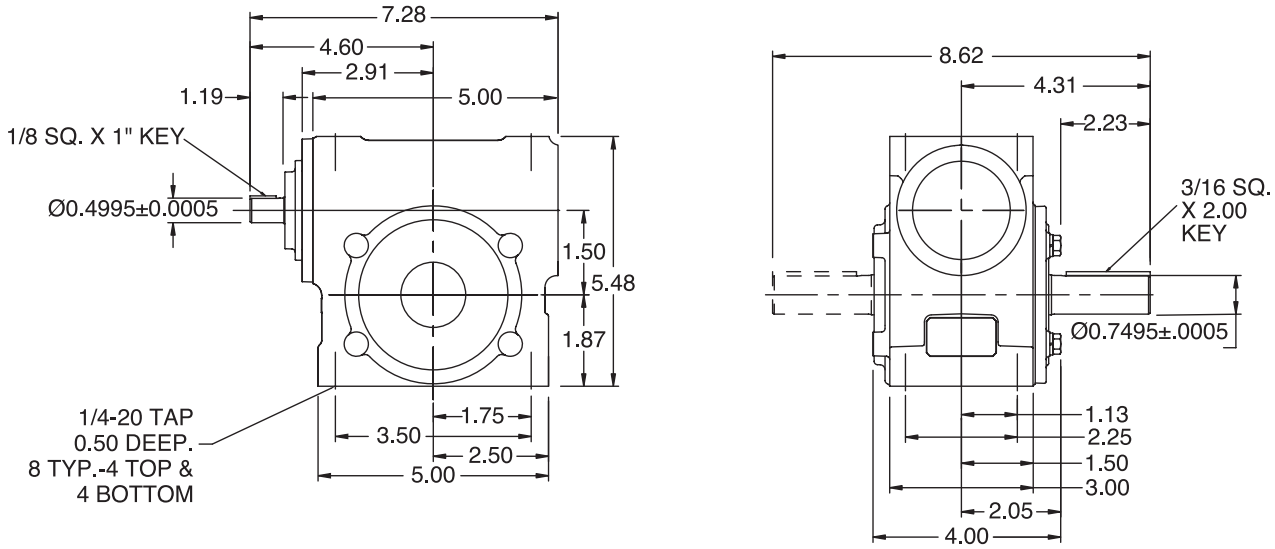
Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit	
						56C	140TC
5	350	Mechanical Input Hp	1.75	**15S05L**	L	**1315MTR56**	**1315MTR14**
		Thermal Input Hp	3.34	**15S05R**	R		
		Output Torque (lb in.)	293	**15S05LR**	LR		
		Mechanical Output Hp	1.63	**15S05H**	HOLLOW		
		Output OHL (lbs.)	710				
7.5	233	Mechanical Input Hp	1.40	**15S07L**	L	**1315MTR56**	**1315MTR14**
		Thermal Input Hp	2.55	**15S07R**	R		
		Output Torque (lb in.)	337	**15S07LR**	LR		
		Mechanical Output Hp	1.26	**15S07H**	HOLLOW		
		Output OHL (lbs.)	710				
10	175	Mechanical Input Hp	1.13	**15S10L**	L	**1315MTR56**	**1315MTR14**
		Thermal Input Hp	2.22	**15S10R**	R		
		Output Torque (lb in.)	361	**15S10LR**	LR		
		Mechanical Output Hp	1.00	**15S10H**	HOLLOW		
		Output OHL (lbs.)	710				
15	117	Mechanical Input Hp	0.86	**15S15L**	L	**1315MTR56**	
		Thermal Input Hp	1.58	**15S15R**	R		
		Output Torque (lb in.)	392	**15S15LR**	LR		
		Mechanical Output Hp	0.73	**15S15H**	HOLLOW		
		Output OHL (lbs.)	710				
20	88	Mechanical Input Hp	0.70	**15S20L**	L	**1315MTR56**	
		Thermal Input Hp	1.26	**15S20R**	R		
		Output Torque (lb in.)	407	**15S20LR**	LR		
		Mechanical Output Hp	0.56	**15S20H**	HOLLOW		
		Output OHL (lbs.)	710				
25	70	Mechanical Input Hp	0.60	**15S25L**	L	**1315MTR56**	
		Thermal Input Hp	0.99	**15S25R**	R		
		Output Torque (lb in.)	410	**15S25LR**	LR		
		Mechanical Output Hp	0.46	**15S25H**	HOLLOW		
		Output OHL (lbs.)	710				
30	58	Mechanical Input Hp	0.51	**15S30L**	L	**1315MTR56**	
		Thermal Input Hp	0.96	**15S30R**	R		
		Output Torque (lb in.)	413	**15S30LR**	LR		
		Mechanical Output Hp	0.38	**15S30H**	HOLLOW		
		Output OHL (lbs.)	710				
40	44	Mechanical Input Hp	0.41	**15S40L**	L	**1315MTR56**	
		Thermal Input Hp	0.80	**15S40R**	R		
		Output Torque (lb in.)	417	**15S40LR**	LR		
		Mechanical Output Hp	0.29	**15S40H**	HOLLOW		
		Output OHL (lbs.)	710				
50	35	Mechanical Input Hp	0.34	**15S50L**	L	**1315MTR56**	
		Thermal Input Hp	0.70	**15S50R**	R		
		Output Torque (lb in.)	402	**15S50LR**	LR		
		Mechanical Output Hp	0.22	**15S50H**	HOLLOW		
		Output OHL (lbs.)	710				
60	29	Mechanical Input Hp	0.29	**15S60L**	L	**1315MTR56**	
		Thermal Input Hp	0.62	**15S60R**	R		
		Output Torque (lb in.)	381	**15S60LR**	LR		
		Mechanical Output Hp	0.18	**15S60H**	HOLLOW		
		Output OHL (lbs.)	710				
All Ratios		Input OHL (lbs)	140	One diameter from seal surface			

Note: TIGEAR-2 separate reducers cannot be used with the old Adaptable TIGEAR motor adapter kits.
Refer to page G4-118 for hollow bore bushing selections

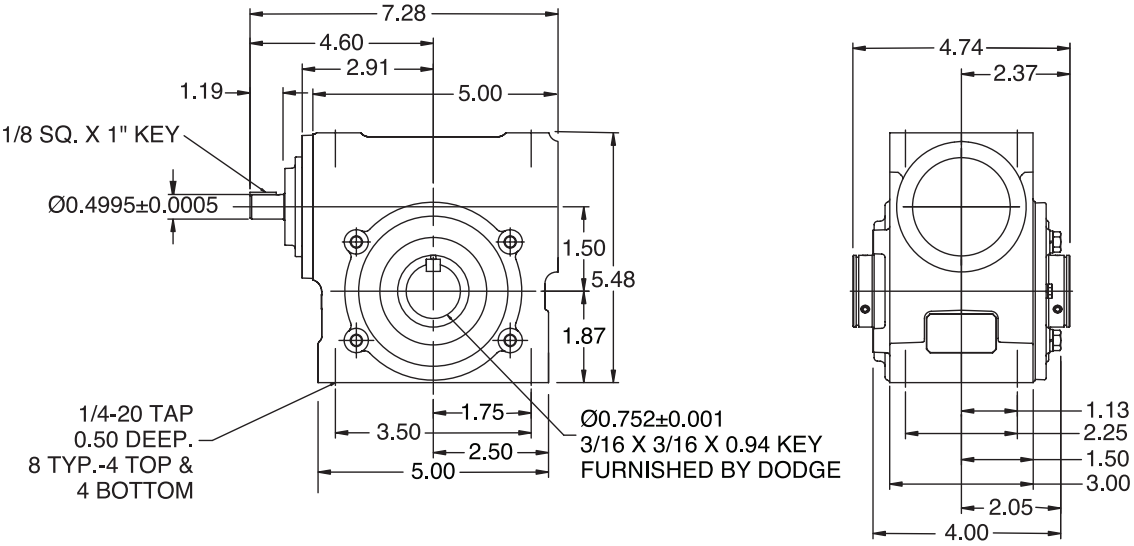


TIGEAR-2 Reducers With Separate Input - Size 15

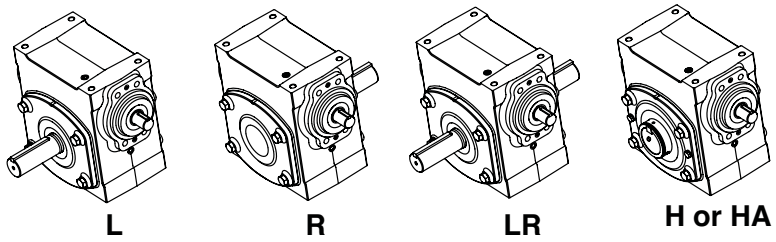
SOLID OUTPUT



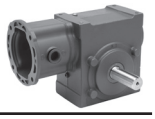
HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 15

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

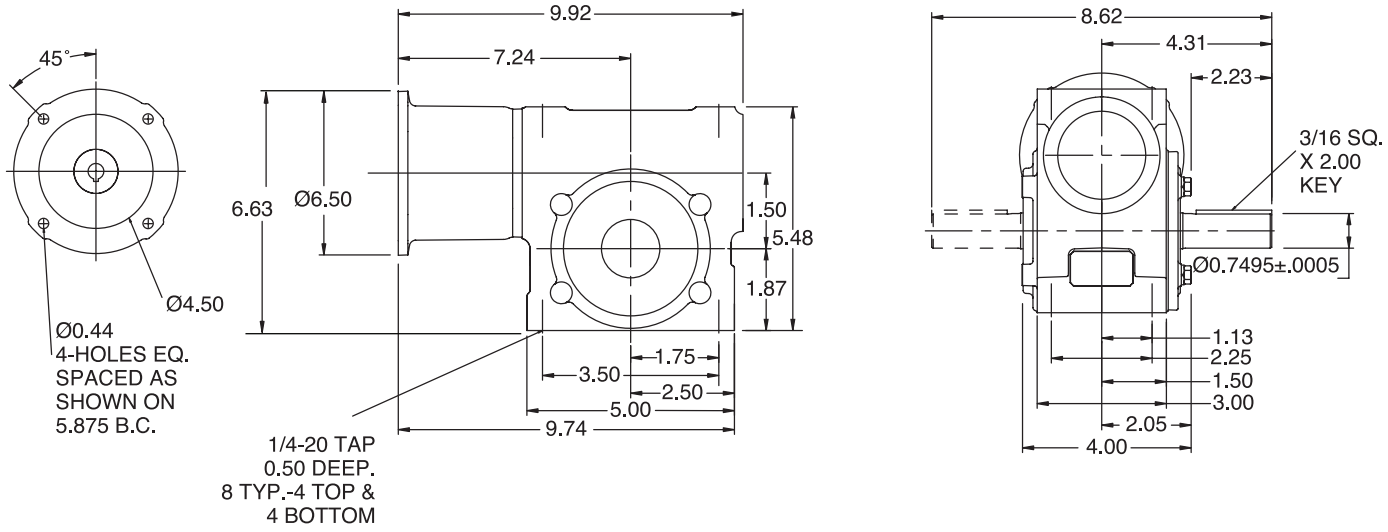
Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Position Shaft
5	350	Mechanical Input Hp	1.75	15A05L56	15A05L14	L
		Thermal Input Hp	3.34	15A05R56	15A05R14	R
		Output Torque (lb in.)	293	15A05LR56	15A05LR14	LR
		Mechanical Output Hp	1.63	15A05H56	15A05H14	HOLLOW
		Output OHL (lbs.)	710			
7.5	233	Mechanical Input Hp	1.40	15A07L56	15A07L14	L
		Thermal Input Hp	2.55	15A07R56	15A07R14	R
		Output Torque (lb in.)	337	15A07LR56	15A07LR14	LR
		Mechanical Output Hp	1.26	15A07H56	15A07H14	HOLLOW
		Output OHL (lbs.)	710			
10	175	Mechanical Input Hp	1.13	15A10L56	15A10L14	L
		Thermal Input Hp	2.22	15A10R56	15A10R14	R
		Output Torque (lb in.)	361	15A10LR56	15A10LR14	LR
		Mechanical Output Hp	1.00	15A10H56	15A10H14	HOLLOW
		Output OHL (lbs.)	710			
15	117	Mechanical Input Hp	0.86	15A15L56		L
		Thermal Input Hp	1.58	15A15R56		R
		Output Torque (lb in.)	392	15A15LR56		LR
		Mechanical Output Hp	0.73	15A15H56		HOLLOW
		Output OHL (lbs.)	710			
20	88	Mechanical Input Hp	0.70	15A20L56		L
		Thermal Input Hp	1.26	15A20R56		R
		Output Torque (lb in.)	407	15A20LR56		LR
		Mechanical Output Hp	0.56	15A20H56		HOLLOW
		Output OHL (lbs.)	710			
25	70	Mechanical Input Hp	0.60	15A25L56		L
		Thermal Input Hp	0.99	15A25R56		R
		Output Torque (lb in.)	410	15A25LR56		LR
		Mechanical Output Hp	0.46	15A25H56		HOLLOW
		Output OHL (lbs.)	710			
30	58	Mechanical Input Hp	0.51	15A30L56		L
		Thermal Input Hp	0.96	15A30R56		R
		Output Torque (lb in.)	413	15A30LR56		LR
		Mechanical Output Hp	0.38	15A30H56		HOLLOW
		Output OHL (lbs.)	710			
40	44	Mechanical Input Hp	0.41	15A40L56		L
		Thermal Input Hp	0.80	15A40R56		R
		Output Torque (lb in.)	417	15A40LR56		LR
		Mechanical Output Hp	0.29	15A40H56		HOLLOW
		Output OHL (lbs.)	710			
50	35	Mechanical Input Hp	0.34	15A50L56		L
		Thermal Input Hp	0.70	15A50R56		R
		Output Torque (lb in.)	402	15A50LR56		LR
		Mechanical Output Hp	0.22	15A50H56		HOLLOW
		Output OHL (lbs.)	710			
60	29	Mechanical Input Hp	0.29	15A60L56		L
		Thermal Input Hp	0.62	15A60R56		R
		Output Torque (lb in.)	381	15A60LR56		LR
		Mechanical Output Hp	0.18	15A60H56		HOLLOW
		Output OHL (lbs.)	710			

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **15BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

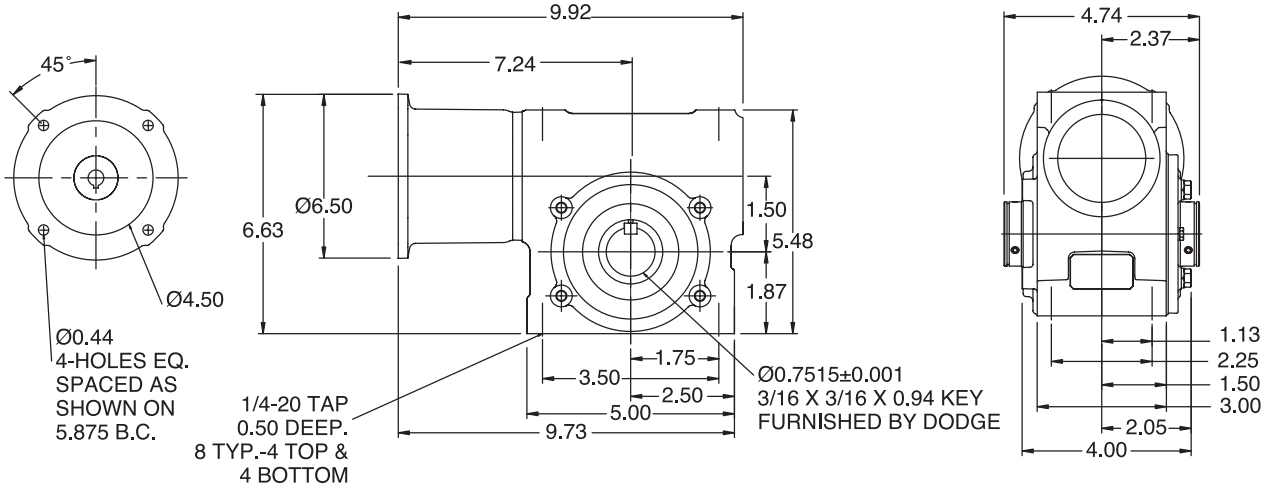


TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 15

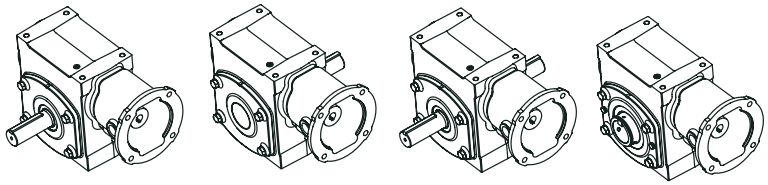
SOLID OUTPUT



HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H

FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	RATINGS/DIMENSIONS PAGE G4-16

RATINGS/DIMENSIONS



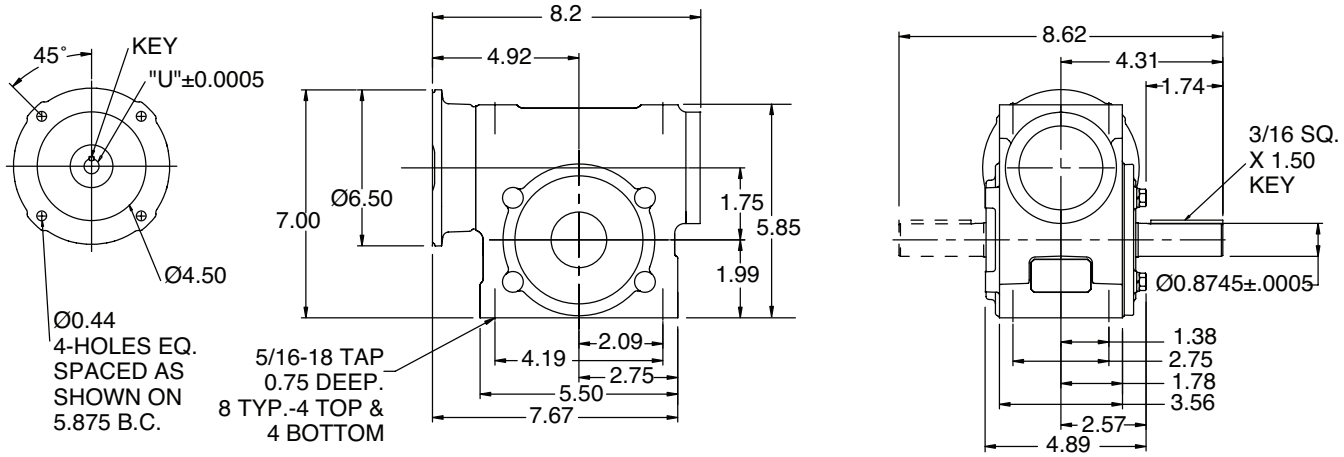
TIGEAR-2 Reducers With Quill Input - Size 17

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	2.59	17Q05L56	17Q05L14	L
		Thermal Input Hp	3.97	17Q05R56	17Q05R14	R
		Output Torque (lb in.)	430	17Q05LR56	17Q05LR14	LR
		Mechanical Output Hp	2.39	17Q05H56	17Q05H14	HOLLOW
		Output OHL (lbs.)	1050			
7.5	233	Mechanical Input Hp	2.06	17Q07L56	17Q07L14	L
		Thermal Input Hp	3.42	17Q07R56	17Q07R14	R
		Output Torque (lb in.)	500	17Q07LR56	17Q07LR14	LR
		Mechanical Output Hp	1.88	17Q07H56	17Q07H14	HOLLOW
		Output OHL (lbs.)	1190			
10	175	Mechanical Input Hp	1.67	17Q10L56	17Q10L14	L
		Thermal Input Hp	2.76	17Q10R56	17Q10R14	R
		Output Torque (lb in.)	534	17Q10LR56	17Q10LR14	LR
		Mechanical Output Hp	1.48	17Q10H56	17Q10H14	HOLLOW
		Output OHL (lbs.)	1190			
15	117	Mechanical Input Hp	1.27	17Q15L56	17Q15L14	L
		Thermal Input Hp	2.01	17Q15R56	17Q15R14	R
		Output Torque (lb in.)	583	17Q15LR56	17Q15LR14	LR
		Mechanical Output Hp	1.08	17Q15H56	17Q15H14	HOLLOW
		Output OHL (lbs.)	1190			
20	88	Mechanical Input Hp	1.03	17Q20L56	17Q20L14	L
		Thermal Input Hp	1.58	17Q20R56	17Q20R14	R
		Output Torque (lb in.)	602	17Q20LR56	17Q20LR14	LR
		Mechanical Output Hp	0.84	17Q20H56	17Q20H14	HOLLOW
		Output OHL (lbs.)	1190			
25	70	Mechanical Input Hp	0.88	17Q25L56		L
		Thermal Input Hp	1.28	17Q25R56		R
		Output Torque (lb in.)	609	17Q25LR56		LR
		Mechanical Output Hp	0.68	17Q25H56		HOLLOW
		Output OHL (lbs.)	1190			
30	58	Mechanical Input Hp	0.76	17Q30L56		L
		Thermal Input Hp	1.20	17Q30R56		R
		Output Torque (lb in.)	615	17Q30LR56		LR
		Mechanical Output Hp	0.57	17Q30H56		HOLLOW
		Output OHL (lbs.)	1190			
40	44	Mechanical Input Hp	0.60	17Q40L56		L
		Thermal Input Hp	1.09	17Q40R56		R
		Output Torque (lb in.)	627	17Q40LR56		LR
		Mechanical Output Hp	0.43	17Q40H56		HOLLOW
		Output OHL (lbs.)	1190			
50	35	Mechanical Input Hp	0.51	17Q50L56		L
		Thermal Input Hp	0.90	17Q50R56		R
		Output Torque (lb in.)	608	17Q50LR56		LR
		Mechanical Output Hp	0.34	17Q50H56		HOLLOW
		Output OHL (lbs.)	1190			
60	29	Mechanical Input Hp	0.43	17Q60L56		L
		Thermal Input Hp	0.80	17Q60R56		R
		Output Torque (lb in.)	576	17Q60LR56		LR
		Mechanical Output Hp	0.27	17Q60H56		HOLLOW
		Output OHL (lbs.)	1190			

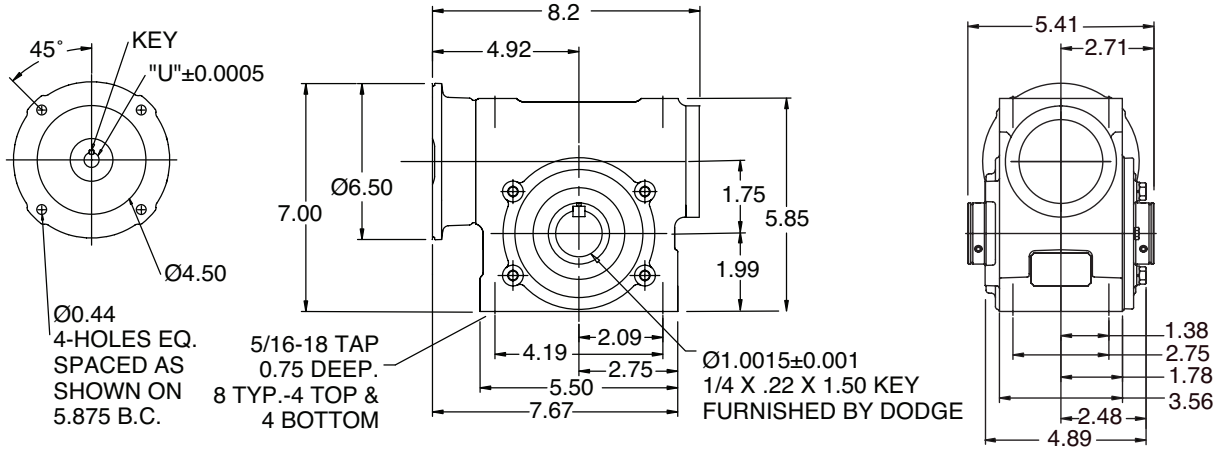
Note: Reducers are shipped without a mounting base. Order bolt-on base kit **17BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

TIGEAR-2 Reducers With Quill Input - Size 17

SOLID OUTPUT

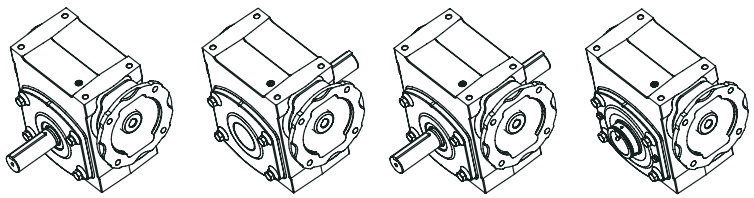


HOLLOW OUTPUT



MOTOR FRAME	"U"	KEY
48Y 56C	.626	3/16 SQ. x 1.50 KEY
140TC 160ATC	.876	3/16 SQ x 1.50 KEY

OUTPUT SHAFT CONFIGURATIONS



L R LR H

RATINGS/DIMENSIONS



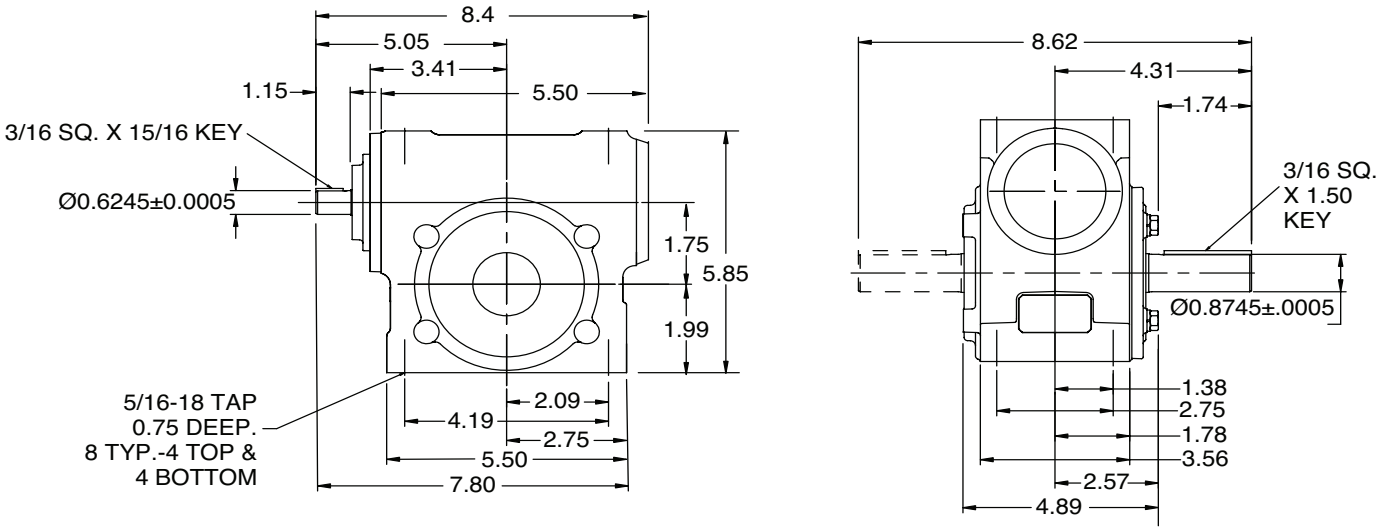
TIGEAR-2 Reducers With Separate Input - Size 17

Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit	
						56C	140TC
5	350	Mechanical Input Hp	2.59	17S05L	L	1720MTR56	1720MTR14
		Thermal Input Hp	3.97	17S05R	R		
		Output Torque (lb in.)	430	17S05LR	LR		
		Mechanical Output Hp	2.39	17S05H	HOLLOW		
		Output OHL (lbs.)	1050				
7.5	233	Mechanical Input Hp	2.06	17S07L	L	1720MTR56	1720MTR14
		Thermal Input Hp	3.42	17S07R	R		
		Output Torque (lb in.)	500	17S07LR	LR		
		Mechanical Output Hp	1.88	17S07H	HOLLOW		
		Output OHL (lbs.)	1190				
10	175	Mechanical Input Hp	1.67	17S10L	L	1720MTR56	1720MTR14
		Thermal Input Hp	2.76	17S10R	R		
		Output Torque (lb in.)	534	17S10LR	LR		
		Mechanical Output Hp	1.48	17S10H	HOLLOW		
		Output OHL (lbs.)	1190				
15	117	Mechanical Input Hp	1.27	17S15L	L	1720MTR56	1720MTR14
		Thermal Input Hp	2.01	17S15R	R		
		Output Torque (lb in.)	583	17S15LR	LR		
		Mechanical Output Hp	1.08	17S15H	HOLLOW		
		Output OHL (lbs.)	1190				
20	88	Mechanical Input Hp	1.03	17S20L	L	1720MTR56	1720MTR14
		Thermal Input Hp	1.58	17S20R	R		
		Output Torque (lb in.)	602	17S20LR	LR		
		Mechanical Output Hp	0.84	17S20H	HOLLOW		
		Output OHL (lbs.)	1190				
25	70	Mechanical Input Hp	0.88	17S25L	L	1720MTR56	
		Thermal Input Hp	1.28	17S25R	R		
		Output Torque (lb in.)	609	17S25LR	LR		
		Mechanical Output Hp	0.68	17S25H	HOLLOW		
		Output OHL (lbs.)	1190				
30	58	Mechanical Input Hp	0.76	17S30L	L	1720MTR56	
		Thermal Input Hp	1.20	17S30R	R		
		Output Torque (lb in.)	615	17S30LR	LR		
		Mechanical Output Hp	0.57	17S30H	HOLLOW		
		Output OHL (lbs.)	1190				
40	44	Mechanical Input Hp	0.60	17S40L	L	1720MTR56	
		Thermal Input Hp	1.09	17S40R	R		
		Output Torque (lb in.)	627	17S40LR	LR		
		Mechanical Output Hp	0.43	17S40H	HOLLOW		
		Output OHL (lbs.)	1190				
50	35	Mechanical Input Hp	0.51	17S50L	L	1720MTR56	
		Thermal Input Hp	0.90	17S50R	R		
		Output Torque (lb in.)	608	17S50LR	LR		
		Mechanical Output Hp	0.34	17S50H	HOLLOW		
		Output OHL (lbs.)	1190				
60	29	Mechanical Input Hp	0.43	17S60L	L	1720MTR56	
		Thermal Input Hp	0.80	17S60R	R		
		Output Torque (lb in.)	576	17S60LR	LR		
		Mechanical Output Hp	0.27	17S60H	HOLLOW		
		Output OHL (lbs.)	1190				
All Ratios		Input OHL (lbs)	140	One diameter from seal surface			

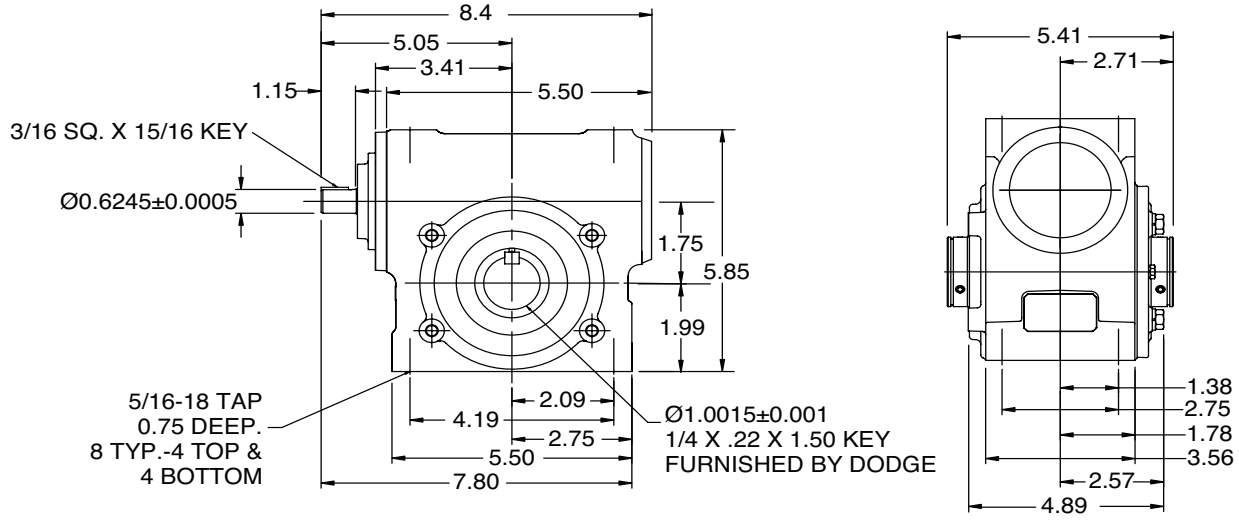
Note: TIGEAR-2 separate reducers cannot be used with the old Adaptable TIGEAR motor adapter kits.
Refer to page G4-118 for hollow bore bushing selections

TIGEAR-2 Reducers With Separate Input - Size 17

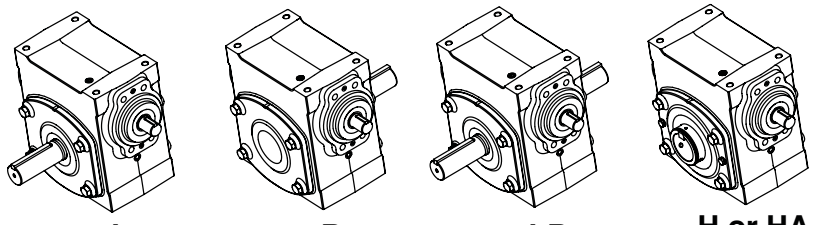
SOLID OUTPUT



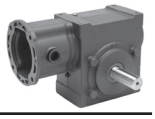
HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 17

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	2.59	17A05L56	17A05L14	L
		Thermal Input Hp	3.97	17A05R56	17A05R14	R
		Output Torque (lb in.)	430	17A05LR56	17A05LR14	LR
		Mechanical Output Hp	2.39	17A05H56	17A05H14	HOLLOW
		Output OHL (lbs.)	1050			
7.5	233	Mechanical Input Hp	2.06	17A07L56	17A07L14	L
		Thermal Input Hp	3.42	17A07R56	17A07R14	R
		Output Torque (lb in.)	500	17A07LR56	17A07LR14	LR
		Mechanical Output Hp	1.88	17A07H56	17A07H14	HOLLOW
		Output OHL (lbs.)	1190			
10	175	Mechanical Input Hp	1.67	17A10L56	17A10L14	L
		Thermal Input Hp	2.76	17A10R56	17A10R14	R
		Output Torque (lb in.)	534	17A10R56	17A10LR14	LR
		Mechanical Output Hp	1.48	17A10H56	17A10H14	HOLLOW
		Output OHL (lbs.)	1190			
15	117	Mechanical Input Hp	1.27	17A15L56	17A15L14	L
		Thermal Input Hp	2.01	17A15R56	17A15R14	R
		Output Torque (lb in.)	583	17A15LR56	17A15LR14	LR
		Mechanical Output Hp	1.08	17A15H56	17A15H14	HOLLOW
		Output OHL (lbs.)	1190			
20	88	Mechanical Input Hp	1.03	17A20L56	17A20L14	L
		Thermal Input Hp	1.58	17A20R56	17A20R14	R
		Output Torque (lb in.)	602	17A20LR56	17A20LR14	LR
		Mechanical Output Hp	0.84	17A20H56	17A20H14	HOLLOW
		Output OHL (lbs.)	1190			
25	70	Mechanical Input Hp	0.88	17A25L56		L
		Thermal Input Hp	1.28	17A25R56		R
		Output Torque (lb in.)	609	17A25LR56		LR
		Mechanical Output Hp	0.68	17A25H56		HOLLOW
		Output OHL (lbs.)	1190			
30	58	Mechanical Input Hp	0.76	17A30L56		L
		Thermal Input Hp	1.20	17A30R56		R
		Output Torque (lb in.)	615	17A30LR56		LR
		Mechanical Output Hp	0.57	17A30H56		HOLLOW
		Output OHL (lbs.)	1190			
40	44	Mechanical Input Hp	0.60	17A40L56		L
		Thermal Input Hp	1.09	17A40R56		R
		Output Torque (lb in.)	627	17A40LR56		LR
		Mechanical Output Hp	0.43	17A40H56		HOLLOW
		Output OHL (lbs.)	1190			
50	35	Mechanical Input Hp	0.51	17A50L56		L
		Thermal Input Hp	0.90	17A50R56		R
		Output Torque (lb in.)	608	17A50LR56		LR
		Mechanical Output Hp	0.34	17A50H56		HOLLOW
		Output OHL (lbs.)	1190			
60	29	Mechanical Input Hp	0.43	17A60L56		L
		Thermal Input Hp	0.80	17A60R56		R
		Output Torque (lb in.)	576	17A60LR56		LR
		Mechanical Output Hp	0.27	17A60H56		HOLLOW
		Output OHL (lbs.)	1190			

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **17BASE** if required.

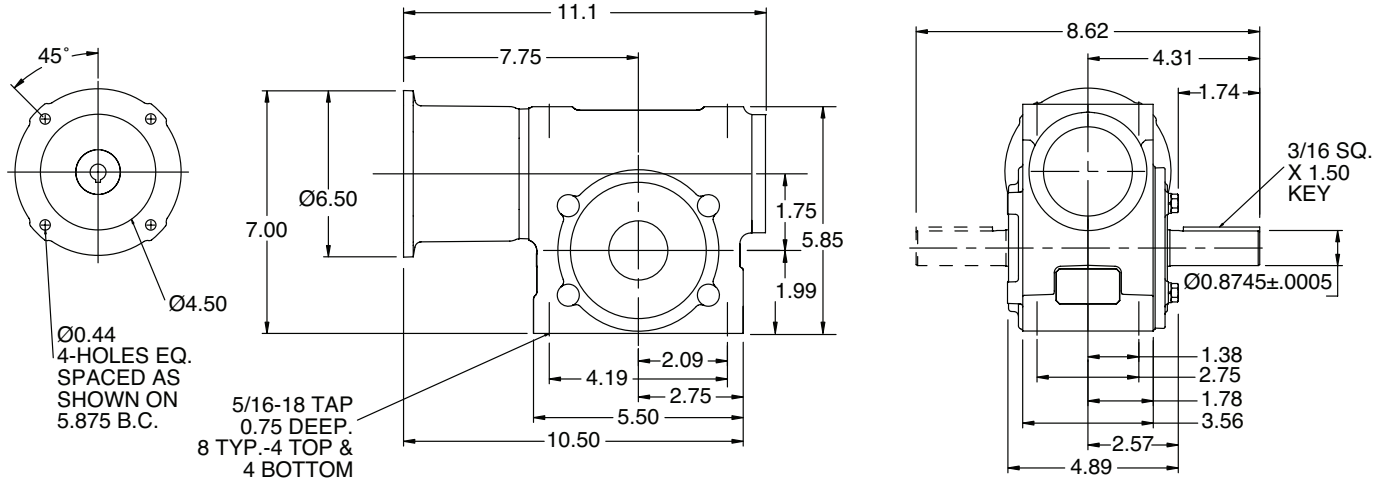
Refer to page G4-118 for hollow bore bushing selections



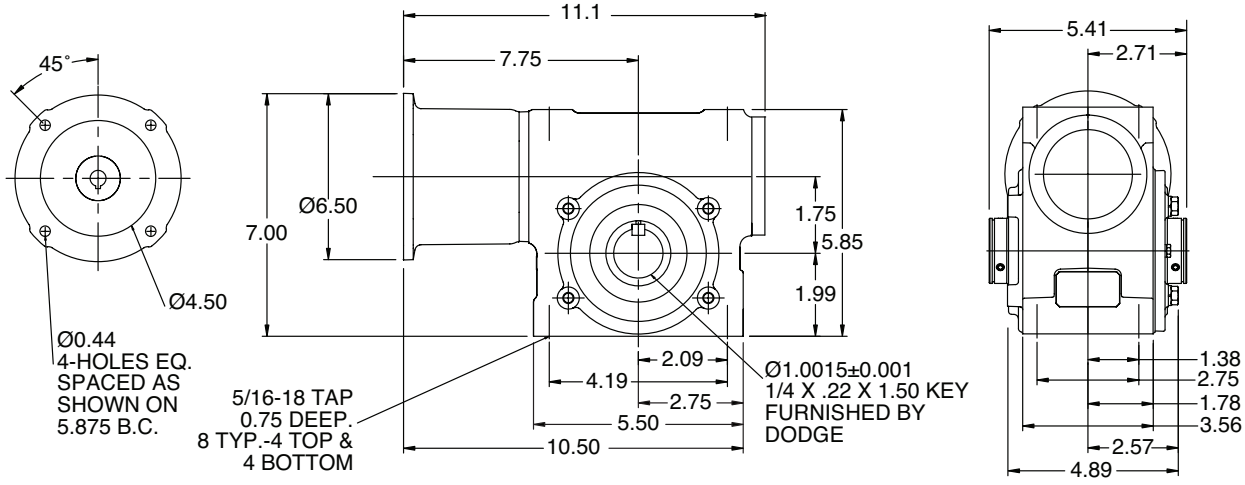
RATINGS/DIMENSIONS

TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 17

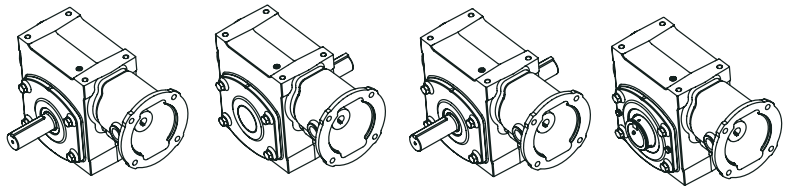
SOLID OUTPUT



HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H

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RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 176

SIZE 17 WITH 1: EXTENDED LENGTH Output SHAFT

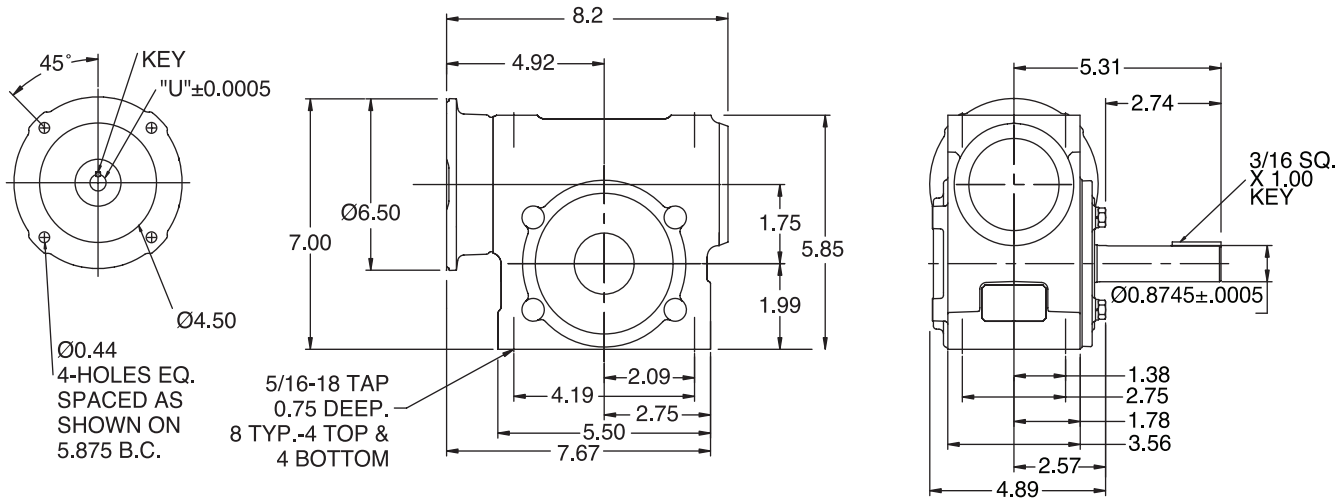
Motor Frame	Shaft Position	Ratio									
		5	7.5	10	15	20	25	30	40	50	60
56C	L	176Q05L56	176Q07L56	176Q10L56	176Q15L56	176Q20L56	176Q25L56	176Q30L56	176Q40L56	176Q50L56	176Q60L56
	R	176Q05R56	176Q07R56	176Q10R56	176Q15R56	176Q20R56	176Q25R56	176Q30R56	176Q40R56	176Q50R56	176Q60R56
140TC	L	176Q05L14	176Q07L14	176Q10L14	176Q15L14	176Q20L14					
	R	176Q05R14	176Q07R14	176Q10R14	176Q15R14	176Q20R14					

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **17BASE** if required

TIGEAR-2 Reducers With Quill Input - Size 176

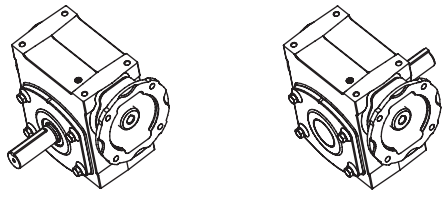
SIZE 17 WITH 1: EXTENDED LENGTH Output SHAFT

SOLID OUTPUT



MOTOR FRAME	"U"	KEY
48Y 56C	.626	3/16 SQ. x 1.50 KEY
140TC 160ATC	.876	3/16 SQ x 1.50 KEY

MOUNTING POSITIONS



L R

Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 20

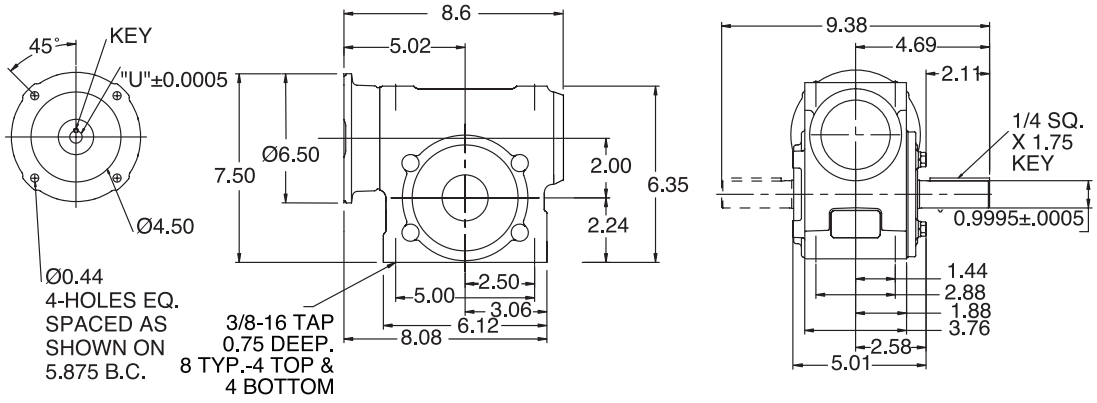
Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
4	438	Available Upon Request				
5	350	Mechanical Input Hp	3.47	20Q05L56	20Q05L14	L
		Thermal Input Hp	4.9	20Q05R56	20Q05R14	R
		Output Torque (lb in.)	581	20Q05LR56	20Q05LR14	LR
		Mechanical Output Hp	3.23	20Q05H56	20Q05H14	HOLLOW
		Output OHL (lbs.)	1380	20Q05HA56	20Q05HA14	HOLLOW ALT.
7.5	233	Mechanical Input Hp	2.78	20Q07L56	20Q07L14	L
		Thermal Input Hp	4.15	20Q07R56	20Q07R14	R
		Output Torque (lb in.)	678	20Q07LR56	20Q07LR14	LR
		Mechanical Output Hp	2.54	20Q07H56	20Q07H14	HOLLOW
		Output OHL (lbs.)	1560	20Q07HA56	20Q07HA14	HOLLOW ALT.
10	175	Mechanical Input Hp	2.25	20Q10L56	20Q10L14	L
		Thermal Input Hp	3.25	20Q10R56	20Q10R14	R
		Output Torque (lb in.)	725	20Q10LR56	20Q10LR14	LR
		Mechanical Output Hp	2.01	20Q10H56	20Q10H14	HOLLOW
		Output OHL (lbs.)	1560	20Q10HA56	20Q10HA14	HOLLOW ALT.
12.7	138	Mechanical Input Hp	1.9	20Q12L56	20Q12L14	L
		Thermal Input Hp	2.83	20Q12R56	20Q12R14	R
		Output Torque (lb in.)	770	20Q12LR56	20Q12LR14	LR
		Mechanical Output Hp	1.69	20Q12H56	20Q12H14	HOLLOW
		Output OHL (lbs.)	1560	20Q12HA56	20Q12HA14	HOLLOW ALT.
15	117	Mechanical Input Hp	1.69	20Q15L56	20Q15L14	L
		Thermal Input Hp	2.52	20Q15R56	20Q15R14	R
		Output Torque (lb in.)	790	20Q15LR56	20Q15LR14	LR
		Mechanical Output Hp	1.46	20Q15H56	20Q15H14	HOLLOW
		Output OHL (lbs.)	1560	20Q15HA56	20Q15HA14	HOLLOW ALT.
18	97	Mechanical Input Hp	1.46	20Q18L56	20Q18L14	L
		Thermal Input Hp	2.12	20Q18R56	20Q18R14	R
		Output Torque (lb in.)	795	20Q18LR56	20Q18LR14	LR
		Mechanical Output Hp	1.23	20Q18H56	20Q18H14	HOLLOW
		Output OHL (lbs.)	1560	20Q18HA56	20Q18HA14	HOLLOW ALT.
20	88	Mechanical Input Hp	1.34	20Q20L56	20Q20L14	L
		Thermal Input Hp	1.99	20Q20R56	20Q20R14	R
		Output Torque (lb in.)	796	20Q20LR56	20Q20LR14	LR
		Mechanical Output Hp	1.11	20Q20H56	20Q20H14	HOLLOW
		Output OHL (lbs.)	1560	20Q20HA56	20Q20HA14	HOLLOW ALT.
25	70	Mechanical Input Hp	1.11	20Q25L56	20Q25L14	L
		Thermal Input Hp	1.59	20Q25R56	20Q25R14	R
		Output Torque (lb in.)	788	20Q25LR56	20Q25LR14	LR
		Mechanical Output Hp	0.88	20Q25H56	20Q25H14	HOLLOW
		Output OHL (lbs.)	1560	20Q25HA56	20Q25HA14	HOLLOW ALT.
30	58	Mechanical Input Hp	0.96	20Q30L56		L
		Thermal Input Hp	1.49	20Q30R56		R
		Output Torque (lb in.)	802	20Q30LR56		LR
		Mechanical Output Hp	0.74	20Q30H56		HOLLOW
		Output OHL (lbs.)	1560	20Q30HA56		HOLLOW ALT.
40	44	Mechanical Input Hp	0.76	20Q40L56		L
		Thermal Input Hp	1.29	20Q40R56		R
		Output Torque (lb in.)	801	20Q40LR56		LR
		Mechanical Output Hp	0.56	20Q40H56		HOLLOW
		Output OHL (lbs.)	1560	20Q40HA56		HOLLOW ALT.
50	35	Mechanical Input Hp	0.64	20Q50L56		L
		Thermal Input Hp	1.09	20Q50R56		R
		Output Torque (lb in.)	787	20Q50LR56		LR
		Mechanical Output Hp	0.44	20Q50H56		HOLLOW
		Output OHL (lbs.)	1560	20Q50HA56		HOLLOW ALT.
60	29	Mechanical Input Hp	0.56	20Q60L56		L
		Thermal Input Hp	0.96	20Q60R56		R
		Output Torque (lb in.)	767	20Q60LR56		LR
		Mechanical Output Hp	0.36	20Q60H56		HOLLOW
		Output OHL (lbs.)	1560	20Q60HA56		HOLLOW ALT.

Note: Reducers are shipped without a mounting base. Order bolt-on base kit 20BASE if required.
Refer to page G4-118 for hollow bore bushing selections

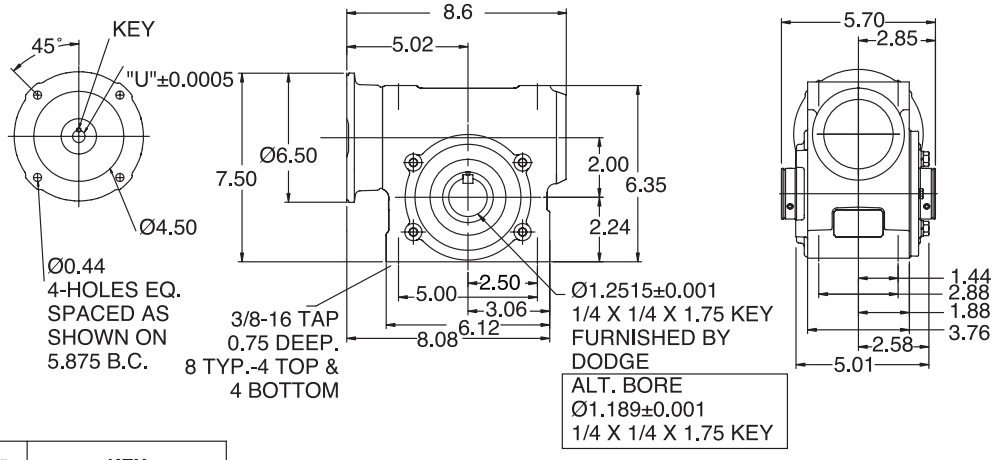
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TIGEAR-2 Reducers With Quill Input - Size 20

SOLID OUTPUT

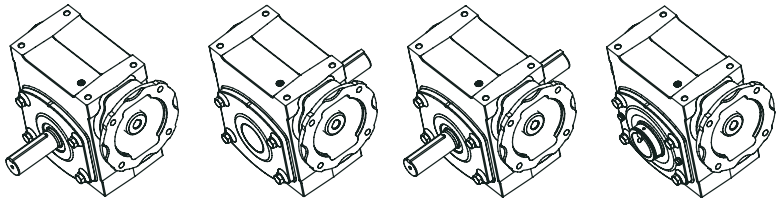


HOLLOW OUTPUT



MOTOR FRAME	"U"	KEY
48Y 56C	.626	3/16 SQ. x 1.50 KEY
140TC 160ATC	.876	3/16 SQ x 1.50 KEY

OUTPUT SHAFT CONFIGURATIONS



L R LR H

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Separate Input - Size 20

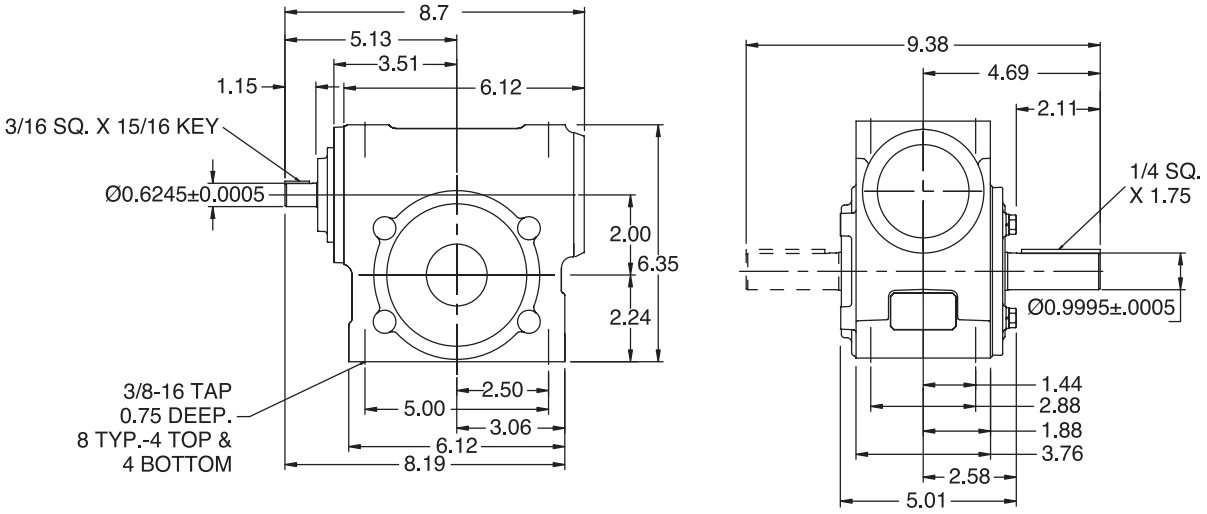
Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit 56C	Optional Motor Adapter Kit 140TC
4	438	Available Upon Request					
5	350	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	3.47 4.9 581 3.23 1380	**20S05L** **20S05R** **20S05LR** **20S05H** **20S05HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	**1720MTR14**
7.5	233	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	2.78 4.15 678 2.54 1560	**20S07L** **20S07R** **20S07LR** **20S07H** **20S07HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	**1720MTR14**
10	175	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	2.25 3.25 725 2.01 1560	**20S10L** **20S10R** **20S10LR** **20S10H** **20S10HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	**1720MTR14**
12.7	138	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	1.9 2.83 770 1.69 1560	**20S12L** **20S12R** **20S12LR** **20S12H** **20S12HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	**1720MTR14**
15	117	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	1.69 2.52 790 1.46 1560	**20S15L** **20S15R** **20S15LR** **20S15H** **20S15HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	**1720MTR14**
18	97	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	1.46 2.12 795 1.23 1560	**20S18L** **20S18R** **20S18LR** **20S18H** **20S18HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	**1720MTR14**
20	88	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	1.34 1.99 796 1.11 1560	**20S20L** **20S20R** **20S20LR** **20S20H** **20S20HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	**1720MTR14**
25	70	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	1.11 1.59 788 0.88 1560	**20S25L** **20S25R** **20S25LR** **20S25H** **20S25HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	**1720MTR14**
30	58	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	0.96 1.49 802 0.74 1560	**20S30L** **20S30R** **20S30LR** **20S30H** **20S30HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	
40	44	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	0.76 1.29 801 0.56 1560	**20S40L** **20S40R** **20S40LR** **20S40H** **20S40HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	
50	35	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	0.64 1.09 787 0.44 1560	**20S50L** **20S50R** **20S50LR** **20S50H** **20S50HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	
60	29	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	0.56 0.96 767 0.36 1560	**20S60L** **20S60R** **20S60LR** **20S60H** **20S60HA**	L R LR HOLLOW HOLLOW ALT.	**1720MTR56**	
All Ratios		Input OHL (lbs)	200	**One diameter from seal surface**			

Note: TIGEAR-2 separate reducers cannot be used with the old Adaptable TIGEAR motor adapter kits.
Refer to page G4-118 for hollow bore bushing selections

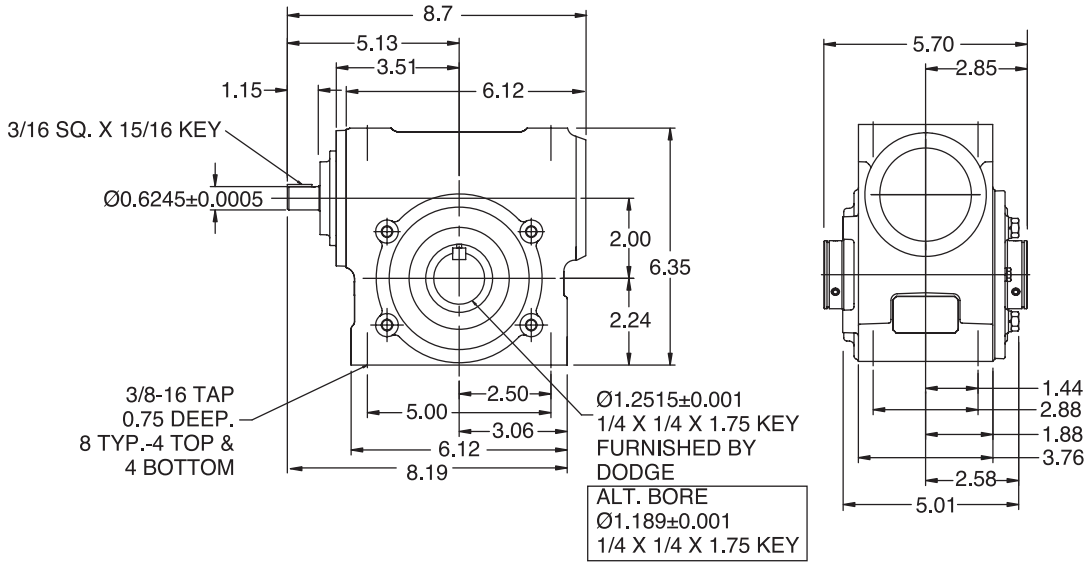
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TIGEAR-2 Reducers With Separate Input - Size 20

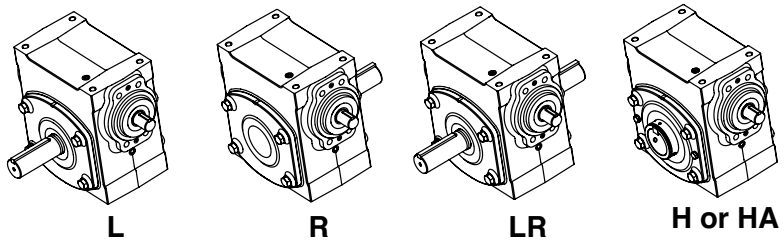
SOLID OUTPUT



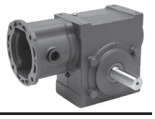
HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 20

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

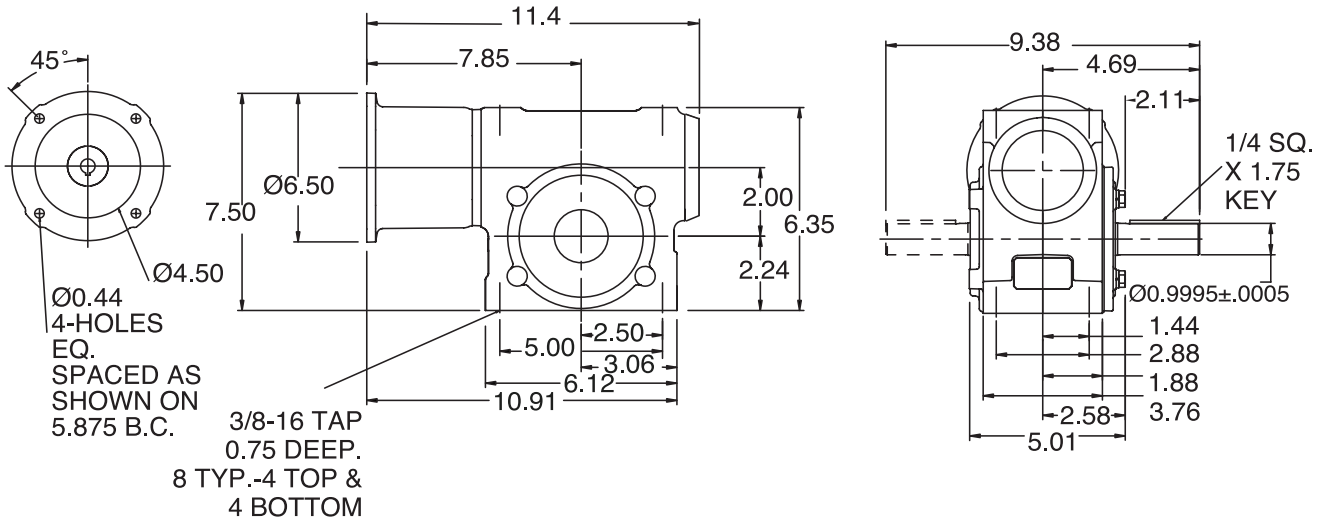
Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
4	**438**	Available Upon Request				
5	**350**	Mechanical Input Hp	3.47	**20A05L56**	**20A05L14**	L
		Thermal Input Hp	4.90	**20A05R56**	**20A05R14**	R
		Output Torque (lb in.)	581	**20A05LR56**	**20A05LR14**	LR
		Mechanical Output Hp	3.23	**20A05H56**	**20A05H14**	HOLLOW
		Output OHL (lbs.)	1380	**20A05HA56**	**20A05HA14**	HOLLOW ALT.
7.5	**233**	Mechanical Input Hp	2.78	**20A07L56**	**20A07L14**	L
		Thermal Input Hp	4.15	**20A07R56**	**20A07R14**	R
		Output Torque (lb in.)	678	**20A07LR56**	**20A07LR14**	LR
		Mechanical Output Hp	2.54	**20A07H56**	**20A07H14**	HOLLOW
		Output OHL (lbs.)	1560	**20A07HA56**	**20A07HA14**	HOLLOW ALT.
10	**175**	Mechanical Input Hp	2.25	**20A10L56**	**20A10L14**	L
		Thermal Input Hp	3.25	**20A10R56**	**20A10R14**	R
		Output Torque (lb in.)	725	**20A10LR56**	**20A10LR14**	LR
		Mechanical Output Hp	2.01	**20A10H56**	**20A10H14**	HOLLOW
		Output OHL (lbs.)	1560	**20A10HA56**	**20A10HA14**	HOLLOW ALT.
12.7	**138**	Mechanical Input Hp	1.90	**20A12L56**	**20A12L14**	L
		Thermal Input Hp	2.83	**20A12R56**	**20A12R14**	R
		Output Torque (lb in.)	770	**20A12LR56**	**20A12LR14**	LR
		Mechanical Output Hp	1.69	**20A12H56**	**20A12H14**	HOLLOW
		Output OHL (lbs.)	1560	**20A12HA56**	**20A12HA14**	HOLLOW ALT.
15	**117**	Mechanical Input Hp	1.69	**20A15L56**	**20A15L14**	L
		Thermal Input Hp	2.52	**20A15R56**	**20A15R14**	R
		Output Torque (lb in.)	790	**20A15LR56**	**20A15LR14**	LR
		Mechanical Output Hp	1.46	**20A15H56**	**20A15H14**	HOLLOW
		Output OHL (lbs.)	1560	**20A15HA56**	**20A15HA14**	HOLLOW ALT.
18	**97**	Mechanical Input Hp	1.46	**20A18L56**	**20A18L14**	L
		Thermal Input Hp	2.12	**20A18R56**	**20A18R14**	R
		Output Torque (lb in.)	795	**20A18LR56**	**20A18LR14**	LR
		Mechanical Output Hp	1.23	**20A18H56**	**20A18H14**	HOLLOW
		Output OHL (lbs.)	1560	**20A18HA56**	**20A18HA14**	HOLLOW ALT.
20	**88**	Mechanical Input Hp	1.34	**20A20L56**	**20A20L14**	L
		Thermal Input Hp	1.99	**20A20R56**	**20A20R14**	R
		Output Torque (lb in.)	796	**20A20LR56**	**20A20LR14**	LR
		Mechanical Output Hp	1.11	**20A20H56**	**20A20H14**	HOLLOW
		Output OHL (lbs.)	1560	**20A20HA56**	**20A20HA14**	HOLLOW ALT.
25	**70**	Mechanical Input Hp	1.11	**20A25L56**	**20A25L14**	L
		Thermal Input Hp	1.59	**20A25R56**	**20A25R14**	R
		Output Torque (lb in.)	788	**20A25LR56**	**20A25LR14**	LR
		Mechanical Output Hp	0.88	**20A25H56**	**20A25H14**	HOLLOW
		Output OHL (lbs.)	1560	**20A25HA56**	**20A25HA14**	HOLLOW ALT.
30	**58**	Mechanical Input Hp	0.96	**20A30L56**		L
		Thermal Input Hp	1.49	**20A30R56**		R
		Output Torque (lb in.)	802	**20A30LR56**		LR
		Mechanical Output Hp	0.74	**20A30H56**		HOLLOW
		Output OHL (lbs.)	1560	**20A30HA56**		HOLLOW ALT.
40	**44**	Mechanical Input Hp	0.76	**20A40L56**		L
		Thermal Input Hp	1.29	**20A40R56**		R
		Output Torque (lb in.)	801	**20A40LR56**		LR
		Mechanical Output Hp	0.56	**20A40H56**		HOLLOW
		Output OHL (lbs.)	1560	**20A40HA56**		HOLLOW ALT.
50	**35**	Mechanical Input Hp	0.64	**20A50L56**		L
		Thermal Input Hp	1.09	**20A50R56**		R
		Output Torque (lb in.)	787	**20A50LR56**		LR
		Mechanical Output Hp	0.44	**20A50H56**		HOLLOW
		Output OHL (lbs.)	1560	**20A50HA56**		HOLLOW ALT.
60	**29**	Mechanical Input Hp	0.56	**20A60L56**		L
		Thermal Input Hp	0.96	**20A60R56**		R
		Output Torque (lb in.)	767	**20A60LR56**		LR
		Mechanical Output Hp	0.36	**20A60H56**		HOLLOW
		Output OHL (lbs.)	1560	**20A60HA56**		HOLLOW ALT.

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **20BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

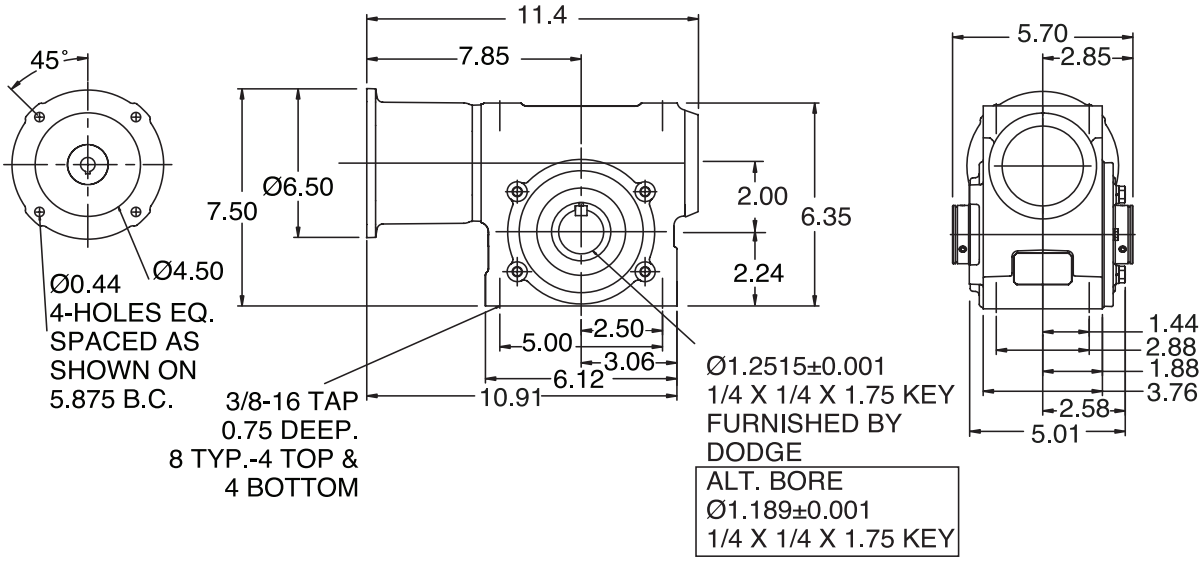


TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 20

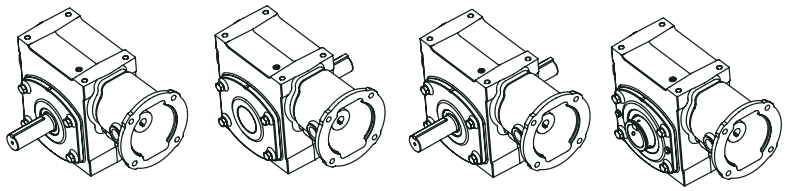
SOLID OUTPUT



HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H

FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	RATINGS/DIMENSIONS PAGE G4-16

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 202

SIZE 20 WITH 2” EXTENDED LENGTH Output SHAFT

Motor Frame	Shaft Position	Ratio									
		5	7.5	10	15	20	25	30	40	50	60
56C	L	202Q05L56	202Q07L56	202Q10L56	202Q15L56	202Q20L56	202Q25L56	202Q30L56	202Q40L56	202Q50L56	202Q60L56
	R	202Q05R56	202Q07R56	202Q10R56	202Q15R56	202Q20R56	202Q25R56	202Q30R56	202Q40R56	202Q50R56	202Q60R56
140TC	L	202Q05L14	202Q07L14	202Q10L14	202Q15L14	202Q20L14	202Q25L14				
	R	202Q05R14	202Q07R14	202Q10R14	202Q15R14	202Q20R14	202Q25R14				

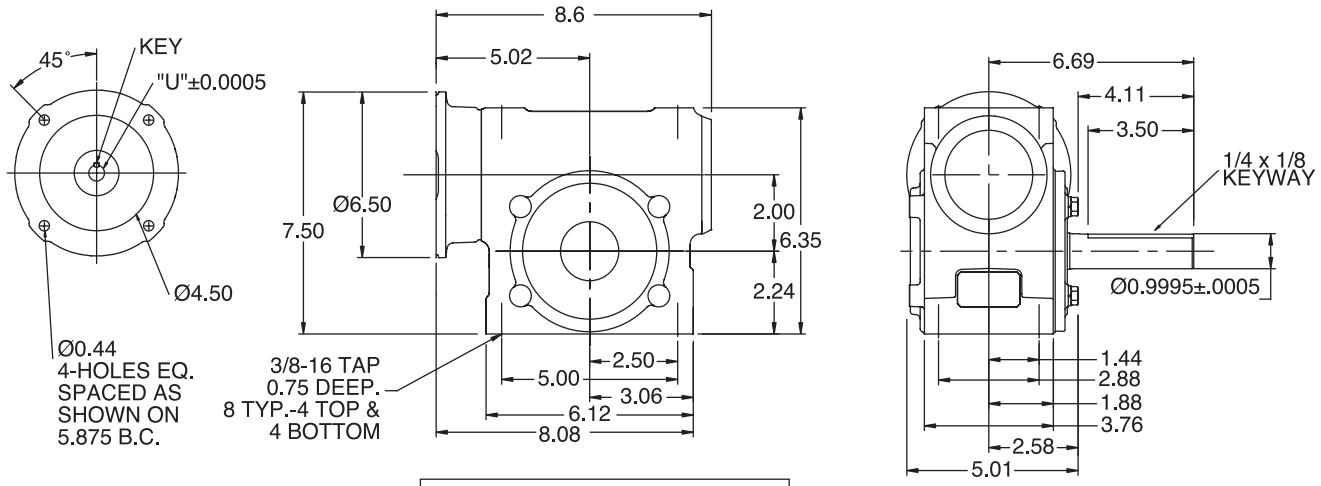
Note: Reducers are shipped without a mounting base. Order bolt-on base kit **20BASE** if required



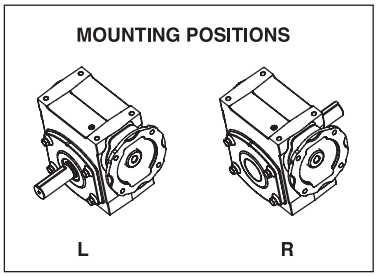
TIGEAR-2 Reducers With Quill Input - Size 202

SIZE 20 WITH 2” EXTENDED LENGTH Output SHAFT

SOLID OUTPUT



MOTOR FRAME	"U"	KEY
48Y 56C	.626	3/16 SQ. x 1.50 KEY
140TC 160ATC	.876	3/16 SQ x 1.50 KEY



Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 23

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	140TC	180TC	Shaft Position
4	438	Available Upon Request					
5	350	Mechanical Input Hp	5.25	23Q05L56	23Q05L14	23Q05L18	L
		Thermal Input Hp	6.61	23Q05R56	23Q05R14	23Q05R18	R
		Output Torque (lb in.)	881	23Q05LR56	23Q05LR14	23Q05LR18	LR
		Mechanical Output Hp	4.89	23Q05H56	23Q05H14	23Q05H18	HOLLOW
		Output OHL (lbs.)	1330	23Q05HA56	23Q05HA14	23Q05HA18	HOLLOW ALT.
7.5	233	Mechanical Input Hp	4.18	23Q07L56	23Q07L14	23Q07L18	L
		Thermal Input Hp	5.64	23Q07R56	23Q07R14	23Q07R18	R
		Output Torque (lb in.)	1026	23Q07LR56	23Q07LR14	23Q07LR18	LR
		Mechanical Output Hp	3.85	23Q07H56	23Q07H14	23Q07H18	HOLLOW
		Output OHL (lbs.)	1520	23Q07HA56	23Q07HA14	23Q07HA18	HOLLOW ALT.
10	175	Mechanical Input Hp	3.42	23Q10L56	23Q10L14	23Q10L18	L
		Thermal Input Hp	4.40	23Q10R56	23Q10R14	23Q10R18	R
		Output Torque (lb in.)	1106	23Q10LR56	23Q10LR14	23Q10LR18	LR
		Mechanical Output Hp	3.07	23Q10H56	23Q10H14	23Q10H18	HOLLOW
		Output OHL (lbs.)	1610	23Q10HA56	23Q10HA14	23Q10HA18	HOLLOW ALT.
12.7	138	Mechanical Input Hp	2.91	23Q12L56	23Q12L14	23Q12L18	L
		Thermal Input Hp	3.78	23Q12R56	23Q12R14	23Q12R18	R
		Output Torque (lb in.)	1170	23Q12LR56	23Q12LR14	23Q12LR18	LR
		Mechanical Output Hp	2.56	23Q12H56	23Q12H14	23Q12H18	HOLLOW
		Output OHL (lbs.)	1610	23Q12HA56	23Q12HA14	23Q12HA18	HOLLOW ALT.
15	117	Mechanical Input Hp	2.57	23Q15L56	23Q15L14		L
		Thermal Input Hp	3.30	23Q15R56	23Q15R14		R
		Output Torque (lb in.)	1199	23Q15LR56	23Q15LR14		LR
		Mechanical Output Hp	2.22	23Q15H56	23Q15H14		HOLLOW
		Output OHL (lbs.)	1610	23Q15HA56	23Q15HA14		HOLLOW ALT.
20	88	Mechanical Input Hp	2.00	23Q20L56	23Q20L14		L
		Thermal Input Hp	2.62	23Q20R56	23Q20R14		R
		Output Torque (lb in.)	1178	23Q20LR56	23Q20LR14		LR
		Mechanical Output Hp	1.64	23Q20H56	23Q20H14		HOLLOW
		Output OHL (lbs.)	1610	23Q20HA56	23Q20HA14		HOLLOW ALT.
25	70	Mechanical Input Hp	1.65	23Q25L56	23Q25L14		L
		Thermal Input Hp	2.16	23Q25R56	23Q25R14		R
		Output Torque (lb in.)	1184	23Q25LR56	23Q25LR14		LR
		Mechanical Output Hp	1.32	23Q25H56	23Q25H14		HOLLOW
		Output OHL (lbs.)	1610	23Q25HA56	23Q25HA14		HOLLOW ALT.
30	58	Mechanical Input Hp	1.42	23Q30L56	23Q30L14		L
		Thermal Input Hp	2.06	23Q30R56	23Q30R14		R
		Output Torque (lb in.)	1201	23Q30LR56	23Q30LR14		LR
		Mechanical Output Hp	1.11	23Q30H56	23Q30H14		HOLLOW
		Output OHL (lbs.)	1610	23Q30HA56	23Q30HA14		HOLLOW ALT.
40	44	Mechanical Input Hp	1.11	23Q40L56	23Q40L14		L
		Thermal Input Hp	1.73	23Q40R56	23Q40R14		R
		Output Torque (lb in.)	1193	23Q40LR56	23Q40LR14		LR
		Mechanical Output Hp	0.83	23Q40H56	23Q40H14		HOLLOW
		Output OHL (lbs.)	1610	23Q40HA56	23Q40HA14		HOLLOW ALT.
50	35	Mechanical Input Hp	0.95	23Q50L56			L
		Thermal Input Hp	1.42	23Q50R56			R
		Output Torque (lb in.)	1182	23Q50LR56			LR
		Mechanical Output Hp	0.66	23Q50H56			HOLLOW
		Output OHL (lbs.)	1610	23Q50HA56			HOLLOW ALT.
60	29	Mechanical Input Hp	0.80	23Q60L56			L
		Thermal Input Hp	1.24	23Q60R56			R
		Output Torque (lb in.)	1111	23Q60LR56			LR
		Mechanical Output Hp	0.51	23Q60H56			HOLLOW
		Output OHL (lbs.)	1610	23Q60HA56			HOLLOW ALT.

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **23BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

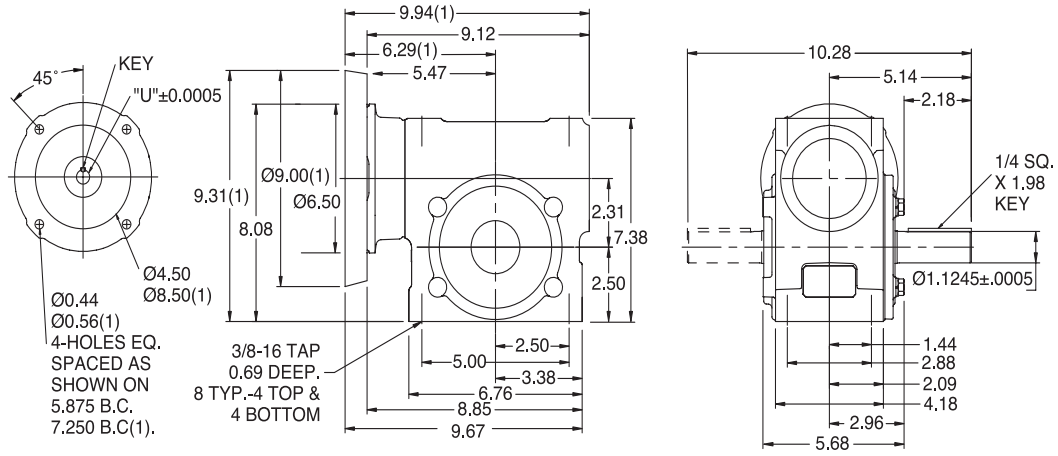
FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	WASHDOWN PRODUCT PAGE G4-80



RATINGS/DIMENSIONS

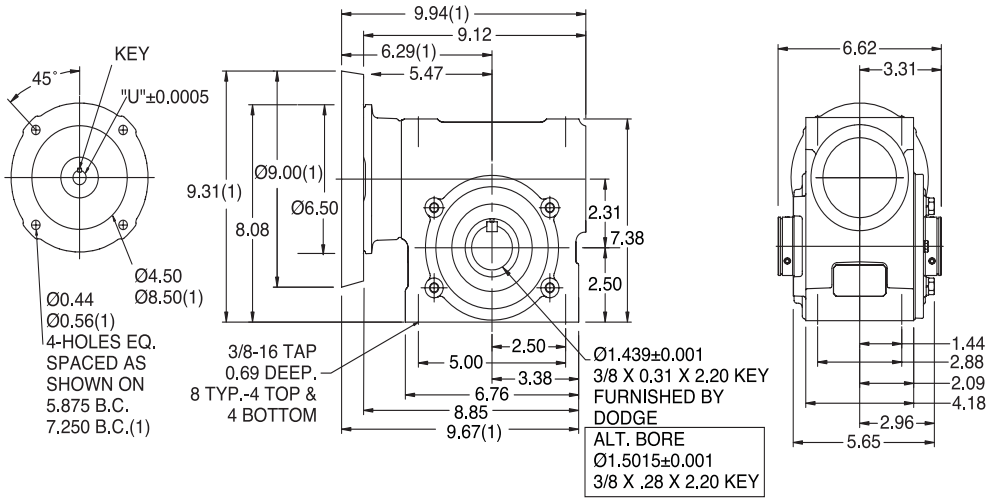
TIGEAR-2 Reducers With Quill Input - Size 23

SOLID OUTPUT



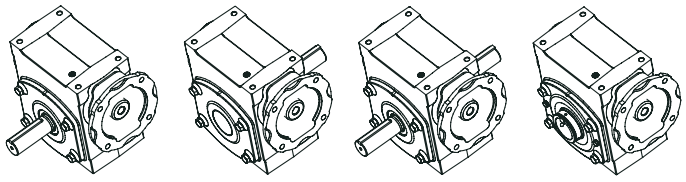
(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



MOTOR FRAME	"U"	KEY
48Y 56C	.6255	3/16 SQ. x 1.50 KEY
140TC 160ATC	.8755	3/16 SQ x 1.50 KEY
180TC 180ATC	1.1255	1/4 SQ x 2.00 KEY

OUTPUT SHAFT CONFIGURATIONS



L R LR H or HA

RATINGS/DIMENSIONS



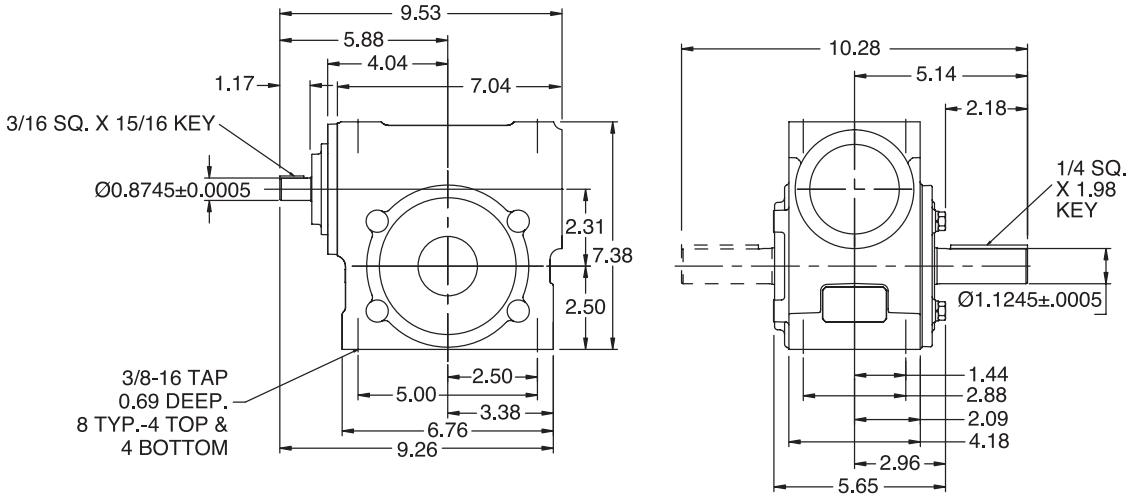
TIGEAR-2 Reducers With Separate Input - Size 23

Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit 56C	140TC	180TC
4	438	Available Upon Request						
5	350	Mechanical Input Hp	5.25	23S05L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	6.61	23S05R	R			
		Output Torque (lb in.)	881	23S05LR	LR			
		Mechanical Output Hp	4.89	23S05H	HOLLOW			
		Output OHL (lbs.)	1330	23S05HA	HOLLOW ALT.			
7.5	233	Mechanical Input Hp	4.18	23S07L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	5.64	23S07R	R			
		Output Torque (lb in.)	1026	23S07LR	LR			
		Mechanical Output Hp	3.85	23S07H	HOLLOW			
		Output OHL (lbs.)	1520	23S07HA	HOLLOW ALT.			
10	175	Mechanical Input Hp	3.42	23S10L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	4.4	23S10R	R			
		Output Torque (lb in.)	1106	23S10LR	LR			
		Mechanical Output Hp	3.07	23S10H	HOLLOW			
		Output OHL (lbs.)	1610	23S10HA	HOLLOW ALT.			
12.7	138	Mechanical Input Hp	2.91	23S12L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	3.78	23S12R	R			
		Output Torque (lb in.)	1170	23S12LR	LR			
		Mechanical Output Hp	2.56	23S12H	HOLLOW			
		Output OHL (lbs.)	1610	23S12HA	HOLLOW ALT.			
15	117	Mechanical Input Hp	2.57	23S15L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	3.3	23S15R	R			
		Output Torque (lb in.)	1199	23S15LR	LR			
		Mechanical Output Hp	2.22	23S15H	HOLLOW			
		Output OHL (lbs.)	1610	23S15HA	HOLLOW ALT.			
20	88	Mechanical Input Hp	2	23S20L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	2.62	23S20R	R			
		Output Torque (lb in.)	1178	23S20LR	LR			
		Mechanical Output Hp	1.64	23S20H	HOLLOW			
		Output OHL (lbs.)	1610	23S20HA	HOLLOW ALT.			
25	70	Mechanical Input Hp	1.65	23S25L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	2.16	23S25R	R			
		Output Torque (lb in.)	1184	23S25LR	LR			
		Mechanical Output Hp	1.32	23S25H	HOLLOW			
		Output OHL (lbs.)	1610	23S25HA	HOLLOW ALT.			
30	58	Mechanical Input Hp	1.42	23S30L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	2.06	23S30R	R			
		Output Torque (lb in.)	1201	23S30LR	LR			
		Mechanical Output Hp	1.11	23S30H	HOLLOW			
		Output OHL (lbs.)	1610	23S30HA	HOLLOW ALT.			
40	44	Mechanical Input Hp	1.11	23S40L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	1.73	23S40R	R			
		Output Torque (lb in.)	1193	23S40LR	LR			
		Mechanical Output Hp	0.83	23S40H	HOLLOW			
		Output OHL (lbs.)	1610	23S40HA	HOLLOW ALT.			
50	35	Mechanical Input Hp	0.95	23S50L	L	2330MTR56		
		Thermal Input Hp	1.42	23S50R	R			
		Output Torque (lb in.)	1182	23S50LR	LR			
		Mechanical Output Hp	0.66	23S50H	HOLLOW			
		Output OHL (lbs.)	1610	23S50HA	HOLLOW ALT.			
60	29	Mechanical Input Hp	0.8	23S60L	L	2330MTR56		
		Thermal Input Hp	1.24	23S60R	R			
		Output Torque (lb in.)	1111	23S60LR	LR			
		Mechanical Output Hp	0.51	23S60H	HOLLOW			
		Output OHL (lbs.)	1610	23S60HA	HOLLOW ALT.			
All Ratios		Input OHL (lbs)	200	One diameter from seal surface				

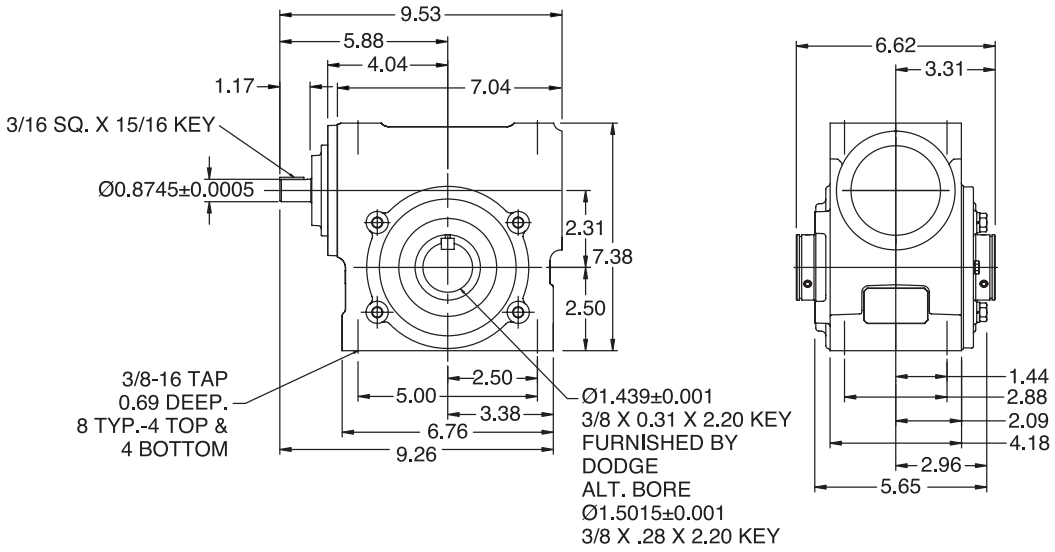
Note: TIGEAR-2 separate reducers cannot be used with the old Adaptable TIGEAR motor adapter kits.
Refer to page G4-118 for hollow bore bushing selections

TIGEAR-2 Reducers With Separate Input - Size 23

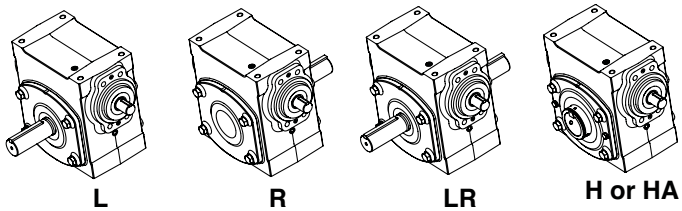
SOLID OUTPUT



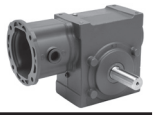
HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 23

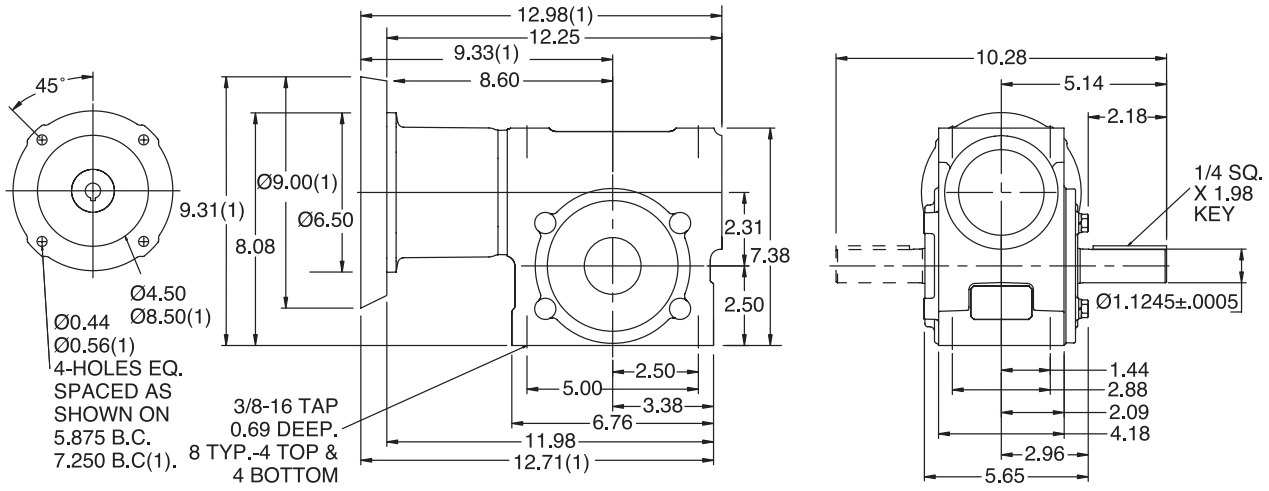
3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
4	438	Available Upon Request					
5	350	Mechanical Input Hp	5.25	23A05L56	23A05L14	23A05L18	L
		Thermal Input Hp	6.61	23A05R56	23A05R14	23A05R18	R
		Output Torque (lb in.)	881	23A05LR56	23A05LR14	23A05LR18	LR
		Mechanical Output Hp	4.89	23A05H56	23A05H14	23A05H18	HOLLOW
		Output OHL (lbs.)	1330	23A05HA56	23A05HA14	23A05HA18	HOLLOW ALT.
7.5	233	Mechanical Input Hp	4.18	23A07L56	23A07L14	23A07L18	L
		Thermal Input Hp	5.64	23A07R56	23A07R14	23A07R18	R
		Output Torque (lb in.)	1026	23A07LR56	23A07LR14	23A07LR18	LR
		Mechanical Output Hp	3.85	23A07H56	23A07H14	23A07H18	HOLLOW
		Output OHL (lbs.)	1520	23A07HA56	23A07HA14	23A07HA18	HOLLOW ALT.
10	175	Mechanical Input Hp	3.42	23A10L56	23A10L14	23A10L18	L
		Thermal Input Hp	4.40	23A10R56	23A10R14	23A10R18	R
		Output Torque (lb in.)	1106	23A10LR56	23A10LR14	23A10LR18	LR
		Mechanical Output Hp	3.07	23A10H56	23A10H14	23A10H18	HOLLOW
		Output OHL (lbs.)	1610	23A10HA56	23A10HA14	23A10HA18	HOLLOW ALT.
12.7	138	Mechanical Input Hp	2.91	23A12L56	23A12L14	23A12L18	L
		Thermal Input Hp	3.78	23A12R56	23A12R14	23A12R18	R
		Output Torque (lb in.)	1170	23A12LR56	23A12LR14	23A12LR18	LR
		Mechanical Output Hp	2.56	23A12H56	23A12H14	23A12H18	HOLLOW
		Output OHL (lbs.)	1610	23A12HA56	23A12HA14	23A12HA18	HOLLOW ALT.
15	117	Mechanical Input Hp	2.57	23A15L56	23A15L14		L
		Thermal Input Hp	3.30	23A15R56	23A15R14		R
		Output Torque (lb in.)	1199	23A15LR56	23A15LR14		LR
		Mechanical Output Hp	2.22	23A15H56	23A15H14		HOLLOW
		Output OHL (lbs.)	1610	23A15HA56	23A15HA14		HOLLOW ALT.
20	88	Mechanical Input Hp	2.00	23A20L56	23A20L14		L
		Thermal Input Hp	2.62	23A20R56	23A20R14		R
		Output Torque (lb in.)	1178	23A20LR56	23A20LR14		LR
		Mechanical Output Hp	1.64	23A20H56	23A20H14		HOLLOW
		Output OHL (lbs.)	1610	23A20HA56	23A20HA14		HOLLOW ALT.
25	70	Mechanical Input Hp	1.65	23A25L56	23A25L14		L
		Thermal Input Hp	2.16	23A25R56	23A25R14		R
		Output Torque (lb in.)	1184	23A25LR56	23A25LR14		LR
		Mechanical Output Hp	1.32	23A25H56	23A25H14		HOLLOW
		Output OHL (lbs.)	1610	23A25HA56	23A25HA14		HOLLOW ALT.
30	58	Mechanical Input Hp	1.42	23A30L56	23A30L14		L
		Thermal Input Hp	2.06	23A30R56	23A30R14		R
		Output Torque (lb in.)	1201	23A30LR56	23A30LR14		LR
		Mechanical Output Hp	1.11	23A30H56	23A30H14		HOLLOW
		Output OHL (lbs.)	1610	23A30HA56	23A30HA14		HOLLOW ALT.
40	44	Mechanical Input Hp	1.11	23A40L56	23A40L14		L
		Thermal Input Hp	1.73	23A40R56	23A40R14		R
		Output Torque (lb in.)	1193	23A40LR56	23A40LR14		LR
		Mechanical Output Hp	0.83	23A40H56	23A40H14		HOLLOW
		Output OHL (lbs.)	1610	23A40HA56	23A40HA14		HOLLOW ALT.
50	35	Mechanical Input Hp	0.95	23A50L56			L
		Thermal Input Hp	1.42	23A50R56			R
		Output Torque (lb in.)	1182	23A50LR56			LR
		Mechanical Output Hp	0.66	23A50H56			HOLLOW
		Output OHL (lbs.)	1610	23A50HA56			HOLLOW ALT.
60	29	Mechanical Input Hp	0.80	23A60L56			L
		Thermal Input Hp	1.24	23A60R56			R
		Output Torque (lb in.)	1111	23A60LR56			LR
		Mechanical Output Hp	0.51	23A60H56			HOLLOW
		Output OHL (lbs.)	1610	23A60HA56			HOLLOW ALT.

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **23BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

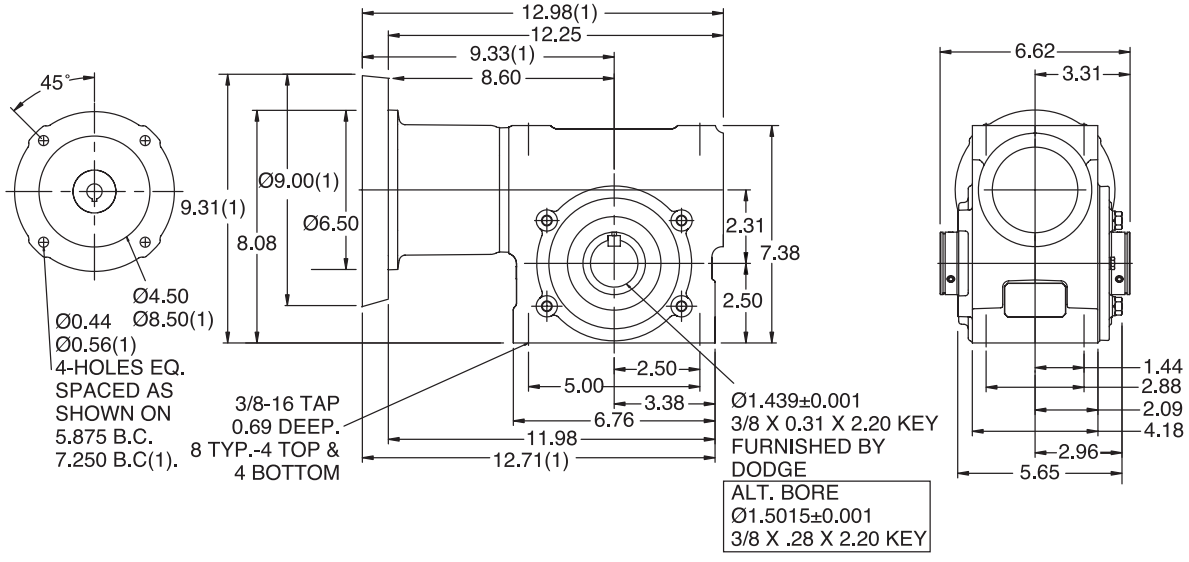
TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 23

SOLID OUTPUT

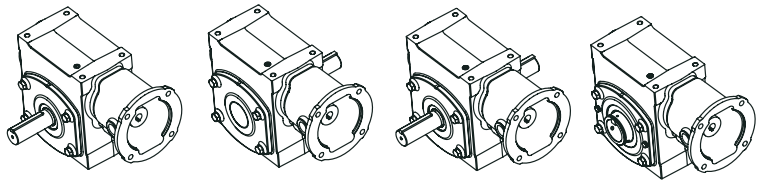


(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H or HA

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 26

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
5	350	Mechanical Input Hp	7.37		26Q05L14	26Q05L18	L
		Thermal Input Hp	8.79		26Q05R14	26Q05R18	R
		Output Torque (lb in.)	1247		26Q05LR14	26Q05LR18	LR
		Mechanical Output Hp	6.93		26Q05H14	26Q05H18	HOLLOW
		Output OHL (lbs.)	1330		26Q05HA14	26Q05HA18	HOLLOW ALT.
6.5	269	Available Upon Request					
7.5	233	Mechanical Input Hp	5.92	26Q07L56	26Q07L14	26Q07L18	L
		Thermal Input Hp	6.89	26Q07R56	26Q07R14	26Q07R18	R
		Output Torque (lb in.)	1458	26Q07LR56	26Q07LR14	26Q07LR18	LR
		Mechanical Output Hp	5.47	26Q07H56	26Q07H14	26Q07H18	HOLLOW
		Output OHL (lbs.)	1520	26Q07HA56	26Q07HA14	26Q07HA18	HOLLOW ALT.
10	175	Mechanical Input Hp	4.83	26Q10L56	26Q10L14	26Q10L18	L
		Thermal Input Hp	5.61	26Q10R56	26Q10R14	26Q10R18	R
		Output Torque (lb in.)	1576	26Q10LR56	26Q10LR14	26Q10LR18	LR
		Mechanical Output Hp	4.37	26Q10H56	26Q10H14	26Q10H18	HOLLOW
		Output OHL (lbs.)	1610	26Q10HA56	26Q10HA14	26Q10HA18	HOLLOW ALT.
12.7	138	Mechanical Input Hp	4.08	26Q12L56	26Q12L14	26Q12L18	L
		Thermal Input Hp	4.72	26Q12R56	26Q12R14	26Q12R18	R
		Output Torque (lb in.)	1654	26Q12LR56	26Q12LR14	26Q12LR18	LR
		Mechanical Output Hp	3.63	26Q12H56	26Q12H14	26Q12H18	HOLLOW
		Output OHL (lbs.)	1610	26Q12HA56	26Q12HA14	26Q12HA18	HOLLOW ALT.
15	117	Mechanical Input Hp	3.62	26Q15L56	26Q15L14	26Q15L18	L
		Thermal Input Hp	4.15	26Q15R56	26Q15R14	26Q15R18	R
		Output Torque (lb in.)	1708	26Q15LR56	26Q15LR14	26Q15LR18	LR
		Mechanical Output Hp	3.16	26Q15H56	26Q15H14	26Q15H18	HOLLOW
		Output OHL (lbs.)	1610	26Q15HA56	26Q15HA14	26Q15HA18	HOLLOW ALT.
18	97	Mechanical Input Hp	3.05	26Q18L56	26Q18L14	26Q18L18	L
		Thermal Input Hp	3.73	26Q18R56	26Q18R14	26Q18R18	R
		Output Torque (lb in.)	1708	26Q18LR56	26Q18LR14	26Q18LR18	LR
		Mechanical Output Hp	2.63	26Q18H56	26Q18H14	26Q18H18	HOLLOW
		Output OHL (lbs.)	1610	26Q18HA56	26Q18HA14	26Q18HA18	HOLLOW ALT.
20	88	Mechanical Input Hp	2.71	26Q20L56	26Q20L14		L
		Thermal Input Hp	3.71	26Q20R56	26Q20R14		R
		Output Torque (lb in.)	1673	26Q20LR56	26Q20LR14		LR
		Mechanical Output Hp	2.32	26Q20H56	26Q20H14		HOLLOW
		Output OHL (lbs.)	1610	26Q20HA56	26Q20HA14		HOLLOW ALT.
25	70	Mechanical Input Hp	2.26	26Q25L56	26Q25L14		L
		Thermal Input Hp	3.00	26Q25R56	26Q25R14		R
		Output Torque (lb in.)	1677	26Q25LR56	26Q25LR14		LR
		Mechanical Output Hp	1.86	26Q25H56	26Q25H14		HOLLOW
		Output OHL (lbs.)	1610	26Q25HA56	26Q25HA14		HOLLOW ALT.
30	58	Mechanical Input Hp	2.00	26Q30L56	26Q30L14		L
		Thermal Input Hp	2.79	26Q30R56	26Q30R14		R
		Output Torque (lb in.)	1705	26Q30LR56	26Q30LR14		LR
		Mechanical Output Hp	1.58	26Q30H56	26Q30H14		HOLLOW
		Output OHL (lbs.)	1610	26Q30HA56	26Q30HA14		HOLLOW ALT.
40	44	Mechanical Input Hp	1.55	26Q40L56	26Q40L14		L
		Thermal Input Hp	2.14	26Q40R56	26Q40R14		R
		Output Torque (lb in.)	1685	26Q40LR56	26Q40LR14		LR
		Mechanical Output Hp	1.17	26Q40H56	26Q40H14		HOLLOW
		Output OHL (lbs.)	1610	26Q40HA56	26Q40HA14		HOLLOW ALT.
50	35	Mechanical Input Hp	1.32	26Q50L56	26Q50L14		L
		Thermal Input Hp	1.76	26Q50R56	26Q50R14		R
		Output Torque (lb in.)	1662	26Q50LR56	26Q50LR14		LR
		Mechanical Output Hp	0.92	26Q50H56	26Q50H14		HOLLOW
		Output OHL (lbs.)	1610	26Q50HA56	26Q50HA14		HOLLOW ALT.
60	29	Mechanical Input Hp	1.08	26Q60L56	26Q60L14		L
		Thermal Input Hp	1.57	26Q60R56	26Q60R14		R
		Output Torque (lb in.)	1547	26Q60LR56	26Q60LR14		LR
		Mechanical Output Hp	0.72	26Q60H56	26Q60H14		HOLLOW
		Output OHL (lbs.)	1610	26Q60HA56	26Q60HA14		HOLLOW ALT.
80	22	Available Upon Request					

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **26BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

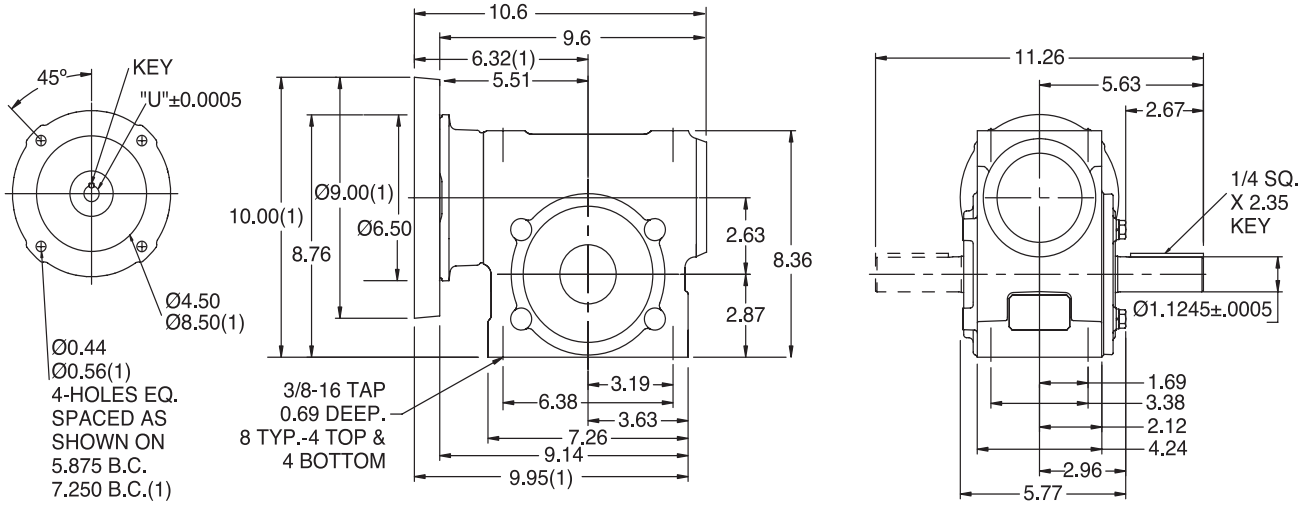
FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	WASHDOWN PRODUCT PAGE G4-80



RATINGS/DIMENSIONS

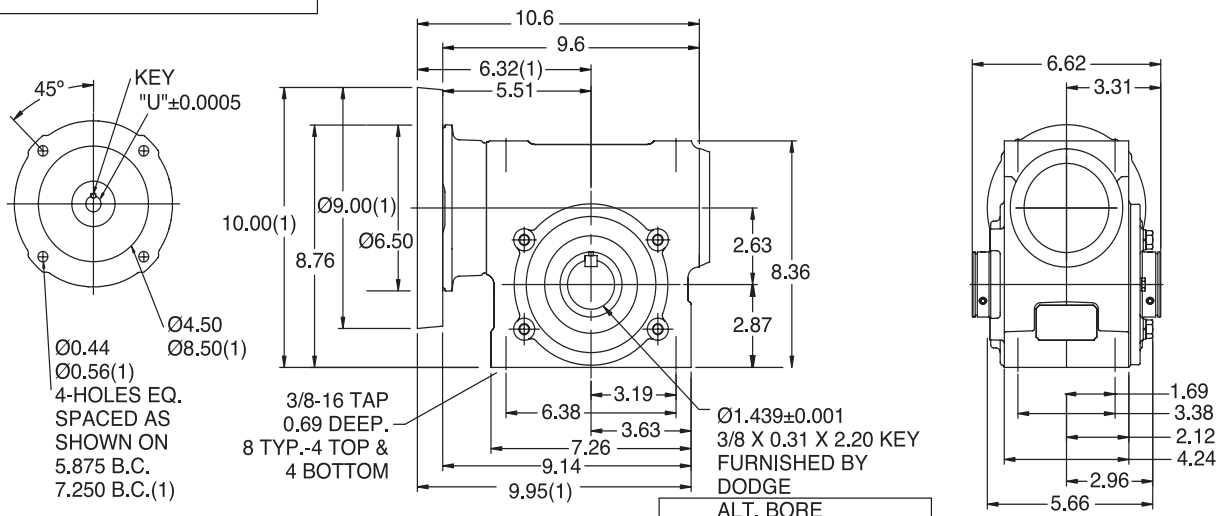
TIGEAR-2 Reducers With Quill Input - Size 26

SOLID OUTPUT



(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

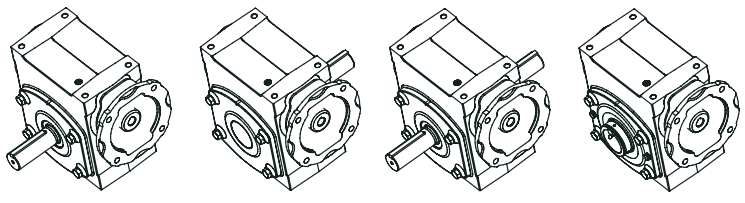
HOLLOW OUTPUT



ALT. BORE
Ø1.689±0.001
3/8 X .28 X 2.20 KEY

MOTOR FRAME	"U"	KEY
48Y 56C	.626	3/16 SQ. x 1.50 KEY
140TC 160ATC	.876	3/16 SQ x 1.50 KEY
180TC 180ATC	1.126	1/4 SQ x 2.00 KEY

OUTPUT SHAFT CONFIGURATIONS



L R LR H or HA

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Separate Input - Size 26

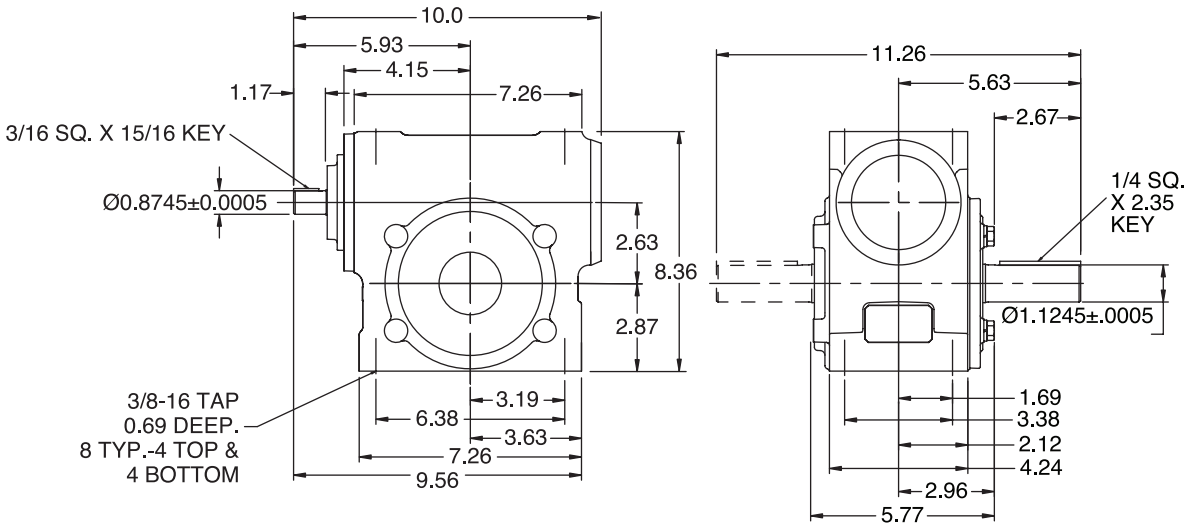
Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit 56C	140TC	180TC
5	350	Mechanical Input Hp	7.37	26S05L	L		2330MTR14	2330MTR18
		Thermal Input Hp	8.79	26S05R	R			
		Output Torque (lb in.)	1247	26S05LR	LR			
		Mechanical Output Hp	6.93	26S05H	HOLLOW			
		Output OHL (lbs.)	1330	26S05HA	HOLLOW ALT.			
6.5	269	Available Upon Request						
7.5	233	Mechanical Input Hp	5.92	26S07L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	6.89	26S07R	R			
		Output Torque (lb in.)	1458	26S07LR	LR			
		Mechanical Output Hp	5.47	26S07H	HOLLOW			
		Output OHL (lbs.)	1520	26S07HA	HOLLOW ALT.			
10	175	Mechanical Input Hp	4.83	26S10L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	5.61	26S10R	R			
		Output Torque (lb in.)	1576	26S10LR	LR			
		Mechanical Output Hp	4.37	26S10H	HOLLOW			
		Output OHL (lbs.)	1610	26S10HA	HOLLOW ALT.			
12.7	138	Mechanical Input Hp	4.08	26S12L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	4.72	26S12R	R			
		Output Torque (lb in.)	1654	26S12LR	LR			
		Mechanical Output Hp	3.63	26S12H	HOLLOW			
		Output OHL (lbs.)	1610	26S12HA	HOLLOW ALT.			
15	117	Mechanical Input Hp	3.62	26S15L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	4.15	26S15R	R			
		Output Torque (lb in.)	1708	26S15LR	LR			
		Mechanical Output Hp	3.16	26S15H	HOLLOW			
		Output OHL (lbs.)	1610	26S15HA	HOLLOW ALT.			
18	97	Mechanical Input Hp	3.05	26S18L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	3.73	26S18R	R			
		Output Torque (lb in.)	1708	26S18LR	LR			
		Mechanical Output Hp	2.63	26S18H	HOLLOW			
		Output OHL (lbs.)	1610	26S18HA	HOLLOW ALT.			
20	88	Mechanical Input Hp	2.71	26S20L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	3.71	26S20R	R			
		Output Torque (lb in.)	1673	26S20LR	LR			
		Mechanical Output Hp	2.32	26S20H	HOLLOW			
		Output OHL (lbs.)	1610	26S20HA	HOLLOW ALT.			
25	70	Mechanical Input Hp	2.26	26S25L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	3	26S25R	R			
		Output Torque (lb in.)	1677	26S25LR	LR			
		Mechanical Output Hp	1.86	26S25H	HOLLOW			
		Output OHL (lbs.)	1610	26S25HA	HOLLOW ALT.			
30	58	Mechanical Input Hp	2	26S30L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	2.79	26S30R	R			
		Output Torque (lb in.)	1705	26S30LR	LR			
		Mechanical Output Hp	1.58	26S30H	HOLLOW			
		Output OHL (lbs.)	1610	26S30HA	HOLLOW ALT.			
40	44	Mechanical Input Hp	1.55	26S40L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	2.14	26S40R	R			
		Output Torque (lb in.)	1685	26S40LR	LR			
		Mechanical Output Hp	1.17	26S40H	HOLLOW			
		Output OHL (lbs.)	1610	26S40HA	HOLLOW ALT.			
50	35	Mechanical Input Hp	1.32	26S50L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	1.76	26S50R	R			
		Output Torque (lb in.)	1662	26S50LR	LR			
		Mechanical Output Hp	0.92	26S50H	HOLLOW			
		Output OHL (lbs.)	1610	26S50HA	HOLLOW ALT.			
60	29	Mechanical Input Hp	1.08	26S60L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	1.57	26S60R	R			
		Output Torque (lb in.)	1547	26S60LR	LR			
		Mechanical Output Hp	0.72	26S60H	HOLLOW			
		Output OHL (lbs.)	1610	26S60HA	HOLLOW ALT.			
80	22	Available Upon Request						
All Ratios		Input OHL (lbs)	250	One diameter from seal surface				

Note: TIGEAR-2 separate reducers cannot be used with the old Adaptable TIGEAR motor adapter kits.
Refer to page G4-118 for hollow bore bushing selections

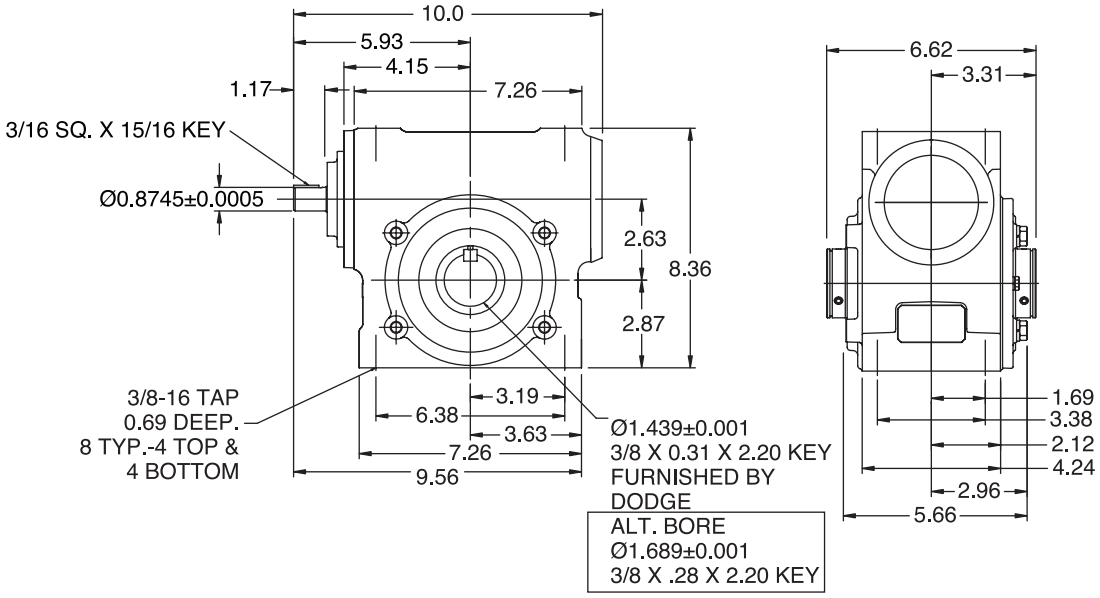


TIGEAR-2 Reducers With Separate Input - Size 26

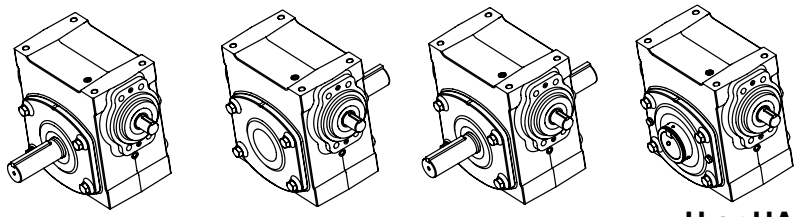
SOLID OUTPUT



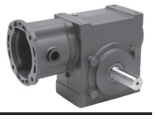
HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 26

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	140TC	180TC	Shaft Position
		Mechanical Input Hp	7.37		**26A05L14**	**26A05L18**	L
		Thermal Input Hp	8.79		**26A05R14**	**26A05R18**	R
5	**350**	Output Torque (lb in.)	1247		**26A05LR14**	**26A05LR18**	LR
		Mechanical Output Hp	6.93		**26A05H14**	**26A05H18**	HOLLOW
		Output OHL (lbs.)	1330		**26A05HA14**	**26A05HA18**	HOLLOW ALT.
6.5	**269**	Available Upon Request					
		Mechanical Input Hp	5.92	**26A07L56**	**26A07L14**	**26A07L18**	L
		Thermal Input Hp	6.89	**26A07R56**	**26A07R14**	**26A07R18**	R
7.5	**233**	Output Torque (lb in.)	1458	**26A07LR56**	**26A07LR14**	**26A07LR18**	LR
		Mechanical Output Hp	5.47	**26A07H56**	**26A07H14**	**26A07H18**	HOLLOW
		Output OHL (lbs.)	1520	**26A07HA56**	**26A07HA14**	**26A07HA18**	HOLLOW ALT.
		Mechanical Input Hp	4.83	**26A10L56**	**26A10L14**	**26A10L18**	L
		Thermal Input Hp	5.61	**26A10R56**	**26A10R14**	**26A10R18**	R
10	**175**	Output Torque (lb in.)	1576	**26A10LR56**	**26A10LR14**	**26A10LR18**	LR
		Mechanical Output Hp	4.37	**26A10H56**	**26A10H14**	**26A10H18**	HOLLOW
		Output OHL (lbs.)	1610	**26A10HA56**	**26A10HA14**	**26A10HA18**	HOLLOW ALT.
		Mechanical Input Hp	4.08	**26A12L56**	**26A12L14**	**26A12L18**	L
		Thermal Input Hp	4.72	**26A12R56**	**26A12R14**	**26A12R18**	R
12.7	**138**	Output Torque (lb in.)	1654	**26A12LR56**	**26A12LR14**	**26A12LR18**	LR
		Mechanical Output Hp	3.63	**26A12H56**	**26A12H14**	**26A12H18**	HOLLOW
		Output OHL (lbs.)	1610	**26A12HA56**	**26A12HA14**	**26A12HA18**	HOLLOW ALT.
		Mechanical Input Hp	3.62	**26A15L56**	**26A15L14**	**26A15L18**	L
		Thermal Input Hp	4.15	**26A15R56**	**26A15R14**	**26A15R18**	R
15	**117**	Output Torque (lb in.)	1708	**26A15LR56**	**26A15LR14**	**26A15LR18**	LR
		Mechanical Output Hp	3.16	**26A15H56**	**26A15H14**	**26A15H18**	HOLLOW
		Output OHL (lbs.)	1610	**26A15HA56**	**26A15HA14**	**26A15HA18**	HOLLOW ALT.
		Mechanical Input Hp	3.05	**26A18L56**	**26A18L14**	**26A18L18**	L
		Thermal Input Hp	3.73	**26A18R56**	**26A18R14**	**26A18R18**	R
18	**97**	Output Torque (lb in.)	1708	**26A18LR56**	**26A18LR14**	**26A18LR18**	LR
		Mechanical Output Hp	2.63	**26A18H56**	**26A18H14**	**26A18H18**	HOLLOW
		Output OHL (lbs.)	1610	**26A18HA56**	**26A18HA14**	**26A18HA18**	HOLLOW ALT.
		Mechanical Input Hp	2.71	**26A20L56**	**26A20L14**		L
		Thermal Input Hp	3.71	**26A20R56**	**26A20R14**		R
20	**88**	Output Torque (lb in.)	1673	**26A20LR56**	**26A20LR14**		LR
		Mechanical Output Hp	2.32	**26A20H56**	**26A20H14**		HOLLOW
		Output OHL (lbs.)	1610	**26A20HA56**	**26A20HA14**		HOLLOW ALT.
		Mechanical Input Hp	2.26	**26A25L56**	**26A25L14**		L
		Thermal Input Hp	3.00	**26A25R56**	**26A25R14**		R
25	**70**	Output Torque (lb in.)	1677	**26A25LR56**	**26A25LR14**		LR
		Mechanical Output Hp	1.86	**26A25H56**	**26A25H14**		HOLLOW
		Output OHL (lbs.)	1610	**26A25HA56**	**26A25HA14**		HOLLOW ALT.
		Mechanical Input Hp	2.00	**26A30L56**	**26A30L14**		L
		Thermal Input Hp	2.79	**26A30R56**	**26A30R14**		R
30	**58**	Output Torque (lb in.)	1705	**26A30LR56**	**26A30LR14**		LR
		Mechanical Output Hp	1.58	**26A30H56**	**26A30H14**		HOLLOW
		Output OHL (lbs.)	1610	**26A30HA56**	**26A30HA14**		HOLLOW ALT.
		Mechanical Input Hp	1.55	**26A40L56**	**26A40L14**		L
		Thermal Input Hp	2.14	**26A40R56**	**26A40R14**		R
40	**44**	Output Torque (lb in.)	1685	**26A40LR56**	**26A40LR14**		LR
		Mechanical Output Hp	1.17	**26A40H56**	**26A40H14**		HOLLOW
		Output OHL (lbs.)	1610	**26A40HA56**	**26A40HA14**		HOLLOW ALT.
		Mechanical Input Hp	1.32	**26A50L56**	**26A50L14**		L
		Thermal Input Hp	1.76	**26A50R56**	**26A50R14**		R
50	**35**	Output Torque (lb in.)	1662	**26A50LR56**	**26A50LR14**		LR
		Mechanical Output Hp	0.92	**26A50H56**	**26A50H14**		HOLLOW
		Output OHL (lbs.)	1610	**26A50HA56**	**26A50HA14**		HOLLOW ALT.
		Mechanical Input Hp	1.08	**26A60L56**	**26A60L14**		L
		Thermal Input Hp	1.57	**26A60R56**	**26A60R14**		R
60	**29**	Output Torque (lb in.)	1547	**26A60LR56**	**26A60LR14**		LR
		Mechanical Output Hp	0.72	**26A60H56**	**26A60H14**		HOLLOW
		Output OHL (lbs.)	1610	**26A60HA56**	**26A60HA14**		HOLLOW ALT.
80	**22**	Available Upon Request					

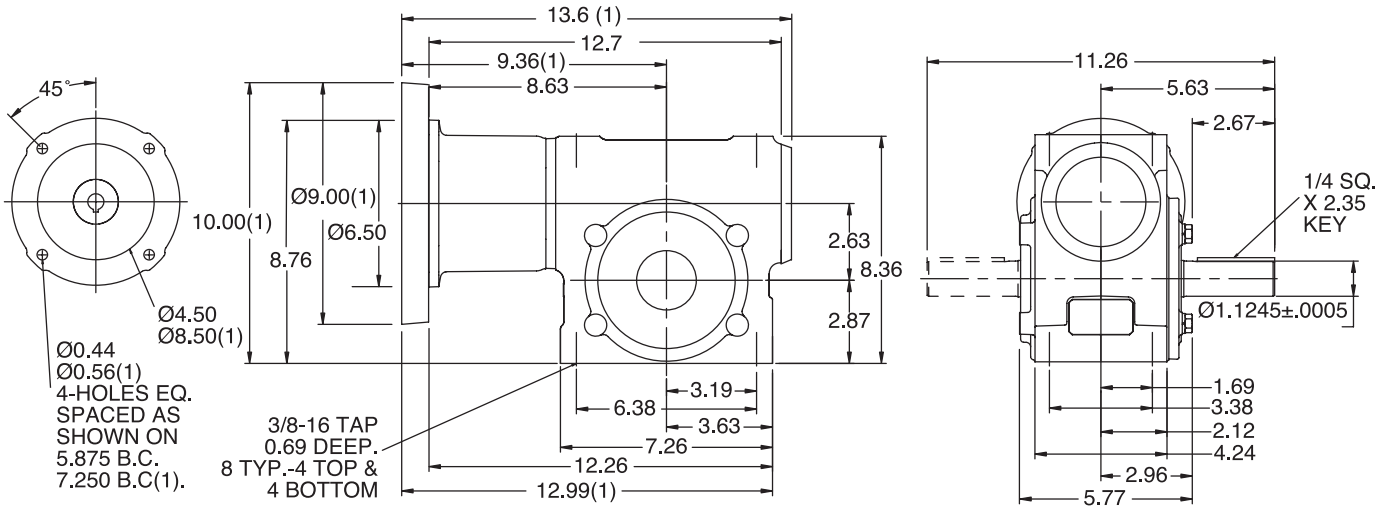
Note: Reducers are shipped without a mounting base. Order bolt-on base kit **26BASE** if required.
Refer to page G4-118 for hollow bore bushing selections



RATINGS/DIMENSIONS

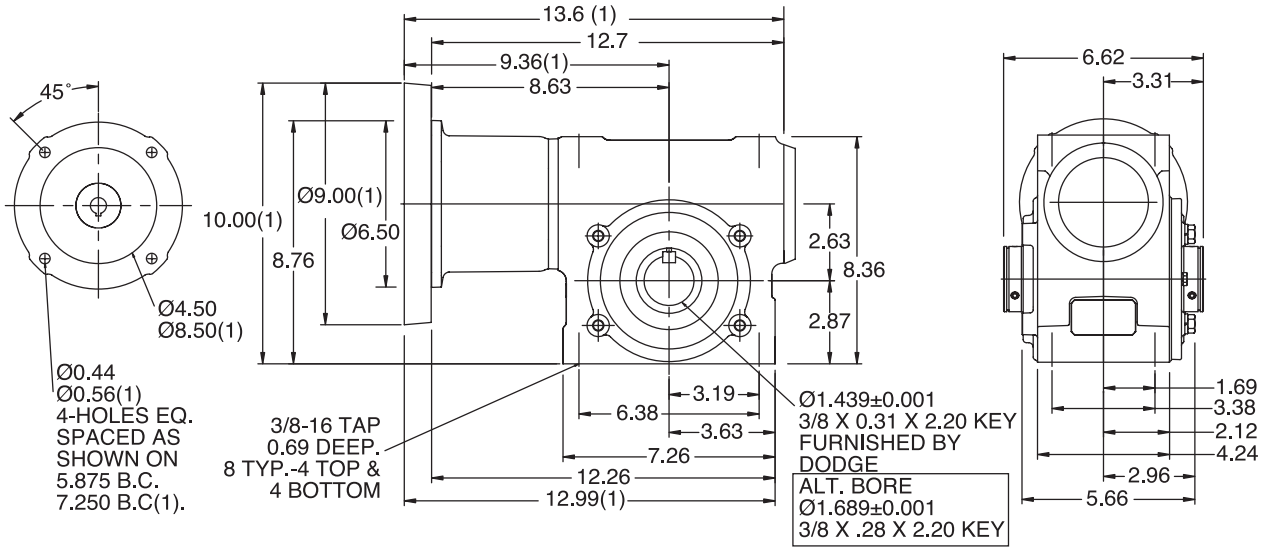
TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 26

SOLID OUTPUT

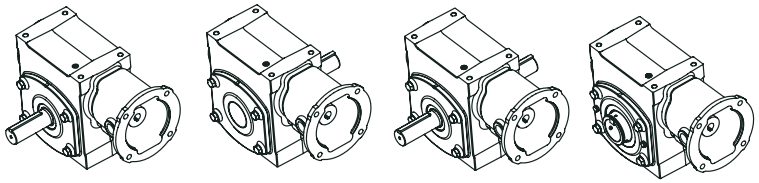


(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H or HA

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 30

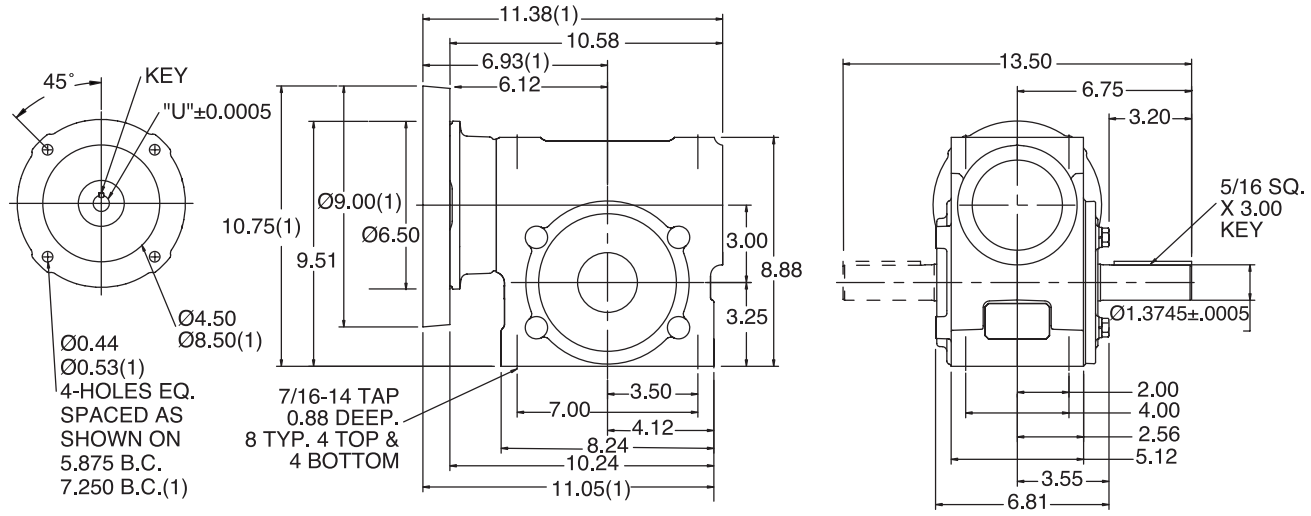
Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
5	350	Mechanical Input Hp	10.84		30Q05L14	30Q05L18	L
		Thermal Input Hp	12.53		30Q05R14	30Q05R18	R
		Output Torque (lb in.)	1849		30Q05LR14	30Q05LR18	LR
		Mechanical Output Hp	10.27		30Q05H14	30Q05H18	HOLLOW
		Output OHL (lbs.)	1330				
6.5	269	Available Upon Request					
7.5	233	Mechanical Input Hp	8.74		30Q07L14	30Q07L18	L
		Thermal Input Hp	9.64		30Q07R14	30Q07R18	R
		Output Torque (lb in.)	2171		30Q07LR14	30Q07LR18	LR
		Mechanical Output Hp	8.15		30Q07H14	30Q07H18	HOLLOW
		Output OHL (lbs.)	1540				
10	175	Mechanical Input Hp	7.11		30Q10L14	30Q10L18	L
		Thermal Input Hp	7.85		30Q10R14	30Q10R18	R
		Output Torque (lb in.)	2347		30Q10LR14	30Q10LR18	LR
		Mechanical Output Hp	6.52		30Q10H14	30Q10H18	HOLLOW
		Output OHL (lbs.)	1720				
15	117	Mechanical Input Hp	5.00		30Q15L14	30Q15L18	L
		Thermal Input Hp	5.72		30Q15R14	30Q15R18	R
		Output Torque (lb in.)	2371		30Q15LR14	30Q15LR18	LR
		Mechanical Output Hp	4.39		30Q15H14	30Q15H18	HOLLOW
		Output OHL (lbs.)	2300				
20	88	Mechanical Input Hp	3.81	30Q20L56	30Q20L14	30Q20L18	L
		Thermal Input Hp	4.52	30Q20R56	30Q20R14	30Q20R18	R
		Output Torque (lb in.)	2345	30Q20LR56	30Q20LR14	30Q20LR18	LR
		Mechanical Output Hp	3.26	30Q20H56	30Q20H14	30Q20H18	HOLLOW
		Output OHL (lbs.)	2300				
25	70	Mechanical Input Hp	3.05	30Q25L56	30Q25L14	30Q25L18	L
		Thermal Input Hp	3.90	30Q25R56	30Q25R14	30Q25R18	R
		Output Torque (lb in.)	2284	30Q25LR56	30Q25LR14	30Q25LR18	LR
		Mechanical Output Hp	2.54	30Q25H56	30Q25H14	30Q25H18	HOLLOW
		Output OHL (lbs.)	2300				
30	58	Mechanical Input Hp	2.75	30Q30L56	30Q30L14		L
		Thermal Input Hp	3.58	30Q30R56	30Q30R14		R
		Output Torque (lb in.)	2417	30Q30LR56	30Q30LR14		LR
		Mechanical Output Hp	2.24	30Q30H56	30Q30H14		HOLLOW
		Output OHL (lbs.)	2300				
40	44	Mechanical Input Hp	2.09	30Q40L56	30Q40L14		L
		Thermal Input Hp	2.87	30Q40R56	30Q40R14		R
		Output Torque (lb in.)	2324	30Q40LR56	30Q40LR14		LR
		Mechanical Output Hp	1.61	30Q40H56	30Q40H14		HOLLOW
		Output OHL (lbs.)	2300				
50	35	Mechanical Input Hp	1.75	30Q50L56	30Q50L14		L
		Thermal Input Hp	2.34	30Q50R56	30Q50R14		R
		Output Torque (lb in.)	2257	30Q50LR56	30Q50LR14		LR
		Mechanical Output Hp	1.25	30Q50H56	30Q50H14		HOLLOW
		Output OHL (lbs.)	2300				
60	29	Mechanical Input Hp	1.50	30Q60L56	30Q60L14		L
		Thermal Input Hp	2.01	30Q60R56	30Q60R14		R
		Output Torque (lb in.)	2138	30Q60LR56	30Q60LR14		LR
		Mechanical Output Hp	0.99	30Q60H56	30Q60H14		HOLLOW
		Output OHL (lbs.)	2300				

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **30BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	WASHDOWN PRODUCT PAGE G4-80

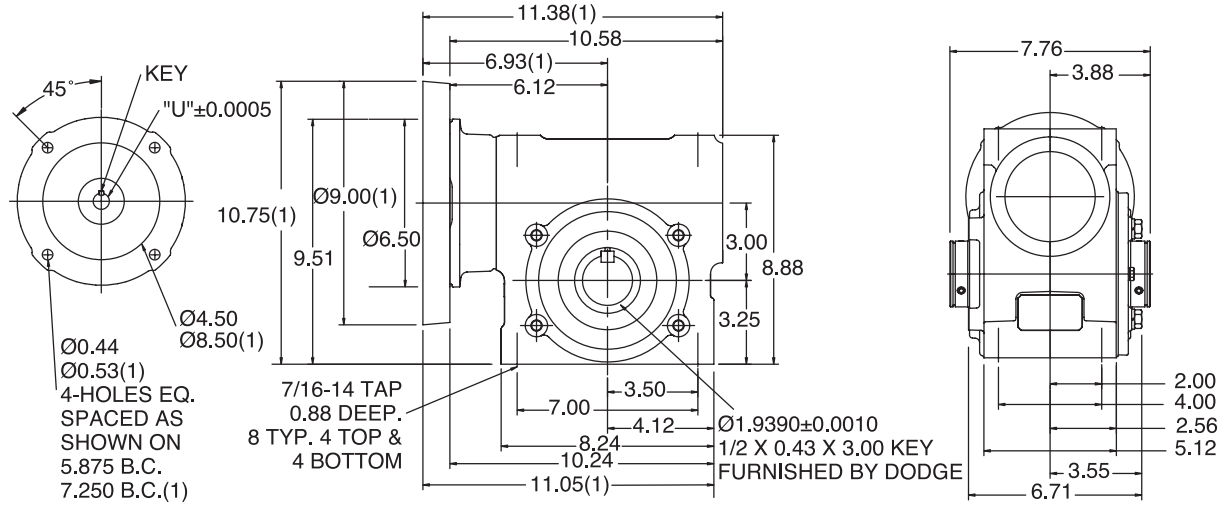
TIGEAR-2 Reducers With Quill Input - Size 30

SOLID OUTPUT



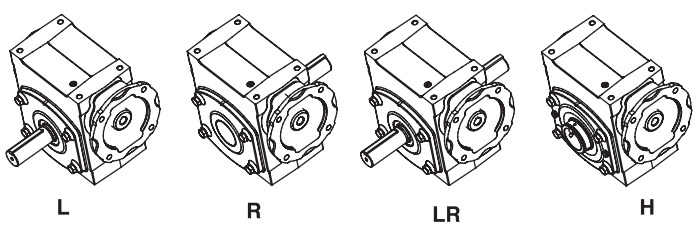
(1) DIMENSIONS APPLY TO
180 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



MOTOR FRAME	"U"	KEY
48Y 56C	.6255	3/16 SQ. x 1.50 KEY
140TC 160ATC	.8755	3/16 SQ. x 1.50 KEY
180TC 180ATC	1.1255	1/4 SQ. x 2.00 KEY

MOUNTING POSITIONS



FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	WASHDOWN PRODUCT PAGE G4-80

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Separate Input - Size 30

Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit 56C	140TC	180TC
5	350	Mechanical Input Hp	10.84	30S05L	L		2330MTR14	2330MTR18
		Thermal Input Hp	12.53	30S05R	R			
		Output Torque (lb in.)	1849	30S05LR	LR			
		Mechanical Output Hp	10.27	30S05H	HOLLOW			
		Output OHL (lbs.)	1330					
6.5	269	Available Upon Request						
7.5	233	Mechanical Input Hp	8.74	30S07L	L		2330MTR14	2330MTR18
		Thermal Input Hp	9.64	30S07R	R			
		Output Torque (lb in.)	2171	30S07LR	LR			
		Mechanical Output Hp	8.15	30S07H	HOLLOW			
		Output OHL (lbs.)	1540					
10	175	Mechanical Input Hp	7.11	30S10L	L		2330MTR14	2330MTR18
		Thermal Input Hp	7.85	30S10R	R			
		Output Torque (lb in.)	2347	30S10LR	LR			
		Mechanical Output Hp	6.52	30S10H	HOLLOW			
		Output OHL (lbs.)	1720					
15	117	Mechanical Input Hp	5.00	30S15L	L		2330MTR14	2330MTR18
		Thermal Input Hp	5.72	30S15R	R			
		Output Torque (lb in.)	2371	30S15LR	LR			
		Mechanical Output Hp	4.39	30S15H	HOLLOW			
		Output OHL (lbs.)	2300					
20	88	Mechanical Input Hp	3.81	30S20L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	4.52	30S20R	R			
		Output Torque (lb in.)	2345	30S20LR	LR			
		Mechanical Output Hp	3.26	30S20H	HOLLOW			
		Output OHL (lbs.)	2300					
25	70	Mechanical Input Hp	3.05	30S25L	L	2330MTR56	2330MTR14	2330MTR18
		Thermal Input Hp	3.90	30S25R	R			
		Output Torque (lb in.)	2284	30S25LR	LR			
		Mechanical Output Hp	2.54	30S25H	HOLLOW			
		Output OHL (lbs.)	2300					
30	58	Mechanical Input Hp	2.75	30S30L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	3.58	30S30R	R			
		Output Torque (lb in.)	2417	30S30LR	LR			
		Mechanical Output Hp	2.24	30S30H	HOLLOW			
		Output OHL (lbs.)	2300					
40	44	Mechanical Input Hp	2.09	30S40L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	2.87	30S40R	R			
		Output Torque (lb in.)	2324	30S40LR	LR			
		Mechanical Output Hp	1.61	30S40H	HOLLOW			
		Output OHL (lbs.)	2300					
50	35	Mechanical Input Hp	1.75	30S50L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	2.34	30S50R	R			
		Output Torque (lb in.)	2257	30S50LR	LR			
		Mechanical Output Hp	1.25	30S50H	HOLLOW			
		Output OHL (lbs.)	2300					
60	29	Mechanical Input Hp	1.50	30S60L	L	2330MTR56	2330MTR14	
		Thermal Input Hp	2.01	30S60R	R			
		Output Torque (lb in.)	2138	30S60LR	LR			
		Mechanical Output Hp	0.99	30S60H	HOLLOW			
		Output OHL (lbs.)	2300					
All Ratios		Input OHL (lbs)	280	One diameter from seal surface				

Note: TIGEAR-2 separate reducers cannot be used with the old Adaptable TIGEAR motor adapter kits.
Refer to page G4-118 for hollow bore bushing selections

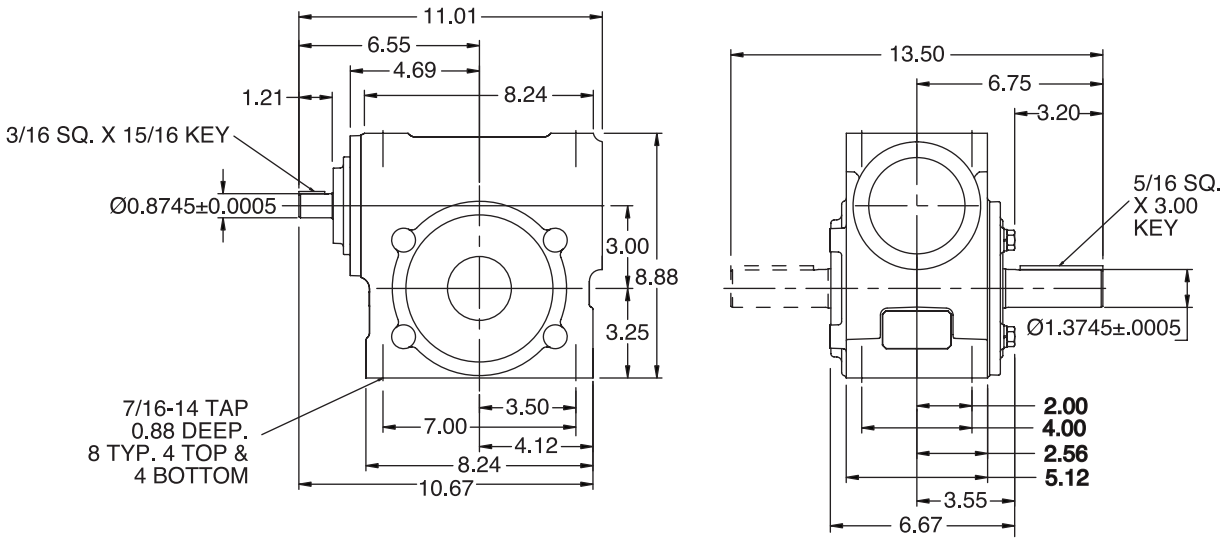
FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	RATINGS/DIMENSIONS PAGE G4-16



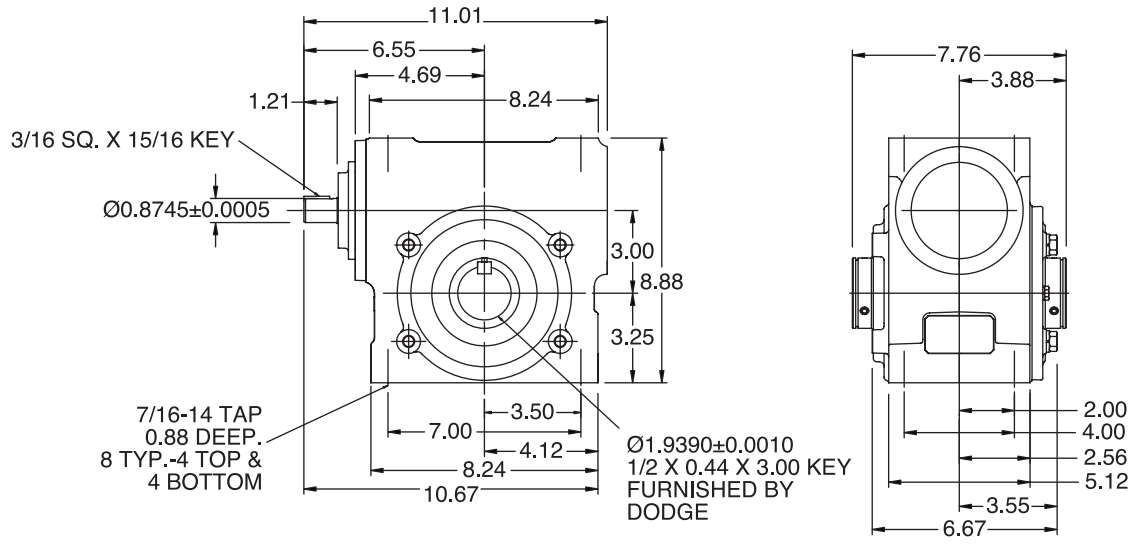
RATINGS/DIMENSIONS

TIGEAR-2 Reducers With Separate Input - Size 30

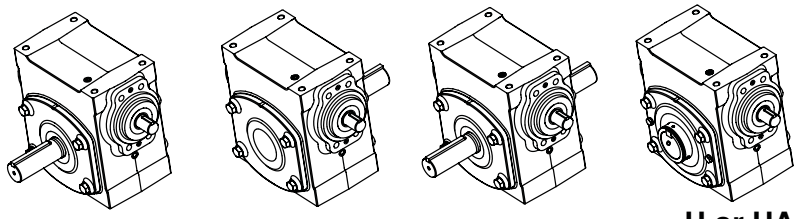
SOLID OUTPUT



HOLLOW OUTPUT

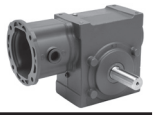


OUTPUT SHAFT CONFIGURATIONS



FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	RATINGS/DIMENSIONS PAGE G4-16

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 30

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	140TC	180TC	Shaft Position
		Mechanical Input Hp	10.84		**30A05L14**	**30A05L18**	L
		Thermal Input Hp	12.53		**30A05R14**	**30A05R18**	R
5	**350**	Output Torque (lb in.)	1849		**30A05LR14**	**30A05LR18**	LR
		Mechanical Output Hp	10.27		**30A05H14**	**30A05H18**	HOLLOW
		Output OHL (lbs.)	1330				
6.5	**269**	Available Upon Request					
		Mechanical Input Hp	8.74		**30A07L14**	**30A07L18**	L
		Thermal Input Hp	9.64		**30A07R14**	**30A07R18**	R
7.5	**233**	Output Torque (lb in.)	2171		**30A07LR14**	**30A07LR18**	LR
		Mechanical Output Hp	8.15		**30A07H14**	**30A07H18**	HOLLOW
		Output OHL (lbs.)	1540				
		Mechanical Input Hp	7.11		**30A10L14**	**30A10L18**	L
		Thermal Input Hp	7.85		**30A10R14**	**30A10R18**	R
10	**175**	Output Torque (lb in.)	2347		**30A10LR14**	**30A10LR18**	LR
		Mechanical Output Hp	6.52		**30A10H14**	**30A10H18**	HOLLOW
		Output OHL (lbs.)	1720				
		Mechanical Input Hp	5.00		**30A15L14**	**30A15L18**	L
		Thermal Input Hp	5.72		**30A15R14**	**30A15R18**	R
15	**117**	Output Torque (lb in.)	2371		**30A15LR14**	**30A15LR18**	LR
		Mechanical Output Hp	4.39		**30A15H14**	**30A15H18**	HOLLOW
		Output OHL (lbs.)	2300				
		Mechanical Input Hp	3.81	**30A20L56**	**30A20L14**	**30A20L18**	L
		Thermal Input Hp	4.52	**30A20R56**	**30A20R14**	**30A20R18**	R
20	**88**	Output Torque (lb in.)	2345	**30A20LR56**	**30A20LR14**	**30A20LR18**	LR
		Mechanical Output Hp	3.26	**30A20H56**	**30A20H14**	**30A20H18**	HOLLOW
		Output OHL (lbs.)	2300				
		Mechanical Input Hp	3.05	**30A25L56**	**30A25L14**	**30A25L18**	L
		Thermal Input Hp	3.90	**30A25R56**	**30A25R14**	**30A25R18**	R
25	**70**	Output Torque (lb in.)	2284	**30A25LR56**	**30A25LR14**	**30A25LR18**	LR
		Mechanical Output Hp	2.54	**30A25H56**	**30A25H14**	**30A25H18**	HOLLOW
		Output OHL (lbs.)	2300				
		Mechanical Input Hp	2.75	**30A30L56**	**30A30L14**		L
		Thermal Input Hp	3.58	**30A30R56**	**30A30R14**		R
30	**58**	Output Torque (lb in.)	2417	**30A30LR56**	**30A30LR14**		LR
		Mechanical Output Hp	2.24	**30A30H56**	**30A30H14**		HOLLOW
		Output OHL (lbs.)	2300				
		Mechanical Input Hp	2.09	**30A40L56**	**30A40L14**		L
		Thermal Input Hp	2.87	**30A40R56**	**30A40R14**		R
40	**44**	Output Torque (lb in.)	2324	**30A40LR56**	**30A40LR14**		LR
		Mechanical Output Hp	1.61	**30A40H56**	**30A40H14**		HOLLOW
		Output OHL (lbs.)	2300				
		Mechanical Input Hp	1.75	**30A50L56**	**30A50L14**		L
		Thermal Input Hp	2.34	**30A50R56**	**30A50R14**		R
50	**35**	Output Torque (lb in.)	2257	**30A50LR56**	**30A50LR14**		LR
		Mechanical Output Hp	1.25	**30A50H56**	**30A50H14**		HOLLOW
		Output OHL (lbs.)	2300				
		Mechanical Input Hp	1.50	**30A60L56**	**30A60L14**		L
		Thermal Input Hp	2.01	**30A60R56**	**30A60R14**		R
60	**29**	Output Torque (lb in.)	2138	**30A60LR56**	**30A60LR14**		LR
		Mechanical Output Hp	0.99	**30A60H56**	**30A60H14**		HOLLOW
		Output OHL (lbs.)	2300				

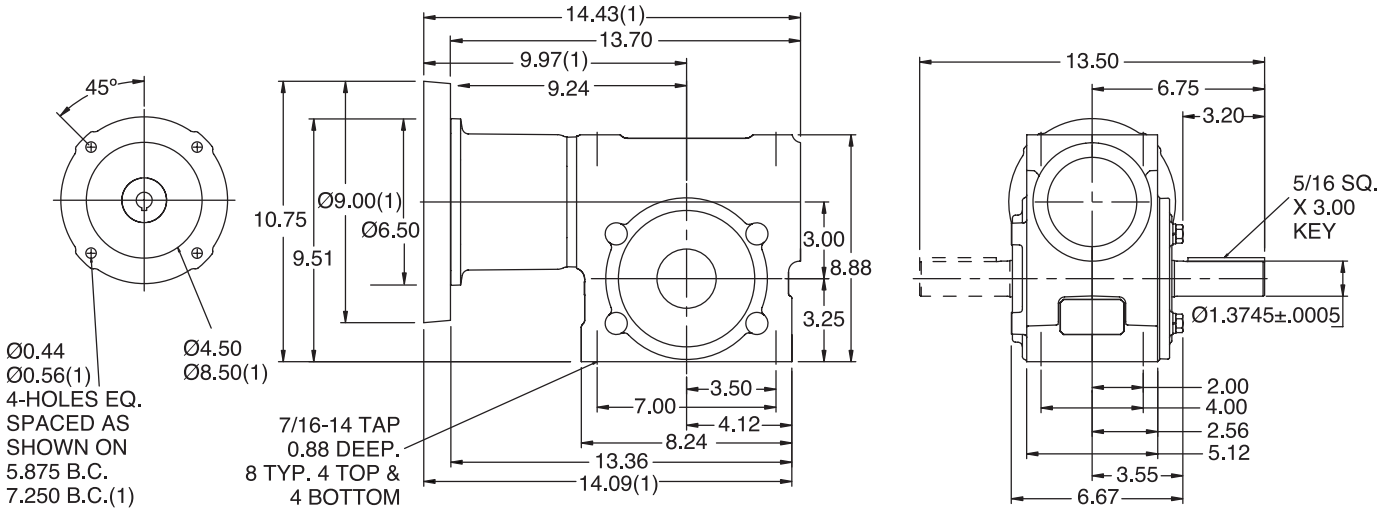
Note: Reducers are shipped without a mounting base. Order bolt-on base kit **30BASE** if required.
Refer to page G4-118 for hollow bore bushing selections



RATINGS/DIMENSIONS

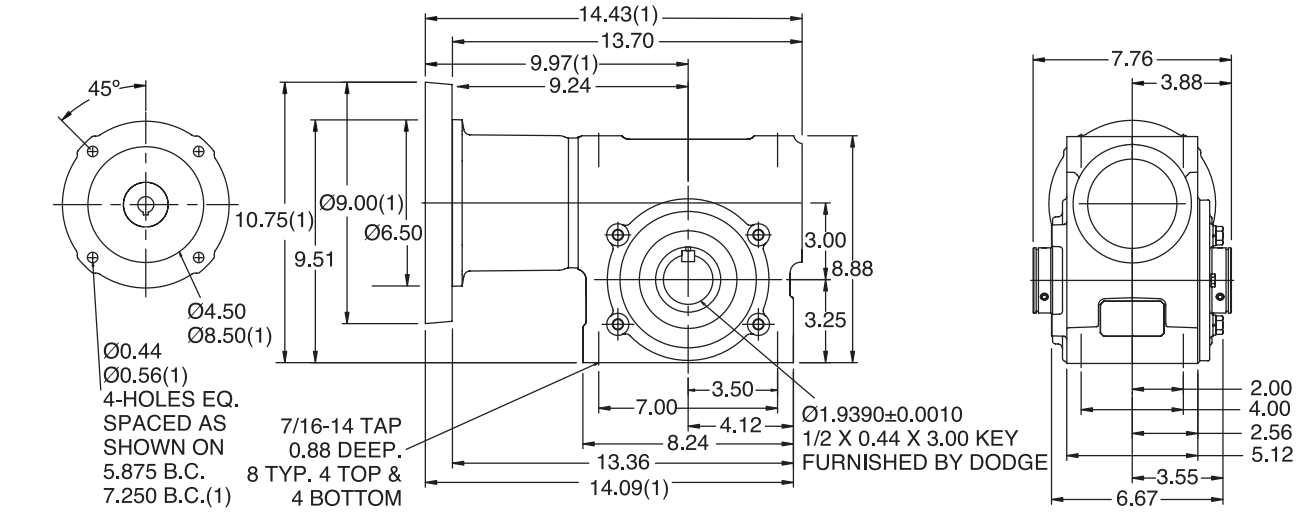
TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 30

SOLID OUTPUT

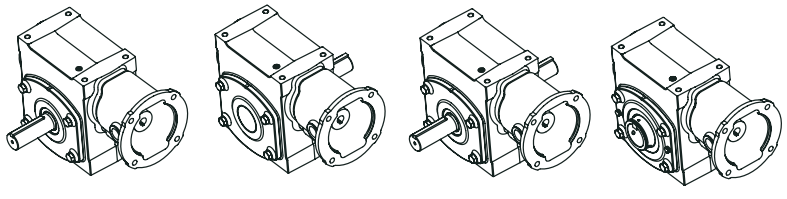


(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H

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RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 35

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	140TC	180TC	210TC	Shaft Position
5	350	Mechanical Input Hp	15.18		35Q05L14	35Q05L18	35Q05L21	L
		Thermal Input Hp	15.51		35Q05R14	35Q05R18	35Q05R21	R
		Output Torque (lb in.)	2593		35Q05LR14	35Q05LR18	35Q05LR21	LR
		Mechanical Output Hp	14.40		35Q05H14	35Q05H18	35Q05H21	HOLLOW
		Output OHL (lbs.)	2120					
7.5	233	Mechanical Input Hp	12.24		35Q07L14	35Q07L18	35Q07L21	L
		Thermal Input Hp	12.52		35Q07R14	35Q07R18	35Q07R21	R
		Output Torque (lb in.)	3054		35Q07LR14	35Q07LR18	35Q07LR21	LR
		Mechanical Output Hp	11.46		35Q07H14	35Q07H18	35Q07H21	HOLLOW
		Output OHL (lbs.)	2430					
10	175	Mechanical Input Hp	10.00		35Q10L14	35Q10L18	35Q10L21	L
		Thermal Input Hp	10.63		35Q10R14	35Q10R18	35Q10R21	R
		Output Torque (lb in.)	3310		35Q10LR14	35Q10LR18	35Q10LR21	LR
		Mechanical Output Hp	9.19		35Q10H14	35Q10H18	35Q10H21	HOLLOW
		Output OHL (lbs.)	2700					
12.7	138	Mechanical Input Hp	8.51		35Q12L14	35Q12L18	35Q12L21	L
		Thermal Input Hp	8.75		35Q12R14	35Q12R18	35Q12R21	R
		Output Torque (lb in.)	3530		35Q12LR14	35Q12LR18	35Q12LR21	LR
		Mechanical Output Hp	7.74		35Q12H14	35Q12H18	35Q12H21	HOLLOW
		Output OHL (lbs.)	2760					
15	117	Mechanical Input Hp	7.44		35Q15L14	35Q15L18		L
		Thermal Input Hp	7.56		35Q15R14	35Q15R18		R
		Output Torque (lb in.)	3599		35Q15LR14	35Q15LR18		LR
		Mechanical Output Hp	6.66		35Q15H14	35Q15H18		HOLLOW
		Output OHL (lbs.)	2760					
18	97	Available Upon Request						
20	88	Mechanical Input Hp	5.79		35Q20L14	35Q20L18		L
		Thermal Input Hp	5.97		35Q20R14	35Q20R18		R
		Output Torque (lb in.)	3620		35Q20LR14	35Q20LR18		LR
		Mechanical Output Hp	5.03		35Q20H14	35Q20H18		HOLLOW
		Output OHL (lbs.)	2760					
25	70	Mechanical Input Hp	4.72		35Q25L14	35Q25L18		L
		Thermal Input Hp	5.10		35Q25R14	35Q25R18		R
		Output Torque (lb in.)	3586		35Q25LR14	35Q25LR18		LR
		Mechanical Output Hp	3.98		35Q25H14	35Q25H18		HOLLOW
		Output OHL (lbs.)	2760					
30	58	Mechanical Input Hp	4.15	35Q30L56	35Q30L14	35Q30L18		L
		Thermal Input Hp	4.43	35Q30R56	35Q30R14	35Q30R18		R
		Output Torque (lb in.)	3682	35Q30LR56	35Q30LR14	35Q30LR18		LR
		Mechanical Output Hp	3.41	35Q30H56	35Q30H14	35Q30H18		HOLLOW
		Output OHL (lbs.)	2760					
40	44	Mechanical Input Hp	3.23	35Q40L56	35Q40L14	35Q40L18		L
		Thermal Input Hp	3.54	35Q40R56	35Q40R14	35Q40R18		R
		Output Torque (lb in.)	3622	35Q40LR56	35Q40LR14	35Q40LR18		LR
		Mechanical Output Hp	2.51	35Q40H56	35Q40H14	35Q40H18		HOLLOW
		Output OHL (lbs.)	2760					
50	35	Mechanical Input Hp	2.64	35Q50L56	35Q50L14			L
		Thermal Input Hp	2.94	35Q50R56	35Q50R14			R
		Output Torque (lb in.)	3485	35Q50LR56	35Q50LR14			LR
		Mechanical Output Hp	1.94	35Q50H56	35Q50H14			HOLLOW
		Output OHL (lbs.)	2760					
60	29	Mechanical Input Hp	2.19	35Q60L56	35Q60L14			L
		Thermal Input Hp	2.43	35Q60R56	35Q60R14			R
		Output Torque (lb in.)	3194	35Q60LR56	35Q60LR14			LR
		Mechanical Output Hp	1.48	35Q60H56	35Q60H14			HOLLOW
		Output OHL (lbs.)	2760					

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **35BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

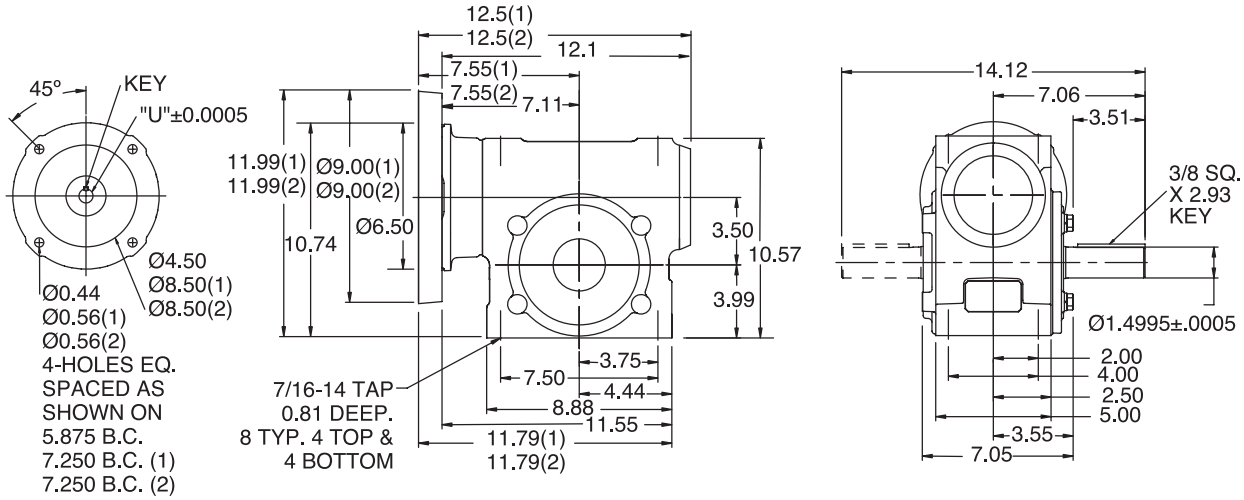
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RATINGS/DIMENSIONS

TIGEAR-2 Reducers With Quill Input - Size 35

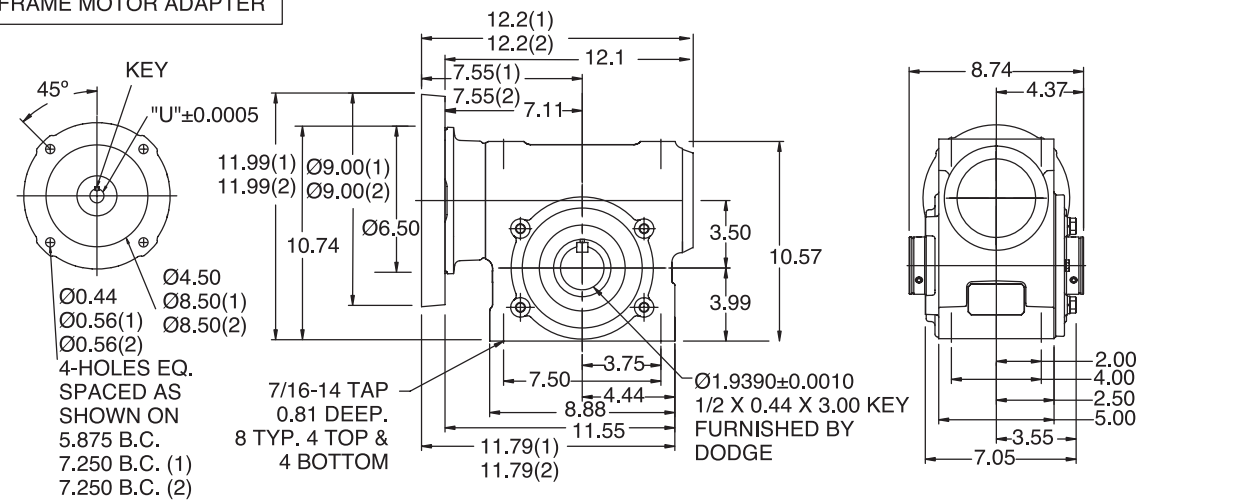
SOLID OUTPUT



(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

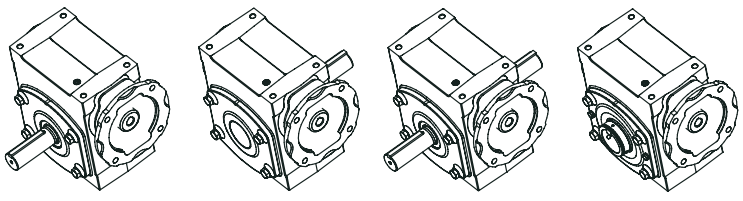
(2) DIMENSIONS APPLY TO 210 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



MOTOR FRAME	DIM "U"	KEY
48Y 56C	Ø0.626	3/16 SQ. X 2.43 KEY
140TC 160ATC	Ø0.876	3/16 SQ X 2.43 KEY
180TC 180ATC	Ø1.126	1/4 SQ. X 2.36 KEY
210TC 210ATC	Ø1.376	5/16 SQ X 2.57 KEY

OUTPUT SHAFT CONFIGURATIONS



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Gearing Reference Guide
TORQUE-ARM II
TORQUE-ARM
MAXUM
TIGEAR-2

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Separate Input - Size 35

Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit 56C	140TC	180TC	210TC
5	350	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	15.18 15.51 2593 14.4 2120	**35S05L** **35S05R** **35S05LR** **35S05H**	L R LR HOLLOW		**35MTR14**	**35MTR18**	**35MTR21**
7.5	233	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	12.24 12.52 3054 11.46 2430	**35S07L** **35S07R** **35S07LR** **35S07H**	L R LR HOLLOW		**35MTR14**	**35MTR18**	**35MTR21**
10	175	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	10 10.63 3310 9.19 2700	**35S10L** **35S10R** **35S10LR** **35S10H**	L R LR HOLLOW		**35MTR14**	**35MTR18**	**35MTR21**
12.7	138	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	8.51 8.75 3530 7.74 2760	**35S12L** **35S12R** **35S12LR** **35S12H**	L R LR HOLLOW		**35MTR14**	**35MTR18**	**35MTR21**
15	117	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	7.44 7.56 3599 6.66 2760	**35S15L** **35S15R** **35S15LR** **35S15H**	L R LR HOLLOW		**35MTR14**	**35MTR18**	
18	97	Available Upon Request							
20	88	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	5.79 5.97 3620 5.03 2760	**35S20L** **35S20R** **35S20LR** **35S20H**	L R LR HOLLOW		**35MTR14**	**35MTR18**	
25	70	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	4.72 5.1 3586 3.98 2760	**35S25L** **35S25R** **35S25LR** **35S25H**	L R LR HOLLOW		**35MTR14**	**35MTR18**	
30	58	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	4.15 4.43 3682 3.41 2760	**35S30L** **35S30R** **35S30LR** **35S30H**	L R LR HOLLOW	**35MTR56**	**35MTR14**	**35MTR18**	
40	44	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	3.23 3.54 3622 2.51 2760	**35S40L** **35S40R** **35S40LR** **35S40H**	L R LR HOLLOW	**35MTR56**	**35MTR14**	**35MTR18**	
50	35	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	2.64 2.94 3485 1.94 2760	**35S50L** **35S50R** **35S50LR** **35S50H**	L R LR HOLLOW	**35MTR56**	**35MTR14**		
60	29	Mechanical Input Hp Thermal Input Hp Output Torque (lb in.) Mechanical Output Hp Output OHL (lbs.)	2.19 2.43 3194 1.48 2760	**35S60L** **35S60R** **35S60LR** **35S60H**	L R LR HOLLOW	**35MTR56**	**35MTR14**		
All Ratios		Input OHL (lbs)	330	One diameter from seal surface					

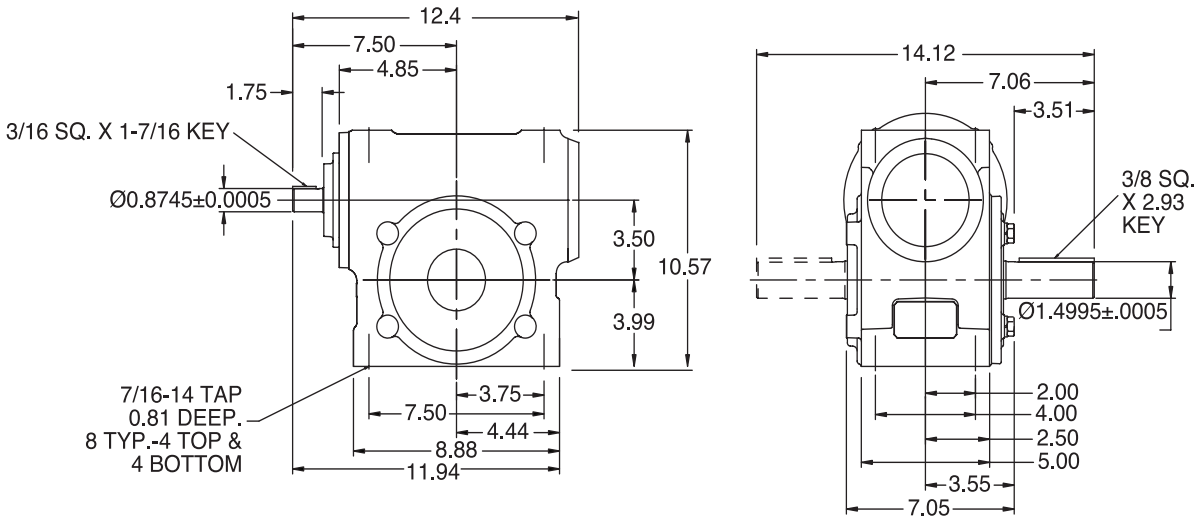
Note: TIGEAR-2 separate reducers cannot be used with the old Adaptable TIGEAR motor adapter kits.
Refer to page G4-118 for hollow bore bushing selections

FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	RATINGS/DIMENSIONS PAGE G4-16

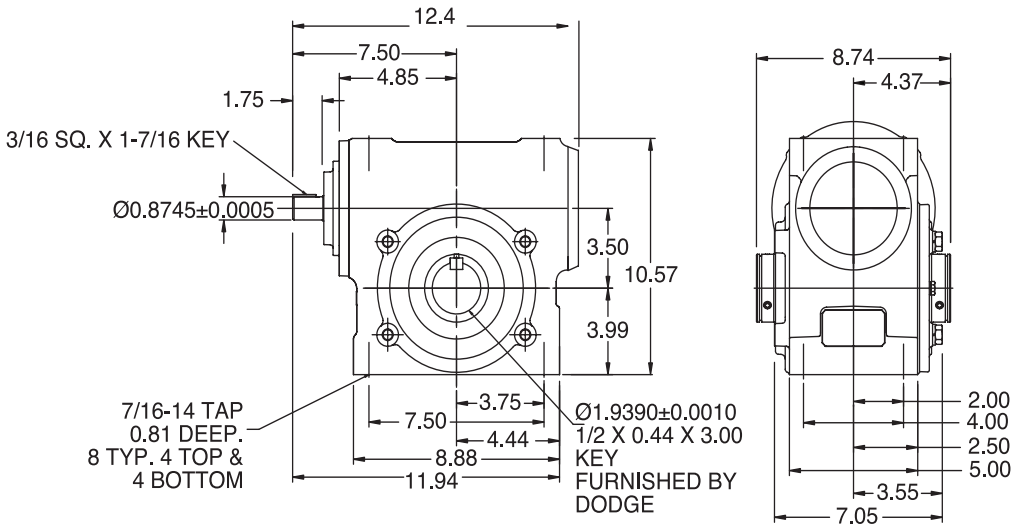


TIGEAR-2 Reducers With Separate Input - Size 35

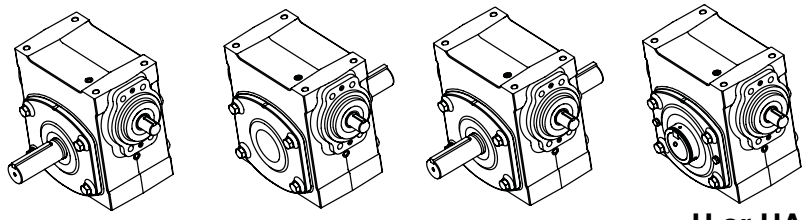
SOLID OUTPUT



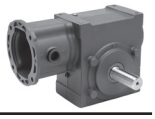
HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 35

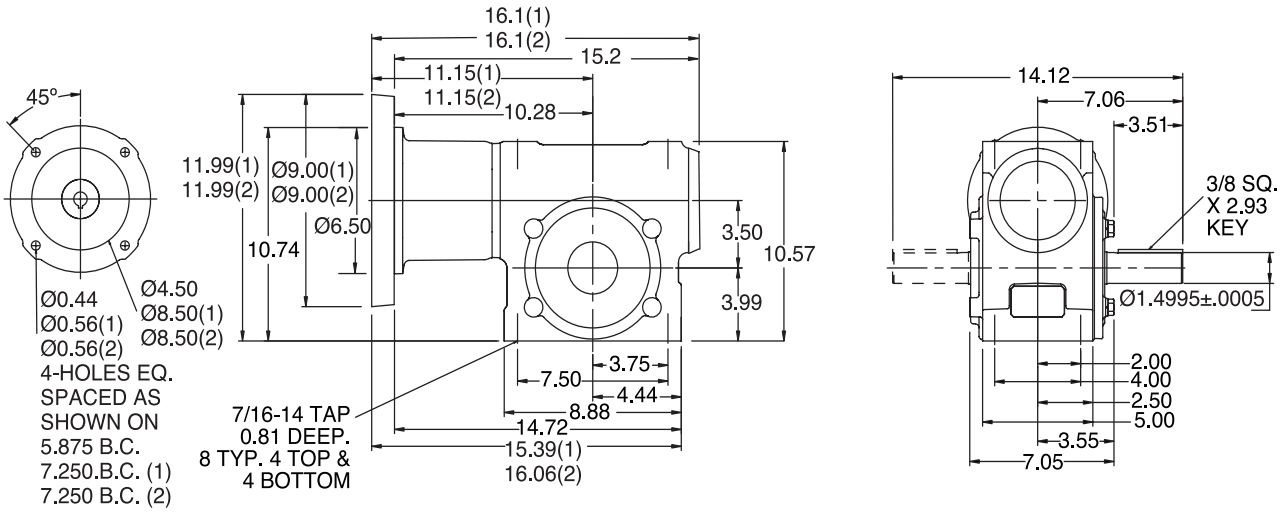
3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	140TC	180TC	210TC	Shaft Position
5	350	Mechanical Input Hp	15.18		35A05L14	35A05L18	35A05L21	L
		Thermal Input Hp	15.51		35A05R14	35A05R18	35A05R21	R
		Output Torque (lb in.)	2593		35A05LR14	35A05LR18	35A05LR21	LR
		Mechanical Output Hp	14.40		35A05H14	35A05H18	35A05H21	HOLLOW
		Output OHL (lbs.)	2120					
7.5	233	Mechanical Input Hp	12.24		35A07L14	35A07L18	35A07L21	L
		Thermal Input Hp	12.52		35A07R14	35A07R18	35A07R21	R
		Output Torque (lb in.)	3054		35A07LR14	35A07LR18	35A07LR21	LR
		Mechanical Output Hp	11.46		35A07H14	35A07H18	35A07H21	HOLLOW
		Output OHL (lbs.)	2430					
10	175	Mechanical Input Hp	10.00		35A10L14	35A10L18	35A10L21	L
		Thermal Input Hp	10.63		35A10R14	35A10R18	35A10R21	R
		Output Torque (lb in.)	3310		35A10LR14	35A10LR18	35A10LR21	LR
		Mechanical Output Hp	9.19		35A10H14	35A10H18	35A10H21	HOLLOW
		Output OHL (lbs.)	2700					
12.7	138	Mechanical Input Hp	8.51		35A12L14	35A12L18	35A12L21	L
		Thermal Input Hp	8.75		35A12R14	35A12R18	35A12R21	R
		Output Torque (lb in.)	3530		35A12LR14	35A12LR18	35A12LR21	LR
		Mechanical Output Hp	7.74		35A12H14	35A12H18	35A12H21	HOLLOW
		Output OHL (lbs.)	2760					
15	117	Mechanical Input Hp	7.44		35A15L14	35A15L18		L
		Thermal Input Hp	7.56		35A15R14	35A15R18		R
		Output Torque (lb in.)	3599		35A15LR14	35A15LR18		LR
		Mechanical Output Hp	6.66		35A15H14	35A15H18		HOLLOW
		Output OHL (lbs.)	2760					
18	97	Available Upon Request						
20	88	Mechanical Input Hp	5.79		35A20L14	35A20L18		L
		Thermal Input Hp	5.97		35A20R14	35A20R18		R
		Output Torque (lb in.)	3620		35A20LR14	35A20LR18		LR
		Mechanical Output Hp	5.03		35A20H14	35A20H18		HOLLOW
		Output OHL (lbs.)	2760					
25	70	Mechanical Input Hp	4.72		35A25L14	35A25L18		L
		Thermal Input Hp	5.10		35A25R14	35A25R18		R
		Output Torque (lb in.)	3586		35A25LR14	35A25LR18		LR
		Mechanical Output Hp	3.98		35A25H14	35A25H18		HOLLOW
		Output OHL (lbs.)	2760					
30	58	Mechanical Input Hp	4.15	35A30L56	35A30L14	35A30L18		L
		Thermal Input Hp	4.43	35A30R56	35A30R14	35A30R18		R
		Output Torque (lb in.)	3682	35A30LR56	35A30LR14	35A30LR18		LR
		Mechanical Output Hp	3.41	35A30H56	35A30H14	35A30H18		HOLLOW
		Output OHL (lbs.)	2760					
40	44	Mechanical Input Hp	3.23	35A40L56	35A40L14	35A40L18		L
		Thermal Input Hp	3.54	35A40R56	35A40R14	35A40R18		R
		Output Torque (lb in.)	3622	35A40LR56	35A40LR14	35A40LR18		LR
		Mechanical Output Hp	2.51	35A40H56	35A40H14	35A40H18		HOLLOW
		Output OHL (lbs.)	2760					
50	35	Mechanical Input Hp	2.64	35A50L56	35A50L14			L
		Thermal Input Hp	2.94	35A50R56	35A50R14			R
		Output Torque (lb in.)	3485	35A50LR56	35A50LR14			LR
		Mechanical Output Hp	1.94	35A50H56	35A50H14			HOLLOW
		Output OHL (lbs.)	2760					
60	29	Mechanical Input Hp	2.19	35A60L56	35A60L14			L
		Thermal Input Hp	2.43	35A60R56	35A60R14			R
		Output Torque (lb in.)	3194	35A60LR56	35A60LR14			LR
		Mechanical Output Hp	1.48	35A60H56	35A60H14			HOLLOW
		Output OHL (lbs.)	2760					

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **35BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 35

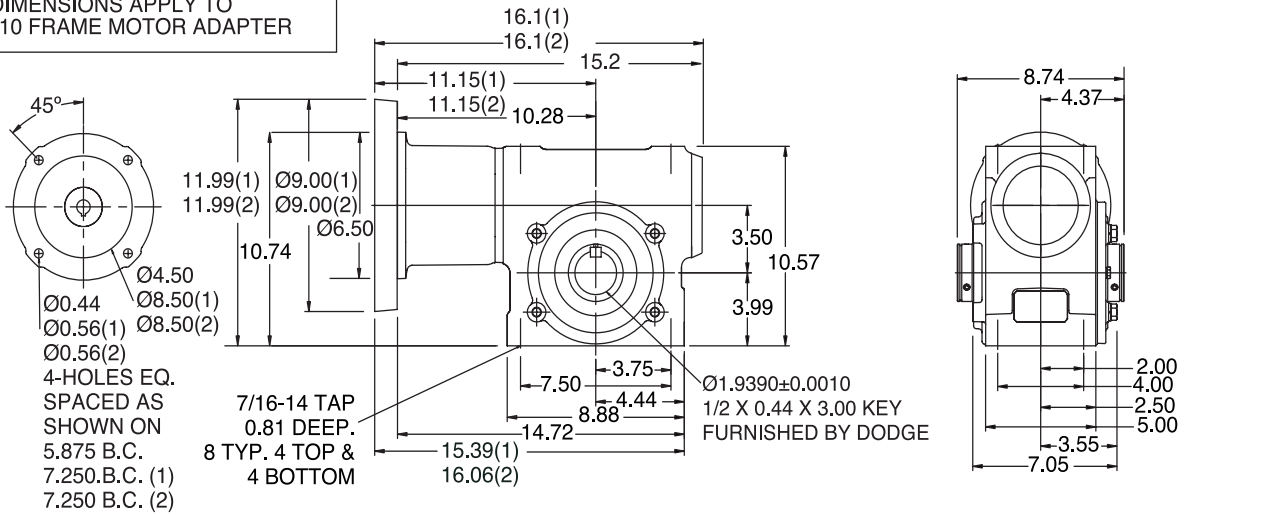
SOLID OUTPUT



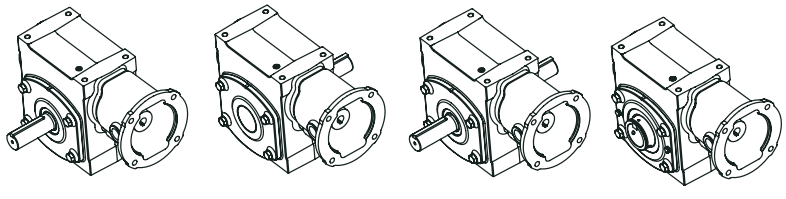
(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

(2) DIMENSIONS APPLY TO 210 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H

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RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 40

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 140TC	180TC	210TC	250TC	Shaft Position
		Mechanical Input Hp	20.24			**40Q05L21**	**40Q05L25**	L
		Thermal Input Hp	22.20			**40Q05R21**	**40Q05R25**	R
5	**350**	Output Torque (lb in.)	3449			**40Q05LR21**	**40Q05LR25**	LR
		Mechanical Output Hp	19.15			**40Q05H21**	**40Q05H25**	HOLLOW
		Output OHL (lbs.)	2860					
		Mechanical Input Hp	16.38			**40Q07L21**	**40Q07L25**	L
		Thermal Input Hp	17.56			**40Q07R21**	**40Q07R25**	R
7.5	**233**	Output Torque (lb in.)	4071			**40Q07LR21**	**40Q07LR25**	LR
		Mechanical Output Hp	15.27			**40Q07H21**	**40Q07H25**	HOLLOW
		Output OHL (lbs.)	3280					
		Mechanical Input Hp	13.33			**40Q10L21**		L
		Thermal Input Hp	14.96			**40Q10R21**		R
10	**175**	Output Torque (lb in.)	4418			**40Q10LR21**		LR
		Mechanical Output Hp	12.27			**40Q10H21**		HOLLOW
		Output OHL (lbs.)	3640					
12.7	**138**	Available Upon Request						
		Mechanical Input Hp	10.01		**40Q15L18**	**40Q15L21**		L
		Thermal Input Hp	10.16		**40Q15R18**	**40Q15R21**		R
15	**117**	Output Torque (lb in.)	4804		**40Q15LR18**	**40Q15LR21**		LR
		Mechanical Output Hp	8.89		**40Q15H18**	**40Q15H21**		HOLLOW
		Output OHL (lbs.)	4190					
		Mechanical Input Hp	7.75		**40Q20L18**	**40Q20L21**		L
		Thermal Input Hp	8.14		**40Q20R18**	**40Q20R21**		R
20	**88**	Output Torque (lb in.)	4822		**40Q20LR18**	**40Q20LR21**		LR
		Mechanical Output Hp	6.69		**40Q20H18**	**40Q20H21**		HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	6.35		**40Q25L18**			L
		Thermal Input Hp	6.45		**40Q25R18**			R
25	**70**	Output Torque (lb in.)	4722		**40Q25LR18**			LR
		Mechanical Output Hp	5.25		**40Q25H18**			HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	5.61		**40Q30L18**			L
		Thermal Input Hp	5.78		**40Q30R18**			R
30	**58**	Output Torque (lb in.)	4898		**40Q30LR18**			LR
		Mechanical Output Hp	4.53		**40Q30H18**			HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	4.43	**40Q40L14**	**40Q40L18**			L
		Thermal Input Hp	4.50	**40Q40R14**	**40Q40R18**			R
40	**44**	Output Torque (lb in.)	4800	**40Q40LR14**	**40Q40LR18**			LR
		Mechanical Output Hp	3.33	**40Q40H14**	**40Q40H18**			HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	3.63	**40Q50L14**	**40Q50L18**			L
		Thermal Input Hp	3.66	**40Q50R14**	**40Q50R18**			R
50	**35**	Output Torque (lb in.)	4559	**40Q50LR14**	**40Q50LR18**			LR
		Mechanical Output Hp	2.53	**40Q50H14**	**40Q50H18**			HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	3.00	**40Q60L14**	**40Q60L18**			L
		Thermal Input Hp	3.21	**40Q60R14**	**40Q60R18**			R
60	**29**	Output Torque (lb in.)	4166	**40Q60LR14**	**40Q60LR18**			LR
		Mechanical Output Hp	1.93	**40Q60H14**	**40Q60H18**			HOLLOW
		Output OHL (lbs.)	4300					

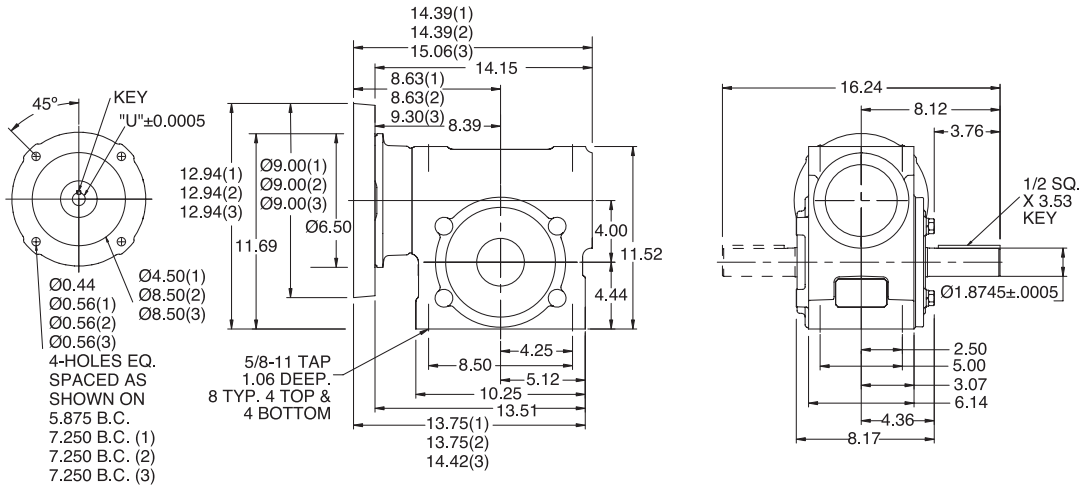
Note: Reducers are shipped without a mounting base. Order bolt-on base kit **40BASE** if required.
Refer to page G4-118 for hollow bore bushing selections



RATINGS/DIMENSIONS

TIGEAR-2 Reducers With Quill Input - Size 40

SOLID OUTPUT

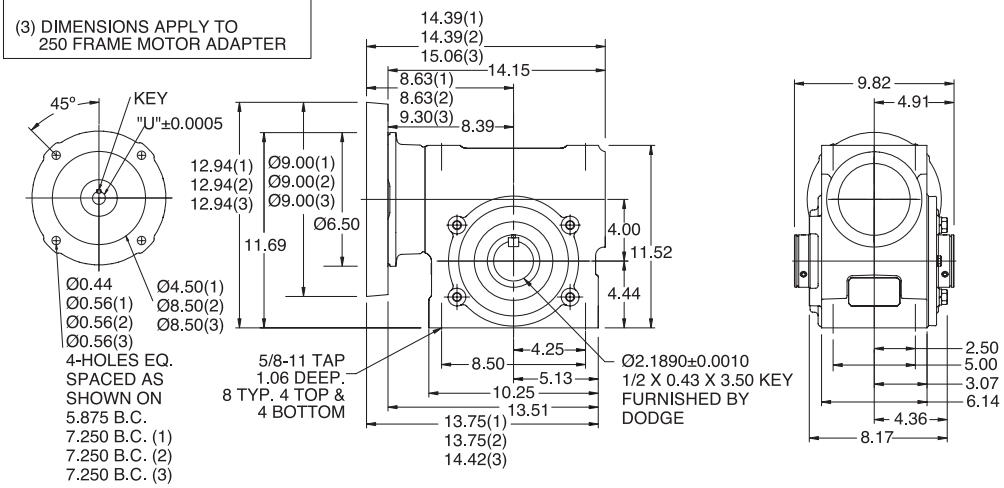


(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

(2) DIMENSIONS APPLY TO 210 FRAME MOTOR ADAPTER

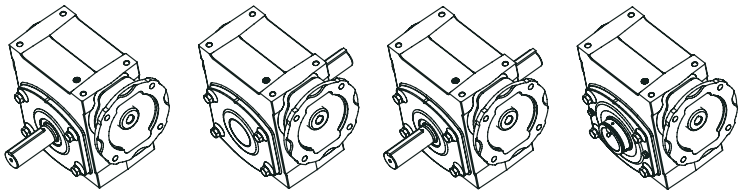
(3) DIMENSIONS APPLY TO 250 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



MOTOR FRAME	DIM "U"	KEY
140TC 160ATC	Ø0.876	3/16 SQ X 2.75 KEY
180TC 180ATC	Ø1.126	1/4 SQ. X 2.96 KEY
210TC 210ATC	Ø1.376	5/16 SQ X 3.11 KEY
250TC 250ATC	Ø1.626	3/8 SQ X 3.38 KEY

OUTPUT SHAFT CONFIGURATIONS



L R LR H

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RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Separate Input - Size 40

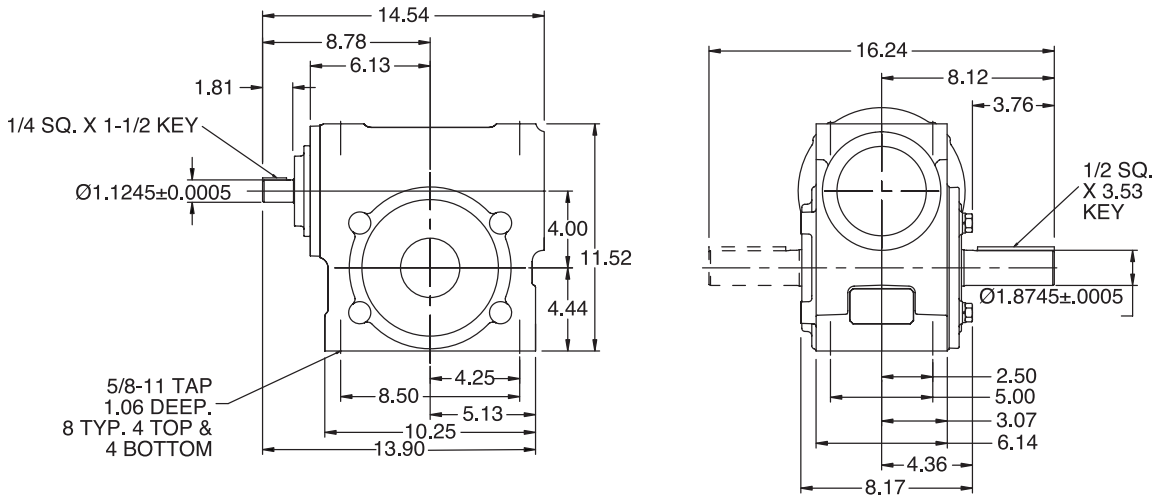
Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit 140TC	180TC	210TC	250TC
		Mechanical Input Hp	20.24	**40S05L**	L				
		Thermal Input Hp	22.2	**40S05R**	R				
5	**350**	Output Torque (lb in.)	3449	**40S05LR**	LR			**4047MTR21**	**4047MTR25**
		Mechanical Output Hp	19.15	**40S05H**	HOLLOW				
		Output OHL (lbs.)	2860						
		Mechanical Input Hp	16.38	**40S07L**	L				
		Thermal Input Hp	17.56	**40S07R**	R				
7.5	**233**	Output Torque (lb in.)	4071	**40S07LR**	LR			**4047MTR21**	**4047MTR25**
		Mechanical Output Hp	15.27	**40S07H**	HOLLOW				
		Output OHL (lbs.)	3280						
		Mechanical Input Hp	13.33	**40S10L**	L				
		Thermal Input Hp	14.96	**40S10R**	R				
10	**175**	Output Torque (lb in.)	4418	**40S10LR**	LR			**4047MTR21**	
		Mechanical Output Hp	12.27	**40S10H**	HOLLOW				
		Output OHL (lbs.)	3640						
12.7	**138**	Available Upon Request							
		Mechanical Input Hp	10.01	**40S15L**	L				
		Thermal Input Hp	10.16	**40S15R**	R				
15	**117**	Output Torque (lb in.)	4804	**40S15LR**	LR		**4047MTR18**	**4047MTR21**	
		Mechanical Output Hp	8.89	**40S15H**	HOLLOW				
		Output OHL (lbs.)	4190						
		Mechanical Input Hp	7.75	**40S20L**	L				
		Thermal Input Hp	8.14	**40S20R**	R				
20	**88**	Output Torque (lb in.)	4822	**40S20LR**	LR		**4047MTR18**	**4047MTR21**	
		Mechanical Output Hp	6.69	**40S20H**	HOLLOW				
		Output OHL (lbs.)	4300						
		Mechanical Input Hp	6.35	**40S25L**	L				
		Thermal Input Hp	6.45	**40S25R**	R				
25	**70**	Output Torque (lb in.)	4722	**40S25LR**	LR		**4047MTR18**		
		Mechanical Output Hp	5.25	**40S25H**	HOLLOW				
		Output OHL (lbs.)	4300						
		Mechanical Input Hp	5.61	**40S30L**	L				
		Thermal Input Hp	5.78	**40S30R**	R				
30	**58**	Output Torque (lb in.)	4898	**40S30LR**	LR		**4047MTR18**		
		Mechanical Output Hp	4.53	**40S30H**	HOLLOW				
		Output OHL (lbs.)	4300						
		Mechanical Input Hp	4.43	**40S40L**	L				
		Thermal Input Hp	4.50	**40S40R**	R				
40	**44**	Output Torque (lb in.)	4800	**40S40LR**	LR	**4047MTR14**	**4047MTR18**		
		Mechanical Output Hp	3.33	**40S40H**	HOLLOW				
		Output OHL (lbs.)	4300						
		Mechanical Input Hp	3.63	**40S50L**	L				
		Thermal Input Hp	3.66	**40S50R**	R				
50	**35**	Output Torque (lb in.)	4559	**40S50LR**	LR	**4047MTR14**	**4047MTR18**		
		Mechanical Output Hp	2.53	**40S50H**	HOLLOW				
		Output OHL (lbs.)	4300						
		Mechanical Input Hp	3.00	**40S60L**	L				
		Thermal Input Hp	3.21	**40S60R**	R				
60	**29**	Output Torque (lb in.)	4166	**40S60LR**	LR	**4047MTR14**	**4047MTR18**		
		Mechanical Output Hp	1.93	**40S60H**	HOLLOW				
		Output OHL (lbs.)	4300						
All Ratios		Input OHL (lbs)	400	One diameter from seal surface					

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **40BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

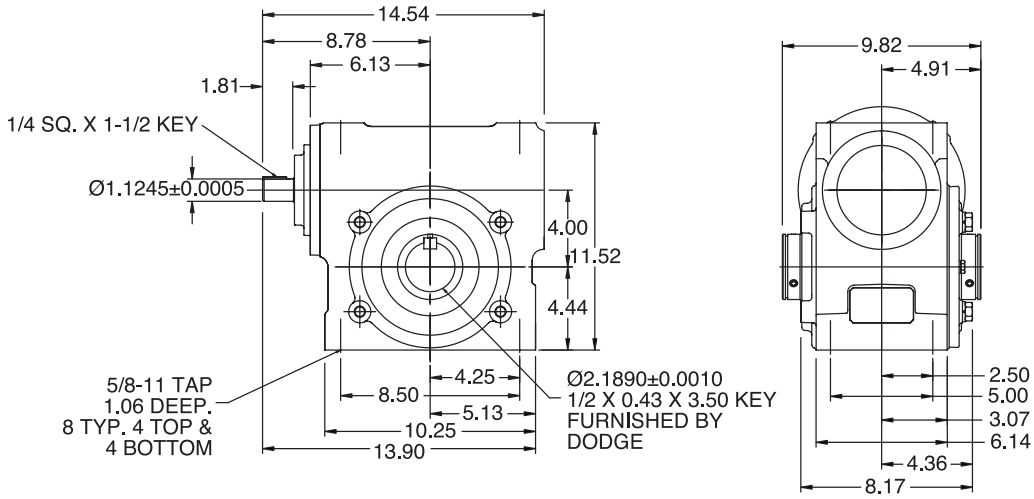


Tigear-2 Reducers With Separate Input - Size 40

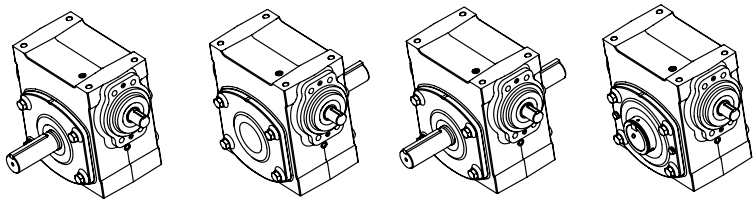
SOLID OUTPUT



HOLLOW OUTPUT

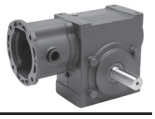


OUTPUT SHAFT CONFIGURATIONS



FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	RATINGS/DIMENSIONS PAGE G4-16

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 40

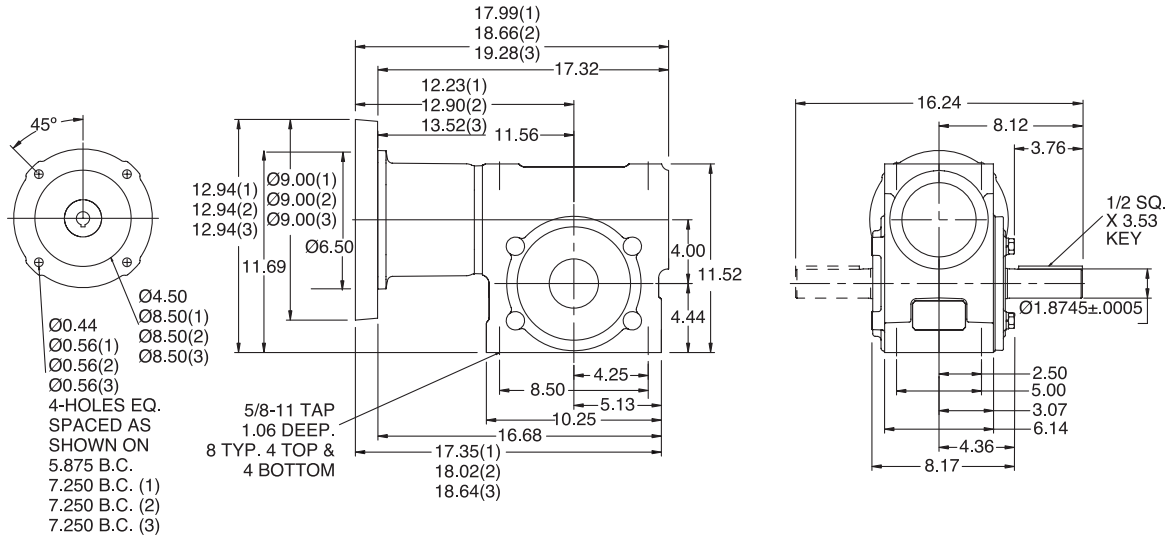
3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 140TC	180TC	210TC	250TC	Shaft Position
		Mechanical Input Hp	20.24			**40A05L21**	**40A05L25**	L
		Thermal Input Hp	22.20			**40A05R21**	**40A05R25**	R
5	**350**	Output Torque (lb in.)	3449			**40A05LR21**	**40A05LR25**	LR
		Mechanical Output Hp	19.15			**40A05H21**	**40A05H25**	HOLLOW
		Output OHL (lbs.)	2860					
		Mechanical Input Hp	16.38			**40A07L21**	**40A07L25**	L
		Thermal Input Hp	17.56			**40A07R21**	**40A07R25**	R
7.5	**233**	Output Torque (lb in.)	4071			**40A07LR21**	**40A07LR25**	LR
		Mechanical Output Hp	15.27			**40A07H21**	**40A07H25**	HOLLOW
		Output OHL (lbs.)	3280					
		Mechanical Input Hp	13.33			**40A10L21**		L
		Thermal Input Hp	14.96			**40A10R21**		R
10	**175**	Output Torque (lb in.)	4418			**40A10LR21**		LR
		Mechanical Output Hp	12.27			**40A10H21**		HOLLOW
		Output OHL (lbs.)	3640					
12.7	**138**	Available Upon Request						
		Mechanical Input Hp	10.01		**40A15L18**	**40A15L21**		L
		Thermal Input Hp	10.16		**40A15R18**	**40A15R21**		R
15	**117**	Output Torque (lb in.)	4804		**40A15LR18**	**40A15LR21**		LR
		Mechanical Output Hp	8.89		**40A15H18**	**40A15H21**		HOLLOW
		Output OHL (lbs.)	4190					
		Mechanical Input Hp	7.75		**40A20L18**	**40A20L21**		L
		Thermal Input Hp	8.14		**40A20R18**	**40A20R21**		R
20	**88**	Output Torque (lb in.)	4822		**40A20LR18**	**40A20LR21**		LR
		Mechanical Output Hp	6.69		**40A20H18**	**40A20H21**		HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	6.35		**40A25L18**			L
		Thermal Input Hp	6.45		**40A25R18**			R
25	**70**	Output Torque (lb in.)	4722		**40A25LR18**			LR
		Mechanical Output Hp	5.25		**40A25H18**			HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	5.61		**40A30L18**			L
		Thermal Input Hp	5.78		**40A30R18**			R
30	**58**	Output Torque (lb in.)	4898		**40A30LR18**			LR
		Mechanical Output Hp	4.53		**40A30H18**			HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	4.43	**40A40L14**	**40A40L18**			L
		Thermal Input Hp	4.50	**40A40R14**	**40A40R18**			R
40	**44**	Output Torque (lb in.)	4800	**40A40LR14**	**40A40LR18**			LR
		Mechanical Output Hp	3.33	**40A40H14**	**40A40H18**			HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	3.63	**40A50L14**	**40A50L18**			L
		Thermal Input Hp	3.66	**40A50R14**	**40A50R18**			R
50	**35**	Output Torque (lb in.)	4559	**40A50LR14**	**40A50LR18**			LR
		Mechanical Output Hp	2.53	**40A50H14**	**40A50H18**			HOLLOW
		Output OHL (lbs.)	4300					
		Mechanical Input Hp	3.00	**40A60L14**	**40A60L18**			L
		Thermal Input Hp	3.21	**40A60R14**	**40A60R18**			R
60	**29**	Output Torque (lb in.)	4166	**40A60LR14**	**40A60LR18**			LR
		Mechanical Output Hp	1.93	**40A60H14**	**40A60H18**			HOLLOW
		Output OHL (lbs.)	4300					

Note: Reducers are shipped without a mounting base. Order bolt-on base kit **40BASE** if required.
Refer to page G4-118 for hollow bore bushing selections

TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 40

SOLID OUTPUT

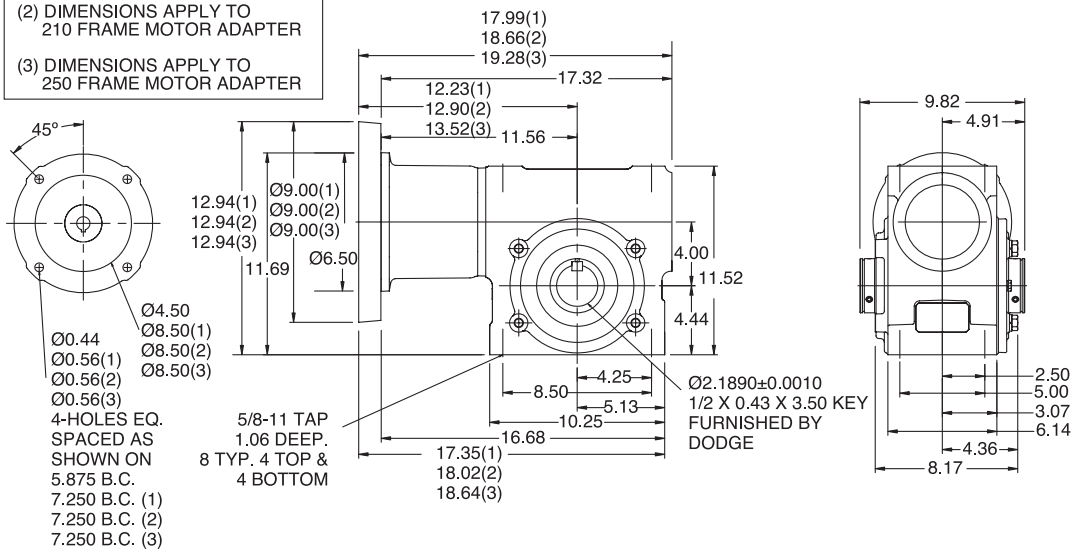


(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

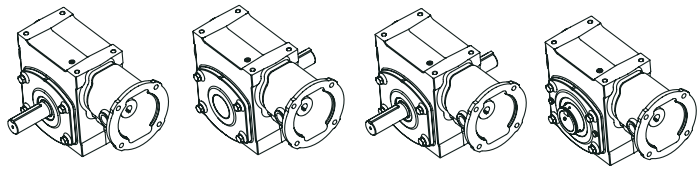
(2) DIMENSIONS APPLY TO 210 FRAME MOTOR ADAPTER

(3) DIMENSIONS APPLY TO 250 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



OUTPUT SHAFT CONFIGURATIONS



L R LR H

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Quill Input - Size 47

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 180TC	210TC	250TC	Shaft Position
5	350	Mechanical Input Hp	28.45			47Q05L25	L
		Thermal Input Hp	29.12			47Q05R25	R
		Output Torque (lb in.)	4832			47Q05LR25	LR
		Mechanical Output Hp	26.84			47Q05H25	HOLLOW
		Output OHL (lbs.)	5100				
7.5	233	Mechanical Input Hp	23.35			47Q07L25	L
		Thermal Input Hp	24.37			47Q07R25	R
		Output Torque (lb in.)	5801			47Q07LR25	LR
		Mechanical Output Hp	21.77			47Q07H25	HOLLOW
		Output OHL (lbs.)	5600				
10	175	Mechanical Input Hp	19.27		47Q10L21	47Q10L25	L
		Thermal Input Hp	20.08		47Q10R21	47Q10R25	R
		Output Torque (lb in.)	6390		47Q10LR21	47Q10LR25	LR
		Mechanical Output Hp	17.74		47Q10H21	47Q10H25	HOLLOW
		Output OHL (lbs.)	5600				
15	117	Mechanical Input Hp	14.05		47Q15L21		L
		Thermal Input Hp	14.14		47Q15R21		R
		Output Torque (lb in.)	6739		47Q15LR21		LR
		Mechanical Output Hp	12.47		47Q15H21		HOLLOW
		Output OHL (lbs.)	5600				
20	88	Mechanical Input Hp	10.82		47Q20L21		L
		Thermal Input Hp	10.96		47Q20R21		R
		Output Torque (lb in.)	6659		47Q20LR21		LR
		Mechanical Output Hp	9.24		47Q20H21		HOLLOW
		Output OHL (lbs.)	5600				
25	70	Mechanical Input Hp	8.76	47Q25L18	47Q25L21		L
		Thermal Input Hp	8.09	47Q25R18	47Q25R21		R
		Output Torque (lb in.)	6410	47Q25LR18	47Q25LR21		LR
		Mechanical Output Hp	7.12	47Q25H18	47Q25H21		HOLLOW
		Output OHL (lbs.)	5600				
30	58	Mechanical Input Hp	7.95	47Q30L18			L
		Thermal Input Hp	7.22	47Q30R18			R
		Output Torque (lb in.)	6845	47Q30LR18			LR
		Mechanical Output Hp	6.34	47Q30H18			HOLLOW
		Output OHL (lbs.)	5600				
40	44	Mechanical Input Hp	6.21	47Q40L18			L
		Thermal Input Hp	5.66	47Q40R18			R
		Output Torque (lb in.)	6644	47Q40LR18			LR
		Mechanical Output Hp	4.61	47Q40H18			HOLLOW
		Output OHL (lbs.)	5600				
50	35	Mechanical Input Hp	5.05	47Q50L18			L
		Thermal Input Hp	4.42	47Q50R18			R
		Output Torque (lb in.)	6241	47Q50LR18			LR
		Mechanical Output Hp	3.47	47Q50H18			HOLLOW
		Output OHL (lbs.)	5600				
60	29	Mechanical Input Hp	4.12	47Q60L18			L
		Thermal Input Hp	3.65	47Q60R18			R
		Output Torque (lb in.)	5683	47Q60LR18			LR
		Mechanical Output Hp	2.63	47Q60H18			HOLLOW
		Output OHL (lbs.)	5600				

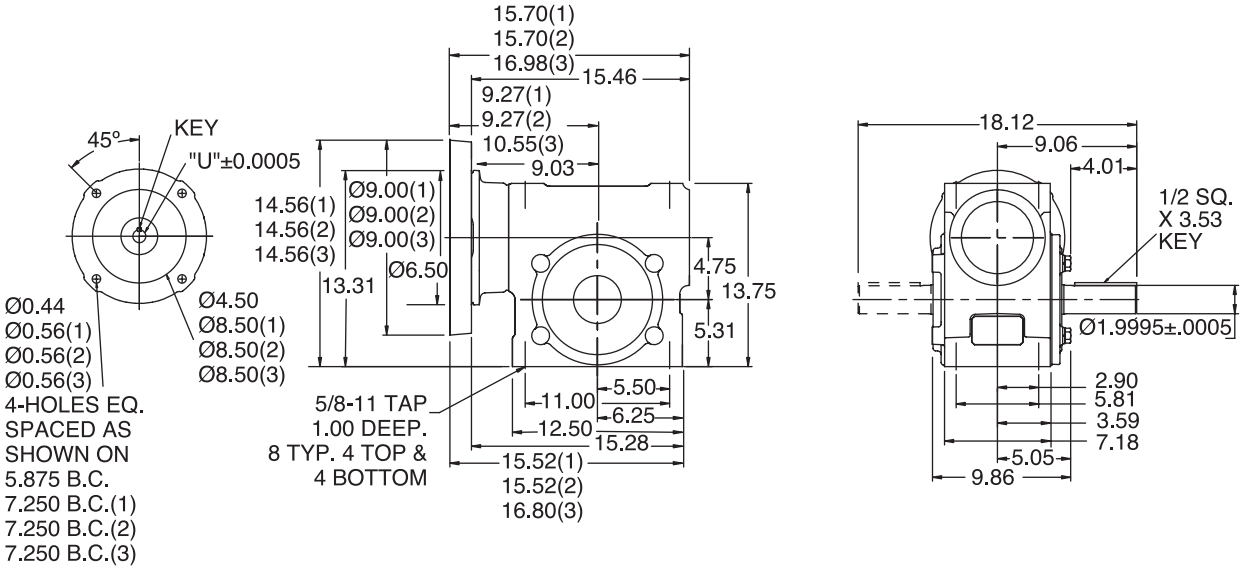
Note: Reducers are shipped without a mounting base. Order bolt-on base kit **47BASE** if required.
Refer to page G4-118 for hollow bore bushing selections



RATINGS/DIMENSIONS

TIGEAR-2 Reducers With Quill Input - Size 47

SOLID OUTPUT

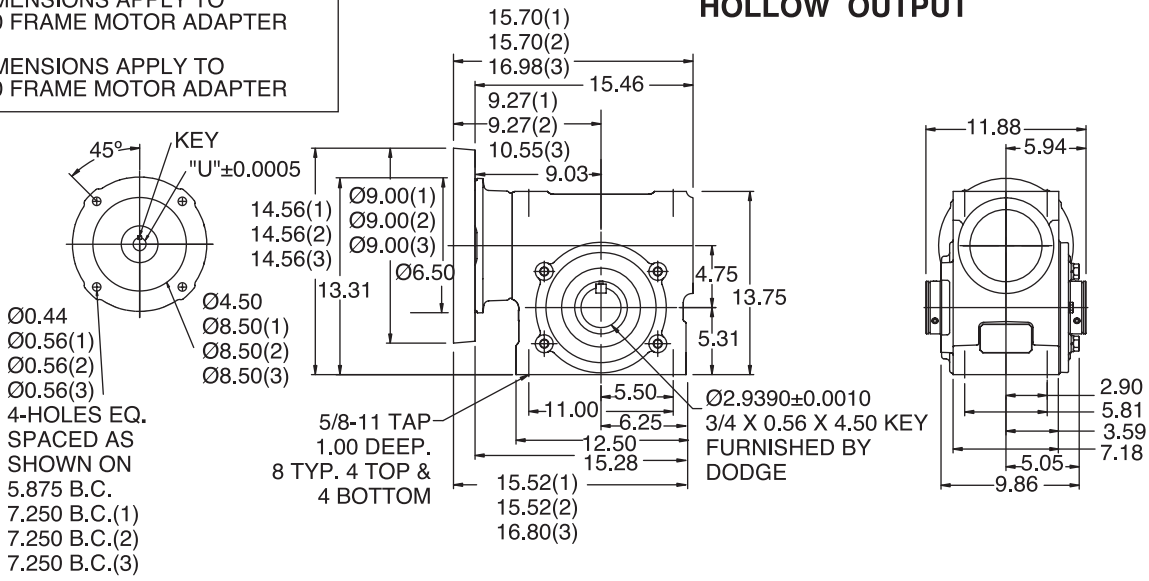


(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

(2) DIMENSIONS APPLY TO 210 FRAME MOTOR ADAPTER

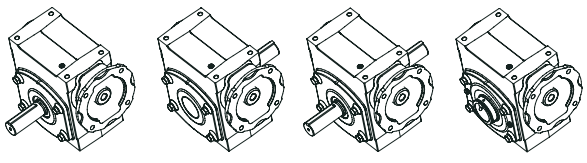
(3) DIMENSIONS APPLY TO 250 FRAME MOTOR ADAPTER

HOLLOW OUTPUT



MOTOR FRAME	DIM "U"	KEY
140TC 160ATC	Ø0.876	3/16 SQ X 2.75 KEY
180TC 180ATC	Ø1.126	1/4 SQ. X 2.98 KEY
210TC 210ATC	Ø1.376	5/16 SQ X 3.11 KEY
250TC 250ATC	Ø1.626	3/8 SQ X 3.38 KEY

OUTPUT SHAFT CONFIGURATIONS



L R LR H

RATINGS/DIMENSIONS



TIGEAR-2 Reducers With Separate Input - Size 47

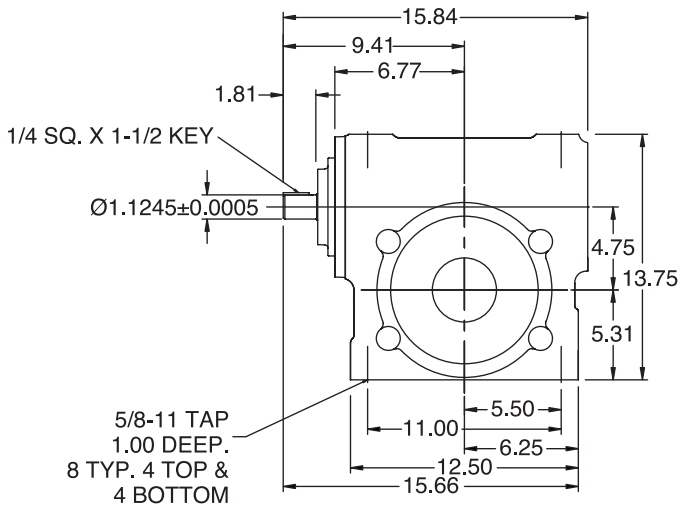
Ratio	Output RPM	Rating Data 1750 Input RPM		Separate Reducer	Shaft Position	Optional Motor Adapter Kit 180TC	210TC	250TC
5	350	Mechanical Input Hp	28.45	47S05L	L		4047MTR21	4047MTR25
		Thermal Input Hp	29.12	47S05R	R			
		Output Torque (lb in.)	4832	47S05LR	LR			
		Mechanical Output Hp	26.84	47S05H	HOLLOW			
		Output OHL (lbs.)	5100					
7.5	233	Mechanical Input Hp	23.35	47S07L	L		4047MTR21	4047MTR25
		Thermal Input Hp	24.37	47S07R	R			
		Output Torque (lb in.)	5801	47S07LR	LR			
		Mechanical Output Hp	21.77	47S07H	HOLLOW			
		Output OHL (lbs.)	5600					
10	175	Mechanical Input Hp	19.27	47S10L	L		4047MTR21	
		Thermal Input Hp	20.08	47S10R	R			
		Output Torque (lb in.)	6390	47S10LR	LR			
		Mechanical Output Hp	17.74	47S10H	HOLLOW			
		Output OHL (lbs.)	5600					
15	117	Mechanical Input Hp	14.05	47S15L	L	4047MTR18	4047MTR21	
		Thermal Input Hp	14.14	47S15R	R			
		Output Torque (lb in.)	6739	47S15LR	LR			
		Mechanical Output Hp	12.47	47S15H	HOLLOW			
		Output OHL (lbs.)	5600					
20	88	Mechanical Input Hp	10.82	47S20L	L	4047MTR18	4047MTR21	
		Thermal Input Hp	10.96	47S20R	R			
		Output Torque (lb in.)	6659	47S20LR	LR			
		Mechanical Output Hp	9.24	47S20H	HOLLOW			
		Output OHL (lbs.)	5600					
25	70	Mechanical Input Hp	8.76	47S25L	L	4047MTR18		
		Thermal Input Hp	8.09	47S25R	R			
		Output Torque (lb in.)	6410	47S25LR	LR			
		Mechanical Output Hp	7.12	47S25H	HOLLOW			
		Output OHL (lbs.)	5600					
30	58	Mechanical Input Hp	7.95	47S30L	L	4047MTR18		
		Thermal Input Hp	7.22	47S30R	R			
		Output Torque (lb in.)	6845	47S30LR	LR			
		Mechanical Output Hp	6.34	47S30H	HOLLOW			
		Output OHL (lbs.)	5600					
40	44	Mechanical Input Hp	6.21	47S40L	L	4047MTR18		
		Thermal Input Hp	5.66	47S40R	R			
		Output Torque (lb in.)	6644	47S40LR	LR			
		Mechanical Output Hp	4.61	47S40H	HOLLOW			
		Output OHL (lbs.)	5600					
50	35	Mechanical Input Hp	5.05	47S50L	L	4047MTR18		
		Thermal Input Hp	4.42	47S50R	R			
		Output Torque (lb in.)	6241	47S50LR	LR			
		Mechanical Output Hp	3.47	47S50H	HOLLOW			
		Output OHL (lbs.)	5600					
60	29	Mechanical Input Hp	4.12	47S60L	L			
		Thermal Input Hp	3.65	47S60R	R			
		Output Torque (lb in.)	5683	47S60LR	LR			
		Mechanical Output Hp	2.63	47S60H	HOLLOW			
		Output OHL (lbs.)	5600					
All Ratios		Input OHL (lbs)	500	One diameter from seal surface				

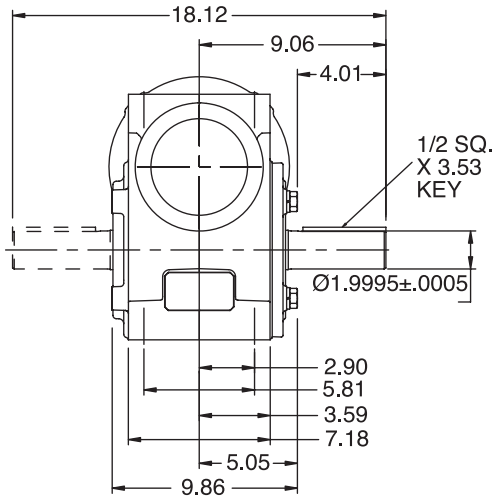
Note: TIGEAR-2 separate reducers cannot be used with the old Adaptable TIGEAR motor adapter kits.
Refer to page G4-118 for hollow bore bushing selections



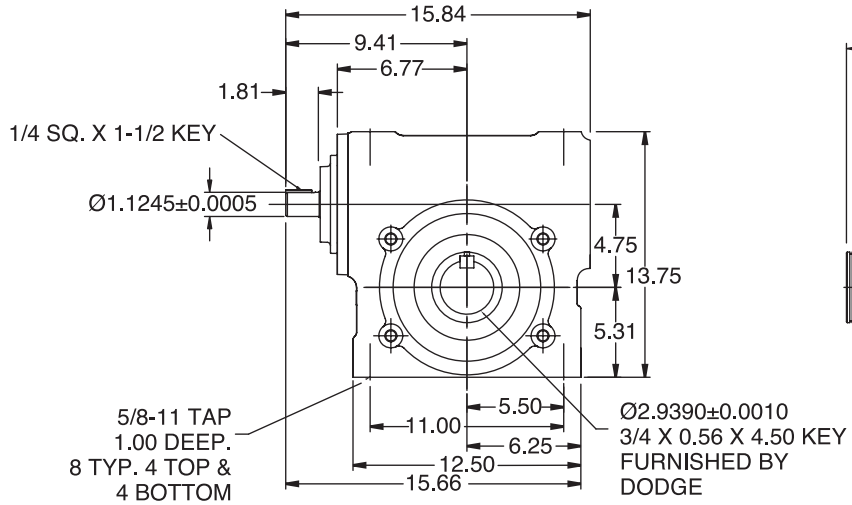
TIGEAR-2 Reducers With Separate Input - Size 47

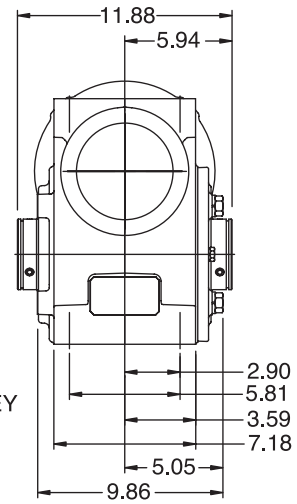
SOLID OUTPUT



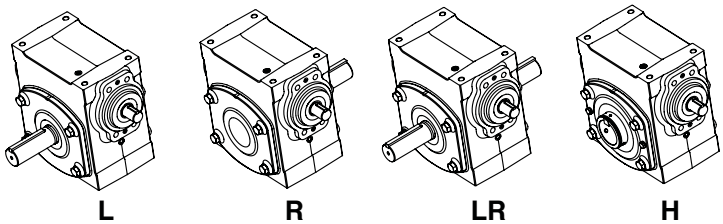


HOLLOW OUTPUT

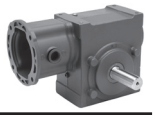




OUTPUT SHAFT CONFIGURATIONS



RATINGS/DIMENSIONS



TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 47

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.
These assemblies are normally "made to order" with a 5 day standard lead time.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 180TC	210TC	250TC	Shaft Position
		Mechanical Input Hp	28.45			**47A05L25**	L
		Thermal Input Hp	29.12			**47A05R25**	R
5	**350**	Output Torque (lb in.)	4832			**47A05LR25**	LR
		Mechanical Output Hp	26.84			**47A05H25**	HOLLOW
		Output OHL (lbs.)	5100				
		Mechanical Input Hp	23.35			**47A07L25**	L
		Thermal Input Hp	24.37			**47A07R25**	R
7.5	**233**	Output Torque (lb in.)	5801			**47A07LR25**	LR
		Mechanical Output Hp	21.77			**47A07H25**	HOLLOW
		Output OHL (lbs.)	5600				
		Mechanical Input Hp	19.27		**47A10L21**	**47A10L25**	L
		Thermal Input Hp	20.08		**47A10R21**	**47A10R25**	R
10	**175**	Output Torque (lb in.)	6390		**47A10LR21**	**47A10LR25**	LR
		Mechanical Output Hp	17.74		**47A10H21**	**47A10H25**	HOLLOW
		Output OHL (lbs.)	5600				
		Mechanical Input Hp	14.05		**47A15L21**		L
		Thermal Input Hp	14.14		**47A15R21**		R
15	**117**	Output Torque (lb in.)	6739		**47A15LR21**		LR
		Mechanical Output Hp	12.47		**47A15H21**		HOLLOW
		Output OHL (lbs.)	5600				
		Mechanical Input Hp	10.82		**47A20L21**		L
		Thermal Input Hp	10.96		**47A20R21**		R
20	**88**	Output Torque (lb in.)	6659		**47A20LR21**		LR
		Mechanical Output Hp	9.24		**47A20H21**		HOLLOW
		Output OHL (lbs.)	5600				
		Mechanical Input Hp	8.76	**47A25L18**	**47A25L21**		L
		Thermal Input Hp	8.09	**47A25R18**	**47A25R21**		R
25	**70**	Output Torque (lb in.)	6410	**47A25LR18**	**47A25LR21**		LR
		Mechanical Output Hp	7.12	**47A25H18**	**47A25H21**		HOLLOW
		Output OHL (lbs.)	5600				
		Mechanical Input Hp	7.95	**47A30L18**			L
		Thermal Input Hp	7.22	**47A30R18**			R
30	**58**	Output Torque (lb in.)	6845	**47A30LR18**			LR
		Mechanical Output Hp	6.34	**47A30H18**			HOLLOW
		Output OHL (lbs.)	5600				
		Mechanical Input Hp	6.21	**47A40L18**			L
		Thermal Input Hp	5.66	**47A40R18**			R
40	**44**	Output Torque (lb in.)	6644	**47A40LR18**			LR
		Mechanical Output Hp	4.61	**47A40H18**			HOLLOW
		Output OHL (lbs.)	5600				
		Mechanical Input Hp	5.05	**47A50L18**			L
		Thermal Input Hp	4.42	**47A50R18**			R
50	**35**	Output Torque (lb in.)	6241	**47A50LR18**			LR
		Mechanical Output Hp	3.47	**47A50H18**			HOLLOW
		Output OHL (lbs.)	5600				
		Mechanical Input Hp	4.12	**47A60L18**			L
		Thermal Input Hp	3.65	**47A60R18**			R
60	**29**	Output Torque (lb in.)	5683	**47A60LR18**			LR
		Mechanical Output Hp	2.63	**47A60H18**			HOLLOW
		Output OHL (lbs.)	5600				

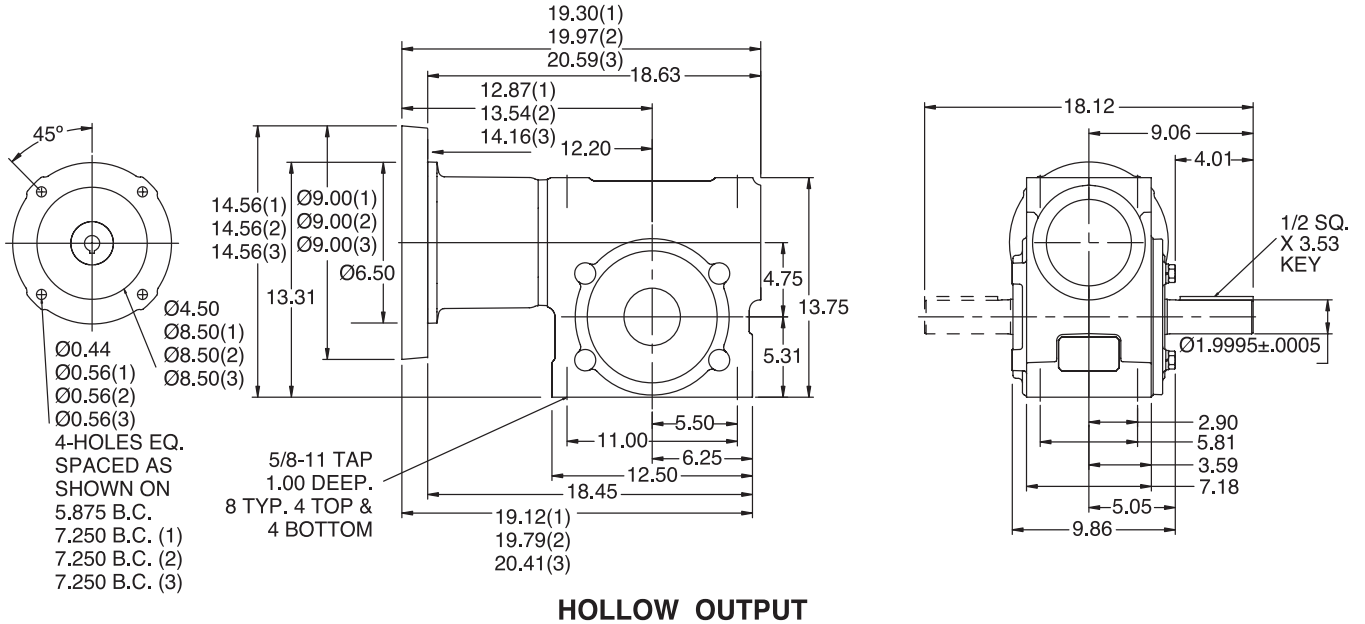
Note: Reducers are shipped without a mounting base. Order bolt-on base kit **47BASE** if required.
Refer to page G4-118 for hollow bore bushing selections



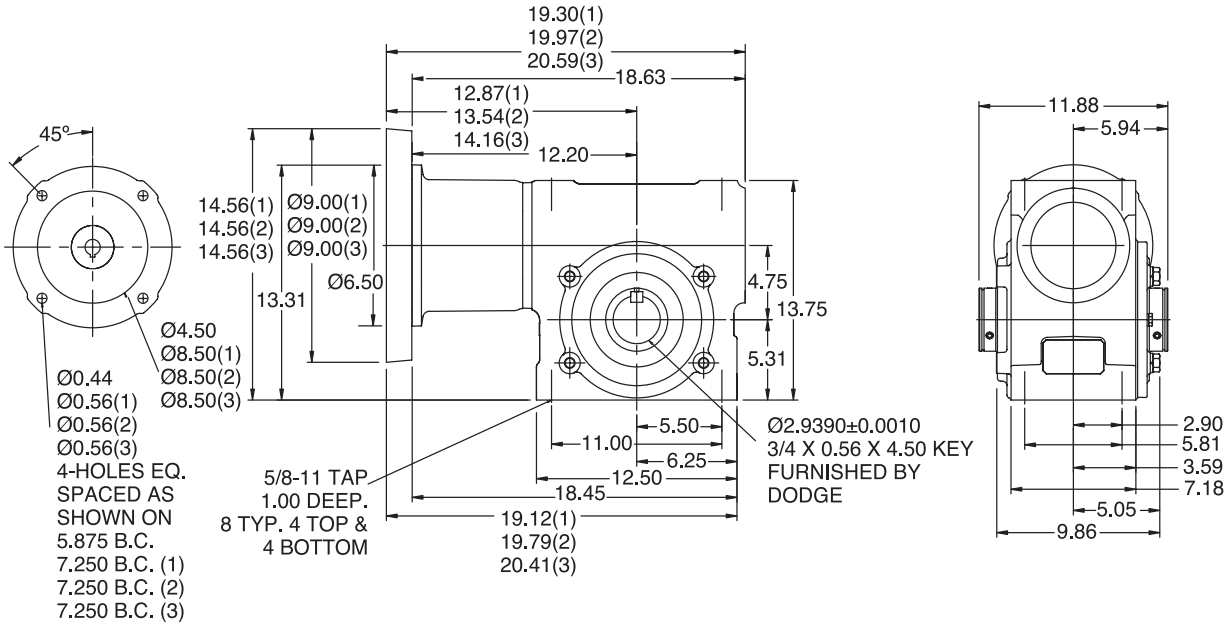
RATINGS/DIMENSIONS

TIGEAR-2 Reducers With 3-Piece Coupled Input - Size 47

SOLID OUTPUT



HOLLOW OUTPUT

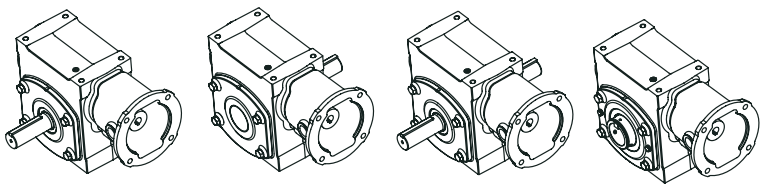


(1) DIMENSIONS APPLY TO 180 FRAME MOTOR ADAPTER

(2) DIMENSIONS APPLY TO 210 FRAME MOTOR ADAPTER

(3) DIMENSIONS APPLY TO 250 FRAME MOTOR ADAPTER

OUTPUT SHAFT CONFIGURATIONS



L R LR H

FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	RATINGS/DIMENSIONS PAGE G4-16

DODGE®

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN REDUCERS With Quill Input - Size 13

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Shaft Position
5	350	Mechanical Input Hp	1.32	**13QZ05L56**	L
		Thermal Input Hp	2.94	**13QZ05R56**	R
		Output Torque (lb in.)	219	**13QZ05LR56**	LR
		Mechanical Output Hp	1.22	**13QZ05H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
7.5	233	Mechanical Input Hp	1.04	**13QZ07L56**	L
		Thermal Input Hp	2.27	**13QZ07R56**	R
		Output Torque (lb in.)	251	**13QZ07LR56**	LR
		Mechanical Output Hp	0.94	**13QZ07H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
10	175	Mechanical Input Hp	0.85	**13QZ10L56**	L
		Thermal Input Hp	1.96	**13QZ10R56**	R
		Output Torque (lb in.)	270	**13QZ10LR56**	LR
		Mechanical Output Hp	0.75	**13QZ10H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
15	117	Mechanical Input Hp	0.64	**13QZ15L56**	L
		Thermal Input Hp	1.38	**13QZ15R56**	R
		Output Torque (lb in.)	293	**13QZ15LR56**	LR
		Mechanical Output Hp	0.54	**13QZ15H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
20	88	Mechanical Input HP	0.53	**13QZ20L56**	L
		Thermal Input Hp	1.06	**13QZ20R56**	R
		Output Torque (lb in.)	304	**13QZ20LR56**	LR
		Mechanical Output Hp	0.42	**13QZ20H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
25	70	Mechanical Input Hp	0.46	**13QZ25L56**	L
		Thermal Input Hp	0.86	**13QZ25R56**	R
		Output Torque (lb in.)	311	**13QZ25LR56**	LR
		Mechanical Output Hp	0.35	**13QZ25H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
30	58	Mechanical Input Hp	0.39	**13QZ30L56**	L
		Thermal Input Hp	0.85	**13QZ30R56**	R
		Output Torque (lb in.)	314	**13QZ30LR56**	LR
		Mechanical Output Hp	0.29	**13QZ30H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
40	44	Mechanical Input Hp	0.32	**13QZ40L56**	L
		Thermal Input Hp	0.7	**13QZ40R56**	R
		Output Torque (lb in.)	319	**13QZ40LR56**	LR
		Mechanical Output Hp	0.22	**13QZ40H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
50	35	Mechanical Input Hp	0.27	**13QZ50L56**	L
		Thermal Input Hp	0.61	**13QZ50R56**	R
		Output Torque (lb in.)	313	**13QZ50LR56**	LR
		Mechanical Output Hp	0.17	**13QZ50H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
60	29	Mechanical Input Hp	0.23	**13QZ60L56**	L
		Thermal Input Hp	0.54	**13QZ60R56**	R
		Output Torque (lb in.)	298	**13QZ60LR56**	LR
		Mechanical Output Hp	0.14	**13QZ60H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-17 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN REDUCERS With 3-Piece Coupled Input - Size 13

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Shaft Position
5	350	Mechanical Input Hp	1.32	**13AZ05L56**	L
		Thermal Input Hp	2.94	**13AZ05R56**	R
		Output Torque (lb in.)	219	**13AZ05LR56**	LR
		Mechanical Output Hp	1.22	**13AZ05H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
7.5	233	Mechanical Input Hp	1.04	**13AZ07L56**	L
		Thermal Input Hp	2.27	**13AZ07R56**	R
		Output Torque (lb in.)	251	**13AZ07LR56**	LR
		Mechanical Output Hp	0.94	**13AZ07H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
10	175	Mechanical Input Hp	0.85	**13AZ10L56**	L
		Thermal Input Hp	1.96	**13AZ10R56**	R
		Output Torque (lb in.)	270	**13AZ10LR56**	LR
		Mechanical Output Hp	0.75	**13AZ10H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
15	117	Mechanical Input Hp	0.64	**13AZ15L56**	L
		Thermal Input Hp	1.38	**13AZ15R56**	R
		Output Torque (lb in.)	293	**13AZ15LR56**	LR
		Mechanical Output Hp	0.54	**13AZ15H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
20	88	Mechanical Input HP	0.53	**13AZ20L56**	L
		Thermal Input Hp	1.06	**13AZ20R56**	R
		Output Torque (lb in.)	304	**13AZ20LR56**	LR
		Mechanical Output Hp	0.42	**13AZ20H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
25	70	Mechanical Input Hp	0.46	**13AZ25L56**	L
		Thermal Input Hp	0.86	**13AZ25R56**	R
		Output Torque (lb in.)	311	**13AZ25LR56**	LR
		Mechanical Output Hp	0.35	**13AZ25H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
30	58	Mechanical Input Hp	0.39	**13AZ30L56**	L
		Thermal Input Hp	0.85	**13AZ30R56**	R
		Output Torque (lb in.)	314	**13AZ30LR56**	LR
		Mechanical Output Hp	0.29	**13AZ30H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
40	44	Mechanical Input Hp	0.32	**13AZ40L56**	L
		Thermal Input Hp	0.7	**13AZ40R56**	R
		Output Torque (lb in.)	319	**13AZ40LR56**	LR
		Mechanical Output Hp	0.22	**13AZ40H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
50	35	Mechanical Input Hp	0.27	**13AZ50L56**	L
		Thermal Input Hp	0.61	**13AZ50R56**	R
		Output Torque (lb in.)	313	**13AZ50LR56**	LR
		Mechanical Output Hp	0.17	**13AZ50H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.
60	29	Mechanical Input Hp	0.23	**13AZ60L56**	L
		Thermal Input Hp	0.54	**13AZ60R56**	R
		Output Torque (lb in.)	298	**13AZ60LR56**	LR
		Mechanical Output Hp	0.14	**13AZ60H56**	HOLLOW
		Output OHL (lbs.)	650		HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-21 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With Quill Input - Size 15

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Shaft Position
5	350	Mechanical Input Hp	1.75	**15QZ05L56**	L
		Thermal Input Hp	3.34	**15QZ05R56**	R
		Output Torque (lb in.)	293	**15QZ05LR56**	LR
		Mechanical Output Hp	1.63	**15QZ05H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
7.5	233	Mechanical Input Hp	1.40	**15QZ07L56**	L
		Thermal Input Hp	2.55	**15QZ07R56**	R
		Output Torque (lb in.)	337	**15QZ07LR56**	LR
		Mechanical Output Hp	1.26	**15QZ07H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
10	175	Mechanical Input Hp	1.13	**15QZ10L56**	L
		Thermal Input Hp	2.22	**15QZ10R56**	R
		Output Torque (lb in.)	361	**15QZ10LR56**	LR
		Mechanical Output Hp	1.00	**15QZ10H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
15	117	Mechanical Input Hp	0.86	**15QZ15L56**	L
		Thermal Input Hp	1.58	**15QZ15R56**	R
		Output Torque (lb in.)	392	**15QZ15LR56**	LR
		Mechanical Output Hp	0.73	**15QZ15H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
20	88	Mechanical Input HP	0.70	**15QZ20L56**	L
		Thermal Input Hp	1.26	**15QZ20R56**	R
		Output Torque (lb in.)	407	**15QZ20LR56**	LR
		Mechanical Output Hp	0.56	**15QZ20H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
25	70	Mechanical Input Hp	0.60	**15QZ25L56**	L
		Thermal Input Hp	0.99	**15QZ25R56**	R
		Output Torque (lb in.)	410	**15QZ25LR56**	LR
		Mechanical Output Hp	0.46	**15QZ25H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
30	58	Mechanical Input Hp	0.51	**15QZ30L56**	L
		Thermal Input Hp	0.96	**15QZ30R56**	R
		Output Torque (lb in.)	413	**15QZ30LR56**	LR
		Mechanical Output Hp	0.38	**15QZ30H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
40	44	Mechanical Input Hp	0.41	**15QZ40L56**	L
		Thermal Input Hp	0.80	**15QZ40R56**	R
		Output Torque (lb in.)	417	**15QZ40LR56**	LR
		Mechanical Output Hp	0.29	**15QZ40H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
50	35	Mechanical Input Hp	0.34	**15QZ50L56**	L
		Thermal Input Hp	0.70	**15QZ50R56**	R
		Output Torque (lb in.)	402	**15QZ50LR56**	LR
		Mechanical Output Hp	0.22	**15QZ50H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
60	29	Mechanical Input Hp	0.29	**15QZ60L56**	L
		Thermal Input Hp	0.62	**15QZ60R56**	R
		Output Torque (lb in.)	381	**15QZ60LR56**	LR
		Mechanical Output Hp	0.18	**15QZ60H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-23 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With 3-Piece Coupled Input - Size 15

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Shaft Position
5	350	Mechanical Input Hp	1.75	**15AZ05L56**	L
		Thermal Input Hp	3.34	**15AZ05R56**	R
		Output Torque (lb in.)	293	**15AZ05LR56**	LR
		Mechanical Output Hp	1.63	**15AZ05H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
7.5	233	Mechanical Input Hp	1.40	**15AZ07L56**	L
		Thermal Input Hp	2.55	**15AZ07R56**	R
		Output Torque (lb in.)	337	**15AZ07LR56**	LR
		Mechanical Output Hp	1.26	**15AZ07H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
10	175	Mechanical Input Hp	1.13	**15AZ10L56**	L
		Thermal Input Hp	2.22	**15AZ10R56**	R
		Output Torque (lb in.)	361	**15AZ10LR56**	LR
		Mechanical Output Hp	1.00	**15AZ10H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
15	117	Mechanical Input Hp	0.86	**15AZ15L56**	L
		Thermal Input Hp	1.58	**15AZ15R56**	R
		Output Torque (lb in.)	392	**15AZ15LR56**	LR
		Mechanical Output Hp	0.73	**15AZ15H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
20	88	Mechanical Input HP	0.70	**15AZ20L56**	L
		Thermal Input Hp	1.26	**15AZ20R56**	R
		Output Torque (lb in.)	407	**15AZ20LR56**	LR
		Mechanical Output Hp	0.56	**15AZ20H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
25	70	Mechanical Input Hp	0.60	**15AZ25L56**	L
		Thermal Input Hp	0.99	**15AZ25R56**	R
		Output Torque (lb in.)	410	**15AZ25LR56**	LR
		Mechanical Output Hp	0.46	**15AZ25H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
30	58	Mechanical Input Hp	0.51	**15AZ30L56**	L
		Thermal Input Hp	0.96	**15AZ30R56**	R
		Output Torque (lb in.)	413	**15AZ30LR56**	LR
		Mechanical Output Hp	0.38	**15AZ30H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
40	44	Mechanical Input Hp	0.41	**15AZ40L56**	L
		Thermal Input Hp	0.80	**15AZ40R56**	R
		Output Torque (lb in.)	417	**15AZ40LR56**	LR
		Mechanical Output Hp	0.29	**15AZ40H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
50	35	Mechanical Input Hp	0.34	**15AZ50L56**	L
		Thermal Input Hp	0.70	**15AZ50R56**	R
		Output Torque (lb in.)	402	**15AZ50LR56**	LR
		Mechanical Output Hp	0.22	**15AZ50H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.
60	29	Mechanical Input Hp	0.29	**15AZ60L56**	L
		Thermal Input Hp	0.62	**15AZ60R56**	R
		Output Torque (lb in.)	381	**15AZ60LR56**	LR
		Mechanical Output Hp	0.18	**15AZ60H56**	HOLLOW
		Output OHL (lbs.)	710		HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-27 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With Quill Input- Size 17

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	2.59	**17QZ05L56**	**17QZ05L14**	L
		Thermal Input Hp	3.97	**17QZ05R56**	**17QZ05R14**	R
		Output Torque (lb.in.)	430	**17QZ05LR56**	**17QZ05LR14**	LR
		Mechanical Output Hp	2.39	**17QZ05H56**	**17QZ05H14**	HOLLOW
		Output OHL (lbs.)	1050			HOLLOW ALT.
7.5	233	Mechanical Input Hp	2.06	**17QZ07L56**	**17QZ07L14**	L
		Thermal Input Hp	3.42	**17QZ07R56**	**17QZ07R14**	R
		Output Torque (lb.in.)	500	**17QZ07LR56**	**17QZ07LR14**	LR
		Mechanical Output Hp	1.88	**17QZ07H56**	**17QZ07H14**	HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
10	175	Mechanical Input Hp	1.67	**17QZ10L56**	**17QZ10L14**	L
		Thermal Input Hp	2.76	**17QZ10R56**	**17QZ10R14**	R
		Output Torque (lb.in.)	534	**17QZ10LR56**	**17QZ10LR14**	LR
		Mechanical Output Hp	1.48	**17QZ10H56**	**17QZ10H14**	HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
15	117	Mechanical Input Hp	1.27	**17QZ15L56**	**17QZ15L14**	L
		Thermal Input Hp	2.01	**17QZ15R56**	**17QZ15R14**	R
		Output Torque (lb.in.)	583	**17QZ15LR56**	**17QZ15LR14**	LR
		Mechanical Output Hp	1.08	**17QZ15H56**	**17QZ15H14**	HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
20	88	Mechanical Input Hp	1.03	**17QZ20L56**	**17QZ20L14**	L
		Thermal Input Hp	1.58	**17QZ20R56**	**17QZ20R14**	R
		Output Torque (lb.in.)	602	**17QZ20LR56**	**17QZ20LR14**	LR
		Mechanical Output Hp	0.84	**17QZ20H56**	**17QZ20H14**	HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
25	70	Mechanical Input Hp	0.88	**17QZ25L56**		L
		Thermal Input Hp	1.28	**17QZ25R56**		R
		Output Torque (lb.in.)	609	**17QZ25LR56**		LR
		Mechanical Output Hp	0.68	**17QZ25H56**		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
30	58	Mechanical Input Hp	0.76	**17QZ30L56**		L
		Thermal Input Hp	1.20	**17QZ30R56**		R
		Output Torque (lb.in.)	615	**17QZ30LR56**		LR
		Mechanical Output Hp	0.57	**17QZ30H56**		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
40	44	Mechanical Input Hp	0.60	**17QZ40L56**		L
		Thermal Input Hp	1.09	**17QZ40R56**		R
		Output Torque (lb.in.)	627	**17QZ40LR56**		LR
		Mechanical Output Hp	0.43	**17QZ40H56**		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
50	35	Mechanical Input Hp	0.51	**17QZ50L56**		L
		Thermal Input Hp	0.90	**17QZ50R56**		R
		Output Torque (lb.in.)	608	**17QZ50LR56**		LR
		Mechanical Output Hp	0.34	**17QZ50H56**		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
60	29	Mechanical Input Hp	0.43	**17QZ60L56**		L
		Thermal Input Hp	0.80	**17QZ60R56**		R
		Output Torque (lb.in.)	576	**17QZ60LR56**		LR
		Mechanical Output Hp	0.27	**17QZ60H56**		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-29 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With 3-Piece Coupled Input - Size 17

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	2.59	17AZ05L56	17AZ05L14	L
		Thermal Input Hp	3.97	17AZ05R56	17AZ05R14	R
		Output Torque (lb.in.)	430	17AZ05LR56	17AZ05LR14	LR
		Mechanical Output Hp	2.39	17AZ05H56	17AZ05H14	HOLLOW
		Output OHL (lbs.)	1050			HOLLOW ALT.
7.5	233	Mechanical Input Hp	2.06	17AZ07L56	17AZ07L14	L
		Thermal Input Hp	3.42	17AZ07R56	17AZ07R14	R
		Output Torque (lb.in.)	500	17AZ07LR56	17AZ07LR14	LR
		Mechanical Output Hp	1.88	17AZ07H56	17AZ07H14	HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
10	175	Mechanical Input Hp	1.67	17AZ10L56	17AZ10L14	L
		Thermal Input Hp	2.76	17AZ10R56	17AZ10R14	R
		Output Torque (lb.in.)	534	17AZ10LR56	17AZ10LR14	LR
		Mechanical Output Hp	1.48	17AZ10H56	17AZ10H14	HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
15	117	Mechanical Input Hp	1.27	17AZ15L56	17AZ15L14	L
		Thermal Input Hp	2.01	17AZ15R56	17AZ15R14	R
		Output Torque (lb.in.)	583	17AZ15LR56	17AZ15LR14	LR
		Mechanical Output Hp	1.08	17AZ15H56	17AZ15H14	HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
20	88	Mechanical Input Hp	1.03	17AZ20L56	17AZ20L14	L
		Thermal Input Hp	1.58	17AZ20R56	17AZ20R14	R
		Output Torque (lb.in.)	602	17AZ20LR56	17AZ20LR14	LR
		Mechanical Output Hp	0.84	17AZ20H56	17AZ20H14	HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
25	70	Mechanical Input Hp	0.88	17AZ25L56		L
		Thermal Input Hp	1.28	17AZ25R56		R
		Output Torque (lb.in.)	609	17AZ25LR56		LR
		Mechanical Output Hp	0.68	17AZ25H56		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
30	58	Mechanical Input Hp	0.76	17AZ30L56		L
		Thermal Input Hp	1.20	17AZ30R56		R
		Output Torque (lb.in.)	615	17AZ30LR56		LR
		Mechanical Output Hp	0.57	17AZ30H56		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
40	44	Mechanical Input Hp	0.60	17AZ40L56		L
		Thermal Input Hp	1.09	17AZ40R56		R
		Output Torque (lb.in.)	627	17AZ40LR56		LR
		Mechanical Output Hp	0.43	17AZ40H56		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
50	35	Mechanical Input Hp	0.51	17AZ50L56		L
		Thermal Input Hp	0.90	17AZ50R56		R
		Output Torque (lb.in.)	608	17AZ50LR56		LR
		Mechanical Output Hp	0.34	17AZ50H56		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.
60	29	Mechanical Input Hp	0.43	17AZ60L56		L
		Thermal Input Hp	0.80	17AZ60R56		R
		Output Torque (lb.in.)	576	17AZ60LR56		LR
		Mechanical Output Hp	0.27	17AZ60H56		HOLLOW
		Output OHL (lbs.)	1190			HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-33 for dimensions

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WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With Quill Input - Size 20

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	3.47	**20QZ05L56**	**20QZ05L14**	L
		Thermal Input Hp	4.90	**20QZ05R56**	**20QZ05R14**	R
		Output Torque (lb.in.)	581	**20QZ05LR56**	**20QZ05LR14**	LR
		Mechanical Output Hp	3.23	**20QZ05H56**	**20QZ05H14**	HOLLOW
		Output OHL (lbs.)	1380	**20QZ05HA56**	**20QZ05HA14**	HOLLOW ALT.
7.5	233	Mechanical Input Hp	2.78	**20QZ07L56**	**20QZ07L14**	L
		Thermal Input Hp	4.15	**20QZ07R56**	**20QZ07R14**	R
		Output Torque (lb.in.)	678	**20QZ07LR56**	**20QZ07LR14**	LR
		Mechanical Output Hp	2.54	**20QZ07H56**	**20QZ07H14**	HOLLOW
		Output OHL (lbs.)	1560	**20QZ07HA56**	**20QZ07HA14**	HOLLOW ALT.
10	175	Mechanical Input Hp	2.25	**20QZ10L56**	**20QZ10L14**	L
		Thermal Input Hp	3.25	**20QZ10R56**	**20QZ10R14**	R
		Output Torque (lb.in.)	725	**20QZ10LR56**	**20QZ10LR14**	LR
		Mechanical Output Hp	2.01	**20QZ10H56**	**20QZ10H14**	HOLLOW
		Output OHL (lbs.)	1560	**20QZ10HA56**	**20QZ10HA14**	HOLLOW ALT.
15	117	Mechanical Input Hp	1.69	**20QZ15L56**	**20QZ15L14**	L
		Thermal Input Hp	2.52	**20QZ15R56**	**20QZ15R14**	R
		Output Torque (lb.in.)	790	**20QZ15LR56**	**20QZ15LR14**	LR
		Mechanical Output Hp	1.46	**20QZ15H56**	**20QZ15H14**	HOLLOW
		Output OHL (lbs.)	1560	**20QZ15HA56**	**20QZ15HA14**	HOLLOW ALT.
20	88	Mechanical Input Hp	1.34	**20QZ20L56**	**20QZ20L14**	L
		Thermal Input Hp	1.99	**20QZ20R56**	**20QZ20R14**	R
		Output Torque (lb.in.)	796	**20QZ20LR56**	**20QZ20LR14**	LR
		Mechanical Output Hp	1.11	**20QZ20H56**	**20QZ20H14**	HOLLOW
		Output OHL (lbs.)	1560	**20QZ20HA56**	**20QZ20HA14**	HOLLOW ALT.
25	70	Mechanical Input Hp	1.11	**20QZ25L56**	**20QZ25L14**	L
		Thermal Input Hp	1.59	**20QZ25R56**	**20QZ25R14**	R
		Output Torque (lb.in.)	788	**20QZ25LR56**	**20QZ25LR14**	LR
		Mechanical Output Hp	0.88	**20QZ25H56**	**20QZ25H14**	HOLLOW
		Output OHL (lbs.)	1560	**20QZ25HA56**	**20QZ25HA14**	HOLLOW ALT.
30	58	Mechanical Input Hp	0.96	**20QZ30L56**		L
		Thermal Input Hp	1.49	**20QZ30R56**		R
		Output Torque (lb.in.)	802	**20QZ30LR56**		LR
		Mechanical Output Hp	0.74	**20QZ30H56**		HOLLOW
		Output OHL (lbs.)	1560	**20QZ30HA56**		HOLLOW ALT.
40	44	Mechanical Input Hp	0.76	**20QZ40L56**		L
		Thermal Input Hp	1.29	**20QZ40R56**		R
		Output Torque (lb.in.)	801	**20QZ40LR56**		LR
		Mechanical Output Hp	0.56	**20QZ40H56**		HOLLOW
		Output OHL (lbs.)	1560	**20QZ40HA56**		HOLLOW ALT.
50	35	Mechanical Input Hp	0.64	**20QZ50L56**		L
		Thermal Input Hp	1.09	**20QZ50R56**		R
		Output Torque (lb.in.)	787	**20QZ50LR56**		LR
		Mechanical Output Hp	0.44	**20QZ50H56**		HOLLOW
		Output OHL (lbs.)	1560	**20QZ50HA56**		HOLLOW ALT.
60	29	Mechanical Input Hp	0.56	**20QZ60L56**		L
		Thermal Input Hp	0.96	**20QZ60R56**		R
		Output Torque (lb.in.)	767	**20QZ60LR56**		LR
		Mechanical Output Hp	0.36	**20QZ60H56**		HOLLOW
		Output OHL (lbs.)	1560	**20QZ60HA56**		HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-37 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With 3-Piece Coupled Input - Size 20

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	3.47	**20AZ05L56**	**20AZ05L14**	L
		Thermal Input Hp	4.90	**20AZ05R56**	**20AZ05R14**	R
		Output Torque (lb.in.)	581	**20AZ05LR56**	**20AZ05LR14**	LR
		Mechanical Output Hp	3.23	**20AZ05H56**	**20AZ05H14**	HOLLOW
		Output OHL (lbs.)	1380	**20AZ05HA56**	**20AZ05HA14**	HOLLOW ALT.
7.5	233	Mechanical Input Hp	2.78	**20AZ07L56**	**20AZ07L14**	L
		Thermal Input Hp	4.15	**20AZ07R56**	**20AZ07R14**	R
		Output Torque (lb.in.)	678	**20AZ07LR56**	**20AZ07LR14**	LR
		Mechanical Output Hp	2.54	**20AZ07H56**	**20AZ07H14**	HOLLOW
		Output OHL (lbs.)	1560	**20AZ07HA56**	**20AZ07HA14**	HOLLOW ALT.
10	175	Mechanical Input Hp	2.25	**20AZ10L56**	**20AZ10L14**	L
		Thermal Input Hp	3.25	**20AZ10R56**	**20AZ10R14**	R
		Output Torque (lb.in.)	725	**20AZ10LR56**	**20AZ10LR14**	LR
		Mechanical Output Hp	2.01	**20AZ10H56**	**20AZ10H14**	HOLLOW
		Output OHL (lbs.)	1560	**20AZ10HA56**	**20AZ10HA14**	HOLLOW ALT.
15	117	Mechanical Input Hp	1.69	**20AZ15L56**	**20AZ15L14**	L
		Thermal Input Hp	2.52	**20AZ15R56**	**20AZ15R14**	R
		Output Torque (lb.in.)	790	**20AZ15LR56**	**20AZ15LR14**	LR
		Mechanical Output Hp	1.46	**20AZ15H56**	**20AZ15H14**	HOLLOW
		Output OHL (lbs.)	1560	**20AZ15HA56**	**20AZ15HA14**	HOLLOW ALT.
20	88	Mechanical Input Hp	1.34	**20AZ20L56**	**20AZ20L14**	L
		Thermal Input Hp	1.99	**20AZ20R56**	**20AZ20R14**	R
		Output Torque (lb.in.)	796	**20AZ20LR56**	**20AZ20LR14**	LR
		Mechanical Output Hp	1.11	**20AZ20H56**	**20AZ20H14**	HOLLOW
		Output OHL (lbs.)	1560	**20AZ20HA56**	**20AZ20HA14**	HOLLOW ALT.
25	70	Mechanical Input Hp	1.11	**20AZ25L56**	**20AZ25L14**	L
		Thermal Input Hp	1.59	**20AZ25R56**	**20AZ25R14**	R
		Output Torque (lb.in.)	788	**20AZ25LR56**	**20AZ25LR14**	LR
		Mechanical Output Hp	0.88	**20AZ25H56**	**20AZ25H14**	HOLLOW
		Output OHL (lbs.)	1560	**20AZ25HA56**	**20AZ25HA14**	HOLLOW ALT.
30	58	Mechanical Input Hp	0.96	**20AZ30L56**		L
		Thermal Input Hp	1.49	**20AZ30R56**		R
		Output Torque (lb.in.)	802	**20AZ30LR56**		LR
		Mechanical Output Hp	0.74	**20AZ30H56**		HOLLOW
		Output OHL (lbs.)	1560	**20AZ30HA56**		HOLLOW ALT.
40	44	Mechanical Input Hp	0.76	**20AZ40L56**		L
		Thermal Input Hp	1.29	**20AZ40R56**		R
		Output Torque (lb.in.)	801	**20AZ40LR56**		LR
		Mechanical Output Hp	0.56	**20AZ40H56**		HOLLOW
		Output OHL (lbs.)	1560	**20AZ40HA56**		HOLLOW ALT.
50	35	Mechanical Input Hp	0.64	**20AZ50L56**		L
		Thermal Input Hp	1.09	**20AZ50R56**		R
		Output Torque (lb.in.)	787	**20AZ50LR56**		LR
		Mechanical Output Hp	0.44	**20AZ50H56**		HOLLOW
		Output OHL (lbs.)	1560	**20AZ50HA56**		HOLLOW ALT.
60	29	Mechanical Input Hp	0.56	**20AZ60L56**		L
		Thermal Input Hp	0.96	**20AZ60R56**		R
		Output Torque (lb.in.)	767	**20AZ60LR56**		LR
		Mechanical Output Hp	0.36	**20AZ60H56**		HOLLOW
		Output OHL (lbs.)	1560	**20AZ60HA56**		HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-41 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With Quill Input - Size 23

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
5	350	Mechanical Input Hp	5.25	23QZ05L56	23QZ05L14	23QZ05L18	L
		Thermal Input Hp	6.61	23QZ05R56	23QZ05R14	23QZ05R18	R
		Output Torque (lb.in.)	881	23QZ05LR56	23QZ05LR14	23QZ05LR18	LR
		Mechanical Output Hp	4.89	23QZ05H56	23QZ05H14	23QZ05H18	HOLLOW
		Output OHL (lbs.)	1330	23QZ05HA56	23QZ05HA14	23QZ05HA18	HOLLOW ALT.
7.5	233	Mechanical Input Hp	4.18	23QZ07L56	23QZ07L14	23QZ07L18	L
		Thermal Input Hp	5.64	23QZ07R56	23QZ07R14	23QZ07R18	R
		Output Torque (lb.in.)	1026	23QZ07LR56	23QZ07LR14	23QZ07LR18	LR
		Mechanical Output Hp	3.85	23QZ07H56	23QZ07H14	23QZ07H18	HOLLOW
		Output OHL (lbs.)	1520	23QZ07HA56	23QZ07HA14	23QZ07HA18	HOLLOW ALT.
10	175	Mechanical Input Hp	3.42	23QZ10L56	23QZ10L14	23QZ10L18	L
		Thermal Input Hp	4.40	23QZ10R56	23QZ10R14	23QZ10R18	R
		Output Torque (lb.in.)	1106	23QZ10LR56	23QZ10LR14	23QZ10LR18	LR
		Mechanical Output Hp	3.07	23QZ10H56	23QZ10H14	23QZ10H18	HOLLOW
		Output OHL (lbs.)	1610	23QZ10HA56	23QZ10HA14	23QZ10HA18	HOLLOW ALT.
15	117	Mechanical Input Hp	2.57	23QZ15L56	23QZ15L14		L
		Thermal Input Hp	3.30	23QZ15R56	23QZ15R14		R
		Output Torque (lb.in.)	1199	23QZ15LR56	23QZ15LR14		LR
		Mechanical Output Hp	2.22	23QZ15H56	23QZ15H14		HOLLOW
		Output OHL (lbs.)	1610	23QZ15HA56	23QZ15HA14		HOLLOW ALT.
20	88	Mechanical Input Hp	2.00	23QZ20L56	23QZ20L14		L
		Thermal Input Hp	2.62	23QZ20R56	23QZ20R14		R
		Output Torque (lb.in.)	1178	23QZ20LR56	23QZ20LR14		LR
		Mechanical Output Hp	1.64	23QZ20H56	23QZ20H14		HOLLOW
		Output OHL (lbs.)	1610	23QZ20HA56	23QZ20HA14		HOLLOW ALT.
25	70	Mechanical Input Hp	1.65	23QZ25L56	23QZ25L14		L
		Thermal Input Hp	2.16	23QZ25R56	23QZ25R14		R
		Output Torque (lb.in.)	1184	23QZ25LR56	23QZ25LR14		LR
		Mechanical Output Hp	1.32	23QZ25H56	23QZ25H14		HOLLOW
		Output OHL (lbs.)	1610	23QZ25HA56	23QZ25HA14		HOLLOW ALT.
30	58	Mechanical Input Hp	1.42	23QZ30L56	23QZ30L14		L
		Thermal Input Hp	2.06	23QZ30R56	23QZ30R14		R
		Output Torque (lb.in.)	1201	23QZ30LR56	23QZ30LR14		LR
		Mechanical Output Hp	1.11	23QZ30H56	23QZ30H14		HOLLOW
		Output OHL (lbs.)	1610	23QZ30HA56	23QZ30HA14		HOLLOW ALT.
40	44	Mechanical Input Hp	1.11	23QZ40L56	23QZ40L14		L
		Thermal Input Hp	1.73	23QZ40R56	23QZ40R14		R
		Output Torque (lb.in.)	1193	23QZ40LR56	23QZ40LR14		LR
		Mechanical Output Hp	0.83	23QZ40H56	23QZ40H14		HOLLOW
		Output OHL (lbs.)	1610	23QZ40HA56	23QZ40HA14		HOLLOW ALT.
50	35	Mechanical Input Hp	0.95	23QZ50L56			L
		Thermal Input Hp	1.42	23QZ50R56			R
		Output Torque (lb.in.)	1182	23QZ50LR56			LR
		Mechanical Output Hp	0.66	23QZ50H56			HOLLOW
		Output OHL (lbs.)	1610	23QZ50HA56			HOLLOW ALT.
60	29	Mechanical Input Hp	0.80	23QZ60L56			L
		Thermal Input Hp	1.24	23QZ60R56			R
		Output Torque (lb.in.)	1111	23QZ60LR56			LR
		Mechanical Output Hp	0.51	23QZ60H56			HOLLOW
		Output OHL (lbs.)	1610	23QZ60HA56			HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-45 for dimensions

TIGEAR-2 E-Z KLEEN Reducers With 3-Piece Coupled Input - Size 23

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
5	350	Mechanical Input Hp	5.25	23AZ05L56	23AZ05L14	23AZ05L18	L
		Thermal Input Hp	6.61	23AZ05R56	23AZ05R14	23AZ05R18	R
		Output Torque (lb.in.)	881	23AZ05LR56	23AZ05LR14	23AZ05LR18	LR
		Mechanical Output Hp	4.89	23AZ05H56	23AZ05H14	23AZ05H18	HOLLOW
		Output OHL (lbs.)	1330	23AZ05HA56	23AZ05HA14	23AZ05HA18	HOLLOW ALT.
7.5	233	Mechanical Input Hp	4.18	23AZ07L56	23AZ07L14	23AZ07L18	L
		Thermal Input Hp	5.64	23AZ07R56	23AZ07R14	23AZ07R18	R
		Output Torque (lb.in.)	1026	23AZ07LR56	23AZ07LR14	23AZ07LR18	LR
		Mechanical Output Hp	3.85	23AZ07H56	23AZ07H14	23AZ07H18	HOLLOW
		Output OHL (lbs.)	1520	23AZ07HA56	23AZ07HA14	23AZ07HA18	HOLLOW ALT.
10	175	Mechanical Input Hp	3.42	23AZ10L56	23AZ10L14	23AZ10L18	L
		Thermal Input Hp	4.40	23AZ10R56	23AZ10R14	23AZ10R18	R
		Output Torque (lb.in.)	1106	23AZ10LR56	23AZ10LR14	23AZ10LR18	LR
		Mechanical Output Hp	3.07	23AZ10H56	23AZ10H14	23AZ10H18	HOLLOW
		Output OHL (lbs.)	1610	23AZ10HA56	23AZ10HA14	23AZ10HA18	HOLLOW ALT.
15	117	Mechanical Input Hp	2.57	23AZ15L56	23AZ15L14		L
		Thermal Input Hp	3.30	23AZ15R56	23AZ15R14		R
		Output Torque (lb.in.)	1199	23AZ15LR56	23AZ15LR14		LR
		Mechanical Output Hp	2.22	23AZ15H56	23AZ15H14		HOLLOW
		Output OHL (lbs.)	1610	23AZ15HA56	23AZ15HA14		HOLLOW ALT.
20	88	Mechanical Input Hp	2.00	23AZ20L56	23AZ20L14		L
		Thermal Input Hp	2.62	23AZ20R56	23AZ20R14		R
		Output Torque (lb.in.)	1178	23AZ20LR56	23AZ20LR14		LR
		Mechanical Output Hp	1.64	23AZ20H56	23AZ20H14		HOLLOW
		Output OHL (lbs.)	1610	23AZ20HA56	23AZ20HA14		HOLLOW ALT.
25	70	Mechanical Input Hp	1.65	23AZ25L56	23AZ25L14		L
		Thermal Input Hp	2.16	23AZ25R56	23AZ25R14		R
		Output Torque (lb.in.)	1184	23AZ25LR56	23AZ25LR14		LR
		Mechanical Output Hp	1.32	23AZ25H56	23AZ25H14		HOLLOW
		Output OHL (lbs.)	1610	23AZ25HA56	23AZ25HA14		HOLLOW ALT.
30	58	Mechanical Input Hp	1.42	23AZ30L56	23AZ30L14		L
		Thermal Input Hp	2.06	23AZ30R56	23AZ30R14		R
		Output Torque (lb.in.)	1201	23AZ30LR56	23AZ30LR14		LR
		Mechanical Output Hp	1.11	23AZ30H56	23AZ30H14		HOLLOW
		Output OHL (lbs.)	1610	23AZ30HA56	23AZ30HA14		HOLLOW ALT.
40	44	Mechanical Input Hp	1.11	23AZ40L56	23AZ40L14		L
		Thermal Input Hp	1.73	23AZ40R56	23AZ40R14		R
		Output Torque (lb.in.)	1193	23AZ40LR56	23AZ40LR14		LR
		Mechanical Output Hp	0.83	23AZ40H56	23AZ40H14		HOLLOW
		Output OHL (lbs.)	1610	23AZ40HA56	23AZ40HA14		HOLLOW ALT.
50	35	Mechanical Input Hp	0.95	23AZ50L56			L
		Thermal Input Hp	1.42	23AZ50R56			R
		Output Torque (lb.in.)	1182	23AZ50LR56			LR
		Mechanical Output Hp	0.66	23AZ50H56			HOLLOW
		Output OHL (lbs.)	1610	23AZ50HA56			HOLLOW ALT.
60	29	Mechanical Input Hp	0.80	23AZ60L56			L
		Thermal Input Hp	1.24	23AZ60R56			R
		Output Torque (lb.in.)	1111	23AZ60LR56			LR
		Mechanical Output Hp	0.51	23AZ60H56			HOLLOW
		Output OHL (lbs.)	1610	23AZ60HA56			HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-49 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With Quill Input - Size 26

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
5	350	Mechanical Input Hp	7.37		26QZ05L14	26QZ05L18	L
		Thermal Input Hp	8.79		26QZ05R14	26QZ05R18	R
		Output Torque (lb.in.)	1247		26QZ05LR14	26QZ05LR18	LR
		Mechanical Output Hp	6.93		26QZ05H14	26QZ05H18	HOLLOW
		Output OHL (lbs.)	1330		26QZ05HA14	26QZ05HA18	HOLLOW ALT.
7.5	233	Mechanical Input Hp	5.92	26QZ07L56	26QZ07L14	26QZ07L18	L
		Thermal Input Hp	6.89	26QZ07R56	26QZ07R14	26QZ07R18	R
		Output Torque (lb.in.)	1458	26QZ07LR56	26QZ07LR14	26QZ07LR18	LR
		Mechanical Output Hp	5.47	26QZ07H56	26QZ07H14	26QZ07H18	HOLLOW
		Output OHL (lbs.)	1520	26QZ07HA56	26QZ07HA14	26QZ07HA18	HOLLOW ALT.
10	175	Mechanical Input Hp	4.83	26QZ10L56	26QZ10L14	26QZ10L18	L
		Thermal Input Hp	5.61	26QZ10R56	26QZ10R14	26QZ10R18	R
		Output Torque (lb.in.)	1576	26QZ10LR56	26QZ10LR14	26QZ10LR18	LR
		Mechanical Output Hp	4.37	26QZ10H56	26QZ10H14	26QZ10H18	HOLLOW
		Output OHL (lbs.)	1610	26QZ10HA56	26QZ10HA14	26QZ10HA18	HOLLOW ALT.
15	117	Mechanical Input Hp	3.62	26QZ15L56	26QZ15L14	26QZ15L18	L
		Thermal Input Hp	4.15	26QZ15R56	26QZ15R14	26QZ15R18	R
		Output Torque (lb.in.)	1708	26QZ15LR56	26QZ15LR14	26QZ15LR18	LR
		Mechanical Output Hp	3.16	26QZ15H56	26QZ15H14	26QZ15H18	HOLLOW
		Output OHL (lbs.)	1610	26QZ15HA56	26QZ15HA14	26QZ15HA18	HOLLOW ALT.
20	88	Mechanical Input Hp	2.71	26QZ20L56	26QZ20L14		L
		Thermal Input Hp	3.71	26QZ20R56	26QZ20R14		R
		Output Torque (lb.in.)	1673	26QZ20LR56	26QZ20LR14		LR
		Mechanical Output Hp	2.32	26QZ20H56	26QZ20H14		HOLLOW
		Output OHL (lbs.)	1610	26QZ20HA56	26QZ20HA14		HOLLOW ALT.
25	70	Mechanical Input Hp	2.26	26QZ25L56	26QZ25L14		L
		Thermal Input Hp	3.00	26QZ25R56	26QZ25R14		R
		Output Torque (lb.in.)	1677	26QZ25LR56	26QZ25LR14		LR
		Mechanical Output Hp	1.86	26QZ25H56	26QZ25H14		HOLLOW
		Output OHL (lbs.)	1610	26QZ25HA56	26QZ25HA14		HOLLOW ALT.
30	58	Mechanical Input Hp	2.00	26QZ30L56	26QZ30L14		L
		Thermal Input Hp	2.79	26QZ30R56	26QZ30R14		R
		Output Torque (lb.in.)	1705	26QZ30LR56	26QZ30LR14		LR
		Mechanical Output Hp	1.58	26QZ30H56	26QZ30H14		HOLLOW
		Output OHL (lbs.)	1610	26QZ30HA56	26QZ30HA14		HOLLOW ALT.
40	44	Mechanical Input Hp	1.55	26QZ40L56	26QZ40L14		L
		Thermal Input Hp	2.14	26QZ40R56	26QZ40R14		R
		Output Torque (lb.in.)	1685	26QZ40LR56	26QZ40LR14		LR
		Mechanical Output Hp	1.17	26QZ40H56	26QZ40H14		HOLLOW
		Output OHL (lbs.)	1610	26QZ40HA56	26QZ40HA14		HOLLOW ALT.
50	35	Mechanical Input Hp	1.32	26QZ50L56	26QZ50L14		L
		Thermal Input Hp	1.76	26QZ50R56	26QZ50R14		R
		Output Torque (lb.in.)	1662	26QZ50LR56	26QZ50LR14		LR
		Mechanical Output Hp	0.92	26QZ50H56	26QZ50H14		HOLLOW
		Output OHL (lbs.)	1610	26QZ50HA56	26QZ50HA14		HOLLOW ALT.
60	29	Mechanical Input Hp	1.08	26QZ60L56	26QZ60L14		L
		Thermal Input Hp	1.57	26QZ60R56	26QZ60R14		R
		Output Torque (lb.in.)	1547	26QZ60LR56	26QZ60LR14		LR
		Mechanical Output Hp	0.72	26QZ60H56	26QZ60H14		HOLLOW
		Output OHL (lbs.)	1610	26QZ60HA56	26QZ60HA14		HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-51 for dimensions

TIGEAR-2 E-Z KLEEN Reducers With 3-Piece Coupled Input - Size 26

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
5	350	Mechanical Input Hp	7.37		26AZ05L14	26AZ05L18	L
		Thermal Input Hp	8.79		26AZ05R14	26AZ05R18	R
		Output Torque (lb.in.)	1247		26AZ05LR14	26AZ05LR18	LR
		Mechanical Output Hp	6.93		26AZ05H14	26AZ05H18	HOLLOW
		Output OHL (lbs.)	1330		26AZ05HA14	26AZ05HA18	HOLLOW ALT.
7.5	233	Mechanical Input Hp	5.92	26AZ07L56	26AZ07L14	26AZ07L18	L
		Thermal Input Hp	6.89	26AZ07R56	26AZ07R14	26AZ07R18	R
		Output Torque (lb.in.)	1458	26AZ07LR56	26AZ07LR14	26AZ07LR18	LR
		Mechanical Output Hp	5.47	26AZ07H56	26AZ07H14	26AZ07H18	HOLLOW
		Output OHL (lbs.)	1520	26AZ07HA56	26AZ07HA14	26AZ07HA18	HOLLOW ALT.
10	175	Mechanical Input Hp	4.83	26AZ10L56	26AZ10L14	26AZ10L18	L
		Thermal Input Hp	5.61	26AZ10R56	26AZ10R14	26AZ10R18	R
		Output Torque (lb.in.)	1576	26AZ10LR56	26AZ10LR14	26AZ10LR18	LR
		Mechanical Output Hp	4.37	26AZ10H56	26AZ10H14	26AZ10H18	HOLLOW
		Output OHL (lbs.)	1610	26AZ10HA56	26AZ10HA14	26AZ10HA18	HOLLOW ALT.
15	117	Mechanical Input Hp	3.62	26AZ15L56	26AZ15L14	26AZ15L18	L
		Thermal Input Hp	4.15	26AZ15R56	26AZ15R14	26AZ15R18	R
		Output Torque (lb.in.)	1708	26AZ15LR56	26AZ15LR14	26AZ15LR18	LR
		Mechanical Output Hp	3.16	26AZ15H56	26AZ15H14	26AZ15H18	HOLLOW
		Output OHL (lbs.)	1610	26AZ15HA56	26AZ15HA14	26AZ15HA18	HOLLOW ALT.
20	88	Mechanical Input Hp	2.71	26AZ20L56	26AZ20L14		L
		Thermal Input Hp	3.71	26AZ20R56	26AZ20R14		R
		Output Torque (lb.in.)	1673	26AZ20LR56	26AZ20LR14		LR
		Mechanical Output Hp	2.32	26AZ20H56	26AZ20H14		HOLLOW
		Output OHL (lbs.)	1610	26AZ20HA56	26AZ20HA14		HOLLOW ALT.
25	70	Mechanical Input Hp	2.26	26AZ25L56	26AZ25L14		L
		Thermal Input Hp	3.00	26AZ25R56	26AZ25R14		R
		Output Torque (lb.in.)	1677	26AZ25LR56	26AZ25LR14		LR
		Mechanical Output Hp	1.86	26AZ25H56	26AZ25H14		HOLLOW
		Output OHL (lbs.)	1610	26AZ25HA56	26AZ25HA14		HOLLOW ALT.
30	58	Mechanical Input Hp	2.00	26AZ30L56	26AZ30L14		L
		Thermal Input Hp	2.79	26AZ30R56	26AZ30R14		R
		Output Torque (lb.in.)	1705	26AZ30LR56	26AZ30LR14		LR
		Mechanical Output Hp	1.58	26AZ30H56	26AZ30H14		HOLLOW
		Output OHL (lbs.)	1610	26AZ30HA56	26AZ30HA14		HOLLOW ALT.
40	44	Mechanical Input Hp	1.55	26AZ40L56	26AZ40L14		L
		Thermal Input Hp	2.14	26AZ40R56	26AZ40R14		R
		Output Torque (lb.in.)	1685	26AZ40LR56	26AZ40LR14		LR
		Mechanical Output Hp	1.17	26AZ40H56	26AZ40H14		HOLLOW
		Output OHL (lbs.)	1610	26AZ40HA56	26AZ40HA14		HOLLOW ALT.
50	35	Mechanical Input Hp	1.32	26AZ50L56	26AZ50L14		L
		Thermal Input Hp	1.76	26AZ50R56	26AZ50R14		R
		Output Torque (lb.in.)	1662	26AZ50LR56	26AZ50LR14		LR
		Mechanical Output Hp	0.92	26AZ50H56	26AZ50H14		HOLLOW
		Output OHL (lbs.)	1610	26AZ50HA56	26AZ50HA14		HOLLOW ALT.
60	29	Mechanical Input Hp	1.08	26AZ60L56	26AZ60L14		L
		Thermal Input Hp	1.57	26AZ60R56	26AZ60R14		R
		Output Torque (lb.in.)	1547	26AZ60LR56	26AZ60LR14		LR
		Mechanical Output Hp	0.72	26AZ60H56	26AZ60H14		HOLLOW
		Output OHL (lbs.)	1610	26AZ60HA56	26AZ60HA14		HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-55 for dimensions

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WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With Quill Input - Size 30

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	140TC	180TC	Shaft Position
5	350	Mechanical Input Hp	10.84		30QZ05L14	30QZ05L18	L
		Thermal Input Hp	12.53		30QZ05R14	30QZ05R18	R
		Output Torque (lb.in.)	1849		30QZ05LR14	30QZ05LR18	LR
		Mechanical Output Hp	10.27		30QZ05H14	30QZ05H18	HOLLOW
		Output OHL (lbs.)	1330				HOLLOW ALT.
7.5	233	Mechanical Input Hp	8.74		30QZ07L14	30QZ07L18	L
		Thermal Input Hp	9.64		30QZ07R14	30QZ07R18	R
		Output Torque (lb.in.)	2171		30QZ07LR14	30QZ07LR18	LR
		Mechanical Output Hp	8.15		30QZ07H14	30QZ07H18	HOLLOW
		Output OHL (lbs.)	1540				HOLLOW ALT.
10	175	Mechanical Input Hp	7.11		30QZ10L14	30QZ10L18	L
		Thermal Input Hp	7.85		30QZ10R14	30QZ10R18	R
		Output Torque (lb.in.)	2347		30QZ10LR14	30QZ10LR18	LR
		Mechanical Output Hp	6.52		30QZ10H14	30QZ10H18	HOLLOW
		Output OHL (lbs.)	1720				HOLLOW ALT.
15	117	Mechanical Input Hp	5.00		30QZ15L14	30QZ15L18	L
		Thermal Input Hp	5.72		30QZ15R14	30QZ15R18	R
		Output Torque (lb.in.)	2371		30QZ15LR14	30QZ15LR18	LR
		Mechanical Output Hp	4.39		30QZ15H14	30QZ15H18	HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
20	88	Mechanical Input Hp	3.81	30QZ20L56	30QZ20L14	30QZ20L18	L
		Thermal Input Hp	4.52	30QZ20R56	30QZ20R14	30QZ20R18	R
		Output Torque (lb.in.)	2345	30QZ20LR56	30QZ20LR14	30QZ20LR18	LR
		Mechanical Output Hp	3.26	30QZ20H56	30QZ20H14	30QZ20H18	HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
25	70	Mechanical Input Hp	3.05	30QZ25L56	30QZ25L14	30QZ25L18	L
		Thermal Input Hp	3.90	30QZ25R56	30QZ25R14	30QZ25R18	R
		Output Torque (lb.in.)	2284	30QZ25LR56	30QZ25LR14	30QZ25LR18	LR
		Mechanical Output Hp	2.54	30QZ25H56	30QZ25H14	30QZ25H18	HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
30	58	Mechanical Input Hp	2.75	30QZ30L56	30QZ30L14		L
		Thermal Input Hp	3.58		30QZ30R14		R
		Output Torque (lb.in.)	2417	30QZ30LR56	30QZ30LR14		LR
		Mechanical Output Hp	2.24	30QZ30H56	30QZ30H14		HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
40	44	Mechanical Input Hp	2.09	30QZ40L56	30QZ40L14		L
		Thermal Input Hp	2.87	30QZ40R56	30QZ40R14		R
		Output Torque (lb.in.)	2324	30QZ40LR56	30QZ40LR14		LR
		Mechanical Output Hp	1.61	30QZ40H56	30QZ40H14		HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
50	35	Mechanical Input Hp	1.75	30QZ50L56	30QZ50L14		L
		Thermal Input Hp	2.34	30QZ50R56	30QZ50R14		R
		Output Torque (lb.in.)	2257	30QZ50LR56	30QZ50LR14		LR
		Mechanical Output Hp	1.25	30QZ50H56	30QZ50H14		HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
60	29	Mechanical Input Hp	1.50	30QZ60L56	30QZ60L14		L
		Thermal Input Hp	2.01	30QZ60R56	30QZ60R14		R
		Output Torque (lb.in.)	2138	30QZ60LR56	30QZ60LR14		LR
		Mechanical Output Hp	0.99	30QZ60H56	30QZ60H14		HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-57 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With 3-Piece Coupled Input - Size 30

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data		Part Number			Shaft
		1750 Input RPM		56C	140TC	180TC	Position
5	350	Mechanical Input Hp	10.84		30AZ05L14	30AZ05L18	L
		Thermal Input Hp	12.53		30AZ05R14	30AZ05R18	R
		Output Torque (lb.in.)	1849		30AZ05LR14	30AZ05LR18	LR
		Mechanical Output Hp	10.27		30AZ05H14	30AZ05H18	HOLLOW
		Output OHL (lbs.)	1330				HOLLOW ALT.
7.5	233	Mechanical Input Hp	8.74		30AZ07L14	30AZ07L18	L
		Thermal Input Hp	9.64		30AZ07R14	30AZ07R18	R
		Output Torque (lb.in.)	2171		30AZ07LR14	30AZ07LR18	LR
		Mechanical Output Hp	8.15		30AZ07H14	30AZ07H18	HOLLOW
		Output OHL (lbs.)	1540				HOLLOW ALT.
10	175	Mechanical Input Hp	7.11		30AZ10L14	30AZ10L18	L
		Thermal Input Hp	7.85		30AZ10R14	30AZ10R18	R
		Output Torque (lb.in.)	2347		30AZ10LR14	30AZ10LR18	LR
		Mechanical Output Hp	6.52		30AZ10H14	30AZ10H18	HOLLOW
		Output OHL (lbs.)	1720				HOLLOW ALT.
15	117	Mechanical Input Hp	5.00		30AZ15L14	30AZ15L18	L
		Thermal Input Hp	5.72		30AZ15R14	30AZ15R18	R
		Output Torque (lb.in.)	2371		30AZ15LR14	30AZ15LR18	LR
		Mechanical Output Hp	4.39		30AZ15H14	30AZ15H18	HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
20	88	Mechanical Input Hp	3.81	30AZ20L56	30AZ20L14	30AZ20L18	L
		Thermal Input Hp	4.52	30AZ20R56	30AZ20R14	30AZ20R18	R
		Output Torque (lb.in.)	2345	30AZ20LR56	30AZ20LR14	30AZ20LR18	LR
		Mechanical Output Hp	3.26	30AZ20H56	30AZ20H14	30AZ20H18	HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
25	70	Mechanical Input Hp	3.05	30AZ25L56	30AZ25L14	30AZ25L18	L
		Thermal Input Hp	3.90	30AZ25R56	30AZ25R14	30AZ25R18	R
		Output Torque (lb.in.)	2284	30AZ25LR56	30AZ25LR14	30AZ25LR18	LR
		Mechanical Output Hp	2.54	30AZ25H56	30AZ25H14	30AZ25H18	HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
30	58	Mechanical Input Hp	2.75	30AZ30L56	30AZ30L14		L
		Thermal Input Hp	3.58	30AZ30R56	30AZ30R14		R
		Output Torque (lb.in.)	2417	30AZ30LR56	30AZ30LR14		LR
		Mechanical Output Hp	2.24	30AZ30H56	30AZ30H14		HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
40	44	Mechanical Input Hp	2.09	30AZ40L56	30AZ40L14		L
		Thermal Input Hp	2.87	30AZ40R56	30AZ40R14		R
		Output Torque (lb.in.)	2324	30AZ40LR56	30AZ40LR14		LR
		Mechanical Output Hp	1.61	30AZ40H56	30AZ40H14		HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
50	35	Mechanical Input Hp	1.75	30AZ50L56	30AZ50L14		L
		Thermal Input Hp	2.34	30AZ50R56	30AZ50R14		R
		Output Torque (lb.in.)	2257	30AZ50LR56	30AZ50LR14		LR
		Mechanical Output Hp	1.25	30AZ50H56	30AZ50H14		HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.
60	29	Mechanical Input Hp	1.50	30AZ60L56	30AZ60L14		L
		Thermal Input Hp	2.01	30AZ60R56	30AZ60R14		R
		Output Torque (lb.in.)	2138	30AZ60LR56	30AZ60LR14		LR
		Mechanical Output Hp	0.99	30AZ60H56	30AZ60H14		HOLLOW
		Output OHL (lbs.)	2300				HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-61 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With Quill Input - Size 35

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	140TC	180TC	210TC	Shaft Position
		Mechanical Input Hp	15.18		35QZ05L14	35QZ05L18	35QZ05L21	L
		Thermal Input Hp	15.51		35QZ05R14	35QZ05R18	35QZ05R21	R
5	350	Output Torque (lb.in.)	2593		35QZ05LR14	35QZ05LR18	35QZ05LR21	LR
		Mechanical Output Hp	14.40		35QZ05H14	35QZ05H18	35QZ05H21	HOLLOW
		Output OHL (lbs.)	2120					HOLLOW ALT.
		Mechanical Input Hp	12.24		35QZ07L14	35QZ07L18	35QZ07L21	L
		Thermal Input Hp	12.52		35QZ07R14	35QZ07R18	35QZ07R21	R
7.5	233	Output Torque (lb.in.)	3054		35QZ07LR14	35QZ07LR18	35QZ07LR21	LR
		Mechanical Output Hp	11.46		35QZ07H14	35QZ07H18	35QZ07H21	HOLLOW
		Output OHL (lbs.)	2430					HOLLOW ALT.
		Mechanical Input Hp	10.00		35QZ10L14	35QZ10L18	35QZ10L21	L
		Thermal Input Hp	10.63		35QZ10R14	35QZ10R18	35QZ10R21	R
10	175	Output Torque (lb.in.)	3310		35QZ10LR14	35QZ10LR18	35QZ10LR21	LR
		Mechanical Output Hp	9.19		35QZ10H14	35QZ10H18	35QZ10H21	HOLLOW
		Output OHL (lbs.)	2700					HOLLOW ALT.
		Mechanical Input Hp	7.44		35QZ15L14	35QZ15L18		L
		Thermal Input Hp	7.56		35QZ15R14	35QZ15R18		R
15	117	Output Torque (lb.in.)	3599		35QZ15LR14	35QZ15LR18		LR
		Mechanical Output Hp	6.66		35QZ15H14	35QZ15H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
		Mechanical Input Hp	5.79		35QZ20L14	35QZ20L18		L
		Thermal Input Hp	5.97		35QZ20R14	35QZ20R18		R
20	88	Output Torque (lb.in.)	3620		35QZ20LR14	35QZ20LR18		LR
		Mechanical Output Hp	5.03		35QZ20H14	35QZ20H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
		Mechanical Input Hp	4.72		35QZ25L14	35QZ25L18		L
		Thermal Input Hp	5.10		35QZ25R14	35QZ25R18		R
25	70	Output Torque (lb.in.)	3586		35QZ25LR14	35QZ25LR18		LR
		Mechanical Output Hp	3.98		35QZ25H14	35QZ25H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
		Mechanical Input Hp	4.15	35QZ30L56	35QZ30L14	35QZ30L18		L
		Thermal Input Hp	4.43	35QZ30R56	35QZ30R14	35QZ30R18		R
30	58	Output Torque (lb.in.)	3682	35QZ30LR56	35QZ30LR14	35QZ30LR18		LR
		Mechanical Output Hp	3.41	35QZ30H56	35QZ30H14	35QZ30H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
		Mechanical Input Hp	3.23	35QZ40L56	35QZ40L14	35QZ40L18		L
		Thermal Input Hp	3.54	35QZ40R56	35QZ40R14	35QZ40R18		R
40	44	Output Torque (lb.in.)	3622	35QZ40LR56	35QZ40LR14	35QZ40LR18		LR
		Mechanical Output Hp	2.51	35QZ40H56	35QZ40H14	35QZ40H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
		Mechanical Input Hp	2.64	35QZ50L56	35QZ50L14			L
		Thermal Input Hp	2.94	35QZ50R56	35QZ50R14			R
50	35	Output Torque (lb.in.)	3485	35QZ50LR56	35QZ50LR14			LR
		Mechanical Output Hp	1.94	35QZ50H56	35QZ50H14			HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
		Mechanical Input Hp	2.19	35QZ60L56	35QZ60L14			L
		Thermal Input Hp	2.43	35QZ60R56	35QZ60R14			R
60	29	Output Torque (lb.in.)	3194	35QZ60LR56	35QZ60LR14			LR
		Mechanical Output Hp	1.48	35QZ60H56	35QZ60H14			HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-63 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 E-Z KLEEN Reducers With 3-Piece Coupled Input - Size 35

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	140TC	180TC	210TC	Shaft Position
5	350	Mechanical Input Hp	15.18		35AZ05L14	35AZ05L18	35AZ05L21	L
		Thermal Input Hp	15.51		35AZ05R14	35AZ05R18	35AZ05R21	R
		Output Torque (lb.in.)	2593		35AZ05LR14	35AZ05LR18	35AZ05LR21	LR
		Mechanical Output Hp	14.40		35AZ05H14	35AZ05H18	35AZ05H21	HOLLOW
		Output OHL (lbs.)	2120					HOLLOW ALT.
7.5	233	Mechanical Input Hp	12.24		35AZ07L14	35AZ07L18	35AZ07L21	L
		Thermal Input Hp	12.52		35AZ07R14	35AZ07R18	35AZ07R21	R
		Output Torque (lb.in.)	3054		35AZ07LR14	35AZ07LR18	35AZ07LR21	LR
		Mechanical Output Hp	11.46		35AZ07H14	35AZ07H18	35AZ07H21	HOLLOW
		Output OHL (lbs.)	2430					HOLLOW ALT.
10	175	Mechanical Input Hp	10.00		35AZ10L14	35AZ10L18	35AZ10L21	L
		Thermal Input Hp	10.63		35AZ10R14	35AZ10R18	35AZ10R21	R
		Output Torque (lb.in.)	3310		35AZ10LR14	35AZ10LR18	35AZ10LR21	LR
		Mechanical Output Hp	9.19		35AZ10H14	35AZ10H18	35AZ10H21	HOLLOW
		Output OHL (lbs.)	2700					HOLLOW ALT.
15	117	Mechanical Input Hp	7.44		35AZ15L14	35AZ15L18		L
		Thermal Input Hp	7.56		35AZ15R14	35AZ15R18		R
		Output Torque (lb.in.)	3599		35AZ15LR14	35AZ15LR18		LR
		Mechanical Output Hp	6.66		35AZ15H14	35AZ15H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
20	88	Mechanical Input Hp	5.79		35AZ20L14	35AZ20L18		L
		Thermal Input Hp	5.97		35AZ20R14	35AZ20R18		R
		Output Torque (lb.in.)	3620		35AZ20LR14	35AZ20LR18		LR
		Mechanical Output Hp	5.03		35AZ20H14	35AZ20H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
25	70	Mechanical Input Hp	4.72		35AZ25L14	35AZ25L18		L
		Thermal Input Hp	5.10		35AZ25R14	35AZ25R18		R
		Output Torque (lb.in.)	3586		35AZ25LR14	35AZ25LR18		LR
		Mechanical Output Hp	3.98		35AZ25H14	35AZ25H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
30	58	Mechanical Input Hp	4.15	35AZ30L56	35AZ30L14	35AZ30L18		L
		Thermal Input Hp	4.43	35AZ30R56	35AZ30R14	35AZ30R18		R
		Output Torque (lb.in.)	3682	35AZ30LR56	35AZ30LR14	35AZ30LR18		LR
		Mechanical Output Hp	3.41	35AZ30H56	35AZ30H14	35AZ30H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
40	44	Mechanical Input Hp	3.23	35AZ40L56	35AZ40L14	35AZ40L18		L
		Thermal Input Hp	3.54	35AZ40R56	35AZ40R14	35AZ40R18		R
		Output Torque (lb.in.)	3622	35AZ40LR56	35AZ40LR14	35AZ40LR18		LR
		Mechanical Output Hp	2.51	35AZ40H56	35AZ40H14	35AZ40H18		HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
50	35	Mechanical Input Hp	2.64	35AZ50L56	35AZ50L14			L
		Thermal Input Hp	2.94	35AZ50R56	35AZ50R14			R
		Output Torque (lb.in.)	3485	35AZ50LR56	35AZ50LR14			LR
		Mechanical Output Hp	1.94	35AZ50H56	35AZ50H14			HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.
60	29	Mechanical Input Hp	2.19	35AZ60L56	35AZ60L14			L
		Thermal Input Hp	2.43	35AZ60R56	35AZ60R14			R
		Output Torque (lb.in.)	3194	35AZ60LR56	35AZ60LR14			LR
		Mechanical Output Hp	1.48	35AZ60H56	35AZ60H14			HOLLOW
		Output OHL (lbs.)	2760					HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-67 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 ULTRA KLEEN Reducers With Quill Input - Size 17

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	2.59	17QS05L56	17QS05L14	L
		Thermal Input Hp	3.97	17QS05R56	17QS05R14	R
		Output Torque (lb.in.)	430	17QS05LR56	17QS05LR14	LR
		Mechanical Output Hp	2.39	17QS05H56	17QS05H14	HOLLOW
		Output OHL (lbs.)	1050			
7.5	233	Mechanical Input Hp	2.06	17QS07L56	17QS07L14	L
		Thermal Input Hp	3.42	17QS07R56	17QS07R14	R
		Output Torque (lb.in.)	500	17QS07LR56	17QS07LR14	LR
		Mechanical Output Hp	1.88	17QS07H56	17QS07H14	HOLLOW
		Output OHL (lbs.)	1190			
10	175	Mechanical Input Hp	1.67	17QS10L56	17QS10L14	L
		Thermal Input Hp	2.76	17QS10R56	17QS10R14	R
		Output Torque (lb.in.)	534	17QS10LR56	17QS10LR14	LR
		Mechanical Output Hp	1.48	17QS10H56	17QS10H14	HOLLOW
		Output OHL (lbs.)	1190			
15	117	Mechanical Input Hp	1.27	17QS15L56	17QS15L14	L
		Thermal Input Hp	2.01	17QS15R56	17QS15R14	R
		Output Torque (lb.in.)	583	17QS15LR56	17QS15LR14	LR
		Mechanical Output Hp	1.08	17QS15H56	17QS15H14	HOLLOW
		Output OHL (lbs.)	1190			
20	88	Mechanical Input Hp	1.03	17QS20L56	17QS20L14	L
		Thermal Input Hp	1.58	17QS20R56	17QS20R14	R
		Output Torque (lb.in.)	602	17QS20LR56	17QS20LR14	LR
		Mechanical Output Hp	0.84	17QS20H56	17QS20H14	HOLLOW
		Output OHL (lbs.)	1190			
25	70	Mechanical Input Hp	0.88	17QS25L56		L
		Thermal Input Hp	1.28	17QS25R56		R
		Output Torque (lb.in.)	609	17QS25LR56		LR
		Mechanical Output Hp	0.68	17QS25H56		HOLLOW
		Output OHL (lbs.)	1190			
30	58	Mechanical Input Hp	0.76	17QS30L56		L
		Thermal Input Hp	1.20	17QS30R56		R
		Output Torque (lb.in.)	615	17QS30LR56		LR
		Mechanical Output Hp	0.57	17QS30H56		HOLLOW
		Output OHL (lbs.)	1190			
40	44	Mechanical Input Hp	0.60	17QS40L56		L
		Thermal Input Hp	1.09	17QS40R56		R
		Output Torque (lb.in.)	627	17QS40LR56		LR
		Mechanical Output Hp	0.43	17QS40H56		HOLLOW
		Output OHL (lbs.)	1190			
50	35	Mechanical Input Hp	0.51	17QS50L56		L
		Thermal Input Hp	0.90	17QS50R56		R
		Output Torque (lb.in.)	608	17QS50LR56		LR
		Mechanical Output Hp	0.34	17QS50H56		HOLLOW
		Output OHL (lbs.)	1190			
60	29	Mechanical Input Hp	0.43	17QS60L56		L
		Thermal Input Hp	0.80	17QS60R56		R
		Output Torque (lb.in.)	576	17QS60LR56		LR
		Mechanical Output Hp	0.27	17QS60H56		HOLLOW
		Output OHL (lbs.)	1190			

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-104 and G4-105 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 ULTRA KLEEN Reducers With 3-Piece Coupled Input - Size 17

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	2.59	17AS05L56	17AS05L14	L
		Thermal Input Hp	3.97	17AS05R56	17AS05R14	R
		Output Torque (lb.in.)	430	17AS05LR56	17AS05LR14	LR
		Mechanical Output Hp	2.39	17AS05H56	17AS05H14	HOLLOW
		Output OHL (lbs.)	1050			
7.5	233	Mechanical Input Hp	2.06	17AS07L56	17AS07L14	L
		Thermal Input Hp	3.42	17AS07R56	17AS07R14	R
		Output Torque (lb.in.)	500	17AS07LR56	17AS07LR14	LR
		Mechanical Output Hp	1.88	17AS07H56	17AS07H14	HOLLOW
		Output OHL (lbs.)	1190			
10	175	Mechanical Input Hp	1.67	17AS10L56	17AS10L14	L
		Thermal Input Hp	2.76	17AS10R56	17AS10R14	R
		Output Torque (lb.in.)	534	17AS10LR56	17AS10LR14	LR
		Mechanical Output Hp	1.48	17AS10H56	17AS10H14	HOLLOW
		Output OHL (lbs.)	1190			
15	117	Mechanical Input Hp	1.27	17AS15L56	17AS15L14	L
		Thermal Input Hp	2.01	17AS15R56	17AS15R14	R
		Output Torque (lb.in.)	583	17AS15LR56	17AS15LR14	LR
		Mechanical Output Hp	1.08	17AS15H56	17AS15H14	HOLLOW
		Output OHL (lbs.)	1190			
20	88	Mechanical Input Hp	1.03	17AS20L56	17AS20L14	L
		Thermal Input Hp	1.58	17AS20R56	17AS20R14	R
		Output Torque (lb.in.)	602	17AS20LR56	17AS20LR14	LR
		Mechanical Output Hp	0.84	17AS20H56	17AS20H14	HOLLOW
		Output OHL (lbs.)	1190			
25	70	Mechanical Input Hp	0.88	17AS25L56		L
		Thermal Input Hp	1.28	17AS25R56		R
		Output Torque (lb.in.)	609	17AS25LR56		LR
		Mechanical Output Hp	0.68	17AS25H56		HOLLOW
		Output OHL (lbs.)	1190			
30	58	Mechanical Input Hp	0.76	17AS30L56		L
		Thermal Input Hp	1.20	17AS30R56		R
		Output Torque (lb.in.)	615	17AS30LR56		LR
		Mechanical Output Hp	0.57	17AS30H56		HOLLOW
		Output OHL (lbs.)	1190			
40	44	Mechanical Input Hp	0.60	17AS40L56		L
		Thermal Input Hp	1.09	17AS40R56		R
		Output Torque (lb.in.)	627	17AS40LR56		LR
		Mechanical Output Hp	0.43	17AS40H56		HOLLOW
		Output OHL (lbs.)	1190			
50	35	Mechanical Input Hp	0.51	17AS50L56		L
		Thermal Input Hp	0.90	17AS50R56		R
		Output Torque (lb.in.)	608	17AS50LR56		LR
		Mechanical Output Hp	0.34	17AS50H56		HOLLOW
		Output OHL (lbs.)	1190			
60	29	Mechanical Input Hp	0.43	17AS60L56		L
		Thermal Input Hp	0.80	17AS60R56		R
		Output Torque (lb.in.)	576	17AS60LR56		LR
		Mechanical Output Hp	0.27	17AS60H56		HOLLOW
		Output OHL (lbs.)	1190			

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-106 and G4-107 for dimensions

WASHDOWN PRODUCTS

DODGE ULTRA KLEEN Reducers With Quill Input - Size 21

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Shaft Position
5	350	Mechanical Input Hp	3.14	21QS05L56	21QS05L14	L
		Thermal Input Hp	*	21QS05R56	21QS05R14	R
		Output Torque (lb.in.)	514	21QS05H56	21QS05H14	HOLLOW
		Mechanical Output Hp	2.85			
		Output OHL (lbs.)	750			
7.5	233	Mechanical Input Hp	2.70	21QS07L56	21QS07L14	L
		Thermal Input Hp	*	21QS07R56	21QS07R14	R
		Output Torque (lb.in.)	640	21QS07H56	21QS07H14	HOLLOW
		Mechanical Output Hp	2.37			
		Output OHL (lbs.)	750			
10	175	Mechanical Input Hp	2.02	21QS10L56	21QS10L14	L
		Thermal Input Hp	*	21QS10R56	21QS10R14	R
		Output Torque (lb.in.)	630	21QS10H56	21QS10H14	HOLLOW
		Mechanical Output Hp	1.75			
		Output OHL (lbs.)	750			
15	117	Mechanical Input Hp	1.35	21QS15L56	21QS15L14	L
		Thermal Input Hp	*	21QS15R56	21QS15R14	R
		Output Torque (lb.in.)	664	21QS15H56	21QS15H14	HOLLOW
		Mechanical Output Hp	1.23			
		Output OHL (lbs.)	750			
20	88	Mechanical Input Hp	1.06	21QS20L56	21QS20L14	L
		Thermal Input Hp	*	21QS20R56	21QS20R14	R
		Output Torque (lb.in.)	684	21QS20H56	21QS20H14	HOLLOW
		Mechanical Output Hp	0.96			
		Output OHL (lbs.)	750			
25	70	Mechanical Input Hp	0.89	21QS25L56	21QS25L14	L
		Thermal Input Hp	*	21QS25R56	21QS25R14	R
		Output Torque (lb.in.)	675	21QS25H56	21QS25H14	HOLLOW
		Mechanical Output Hp	0.75			
		Output OHL (lbs.)	750			
30	58	Mechanical Input Hp	0.83	21QS30L56		L
		Thermal Input Hp	*	21QS30R56		R
		Output Torque (lb.in.)	691	21QS30H56		HOLLOW
		Mechanical Output Hp	0.64			
		Output OHL (lbs.)	750			
40	44	Mechanical Input Hp	0.66	21QS40L56		L
		Thermal Input Hp	*	21QS40R56		R
		Output Torque (lb.in.)	680	21QS40H56		HOLLOW
		Mechanical Output Hp	0.47			
		Output OHL (lbs.)	750			
50	35	Mechanical Input Hp	0.58	21QS50L56		L
		Thermal Input Hp	*	21QS50R56		R
		Output Torque (lb.in.)	651	21QS50H56		HOLLOW
		Mechanical Output Hp	0.36			
		Output OHL (lbs.)	750			
60	29	Mechanical Input Hp	0.50	21QS60L56		L
		Thermal Input Hp	*	21QS60R56		R
		Output Torque (lb.in.)	634	21QS60H56		HOLLOW
		Mechanical Output Hp	0.29			
		Output OHL (lbs.)	750			

* Reducers will operate continuously up to the mechanical rating without exceeding the thermal limit (at 70F).

Note: 3-Piece Coupled Input Style not available for size 21 DODGE ULTRA KLEEN Reducer
Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-104 and G4-105 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 ULTRA KLEEN Reducers With Quill Input - Size 23

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
5	350	Mechanical Input Hp	5.25	23QS05L56	23QS05L14	23QS05L18	L
		Thermal Input Hp	6.61	23QS05R56	23QS05R14	23QS05R18	R
		Output Torque (lb.in.)	881	23QS05LR56	23QS05LR14	23QS05LR18	LR
		Mechanical Output Hp	4.89	23QS05H56	23QS05H14	23QS05H18	HOLLOW
		Output OHL (lbs.)	1330	23QS05HA56	23QS05HA14	23QS05HA18	HOLLOW ALT.
7.5	233	Mechanical Input Hp	4.18	23QS07L56	23QS07L14	23QS07L18	L
		Thermal Input Hp	5.64	23QS07R56	23QS07R14	23QS07R18	R
		Output Torque (lb.in.)	1026	23QS07LR56	23QS07LR14	23QS07LR18	LR
		Mechanical Output Hp	3.85	23QS07H56	23QS07H14	23QS07H18	HOLLOW
		Output OHL (lbs.)	1520	23QS07HA56	23QS07HA14	23QS07HA18	HOLLOW ALT.
10	175	Mechanical Input Hp	3.42	23QS10L56	23QS10L14	23QS10L18	L
		Thermal Input Hp	4.40	23QS10R56	23QS10R14	23QS10R18	R
		Output Torque (lb.in.)	1106	23QS10LR56	23QS10LR14	23QS10LR18	LR
		Mechanical Output Hp	3.07	23QS10H56	23QS10H14	23QS10H18	HOLLOW
		Output OHL (lbs.)	1610	23QS10HA56	23QS10HA14	23QS10HA18	HOLLOW ALT.
15	117	Mechanical Input Hp	2.57	23QS15L56	23QS15L14		L
		Thermal Input Hp	3.30	23QS15R56	23QS15R14		R
		Output Torque (lb.in.)	1199	23QS15LR56	23QS15LR14		LR
		Mechanical Output Hp	2.22	23QS15H56	23QS15H14		HOLLOW
		Output OHL (lbs.)	1610	23QS15HA56	23QS15HA14		HOLLOW ALT.
20	88	Mechanical Input Hp	2.00	23QS20L56	23QS20L14		L
		Thermal Input Hp	2.62	23QS20R56	23QS20R14		R
		Output Torque (lb.in.)	1178	23QS20LR56	23QS20LR14		LR
		Mechanical Output Hp	1.64	23QS20H56	23QS20H14		HOLLOW
		Output OHL (lbs.)	1610	23QS20HA56	23QS20HA14		HOLLOW ALT.
25	70	Mechanical Input Hp	1.65	23QS25L56	23QS25L14		L
		Thermal Input Hp	2.16	23QS25R56	23QS25R14		R
		Output Torque (lb.in.)	1184	23QS25LR56	23QS25LR14		LR
		Mechanical Output Hp	1.32	23QS25H56	23QS25H14		HOLLOW
		Output OHL (lbs.)	1610	23QS25HA56	23QS25HA14		HOLLOW ALT.
30	58	Mechanical Input Hp	1.42	23QS30L56	23QS30L14		L
		Thermal Input Hp	2.06	23QS30R56	23QS30R14		R
		Output Torque (lb.in.)	1201	23QS30LR56	23QS30LR14		LR
		Mechanical Output Hp	1.11	23QS30H56	23QS30H14		HOLLOW
		Output OHL (lbs.)	1610	23QS30HA56	23QS30HA14		HOLLOW ALT.
40	44	Mechanical Input Hp	1.11	23QS40L56	23QS40L14		L
		Thermal Input Hp	1.73	23QS40R56	23QS40R14		R
		Output Torque (lb.in.)	1193	23QS40LR56	23QS40LR14		LR
		Mechanical Output Hp	0.83	23QS40H56	23QS40H14		HOLLOW
		Output OHL (lbs.)	1610	23QS40HA56	23QS40HA14		HOLLOW ALT.
50	35	Mechanical Input Hp	0.95	23QS50L56			L
		Thermal Input Hp	1.42	23QS50R56			R
		Output Torque (lb.in.)	1182	23QS50LR56			LR
		Mechanical Output Hp	0.66	23QS50H56			HOLLOW
		Output OHL (lbs.)	1610	23QS50HA56			HOLLOW ALT.
60	29	Mechanical Input Hp	0.80	23QS60L56			L
		Thermal Input Hp	1.24	23QS60R56			R
		Output Torque (lb.in.)	1111	23QS60LR56			LR
		Mechanical Output Hp	0.51	23QS60H56			HOLLOW
		Output OHL (lbs.)	1610	23QS60HA56			HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-104 and G4-105 for dimensions

DODGE®

WASHDOWN PRODUCTS

TIGEAR-2 ULTRA KLEEN Reducers With 3-Piece Coupled Input - Size 23

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	140TC	180TC	Shaft Position
5	350	Mechanical Input Hp	5.25	23AS05L56	23AS05L14	23AS05L18	L
		Thermal Input Hp	6.61	23AS05R56	23AS05R14	23AS05R18	R
		Output Torque (lb.in.)	881	23AS05LR56	23AS05LR14	23AS05LR18	LR
		Mechanical Output Hp	4.89	23AS05H56	23AS05H14	23AS05H18	HOLLOW
		Output OHL (lbs.)	1330	23AS05HA56	23AS05HA14	23AS05HA18	HOLLOW ALT.
7.5	233	Mechanical Input Hp	4.18	23AS07L56	23AS07L14	23AS07L18	L
		Thermal Input Hp	5.64	23AS07R56	23AS07R14	23AS07R18	R
		Output Torque (lb.in.)	1026	23AS07LR56	23AS07LR14	23AS07LR18	LR
		Mechanical Output Hp	3.85	23AS07H56	23QS07H14	23AS07H18	HOLLOW
		Output OHL (lbs.)	1520	23AS07HA56	23AS07HA14	23AS07HA18	HOLLOW ALT.
10	175	Mechanical Input Hp	3.42	23AS10L56	23AS10L14	23AS10L18	L
		Thermal Input Hp	4.40	23AS10R56	23AS10R14	23AS10R18	R
		Output Torque (lb.in.)	1106	23AS10LR56	23AS10LR14	23AS10LR18	LR
		Mechanical Output Hp	3.07	23AS10H56	23AS10H14	23AS10H18	HOLLOW
		Output OHL (lbs.)	1610	23AS10HA56	23AS10HA14	23AS10HA18	HOLLOW ALT.
15	117	Mechanical Input Hp	2.57	23AS15L56	23AS15L14		L
		Thermal Input Hp	3.30	23AS15R56	23AS15R14		R
		Output Torque (lb.in.)	1199	23AS15LR56	23AS15LR14		LR
		Mechanical Output Hp	2.22	23AS15H56	23AS15H14		HOLLOW
		Output OHL (lbs.)	1610	23AS15HA56	23AS15HA14		HOLLOW ALT.
20	88	Mechanical Input Hp	2.00	23AS20L56	23AS20L14		L
		Thermal Input Hp	2.62	23AS20R56	23AS20R14		R
		Output Torque (lb.in.)	1178	23AS20LR56	23AS20LR14		LR
		Mechanical Output Hp	1.64	23AS20H56	23AS20H14		HOLLOW
		Output OHL (lbs.)	1610	23AS20HA56	23AS20HA14		HOLLOW ALT.
25	70	Mechanical Input Hp	1.65	23AS25L56	23AS25L14		L
		Thermal Input Hp	2.16	23AS25R56	23AS25R14		R
		Output Torque (lb.in.)	1184	23AS25LR56	23AS25LR14		LR
		Mechanical Output Hp	1.32	23AS25H56	23AS25H14		HOLLOW
		Output OHL (lbs.)	1610	23AS25HA56	23AS25HA14		HOLLOW ALT.
30	58	Mechanical Input Hp	1.42	23AS30L56	23AS30L14		L
		Thermal Input Hp	2.06	23AS30R56	23AS30R14		R
		Output Torque (lb.in.)	1201	23AS30LR56	23AS30LR14		LR
		Mechanical Output Hp	1.11	23AS30H56	23AS30H14		HOLLOW
		Output OHL (lbs.)	1610	23AS30HA56	23AS30HA14		HOLLOW ALT.
40	44	Mechanical Input Hp	1.11	23AS40L56	23AS40L14		L
		Thermal Input Hp	1.73	23AS40R56	23AS40R14		R
		Output Torque (lb.in.)	1193	23AS40LR56	23AS40LR14		LR
		Mechanical Output Hp	0.83	23AS40H56	23AS40H14		HOLLOW
		Output OHL (lbs.)	1610	23AS40HA56	23AS40HA14		HOLLOW ALT.
50	35	Mechanical Input Hp	0.95	23AS50L56			L
		Thermal Input Hp	1.42	23AS50R56			R
		Output Torque (lb.in.)	1182	23AS50LR56			LR
		Mechanical Output Hp	0.66	23AS50H56			HOLLOW
		Output OHL (lbs.)	1610	23AS50HA56			HOLLOW ALT.
60	29	Mechanical Input Hp	0.80	23AS60L56			L
		Thermal Input Hp	1.24	23AS60R56			R
		Output Torque (lb.in.)	1111	23AS60LR56			LR
		Mechanical Output Hp	0.51	23AS60H56			HOLLOW
		Output OHL (lbs.)	1610	23AS60HA56			HOLLOW ALT.

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-106 and G4-107 for dimensions

WASHDOWN PRODUCTS

DODGE ULTRA KLEEN Reducers With Quill Input - Size 26

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
		Mechanical Input Hp	5.43		**26QS05L14**	**26QS05L18**	L
		Thermal Input Hp	*		**26QS05R14**	**26QS05R18**	R
5	**350**	Output Torque (lb.in.)	919				
		Mechanical Output Hp	5.10		**26QS05H14**	**26QS05H18**	HOLLOW
		Output OHL (lbs.)	1100				
		Mechanical Input Hp	4.30	**26QS07L56**	**26QS07L14**	**26QS07L18**	L
		Thermal Input Hp	*	**26QS07R56**	**26QS07R14**	**26QS07R18**	R
7.5	**233**	Output Torque (lb.in.)	1079				
		Mechanical Output Hp	3.99	**26QS07H56**	**26QS07H14**	**26QS07H18**	HOLLOW
		Output OHL (lbs.)	1100				
		Mechanical Input Hp	3.59	**26QS10L56**	**26QS10L14**	**26QS10L18**	L
		Thermal Input Hp	*	**26QS10R56**	**26QS10R14**	**26QS10R18**	R
10	**175**	Output Torque (lb.in.)	1177				
		Mechanical Output Hp	3.27	**26QS10H56**	**26QS10H14**	**26QS10H18**	HOLLOW
		Output OHL (lbs.)	1100				
		Mechanical Input Hp	2.58	**26QS15L56**	**26QS15L14**	**26QS15L18**	L
		Thermal Input Hp	*	**26QS15R56**	**26QS15R14**	**26QS15R18**	R
15	**117**	Output Torque (lb.in.)	1225				
		Mechanical Output Hp	2.27	**26QS15H56**	**26QS15H14**	**26QS15H18**	HOLLOW
		Output OHL (lbs.)	1100				
		Mechanical Input Hp	2.15	**26QS20L56**	**26QS20L14**		L
		Thermal Input Hp	*	**26QS20R56**	**26QS20R14**		R
20	**88**	Output Torque (lb.in.)	1308				
		Mechanical Output Hp	1.83	**26QS20H56**	**26QS20H14**		HOLLOW
		Output OHL (lbs.)	1100				
		Mechanical Input Hp	1.73	**26QS25L56**	**26QS25L14**		L
		Thermal Input Hp	*	**26QS25R56**	**26QS25R14**		R
25	**70**	Output Torque (lb.in.)	1307				
		Mechanical Output Hp	1.45	**26QS25H56**	**26QS25H14**		HOLLOW
		Output OHL (lbs.)	1100				
		Mechanical Input Hp	1.54	**26QS30L56**	**26QS30L14**		L
		Thermal Input Hp	*	**26QS30R56**	**26QS30R14**		R
30	**58**	Output Torque (lb.in.)	1313				
		Mechanical Output Hp	1.21	**26QS30H56**	**26QS30H14**		HOLLOW
		Output OHL (lbs.)	1100				
		Mechanical Input Hp	1.23	**26QS40L56**	**26QS40L14**		L
		Thermal Input Hp	*	**26QS40R56**	**26QS40R14**		R
40	**44**	Output Torque (lb.in.)	1296				
		Mechanical Output Hp	0.90	**26QS40H56**	**26QS40H14**		HOLLOW
		Output OHL (lbs.)	1100				
		Mechanical Input Hp	1.00	**26QS50L56**	**26QS50L14**		L
		Thermal Input Hp	*	**26QS50R56**	**26QS50R14**		R
50	**35**	Output Torque (lb.in.)	1242				
		Mechanical Output Hp	0.69	**26QS50H56**	**26QS50H14**		HOLLOW
		Output OHL (lbs.)	1100				
		Mechanical Input Hp	0.82	**26QS60L56**	**26QS60L14**		L
		Thermal Input Hp	*	**26QS60R56**	**26QS60R14**		R
60	**29**	Output Torque (lb.in.)	1166				
		Mechanical Output Hp	0.54	**26QS60H56**	**26QS60H14**		HOLLOW
		Output OHL (lbs.)	1100				

* Reducers will operate continuously up to the mechanical rating without exceeding the thermal limit (at 70°F)

Note: 3-Piece Coupled Input Style not available for size 26 DODGE ULTRA KLEEN Reducer
Reducers are shipped without a mounting base.

Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-104 and G4-105 for dimensions

WASHDOWN PRODUCTS

TIGEAR-2 ULTRA KLEEN Reducers With Quill Input - Size 30

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
5	350	Mechanical Input Hp	10.84		30QS05L14	30QS05L18	L
		Thermal Input Hp	12.53		30QS05R14	30QS05R18	R
		Output Torque (lb.in.)	1849		30QS05LR14	30QS05LR18	LR
		Mechanical Output Hp	10.27		30QS05H14	30QS05H18	HOLLOW
		Output OHL (lbs.)	1330				
7.5	233	Mechanical Input Hp	8.74		30QS07L14	30QS07L18	L
		Thermal Input Hp	9.64		30QS07R14	30QS07R18	R
		Output Torque (lb.in.)	2171		30QS07LR14	30QS07LR18	LR
		Mechanical Output Hp	8.15		30QS07H14	30QS07H18	HOLLOW
		Output OHL (lbs.)	1540				
10	175	Mechanical Input Hp	7.11		30QS10L14	30QS10L18	L
		Thermal Input Hp	7.85		30QS10R14	30QS10R18	R
		Output Torque (lb.in.)	2347		30QS10LR14	30QS10LR18	LR
		Mechanical Output Hp	6.52		30QS10H14	30QS10H18	HOLLOW
		Output OHL (lbs.)	1720				
15	117	Mechanical Input Hp	5.00		30QS15L14	30QS15L18	L
		Thermal Input Hp	5.72		30QS15R14	30QS15R18	R
		Output Torque (lb.in.)	2371		30QS15LR14	30QS15LR18	LR
		Mechanical Output Hp	4.39		30QS15H14	30QS15H18	HOLLOW
		Output OHL (lbs.)	2300				
20	88	Mechanical Input Hp	3.81	30QS20L56	30QS20L14	30QS20L18	L
		Thermal Input Hp	4.52	30QS20R56	30QS20R14	30QS20R18	R
		Output Torque (lb.in.)	2345	30QS20LR56	30QS20LR14	30QS20LR18	LR
		Mechanical Output Hp	3.26	30QS20H56	30QS20H14	30QS20H18	HOLLOW
		Output OHL (lbs.)	2300				
25	70	Mechanical Input Hp	3.05	30QS25L56	30QS25L14	30QS25L18	L
		Thermal Input Hp	3.90	30QS25R56	30QS25R14	30QS25R18	R
		Output Torque (lb.in.)	2284	30QS25LR56	30QS25LR14	30QS25LR18	LR
		Mechanical Output Hp	2.54	30QS25H56	30QS25H14	30QS25H18	HOLLOW
		Output OHL (lbs.)	2300				
30	58	Mechanical Input Hp	2.75	30QS30L56	30QS30L14		L
		Thermal Input Hp	3.58	30QS30R56	30QS30R14		R
		Output Torque (lb.in.)	2417	30QS30LR56	30QS30LR14		LR
		Mechanical Output Hp	2.24	30QS30H56	30QS30H14		HOLLOW
		Output OHL (lbs.)	2300				
40	44	Mechanical Input Hp	2.09	30QS40L56	30QS40L14		L
		Thermal Input Hp	2.87	30QS40R56	30QS40R14		R
		Output Torque (lb.in.)	2324	30QS40LR56	30QS40LR14		LR
		Mechanical Output Hp	1.61	30QS40H56	30QS40H14		HOLLOW
		Output OHL (lbs.)	2300				
50	35	Mechanical Input Hp	1.75	30QS50L56	30QS50L14		L
		Thermal Input Hp	2.34	30QS50R56	30QS50R14		R
		Output Torque (lb.in.)	2257	30QS50LR56	30QS50LR14		LR
		Mechanical Output Hp	1.25	30QS50H56	30QS50H14		HOLLOW
		Output OHL (lbs.)	2300				
60	29	Mechanical Input Hp	1.50	30QS60L56	30QS60L14		L
		Thermal Input Hp	2.01	30QS60R56	30QS60R14		R
		Output Torque (lb.in.)	2138	30QS60LR56	30QS60LR14		LR
		Mechanical Output Hp	0.99	30QS60H56	30QS60H14		HOLLOW
		Output OHL (lbs.)	2300				

Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-104 and G4-105 for dimensions

TIGEAR-2 ULTRA KLEEN Reducers With 3-Piece Coupled Input - Size 30

3-Piece Coupled units include a Separate reducer, 3-piece coupling and motor adapter housing assembled together.

Ratio	Output RPM	Rating Data 1750 Input RPM		Part Number 56C	Part Number 140TC	Part Number 180TC	Shaft Position
5	350	Mechanical Input Hp	10.84		30AS05L14	30AS05L18	L
		Thermal Input Hp	12.53		30AS05R14	30AS05R18	R
		Output Torque (lb.in.)	1849		30AS05LR14	30AS05LR18	LR
		Mechanical Output Hp	10.27		30AS05H14	30AS05H18	HOLLOW
		Output OHL (lbs.)	1330				
7.5	233	Mechanical Input Hp	8.74		30AS07L14	30AS07L18	L
		Thermal Input Hp	9.64		30AS07R14	30AS07R18	R
		Output Torque (lb.in.)	2171		30AS07LR14	30AS07LR18	LR
		Mechanical Output Hp	8.15		30AS07H14	30AS07H18	HOLLOW
		Output OHL (lbs.)	1540				
10	175	Mechanical Input Hp	7.11		30AS10L14	30AS10L18	L
		Thermal Input Hp	7.85		30AS10R14	30AS10R18	R
		Output Torque (lb.in.)	2347		30AS10LR14	30AS10LR18	LR
		Mechanical Output Hp	6.52		30AS10H14	30AS10H18	HOLLOW
		Output OHL (lbs.)	1720				
15	117	Mechanical Input Hp	5.00		30AS15L14	30AS15L18	L
		Thermal Input Hp	5.72		30AS15R14	30AS15R18	R
		Output Torque (lb.in.)	2371		30AS15LR14	30AS15LR18	LR
		Mechanical Output Hp	4.39		30AS15H14	30AS15H18	HOLLOW
		Output OHL (lbs.)	2300				
20	88	Mechanical Input Hp	3.81	30AS20L56	30AS20L14	30AS20L18	L
		Thermal Input Hp	4.52	30AS20R56	30AS20R14	30AS20R18	R
		Output Torque (lb.in.)	2345	30AS20LR56	30AS20LR14	30AS20LR18	LR
		Mechanical Output Hp	3.26	30AS20H56	30AS20H14	30AS20H18	HOLLOW
		Output OHL (lbs.)	2300				
25	70	Mechanical Input Hp	3.05	30AS25L56	30AS25L14	30AS25L18	L
		Thermal Input Hp	3.90	30AS25R56	30AS25R14	30AS25R18	R
		Output Torque (lb.in.)	2284	30AS25LR56	30AS25LR14	30AS25LR18	LR
		Mechanical Output Hp	2.54	30AS25H56	30AS25H14	30AS25H18	HOLLOW
		Output OHL (lbs.)	2300				
30	58	Mechanical Input Hp	2.75	30AS30L56	30AS30L14		L
		Thermal Input Hp	3.58	30AS30R56	30AS30R14		R
		Output Torque (lb.in.)	2417	30AS30LR56	30AS30LR14		LR
		Mechanical Output Hp	2.24	30AS30H56	30AS30H14		HOLLOW
		Output OHL (lbs.)	2300				
40	44	Mechanical Input Hp	2.09	30AS40L56	30AS40L14		L
		Thermal Input Hp	2.87	30AS40R56	30AS40R14		R
		Output Torque (lb.in.)	2324	30AS40LR56	30AS40LR14		LR
		Mechanical Output Hp	1.61	30AS40H56	30AS40H14		HOLLOW
		Output OHL (lbs.)	2300				
50	35	Mechanical Input Hp	1.75	30AS50L56	30AS50L14		L
		Thermal Input Hp	2.34	30AS50R56	30AS50R14		R
		Output Torque (lb.in.)	2257	30AS50LR56	30AS50LR14		LR
		Mechanical Output Hp	1.25	30AS50H56	30AS50H14		HOLLOW
		Output OHL (lbs.)	2300				
60	29	Mechanical Input Hp	1.50	30AS60L56	30AS60L14		L
		Thermal Input Hp	2.01	30AS60R56	30AS60R14		R
		Output Torque (lb.in.)	2138	30AS60LR56	30AS60LR14		LR
		Mechanical Output Hp	0.99	30AS60H56	30AS60H14		HOLLOW
		Output OHL (lbs.)	2300				

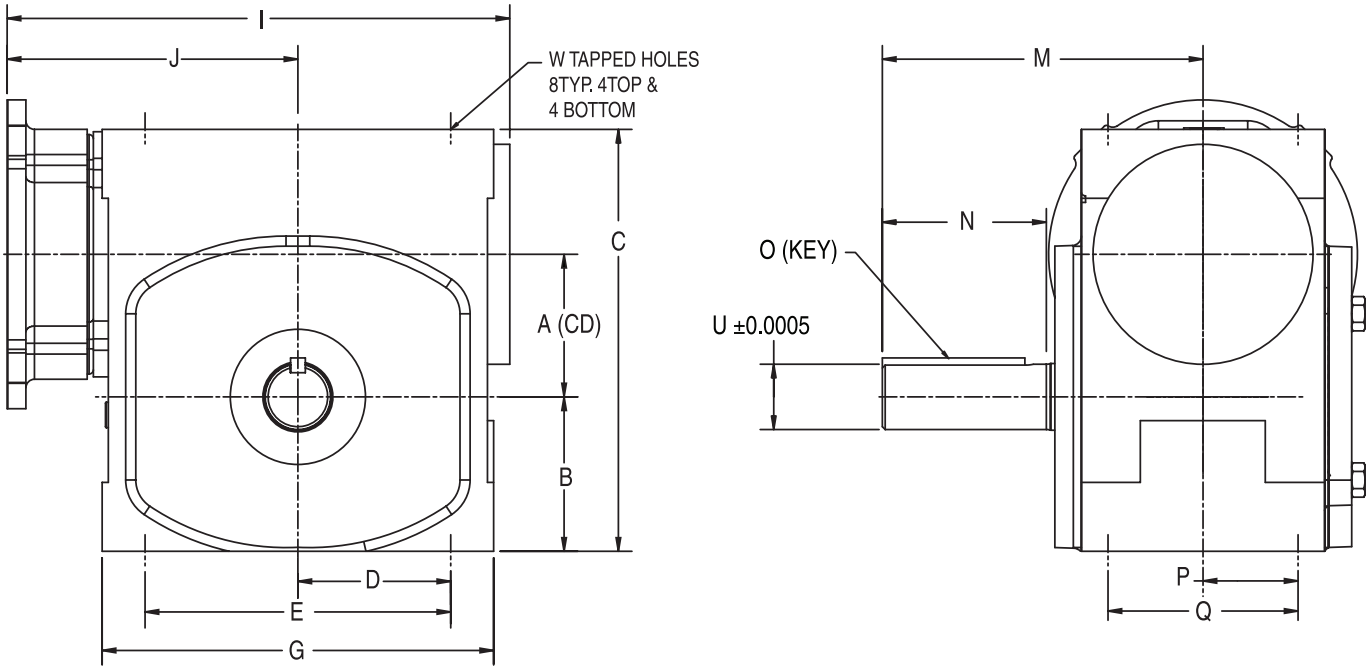
Note: Reducers are shipped without a mounting base.
Washdown accessories available in Modifications / Accessories section.

Refer to page G4-119 for hollow bore bushing selections
Refer to page G4-106 and G4-107 for dimensions

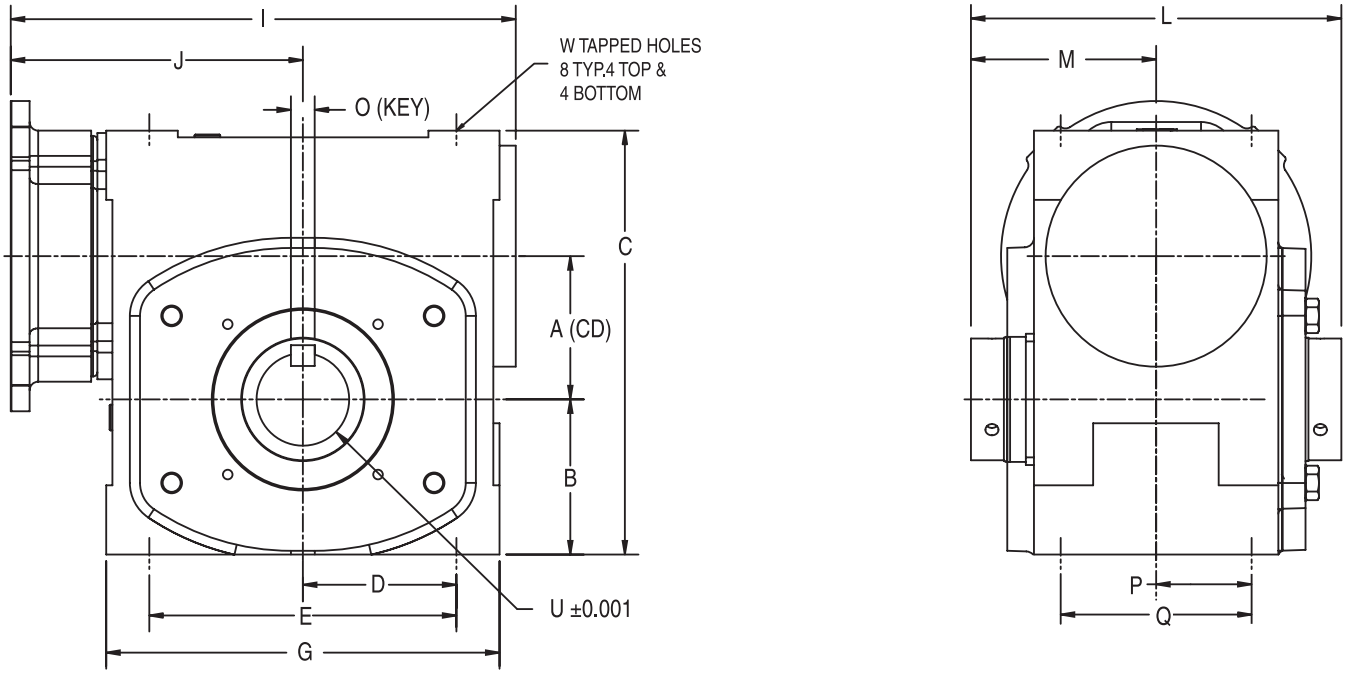
ULTRA KLEEN DIMENSIONS WASHDOWN PRODUCTS

Quill Input Dimensions

QUILL INPUT WITH SOLID OUTPUT



QUILL INPUT WITH HOLLOW OUTPUT



FEATURES/BENEFITS PAGE G3-2	SPECIFICATION PAGE G3-8	NOMENCLATURE PAGE G3-9	RATINGS/DIMENSIONS PAGE G3-16

Quill Input Dimensions

Quill Input With Solid Output

Size	A	B	C	D	E	G	I		J	
							56C/140TC	180TC	56C/140TC	180TC
17	1.75	1.99	5.85	2.09	4.19	5.41	8.00	N/A	4.90	N/A
21	2.06	2.28	6.38	2.50	5.00	6.06	N/A	N/A	5.07	-
23	2.31	2.50	7.38	2.50	5.00	6.67	9.14	10.17	5.46	6.49
26	2.62	2.94	8.00	3.19	6.38	7.38	N/A	N/A	5.75	6.19
30	3.00	3.25	8.88	3.50	7.00	8.15	10.59	11.62	6.11	7.14

Size	M	N	O	P	Q	U*	W	
						+/-0.0005	Tap Size	Depth
17	4.31	1.74	3/16 SQ. x 1.50 KEY	1.38	2.75	0.874	5/16-18	0.75
21	4.69	2.38	1/4 SQ. x 1.25 KEY	1.44	2.88	1.000	3/8-16	0.59
23	5.14	2.18	1/4 SQ. x 1.98 KEY	1.44	2.88	1.124	3/8-16	0.69
26	5.62	2.78	1/4 SQ. x 2.00 KEY	1.69	3.38	1.125	3/8-16	0.69
30	6.75	3.20	5/16 SQ. x 3.00 KEY	2.00	4.00	1.374	7/16-14	0.88

* Tolerance for "U" dimension: +/-0.0005 on sizes 17, 23, 30
+/-0.001 on sizes 21, 26

Quill Input With Hollow Output

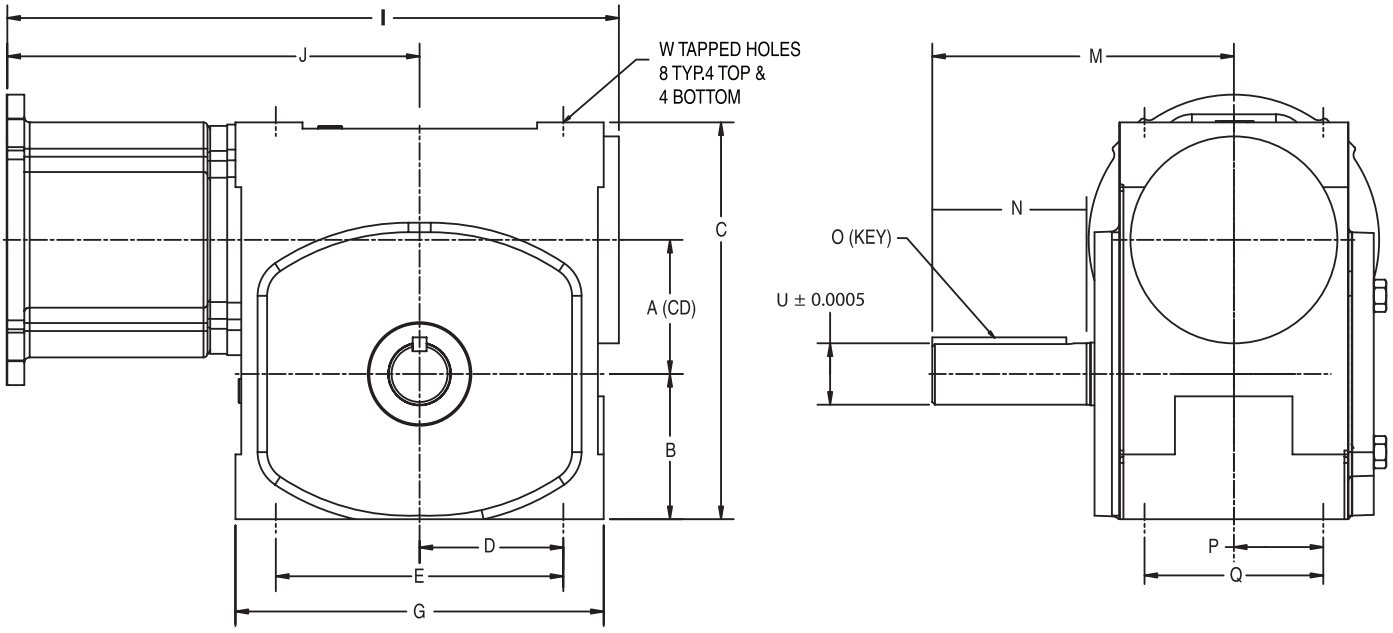
Size	A	B	C	D	E	G	I		J	
							56C/140TC	180TC	56C/140TC	180TC
17	1.75	1.99	5.85	2.09	4.19	5.41	8.00	N/A	4.90	N/A
21	2.06	2.28	6.38	2.50	5.00	6.13	8.63	-	5.06	-
23	2.31	2.50	7.38	2.50	5.00	6.67	9.14	10.17	5.46	6.49
23 ALT.	2.31	2.50	7.38	2.50	5.00	6.67	9.14	10.17	5.46	6.45
26	2.62	2.94	8.00	3.19	6.38	7.45	9.90	10.34	5.75	6.19
30	3.00	3.25	8.88	3.50	7.00	8.15	10.59	11.62	6.11	7.14

Size	L	M	O	P	Q	U	W	
						+/-0.001	Tap Size	Depth
17	5.41	2.71	1/4 x 0.22 x 1.50 KEY	1.38	2.75	1.001	5/16-18	0.75
21	6.44	3.22	1/4 SQ. X 1.625 KEY	1.44	2.88	1.438	3/8-16	0.69
23	6.62	3.31	3/8 x 0.31 x 2.20 KEY	1.44	2.88	1.439	3/8-16	0.69
23 ALT.	6.62	3.31	3/8 x 0.28 x 2.20 KEY	1.44	2.88	1.501	3/8-16	0.69
26	6.88	3.44	3/8 SQ. X 1.500 KEY	1.69	3.38	1.438	3/8-16	0.69
30	7.76	3.88	1/2 x 0.44 x 3.00 KEY	2.00	4.00	1.939	7/16-14	0.88

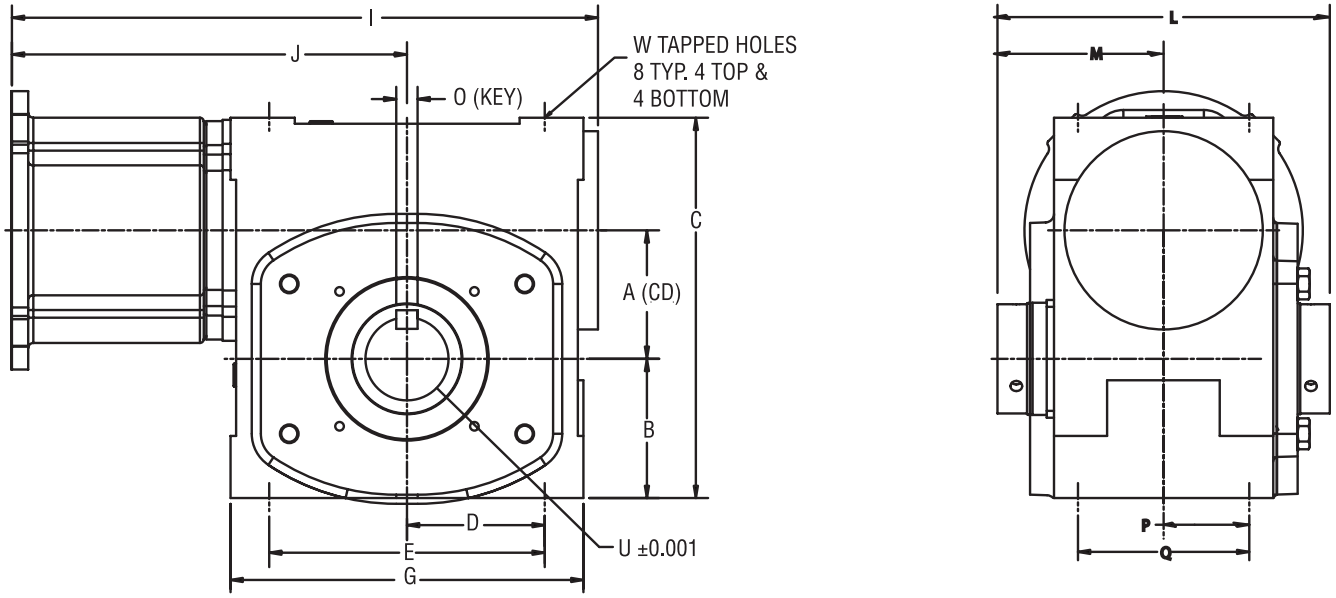
WASHDOWN PRODUCTS

3-Piece Coupled Input Dimensions

3-Piece Coupled Input With Solid Output



3-Piece Coupled Input With Hollow Output



WASHDOWN PRODUCTS

3-Piece Coupled Input Dimensions

3-Piece Coupled Input With Solid Output

Size	A	B	C	D	E	G	I		J	
							56C/140TC	180TC	56C/140TC	180TC
17	1.75	1.99	5.85	2.09	4.19	5.41	10.83	N/A	7.73	N/A
23	2.31	2.50	7.38	2.50	5.00	6.67	12.26	13.21	8.58	9.53
30	3.00	3.25	8.88	3.50	7.00	8.15	13.71	14.66	9.23	10.18

Size	M	N	O	P	Q	U	W
						+/- 0.0005	
17	4.31	1.74	3/16 SQ. x 1.50 KEY	1.38	2.75	0.874	5/16-18 TAP 0.75 DEEP
23	5.14	2.18	1/4 SQ. x 1.98 KEY	1.44	2.88	1.124	3/8-16 TAP 0.69 DEEP
30	6.75	3.20	5/16 SQ. x 3.00 KEY	2.00	4.00	1.374	7/16-14 TAP 0.88 DEEP

3-Piece Coupled Input With Hollow Output

Size	A	B	C	D	E	G	I		J	
							56C/140TC	180TC	56C/140TC	180TC
17	1.75	1.99	5.85	2.09	4.19	5.41	10.83	N/A	7.73	N/A
23	2.31	2.50	7.38	2.50	5.00	6.67	12.26	13.21	8.58	9.53
23 ALT.	2.31	2.50	7.38	2.50	5.00	6.67	12.26	13.21	8.58	9.53
30	3.00	3.25	8.88	3.50	7.00	8.15	13.71	14.66	9.23	10.18

Size	L	M	O	P	Q	U	W
						+/-0.001	
17	5.41	2.71	1/4 x 0.22 x 1.50 KEY	1.38	2.75	1.001	5/16-18 TAP 0.75 DEEP
23	6.62	3.31	3/8 x 0.31 x 2.20 KEY	1.44	2.88	1.439	3/8-16 TAP 0.69 DEEP
23 ALT.	6.62	3.31	3/8 x 0.28 x 2.20 KEY	1.44	2.88	1.501	7/16-14 TAP 0.88 DEEP
30	7.76	3.88	1/2 x 0.44 x 3.00 KEY	2.00	4.00	1.939	7/16-14 TAP 0.88 DEEP

HELICAL ATTACHMENT

TIGEAR-2 Helical Attachment

Quick Selections: Helical Attachment And TIGEAR-2 Assemblies

Overall Ratio	Output RPM	Motor HP	O/P Torque	SF	HA Part Number	Tigear-2 Part Number Output Shaft Configuration			
						Solid Shaft Left	Solid Shaft Right	Solid Shaft Left/Right	Hollow Shaft
75	23.33	0.25	546	1.17	**156HA556**	**17Q15L56**	**17Q15R56**	**17Q15LR56**	**17Q15H56**
		0.33	729	1.30	**156HA556**	**20Q15L56**	**20Q15R56**	**20Q15LR56**	**20Q15H56**
		0.5	1105	1.33	**156HA556**	**23Q15L56**	**23Q15R56**	**23Q15LR56**	**23Q15H56**
		0.75	1676	1.31	**256HA514**	**26Q15L14**	**26Q15R14**	**26Q15LR14**	**26Q15H14**
		1	2235	1.43	**256HA514**	**30Q15L14**	**30Q15R14**	**30Q15LR14**	**30Q15H14**
		1.5	3353	1.55	**214HA514**	**35Q15L14**	**35Q15R14**	**35Q15LR14**	**35Q15H14**
80	21.88	0.25	556	1.19	**156HA456**	**17Q20L56**	**17Q20R56**	**17Q20LR56**	**17Q20H56**
		0.33	742	1.32	**156HA456**	**20Q20L56**	**20Q20R56**	**20Q20LR56**	**20Q20H56**
		0.5	1139	1.34	**156HA456**	**23Q20L56**	**23Q20R56**	**23Q20LR56**	**23Q20H56**
		0.75	1728	1.32	**256HA414**	**26Q20L14**	**26Q20R14**	**26Q20LR14**	**26Q20H14**
		1	2305	1.55	**256HA414**	**30Q20L14**	**30Q20R14**	**30Q20LR14**	**30Q20H14**
		1.5	3457	1.55	**214HA414**	**35Q20L14**	**35Q20R14**	**35Q20LR14**	**35Q20H14**
100	17.5	0.25	736	1.29	**156HA556**	**20Q20L56**	**20Q20R56**	**20Q20LR56**	**20Q20H56**
		0.33	928	1.06	**156HA556**	**20Q20L56**	**20Q20R56**	**20Q20LR56**	**20Q20H56**
		0.5	1423	1.07	**156HA556**	**23Q20L56**	**23Q20R56**	**23Q20LR56**	**23Q20H56**
		0.75	2161	1.05	**256HA514**	**26Q20L14**	**26Q20R14**	**26Q20LR14**	**26Q20H14**
		1	2881	1.24	**256HA514**	**30Q20L14**	**30Q20R14**	**30Q20LR14**	**30Q20H14**
		1.5	4321	1.24	**214HA514**	**35Q20L14**	**35Q20R14**	**35Q20LR14**	**35Q20H14**
120	14.58	0.25	782	1.24	**156HA456**	**20Q30L56**	**20Q30R56**	**20Q30LR56**	**20Q30H56**
		0.33	1046	1.44	**156HA456**	**23Q30L56**	**23Q30R56**	**23Q30LR56**	**23Q30H56**
		0.5	1605	1.41	**156HA456**	**26Q30L56**	**26Q30R56**	**26Q30LR56**	**26Q30H56**
		0.75	2408	1.33	**256HA414**	**30Q30L14**	**30Q30R14**	**30Q30LR14**	**30Q30H14**
		1	3211	1.66	**256HA414**	**35Q30L14**	**35Q30R14**	**35Q30LR14**	**35Q30H14**
		1.5	4816	1.11	**214HA414**	**35Q30L14**	**35Q30R14**	**35Q30LR14**	**35Q30H14**
125	14	0.25	836	1.19	**156HA556**	**20Q25L56**	**20Q25R56**	**20Q25LR56**	**20Q25H56**
		0.33	1104	1.40	**156HA556**	**23Q25L56**	**23Q25R56**	**23Q25LR56**	**23Q25H56**
		0.5	1715	1.35	**156HA556**	**26Q25L56**	**26Q25R56**	**26Q25LR56**	**26Q25H56**
		0.75	2572	1.28	**256HA514**	**30Q25L14**	**30Q25R14**	**30Q25LR14**	**30Q25H14**
		1	3430	1.57	**256HA514**	**35Q25L14**	**35Q25R14**	**35Q25LR14**	**35Q25H14**
		1.5	5145	1.46	**214HA514**	**40Q25L14**	**40Q25R14**	**40Q25LR14**	**40Q25H14**
150	11.67	0.25	990	1.52	**156HA556**	**23Q30L56**	**23Q30R56**	**23Q30LR56**	**23Q30H56**
		0.33	1307	1.15	**156HA556**	**23Q30L56**	**23Q30R56**	**23Q30LR56**	**23Q30H56**
		0.5	2007	1.13	**156HA556**	**26Q30L56**	**26Q30R56**	**26Q30LR56**	**26Q30H56**
		0.75	3010	1.06	**256HA514**	**30Q30L14**	**30Q30R14**	**30Q30LR14**	**30Q30H14**
		1	4013	1.33	**256HA514**	**35Q30L14**	**35Q30R14**	**35Q30LR14**	**35Q30H14**
		1.5	6020	1.25	**214HA514**	**40Q30L14**	**40Q30R14**	**40Q30LR14**	**40Q30H14**
160	10.94	0.25	976	1.55	**156HA456**	**23Q40L56**	**23Q40R56**	**23Q40LR56**	**23Q40H56**
		0.33	1288	1.17	**156HA456**	**23Q40L56**	**23Q40R56**	**23Q40LR56**	**23Q40H56**
		0.5	2006	1.13	**156HA456**	**26Q40L56**	**26Q40R56**	**26Q40LR56**	**26Q40H56**
		0.75	3009	1.18	**256HA414**	**30Q40L14**	**30Q40R14**	**30Q40LR14**	**30Q40H14**
		1	4013	1.33	**256HA414**	**35Q40L14**	**35Q40R14**	**35Q40LR14**	**35Q40H14**
		1.5	6019	1.25	**214HA414**	**40Q40L14**	**40Q40R14**	**40Q40LR14**	**40Q40H14**

Quick Selections: Helical Attachment And TIGEAR-2 Assemblies (Continued)

Overall Ratio	Output RPM	Motor HP	O/P Torque	SF	HA Part Number	Tigear-2 Part Number Output Shaft Configuration			
						Solid Shaft Left	Solid Shaft Right	Solid Shaft Left/Right	Hollow Shaft
200	8.75	0.25	1220	1.24	**156HA556**	**23Q40L56**	**23Q40R56**	**23Q40LR56**	**23Q40H56**
		0.33	1655	1.37	**156HA556**	**26Q40L56**	**26Q40R56**	**26Q40LR56**	**26Q40H56**
		0.5	2508	1.41	**156HA556**	**30Q40L56**	**30Q40R56**	**30Q40LR56**	**30Q40H56**
		0.75	3762	1.42	**256HA514**	**35Q40L14**	**35Q40R14**	**35Q40LR14**	**35Q40H14**
		1	5016	1.06	**256HA514**	**35Q40L14**	**35Q40R14**	**35Q40LR14**	**35Q40H14**
240	7.29	0.25	1260	1.11	**156HA456**	**23Q60L56**	**23Q60R56**	**23Q60LR56**	**23Q60H56**
		0.33	1718	1.21	**156HA456**	**26Q60L56**	**26Q60R56**	**26Q60LR56**	**26Q60H56**
		0.5	2603	1.09	**156HA456**	**30Q60L56**	**30Q60R56**	**30Q60LR56**	**30Q60H56**
		0.75	3904	1.22	**256HA414**	**35Q60L14**	**35Q60R14**	**35Q60LR14**	**35Q60H14**
		1	5206	1.28	**256HA414**	**40Q60L14**	**40Q60R14**	**40Q60LR14**	**40Q60H14**
250	7	0.25	1439	1.53	**156HA556**	**26Q50L56**	**26Q50R56**	**26Q50LR56**	**26Q50H56**
		0.33	1900	1.16	**156HA556**	**26Q50L56**	**26Q50R56**	**26Q50LR56**	**26Q50H56**
		0.5	2878	1.14	**156HA556**	**30Q50L56**	**30Q50R56**	**30Q50LR56**	**30Q50H56**
		0.75	4317	1.19	**256HA514**	**35Q50L14**	**35Q50R14**	**35Q50LR14**	**35Q50H14**
		1	5756	1.25	**256HA514**	**40Q50L14**	**40Q50R14**	**40Q50LR14**	**40Q50H14**
300	5.83	0.25	1627	1.28	**156HA556**	**26Q60L56**	**26Q60R56**	**26Q60LR56**	**26Q60H56**
		0.33	2147	1.32	**156HA556**	**30Q60L56**	**30Q60R56**	**30Q60LR56**	**30Q60H56**
		0.5	3254	1.46	**156HA556**	**35Q60L56**	**35Q60R56**	**35Q60LR56**	**35Q60H56**
		0.75	4881	1.36	**256HA514**	**40Q60L14**	**40Q60R14**	**40Q60LR14**	**40Q60H14**

HELICAL ATTACHMENT

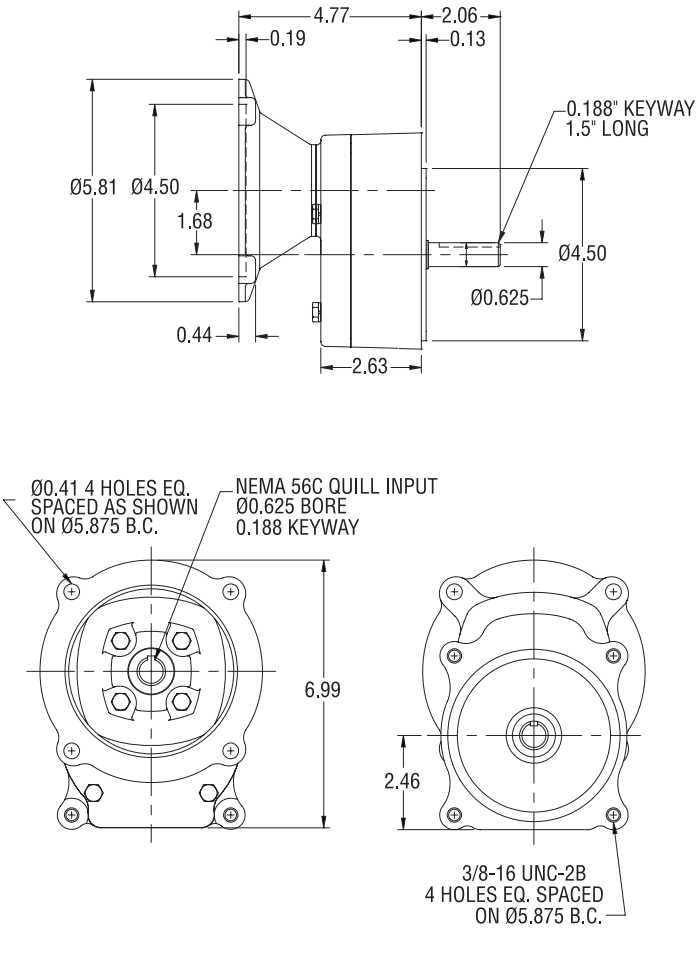
TIGEAR-2 Helical Attachment

Size 1 & 2 Helical Single Reduction

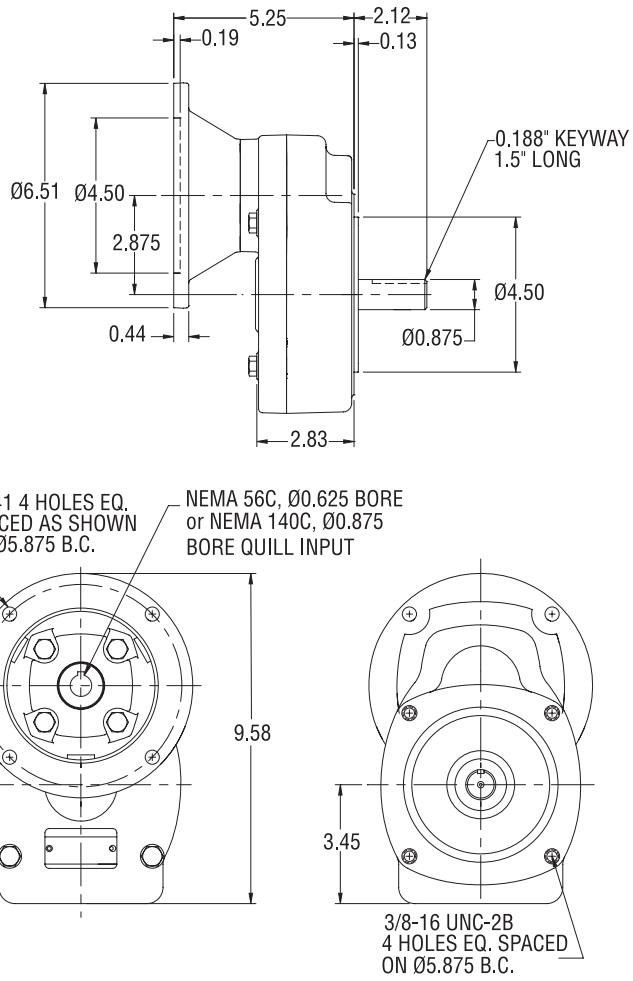
Size	Ratio	Part Number	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb. in.)	Output OHL (lbs.)	Input Style	Output Style
1	4	**156HA456**	1750	438	0.5	0.49	71	224	56C	56C
1	5	**156HA556**	1750	350	0.5	0.49	88	247	56C	56C
2	4	**256HA414**	1750	438	1.5	1.47	212	445	56C	140C
2	5	**256HA514**	1750	350	1.5	1.47	265	360	56C	140C
2	4	**214HA414**	1750	438	1.5	1.47	212	445	140C	140C
2	5	**214HA514**	1750	350	1.5	1.47	265	360	140C	140C

Note: For Helical attachment, DODGE recommends the use of TEFC motors. These units are intended for horizontal mount only in the position shown below. Contact DODGE for any other mounting position.

SIZE 1



SIZE 2



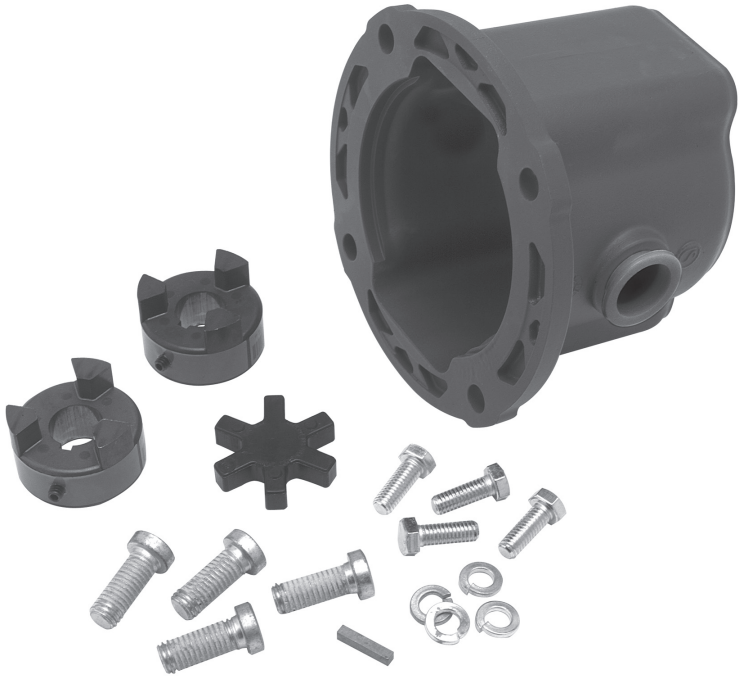
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TIGEAR-2
Motor Adapter Kit

TIGEAR-2 motor adapter kits are available to convert a separate shaft input reducer to a 3-piece coupled input reducer. Kits listed at right include the motor adapter housing, 3-piece coupling and all required mounting hardware.

TIGEAR-2 motor adapter kits cannot be used with the old Adaptable or Separate series TIGEAR reducers.

Reducer Size	Motor Frame				
	56C	140TC	180TC	210TC	250TC
13	1315MTR56	1315MTR14	N/A	N/A	N/A
15	1315MTR56	1315MTR14	N/A	N/A	N/A
17	1720MTR56	1720MTR14	N/A	N/A	N/A
20	1720MTR56	1720MTR14	N/A	N/A	N/A
23	2330MTR56	2330MTR14	2330MTR18	N/A	N/A
26	2330MTR56	2330MTR14	2330MTR18	N/A	N/A
30	2330MTR56	2330MTR14	2330MTR18	N/A	N/A
35	35MTR56	35MTR14	35MTR18	35MTR21	N/A
40	N/A	4047MTR14	4047MTR18	4047MTR21	4047MTR25
47	N/A	4047MTR14	4047MTR18	4047MTR21	4047MTR25



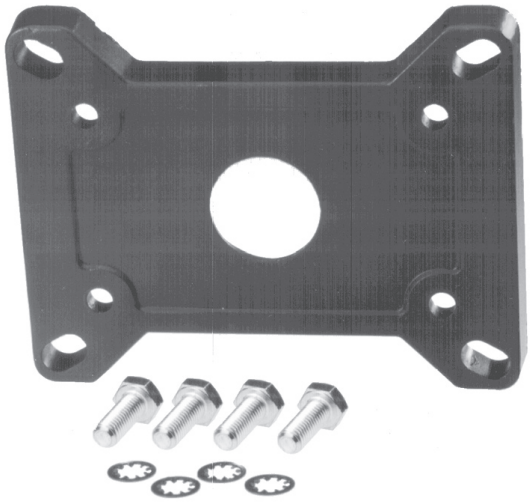
ACCESSORIES

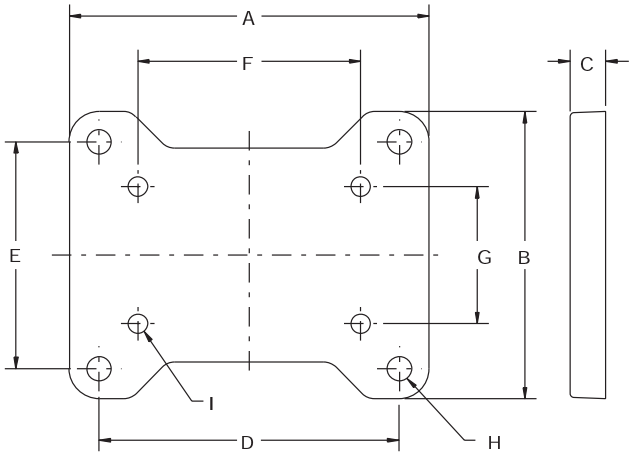
TIGEAR-2
Bolt-On Base Kit

All TIGEAR-2 reducers include top and bottom drilled and tapped mounting holes but do not include base. Each kit below includes the base and required mounting hardware.

Reducer Size	Standard Kit Number	Standard Spacer Kit Number (1)	E-Z KLEEN Kit Number	Stainless Steel ULTRA KLEEN Kit
13	**13BASE**	**Not Required**	**13ZBASE**	**N/A**
15	**15BASE**	**Not Required**	**15ZBASE**	**N/A**
17	**17BASE**	**Not Required**	**17ZBASE**	**17SBASE**
20	**20BASE**	**Not Required**	**20ZBASE**	**N/A**
21	**N/A**	**N/A**	**N/A**	**21SBASE**
23 (1)	**23BASE**	**2326SPACER**	**23ZBASE**	**23SBASE**
26 (1)	**26BASE**	**2326SPACER**	**26ZBASE**	**26SBASE**
30 (1)	**30BASE**	**3035SPACER**	**30ZBASE**	**30SBASE**
35 (1)	**35BASE**	**3035SPACER**	**35ZBASE**	**35SBASE**
40 (1)	**40BASE**	**40SPACER**	**N/A**	**N/A**
47	**47BASE**	**Not Required**	**N/A**	**N/A**

NOTE: (1) If base is to be mounted on top of reducer, space kit listed above will also be required to allow clearance of base and motor adapter housing. Currently not available with E-Z KLEEN coating or stainless steel material.





Size	A	B	C	D	E	F	G	H	I
13	5.25	4.19	0.52	4.38	3.31	3.25	2.00	0.34	0.28
15	6.13	5.19	0.61	5.25	4.31	3.50	2.25	0.44	0.28
17	6.94	5.56	0.74 (3)	5.88 (3)	4.50	4.19	2.75	0.41	0.34
20	7.26	5.66	0.74 (3)	6.20 (3)	4.60	5.00	2.88	0.50	0.41
21	7.70	6.00	0.70	6.38	4.69	5.00	2.88	0.47	0.41
23	8.32	6.14	0.75	7.06	4.88	5.00	2.88	0.47	0.41
26	9.25	6.50	0.79/0.72 (2)	8.00	5.25	6.38	3.38	0.56	0.41
30	9.68	7.12	0.75	8.44	5.88	7.00	4.00	0.53	0.49
35	10.75	7.38	1.00	9.50	6.13	7.50	4.00	0.58	0.47
40	12.62	9.13	1.00	11.12	7.63	8.50	5.00	0.66	0.66
47	16.00	10.26	1.13	14.12	8.38	11.00	5.81	0.78	0.66

NOTE: (2) C dimension for 26BASE and 26ZBASE is 0.79. C dimension for 26SBASE is 0.72

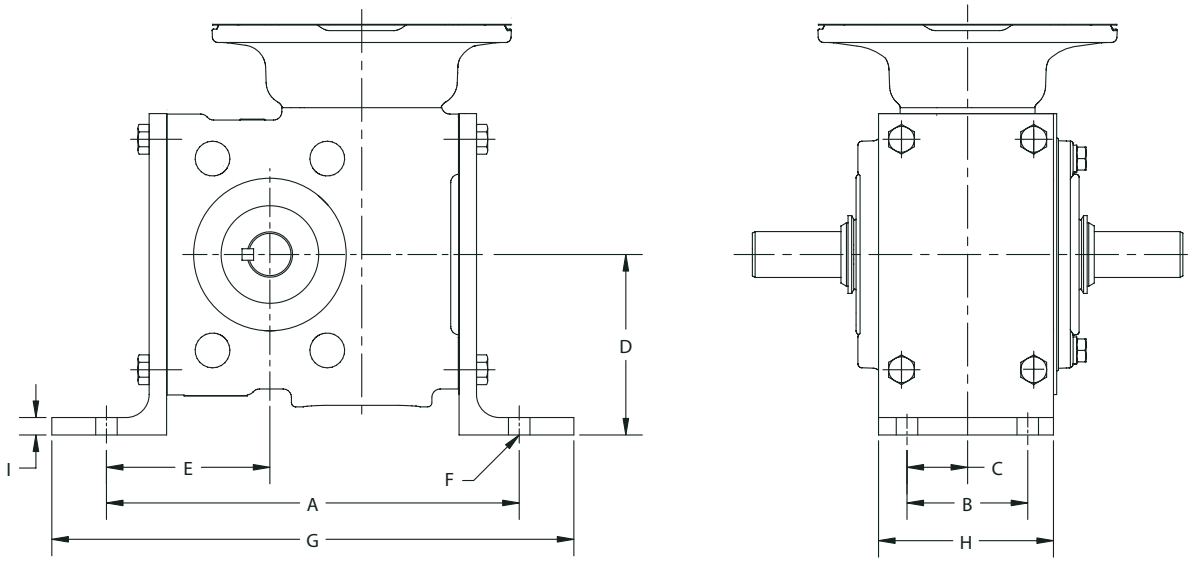
NOTE: (3) Sizes 17 and 20 have slotted mounting holes. Size 17 slotted horizontally +/-0.06. Size 20 slotted 30 degree from horizontal +/-0.12 (see photo above left).

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TIGEAR-2
J-Mount Base Kits

J-mount kits allow the reducer to be “floor” mounted with the motor in a vertical (up) position. In this configuration the output shaft(s) is horizontal. Each kit includes the brackets and required mounting hardware.





Reducer Size	Standard Kit Number	E-Z KLEEN Kit Number	A	B	C	D	E	F	G	H	I
13	**13JMOUNT**	**13ZJMOUNT**	6.88	2.00	1.00	2.95	2.71	0.34	7.76	2.88	0.25
15	**15JMOUNT**	**15ZJMOUNT**	7.98	2.50	1.25	3.50	3.12	0.41	9.48	3.38	0.31
17	**17JMOUNT**	**17ZJMOUNT**	8.35	2.50	1.25	3.50	3.24	0.41	9.85	3.56	0.38
20	**20JMOUNT**	**20ZJMOUNT**	8.97	2.63	1.32	3.94	3.55	0.47	11.35	3.75	0.38
23	**23JMOUNT**	**23ZJMOUNT**	9.88	2.88	1.44	4.06	3.75	0.50	10.88	4.12	0.38
26	**26JMOUNT**	**26ZJMOUNT**	11.48	3.13	1.57	4.75	4.43	0.53	13.36	4.25	0.38
30	**30JMOUNT**	**30ZJMOUNT**	11.88	4.00	2.00	5.62	4.75	0.56	13.02	5.06	0.38
35	**35JMOUNT**	**35ZJMOUNT**	13.50	4.00	2.00	5.50	5.45	0.56	15.57	5.50	0.38
40	**40JMOUNT**	**N/A**	14.88	5.00	2.50	6.50	6.12	0.69	16.26	6.38	0.50
47	**47JMOUNT**	**N/A**	17.51	5.81	2.91	7.75	7.19	0.69	18.89	7.19	0.50

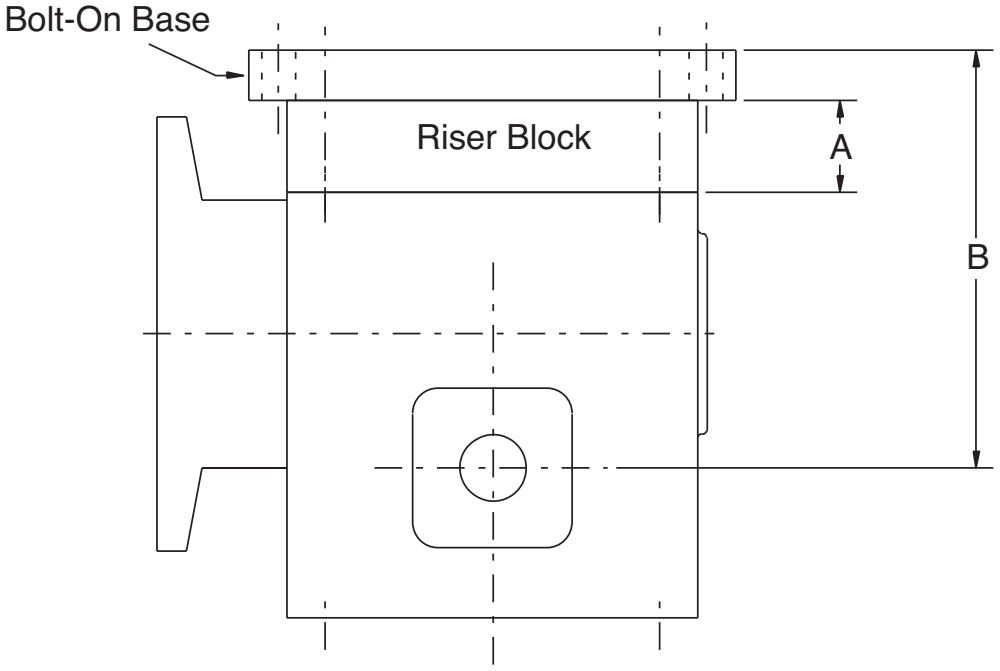
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ACCESSORIES

TIGEAR-2
Riser Block Kits

Riser blocks allow clearance over the motor eliminating the need to invert the reducer (worn under) when the application calls for a “ceiling” mount such as under a conveyor or other equipment. Riser blocks permit the reducer to be mounted in the most desirable position keeping the high speed shaft seal above the oil level. Experience shows that this position results in increased seal life and durability. Each kit includes the riser block and required mounting hardware.

Reducer Size	Standard Kit Number	E-Z KLEEN Kit Number	A	B
13	**13RISER**	**13ZRISER**	1.66	5.36
15	**15RISER**	**15ZRISER**	1.38	5.61
17	**17RISER**	**17ZRISER**	1.38	5.99
20	**20RISER**	**20ZRISER**	1.38	6.24
23	**23RISER**	**23ZRISER**	2.25	7.88
26	**26RISER**	**26ZRISER**	1.91	8.21
30	**30RISER**	**30ZRISER**	2.25	8.63
35	**35RISER**	**35ZRISER**	1.69	9.27
40	**40RISER**	**N/A**	2.75	10.83
47	**47RISER**	**N/A**	2.00	11.57



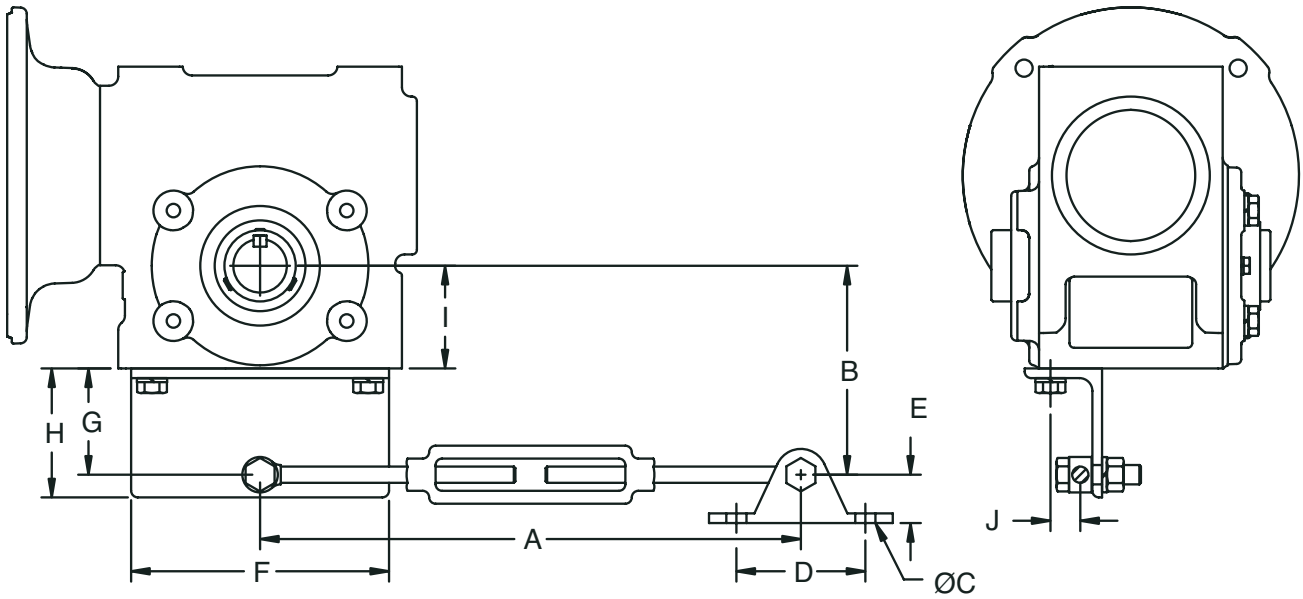
TIGEAR-2
Tie Rod Kit

Tie Rod Kits are available for restraining Hollow Shaft Reducers. Each kit includes reducer mounting bracket, tie rods, turnbuckle, fulcrum and mounting hardware.

Reducer Case Size	Tie Rod Kit
13	13TIEROD
15	15TIEROD
17	17TIEROD
20	2023TIEROD
23	

Reducer Case Size	Tie Rod Kit
26	26TIEROD
30	30TIEROD
35	35TIEROD
40	40TIEROD
47	47TIEROD





Size	A Min - Max	B	C	D	E	F	G	H	I	J
13	12.00 - 18.00	2.52	0.41	1.75	0.75	4.00	0.81	1.25	1.71	0.37
15	12.00 - 18.00	2.68	0.41	1.75	0.75	4.20	0.81	1.25	1.87	0.49
17	12.00 - 18.00	4.05	0.41	1.75	0.75	5.00	2.06	2.50	1.99	0.59
20	14.7 - 20.7	3.55	0.39	2.50	0.94	5.88	1.31	1.75	2.24	0.53
23	14.7 - 20.7	3.81	0.39	2.50	0.94	5.88	1.31	1.75	2.50	0.53
26	14.7 - 20.7	4.18	0.39	2.50	0.94	7.24	1.31	1.75	2.87	0.75
30	14.7 - 20.7	5.75	0.39	2.50	0.94	8.00	2.50	3.00	3.25	0.72
35	14.7 - 20.7	6.49	0.39	2.50	0.94	8.50	2.50	3.00	3.99	0.84
40	19.5 - 25.5	7.69	0.45	3.00	1.06	9.88	3.25	4.00	4.44	1.09
47	19.5 - 25.5	9.56	0.45	3.00	1.06	12.38	4.25	5.00	5.31	1.03

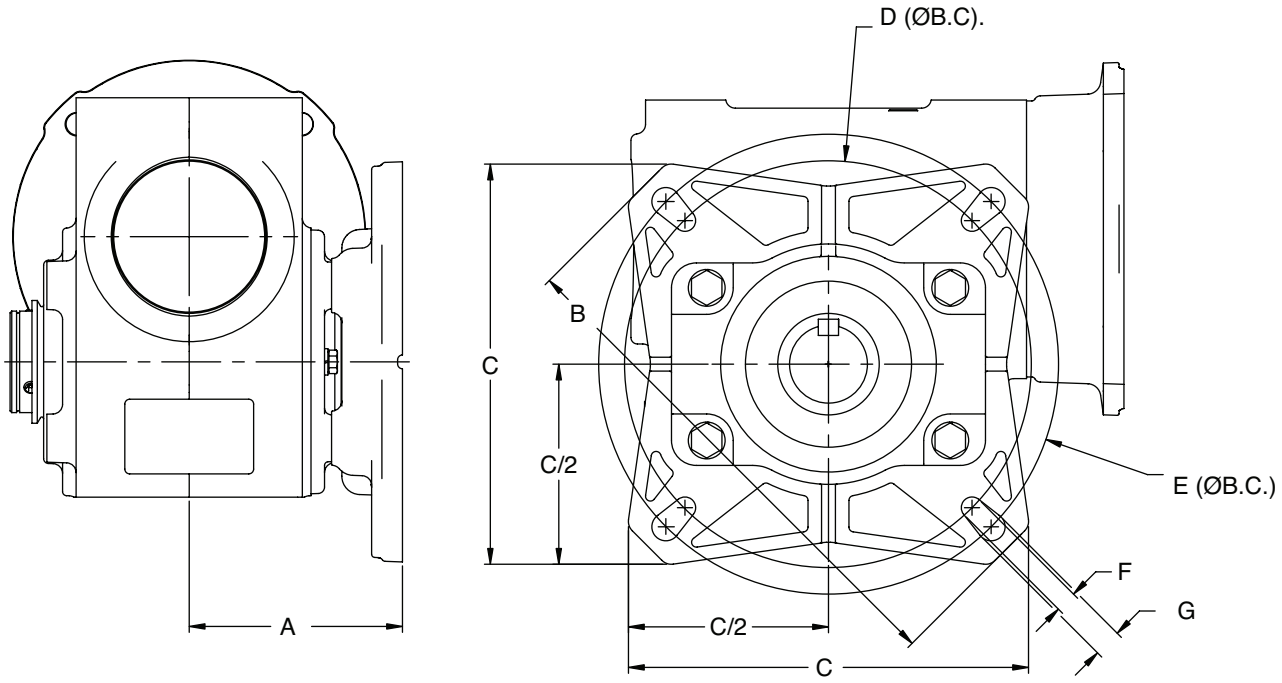
ACCESSORIES

TIGEAR-2 Tapered Bushing Dimensions

Cast Output Flange Kit

The Output Cast Flange Kit is used to munt Hollow Shaft reducers to a flat surface perpendicular to the output shaft. The flange may be substituted for a tie rod kit to restrain reactions. Each kit consists of a flange and required mounting hardware. The Output Flange Kit can be mounted to eigher side of a hollow output reducer. When used with GRIP TIGHT bushings, a single bushing with key must be used and located on the side opposite of the cast output flange.

NOTE: Stainless steel flanges only have holes drilled for large bolt circle.



Case Size	Standard Kit Number	E-Z KLEEN Kit Number	Stainless Steel ULTRA KLEEN Kit	A	B	C	D (ØB.C.)	E (ØB.C.)	F	G
13, 15	N/A	N/A	N/A	---	---	---	---	---	---	---
17	17FLANGE	17ZFLANGE	17SFLANGE	3.58	8.00	6.24	5.88	7.00	0.34	0.41
20	20FLANGE	20ZFLANGE	N/A	3.68	8.00	6.24	5.88	7.00	0.34	0.41
21	N/A	N/A	N/A	---	---	---	---	---	---	---
23	2326FLANGE	2326ZFLANGE	23SFLANGE	3.94	9.60	7.52	7.50	8.47	0.41	0.51
26	2326FLANGE	2326ZFLANGE	N/A	3.94/4.03*	9.60	7.52	7.580	8.47	0.41	0.51
30	3035FLANGE	3035ZFLANGE	30SFLANGE	5.81	11.60	9.00	9.00	10.43	0.56	0.56
35	3035FLANGE	3035ZFLANGE	N/A	5.81/5.71*	11.60	9.00	9.00	10.43	0.56	0.56
40, 47	N/A	N/A	N/A	---	---	---	---	---	---	---

TIGEAR-2 Hollow Reducer Bushing Kit

Bushing kits allow hollow output reducers to be mounted to various diameter shafting. Each kit includes bushing and key.



GRIP TIGHT Tapered Adapter Bushing Kit



Straight Bore Bushing Kit

Reducer Size	Max Bore	Bore Size	Standard		Stainless Steel	
			GRIP TIGHT*	Straight Bore	GRIP TIGHT*	Straight Bore
13	3/4"	n/a	**n/a**	**n/a**	**n/a**	**n/a**
15	3/4"	n/a	**n/a**	**n/a**	**n/a**	**n/a**
17	1"	n/a	**n/a**	**n/a**	**n/a**	**n/a**
20	1-1/4"	1"	**n/a**	**20BUSH100**		**20SBUSH100**
Select standard bore reducer model number from pages G4-36 to G4-41 or washdown reducers from pages G4-80-G4-107.						
20 Alt.	1-3/16"	n/a	**n/a**			**n/a**
Select alternative max bore reducer model number from page G4-118 or washdown reducers from pages G4-80-G4-107.						
23	1-7/16"	1"	**n/a**	**2326BUSH100**		**2326SBUSH100**
		1-3/16"	**n/a**	**2326BUSH103**		**2326SBUSH103**
		1-1/4"	**n/a**	**2326BUSH104**		**2326SBUSH104**
Select standard bore reducer model number from pages 42 to 47 or washdown reducers from pages G4-80-G4-107.						
23 Alt	1-1/2"	1"	**23TBUSH100**	**n/a**	**23STBUSH100**	**n/a**
		1-3/16"	**23TBUSH103**	**n/a**	**23STBUSH103**	**n/a**
Select alternative max bore reducer model number from page G4-118 or washdown reducers from pages G4-80-G4-107.						
26	1-7/16"	1"	**n/a**	**2326BUSH100**		**2326SBUSH100**
		1-3/16"	**n/a**	**2326BUSH103**		**2326SBUSH103**
		1-1/4"	**n/a**	**2326BUSH104**		**2326SBUSH104**
Select standard bore reducer model number from pages G4-50 to G4-55 or washdown reducers from pages G4-80-G4-107.						
26 Alt	1-11/16"	1"	**26TBUSH100**	**n/a**	**26STBUSH100**	**n/a**
		1-3/16"	**26TBUSH103**	**n/a**	**26STBUSH103**	**n/a**
		1-1/4"	**26TBUSH104**	**n/a**	**26STBUSH104**	**n/a**
		1-3/8"	**26TBUSH106**	**n/a**	**26STBUSH106**	**n/a**
Select alternative max bore reducer model number from page G4-118 or washdown reducers from pages G4-80-G4-107.						
30	1-15/16"	1-3/8"	**3035TBUSH106**	**n/a**	**3035STBUSH106**	**n/a**
		1-7/16"	**3035TBUSH107**	**n/a**	**3035STBUSH107**	**n/a**
		1-1/2"	**3035TBUSH108**	**n/a**	**3035STBUSH108**	**n/a**
		1-11/16"	**n/a**	**3035BUSH111**		**3035SBUSH111**
Select standard bore reducer model number from pages G4-56 to G4-61 or washdown reducer from pages G4-80-G4-85.						
35	1-15/16"	1-3/8"	**3035TBUSH106**	**n/a**	**3035STBUSH106**	**n/a**
		1-7/16"	**3035TBUSH107**	**n/a**	**3035STBUSH107**	**n/a**
		1-1/2"	**3035TBUSH108**	**n/a**	**3035STBUSH108**	**n/a**
		1-11/16"		**3035BUSH111**		**3035SBUSH111**
Select standard bore reducer model number from pages G4-62 to G4-67 or washdown reducers from pages G4-80-G4-107.						
40	2-3/16"	1-1/2"	**40TBUSH108**	**n/a**	**n/a**	**n/a**
		1-11/16"	**40TBUSH111**	**n/a**	**n/a**	**n/a**
Select standard bore reducer model number from pages G4-68 to G4-73 or washdown reducers from pages G4-80-G4-107.						
47	2-15/16"	1-15/16"	**47TBUSH115**	**n/a**	**n/a**	**n/a**
		2-3/16"	**47TBUSH203**	**n/a**	**n/a**	**n/a**
Select standard bore reducer model number from pages G4-74 to G4-79 or washdown reducers from pages G4-80-G4-107.						

Required shaft diameter tolerance for GRIP TIGHT bushing: +.000", -.003"

FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	RATINGS/DIMENSIONS PAGE G4-16

ACCESSORIES

TIGEAR-2 Hollow Reducer With Alternative Maximum Bore

Size 20 Hollow Reducer Part Numbers with Alternative Maximum Bore (1-3/16")

Input	Motor Frame	Ratio									
		5	7.5	10	15	20	25	30	40	50	60
Quill	56C	20Q05HA56	20Q07HA56	20Q10HA56	20Q15HA56	20Q20HA56	20Q25HA56	20Q30HA56	20Q40HA56	20Q50HA56	20Q60HA56
	140TC	20Q05HA14	20Q07HA14	20Q10HA14	20Q15HA14	20Q20HA14	20Q25HA14				
Separate	Select Motor Adapter Kit as Needed	20S05HA	20S07HA	20S10HA	20S15HA	20S20HA	20S25HA	20S30HA	20S40HA	20S50HA	20S60HA
Coupled Assy	56C	20A05HA56	20A07HA56	20A10HA56	20A15HA56	20A20HA56	20A25HA56	20A30HA56	20A40HA56	20A50HA56	20A60HA56
	140TC	20A05HA14	20A07HA14	20A10HA14	20A15HA14	20A20HA14	20A25HA14				

Note: Tapered bushing kits are not available for size 20

Size 23 Hollow Reducer Part Numbers with Alternative Maximum Bore (1-1/2")

Input	Motor Frame	Ratio									
		5	7.5	10	15	20	25	30	40	50	60
Quill	56C	23Q05HA56	23Q07HA56	23Q10HA56	23Q15HA56	23Q20HA56	23Q25HA56	23Q30HA56	23Q40HA56	23Q50HA56	23Q60HA56
	140TC	23Q05HA14	23Q07HA14	23Q10HA14	23Q15HA14	23Q20HA14	23Q25HA14	23Q30HA14	23Q40HA14		
	180TC	23Q05HA18	23Q07HA18	23Q10HA18							
Separate	Select Motor Adapter Kit as Needed	23S05HA	23S07HA	23S10HA	23S15HA	23S20HA	23S25HA	23S30HA	23S40HA	23S50HA	23S60HA
Coupled Assy	56C	23A05HA56	23A07HA56	23A10HA56	23A15HA56	23A20HA56	23A25HA56	23A30HA56	23A40HA56	23A50HA56	23A60HA56
	140TC	23A05HA14	23A07HA14	23A10HA14	23A15HA14	23A20HA14	23A25HA14	23A30HA14	23A40HA14		
	180TC	23A05HA18	23A07HA18	23A10HA18							

Note: These reducers are required when using tapered bushing kits for size 23

Size 26 Hollow Reducer Part Numbers with Alternative Maximum Bore (1-11/16")

Input	Motor Frame	Ratio									
		5	7.5	10	15	20	25	30	40	50	60
Quill	56C		26Q07HA56	26Q10HA56	26Q15HA56	26Q20HA56	26Q25HA56	26Q30HA56	26Q40HA56	26Q50HA56	26Q60HA56
	140TC	26Q05HA14	26Q07HA14	26Q10HA14	26Q15HA14	26Q20HA14	26Q25HA14	26Q30HA14	26Q40HA14	26Q50HA14	26Q60HA14
	180TC	26Q05HA18	26Q07HA18	26Q10HA18	26Q15HA18						
Separate	Select Motor Adapter Kit as Needed	26S05HA	26S07HA	26S10HA	26S15HA	26S20HA	26S25HA	26S30HA	26S40HA	26S50HA	26S60HA
Coupled Assy	56C		26A07HA56	26A10HA56	26A15HA56	26A20HA56	26A25HA56	26A30HA56	26A40HA56	26A50HA56	26A60HA56
	140TC	26A05HA14	26A07HA14	26A10HA14	26A15HA14	26A20HA14	26A25HA14	26A30HA14	26A40HA14	26A50HA14	26A60HA14
	180TC	26A05HA18	26A07HA18	26A10HA18	26A15HA18						

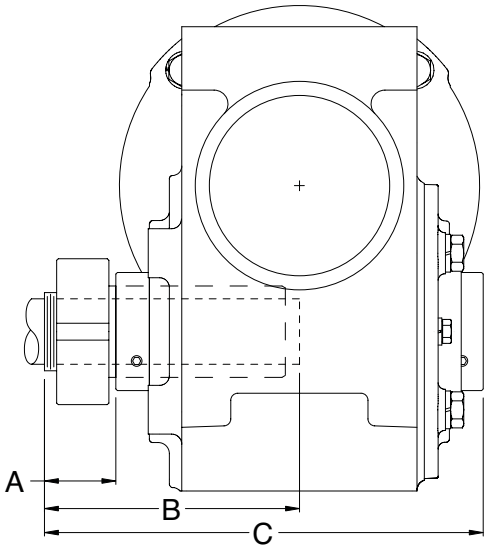
Note: These reducers are required when using tapered bushing kits for size 26

TIGEAR-2 Tapered Bushing Dimensions

Single Bushing With Key

Bushing Located On Side Of Reducer Closest To Driven Device

This is the Preferred mounting method for single bushing applications.



Reducer Size	Driven Shaft Diameter	A Distance From End Of Bushing To End Of Hollow Shaft	B Distance From End Of Bushing To End Of Driven Shaft	C Distance From End Of Bushing To Opposite End Of Hollow Shaft	Keyway Width	Minimum Keyway Length From End Of Driven Shaft
23	1.000	1.25	4.37	7.87	.25	3.12
	1.1875	1.25	4.37	7.87	.25	3.12
26	1.000	1.38	4.50	8.00	.25	3.12
	1.1875	1.38	4.50	8.00	.25	3.12
	1.250	1.38	4.50	8.00	.25	3.12
	1.375	1.38	4.50	8.00	.3125	3.12
30	1.375	1.44	5.12	9.20	.3125	3.68
	1.4375	1.44	5.12	9.20	.375	3.68
	1.500	1.44	5.12	9.20	.375	3.68
35*	1.375	1.44	5.12	10.18	.3125	3.68
	1.4375	1.44	5.12	10.18	.375	3.68
	1.500	1.44	5.12	10.18	.375	3.68
40*	1.500	1.69	6.24	11.51	.375	4.55
	1.6875	1.69	6.24	11.51	.375	4.55
47*	1.9375	2.13	7.44	14.01	.500	5.31
	2.1875	2.13	7.44	14.01	.500	5.31

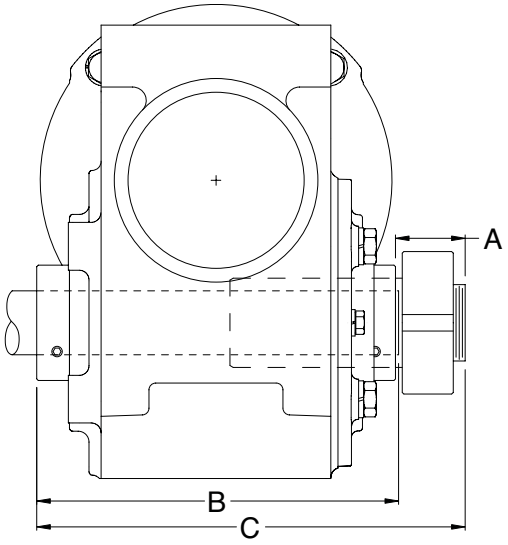
* It is recommended that these size reducers be used with bushings on both sides of the reducer

ACCESSORIES

TIGEAR-2 Tapered Bushing Dimensions

Single Bushing With Key

Bushing Located On Opposite Side of Reducer



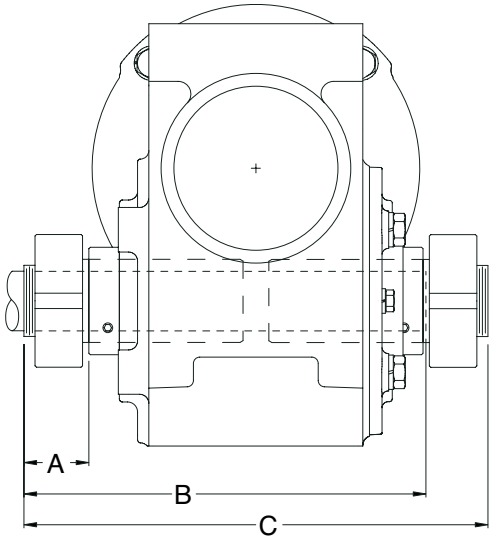
Reducer Size	Driven Shaft Diameter	A Distance From End Of Hollow Shaft To End Of Bushing	B Distance From End Of Hollow Shaft To End Of Driven Shaft	C Distance From Hollow Shaft To End Of Bushing	Keyway Width	Minimum Keyway Length From End Of Driven Shaft
23	1.000	1.25	6.75	7.87	.25	1.75
	1.1875	1.25	6.75	7.87	.25	2.00
26	1.000	1.38	6.75	8.00	.25	1.75
	1.1875	1.38	6.75	8.00	.25	2.00
	1.250	1.38	6.75	8.00	.25	2.13
	1.375	1.38	6.75	8.00	.3125	2.44
30	1.375	1.44	7.89	9.20	.3125	2.44
	1.4375	1.44	7.89	9.20	.375	2.50
	1.500	1.44	7.89	9.20	.375	2.63
35*	1.375	1.44	8.87	10.18	.3125	2.44
	1.4375	1.44	8.87	10.18	.375	2.50
	1.500	1.44	8.87	10.18	.375	2.63
40*	1.500	1.69	9.95	11.51	.375	2.63
	1.6875	1.69	9.95	11.51	.375	2.88
47*	1.9375	2.13	12.01	14.01	.500	3.38
	2.1875	2.13	12.01	14.01	.500	3.75

* It is recommended that these size reducers be used with bushings on both sides of the reducer

TIGEAR-2 Tapered Bushing Dimensions

Double Bushing With Key

This is the Preferred mounting method for double bushing applications.

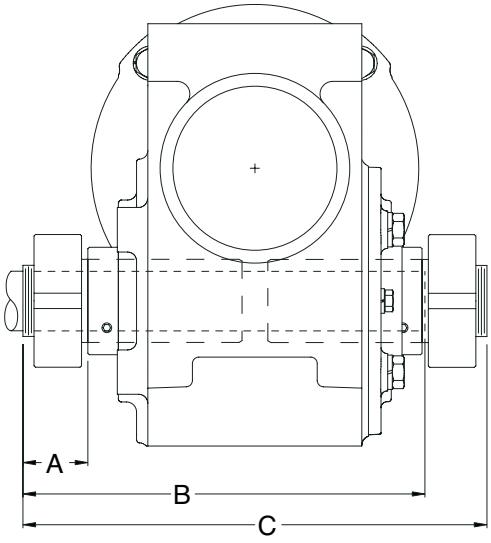


Reducer Size	Driven Shaft Diameter	A Distance From End Of Bushing To End Of Hollow Shaft	B Distance From End Of Bushing To End Of Driven Shaft	C Total Width Of Bushings	Keyway Width	Minimum Keyway Length From End Of Driven Shaft
23	1.000	1.25	8.00	9.13	.25	6.75
	1.1875	1.25	8.00	9.13	.25	6.75
26	1.000	1.38	8.13	9.39	.25	6.75
	1.1875	1.38	8.13	9.39	.25	6.75
	1.250	1.38	8.13	9.39	.25	6.75
	1.375	1.38	8.13	9.39	.3125	6.75
30	1.375	1.44	9.33	10.65	.3125	7.89
	1.4375	1.44	9.33	10.65	.375	7.89
	1.500	1.44	9.33	10.65	.375	7.89
35	1.375	1.44	10.31	11.63	.3125	8.87
	1.4375	1.44	10.31	11.63	.375	8.87
	1.500	1.44	10.31	11.63	.375	8.87
40	1.500	1.69	11.64	13.21	.375	9.95
	1.6875	1.69	11.64	13.21	.375	9.95
47	1.9375	2.13	14.14	16.15	.500	12.01
	2.1875	2.13	14.14	16.15	.500	12.01

ACCESSORIES

TIGEAR-2 Tapered Bushing Dimensions Double Bushing Without Key

Do not use for brake motor applications or other critical applications.

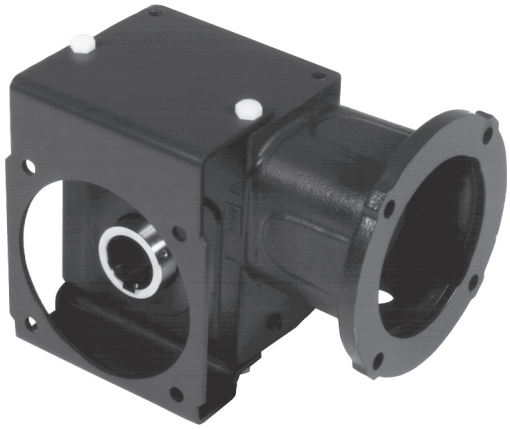


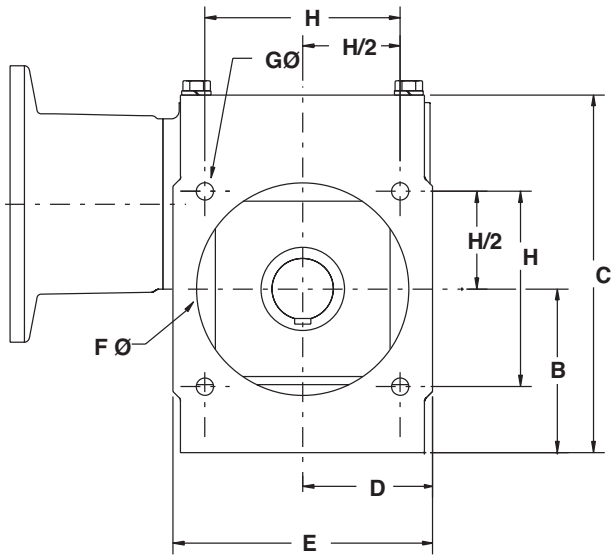
Reducer Size	A Distance From End Of Bushing To End Of Hollow Shaft	B Distance From End Of Bushing To End Of Driven Shaft	C Total Width Of Bushings
23	1.25	8.00	9.13
26	1.38	8.13	9.39
30	1.44	9.33	10.65
35	1.44	10.31	11.63
40	1.69	11.64	13.21
47	2.13	14.14	16.15

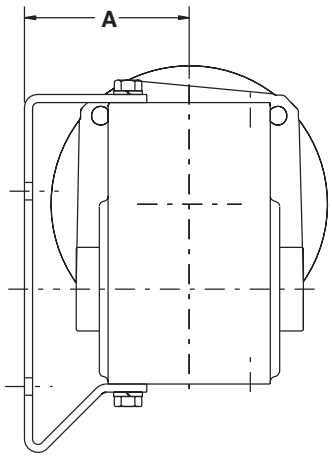
TIGEAR-2

Output Bracket Kit

The Output Bracket Kit is used to mount the reducer to a flat surface perpendicular to the output shaft. On Hollow Shaft units, an output bracket may be substituted for a tie rod kit to restrain reactions. Each kit consists of a bracket and required mounting hardware. The Output bracket kit can be mounted to either side of the reducer.







Case Size	Standard Kit No.	E-Z KLEEN Kit No.	A	B	C	D	E	F	G	H
13	**13BRACKET**	**13ZBRACKET**	3.00	3.08	6.69	2.33	4.66	3.81	0.34	3.54
15	**15BRACKET**	**15ZBRACKET**	3.21	2.81	6.86	2.33	4.66	3.81	0.34	3.54
17	**17BRACKET**	**17ZBRACKET**	3.50	3.40	7.71	2.77	5.54	4.44	0.34	4.16
20	**20BRACKET**	**20ZBRACKET**	3.88	3.85	8.42	3.05	6.10	5.00	0.41	4.60
23	**23BRACKET**	**23ZBRACKET**	3.72	3.92	9.05	3.25	6.50	5.00	0.41	5.30
26	**26BRACKET**	**26ZBRACKET**	4.63	4.20	10.20	3.80	7.60	6.56	0.41	5.66
30	**30BRACKET**	**30ZBRACKET**	4.50	4.12	10.27	4.39	8.14	7.00	0.41	6.36
35	**35BRACKET**	**35ZBRACKET**	5.25	5.51	12.35	4.80	9.60	8.56	0.41	7.07
40	**N/A**	**N/A**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47	**N/A**	**N/A**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

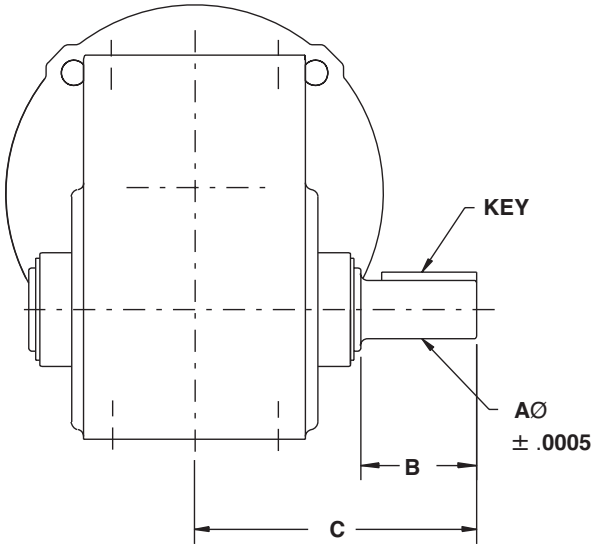
ACCESSORIES

TIGEAR-2

Plug-In Output Shaft Kit

A Plug-In Output Shaft Kit permits the conversion of a Hollow output to a Solid Output reducer. Customers can easily change output shaft locations from L to R with this accessory. These kits can only be used with standard max bore reducers. They cannot be used with alternative max bore reducers. if other shaft requirements are necessary, consult DODGE. kit includes shaft, snap rings and keys.





Case Size	Kit. No.	A +/-.0005
13	13PLUGIN	0.6245
15	15PLUGIN	0.7495
17	17PLUGIN	0.8745
20	20PLUGIN	0.9995
23	23PLUGIN	1.1245
26	26PLUGIN	1.1245
30	30PLUGIN	1.3745
35	35PLUGIN	1.4995
40	40PLUGIN	1.8745
47	47PLUGIN	1.9995

Case Size	B	C	Key
13	1.82	4.47	3/16 SQ x 1.50
15	1.82	4.47	3/16 SQ x 1.50
17	1.81	4.81	3/16 SQ x 1.50
20	2.11	5.31	1/4 SQ x 1.75
23	2.36	6.05	1/4 SQ x 1.98
26	2.36	6.05	1/4 SQ x 1.98
30	3.43	7.76	5/16 SQ x 3.00
35	3.34	8.17	3/8 SQ x 2.93
40	4.10	9.46	1/2 SQ x 3.53
47	3.93	10.46	1/2 SQ x 3.53

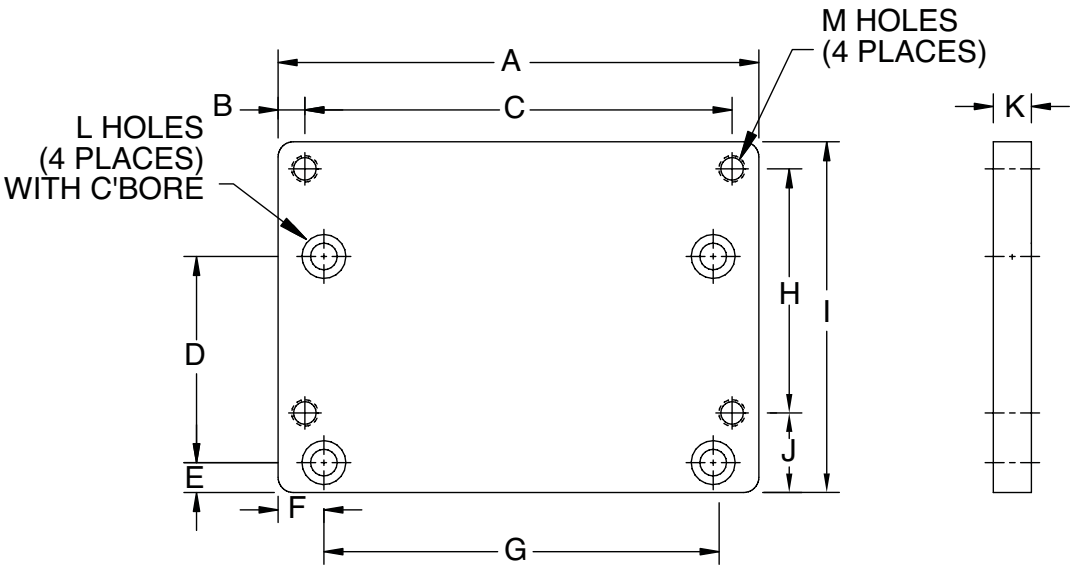
NOTE: Solid shaft gearboxes are recommended whenever overhung load is present. Plug-in shafts can be used for overhung load applications if testing has been done to verify the plug-in shaft performs to expectations. Special length and diameter solid shafts are available through the Tigear-2 Mod Express program shown on page G4-129.

TIGEAR-2

Transition Base Kits For Downsizing

TIGEAR-2 transition base kits allow a smaller reducer to “drop-in” to the bolt hole pattern of the next size larger reducer. This scenario is possible in many replacement situations because of the increases in the TIGEAR-2 output torque capacity.

The base will locate the output shaft in the same position as the one from the larger reducer being replaced.



Down-Sizing

From	To	Kit Number	A	B	C	D	E	F	G	H	I	J	K	L Holes	M Holes
26	23	**23DOWN26**	7.13	0.38	6.38	2.88	0.69	1.07	5.00	3.38	4.69	0.93	0.63	7/16 DRILL THRU	3/8-16 TAP THRU
30	26	**26DOWN30**	7.88	0.44	7.00	3.38	0.49	0.75	6.38	4.00	5.75	1.31	0.63	7/16 DRILL THRU	716-14 TAP THRU
35	30	**30DOWN35**	8.38	0.44	7.50	4.00	0.62	0.69	7.00	4.00	5.82	1.38	1.00	1/2 DRILL THRU	716-14 TAP THRU

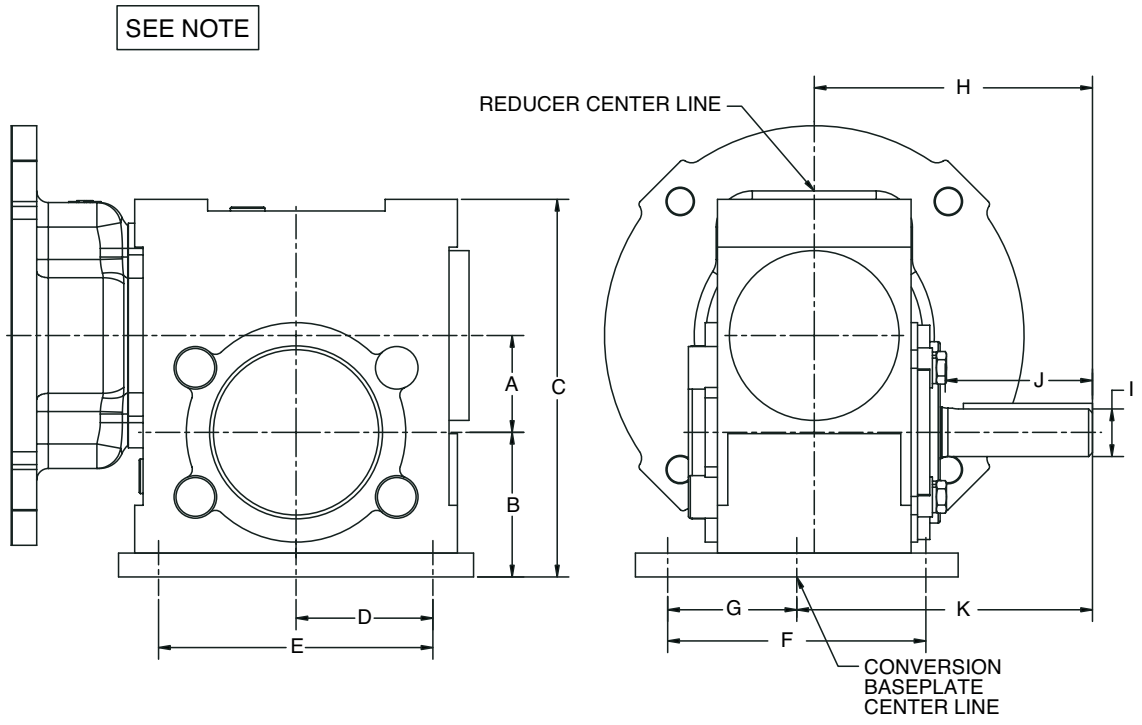
ACCESSORIES

TIGEAR-2
XL Right Angle Conversion Base

TIGEAR-2 conversion base kits allow customers who currently use single reduction Master XL right angle reducers to convert to TIGEAR-2.

The conversion base kits will be supplied with hardware to attach the conversion base to TIGEAR-2 unit.

Please note some dimensional differences exist between the Master XL reducers and TIGEAR-2 reducers with conversion base.



TIGEAR-2 Sizes	Converted XLSize	Kit No.	A	B	C	D	E	F	G	H	I	J	K	Master XL Base To Centerline Of Output Shaft
15	12	**W12T015BASE**	1.50	2.250	5.86	2.12	4.25	4.00	2.00	4.31	0.750	2.23	4.00	2.23
17	16	**W16T017BASE**	1.75	2.480	6.34	3.00	6.00	4.50	2.25	4.31	0.875	1.74	4.56	2.48
23	21	**W21T023BASE**	2.31	3.365	8.25	3.50	7.00	7.00	3.50	5.14	1.125	2.18	6.00	3.37
35	28	**W28T035BASE**	3.50	4.855	11.44	3.99	8.00	8.00	4.00	7.06	1.500	3.51	7.81	*3.985

* Denotes dimensional difference between XL Right angle and TIGEAR-2 unit with conversion base.

TIGEAR-2

Lubrication

The DODGE TIGEAR-2 reducer is factory filled with a synthetic lubricant which eliminates costly preparation time normally required to put a reducer into service. The lubricant supplied is a high performance, H1 food grade lubricant, suitable for all mounting positions. When reducer selections are properly service factored to account for the thermal limitations of the reducer, the standard lubricant covers an operating ambient temperature range of -10°F to 165°F. No other lubricant available on the market provides the outstanding wear protection and thermal abilities of the factory-filled lubricant. Other lubricants, including Mobile SHC series lubricant, must not be mixed with the factory supplied lubricant.

Low Temperature Lubricant

For operating ambient temperature ranges from -10°F to -30°F, order Low Temperature Lubricant at the time of reducer order. See Mod Express section (page G4-127) for additional information on ordering Low Temp Lubricant.The low temperature lubricant has all of the high performance features of the standard temperature lubricant, but has been modified for lower temperatures. Contact Application Engineering for temperatures below -30°F

Approximate Oil Volumes

	Reducer Size											
Reducer Configuration	**13**	**15**	**17**	**20**	**21 ULTRA KLEEN**	**23**	**26**	**26 ULTRA KLEEN**	**30**	**35**	**40**	**47**
(QS) Quill Input Solid Output Shaft	6 oz.	7 oz.	12 oz.	15 oz.	23 oz.	23 oz.	32 oz.	37 oz.	48 oz.	66 oz.	97 oz.	176 oz.
(QH) Quill Input Hollow Output Shaft	6 oz.	7 oz.	10.2 oz.	14 oz.	18 oz.	21 oz.	28 oz.	32 oz.	44 oz.	60 oz.	89 oz.	164 oz.
Separate or 3-Piece Coupled Input (AS & SS) Solid Output Shaft	9 oz.	11 oz.	18 oz.	23 oz.	N/A	32 oz.	44 oz.	N/A	70 oz.	94 oz.	144 oz.	266 oz.
Separate or 3-Piece Coupled Input (AH & SH) Hollow Output Shaft	9 oz.	10 oz.	15 oz.	21 oz.	N/A	28 oz.	38 oz.	N/A	59 oz.	82 oz.	140 oz.	228 oz.

Replacement factory recommended TIGEAR Lubricant may be ordered from DODGE. Use the following table to determine part number

Standard Temperature Range		
Klubersynth UH1 6-460		
Volume	**Quart**	**Gallon**
	32 oz.	**128 oz.**
Part Number	**334863**	**334862**

Low Temperature Range		
Klubersynth UH1 6-150		
Volume	**Quart**	**Gallon**
	32 oz.	**128 oz.**
Part Number	**334861**	**334860**

OUTPUT SHAFT REVERSAL KITS

TIGEAR-2 reducers are stocked in left-hand and right-hand output shaft configuration. However, it is possible to convert a left-hand unit to a right-hand unit, or a right-hand unit to a left-hand unit in the field. A shaft reversal kit is required to make this change. Each kit includes a shaft seal, bore plug, o-ring, and instructions.

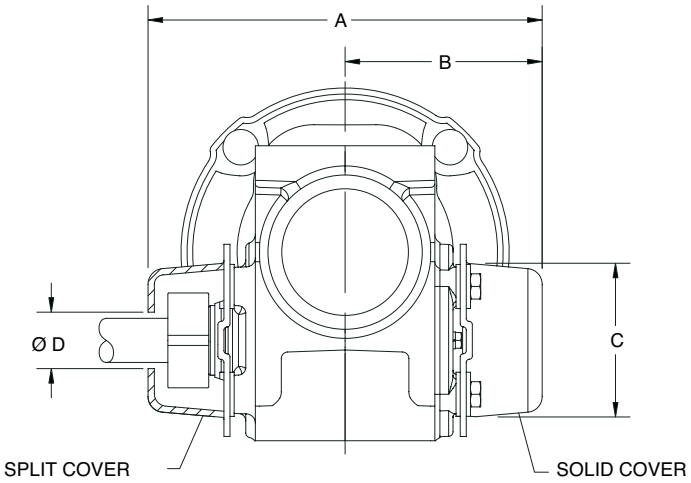
Reducer Size	Kit Part Number
13	**13SHAFTREV**
15	**15SHAFTREV**
17	**17SHAFTREV**
20	**20SHAFTREV**
23	**23SHAFTREV**
26	**26SHAFTREV**
30	**30SHAFTREV**
35	**35SHAFTREV**
40	**40SHAFTREV**
47	**47SHAFTREV**

ACCESSORIES

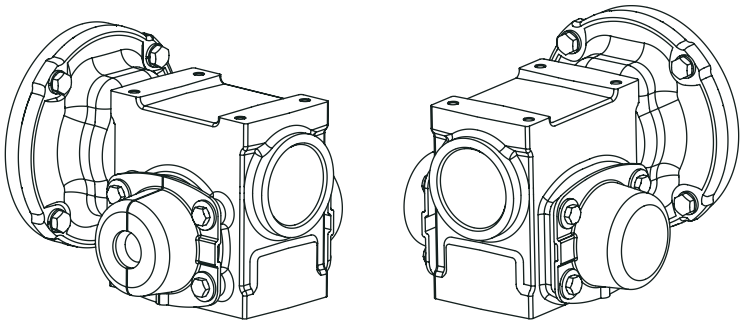
TIGEAR-2 Mod Express

Hollow Output Safety Covers

Safety Cover Kits are available to enclose the rotating shaft on hollow output reducers. The kits are designed to fit reducers equipped with GRIP TIGHT or straight-bore bushings, or reducers equipped with the standard straight-bore hollow output shaft. The covers are made from a water-resistant polymer and include stainless steel fasteners for mild washdown applications. The covers are not water tight and it is possible for solid material to collect near the covers.



SAFETY COVER - END VIEW



SAFETY COVER - ISOMETRIC VIEWS

Case Size	Cover Style	Kit Number	A	B	C	D
17	Closed	**17CLSDCOVER**	8.0	4.0	3.1	---
	Open	**170PENCOVER**	8.0	4.0	3.1	1.12
20	Closed	**20CLSDCOVER**	8.2	4.1	3.8	---
	Open	**200PENCOVER**	8.2	4.1	3.8	1.50
23	Closed	**23CLSDCOVER**	9.2	4.6	3.4	---
	Open	**230PENCOVER**	9.2	4.6	3.4	1.75
26	Closed	**26CLSDCOVER**	9.6	4.8	4.4	---
	Open	**260PENVOCER**	9.6	4.8	4.4	1.94
30	Closed	**30CLSDCOVER**	10.8	5.4	3.9	---
	Open	**300PENCOVER**	10.8	5.4	3.9	2.19
35	Closed	**35CLSDCOVER**	12.0	6.0	5.5	---
	Open	**350PENCOVER**	12.0	6.0	5.5	2.19
40	Closed	**40CLSDCOVER**	13.6	6.8	4.5	---
	Open	**400PENCOVER**	13.6	6.8	4.5	2.44

TIGEAR-2 Mod Express

TIGEAR-2 Mod Express program provides common options for the TIGEAR-2 product line. All options are performed at the factory but standard delivery time may be increased if engineering time and/or parts are required to be outsourced for modification. All modified units will be assigned a unique part number. Net price adders for most modifications can be found at the end of the Tigear-2 section in the MLP book. For pricing not listed contact marketing.

Modification	Part Number Suffix	Notes
Special Output Bore Diameter	BDyxx	See Note 1
Harsh Duty Output Seals	HD	Option available only on standard reducers
Special Input Shaft Diameter	IDyxx	Option only available on Separate reducers. See Notes 1 and 3
Special Input Shaft Length	ILyxx	Option only available on Separate reducers. See Notes 1 and 3
Low Temperature Lubricant	LT	Suitable for ≥30 deg F temperature range.
Stainless Steel Hardware	SH	Option available only on standard units
Special Sealed Input Bearing	SB	For vertically mounted 3-Piece Coupled input reducers. Bearing is changed from open to sealed.
Stainless Epoxy Paint	SP	Option available only on standard units. See Note 2.
Special Output Shaft Length	SLyxx	See Notes 1 and 3
Special Output Shaft Diameter	SDyxx	See Notes 1 and 3
White Epoxy Paint	WP	See Note 2.

NOTE 1 - Marketing approval required

NOTE 2 - Not available on Ultra-Kleen reducers

NOTE 3 - Overhung load capacity must be verified with Engineering

y = the whole number of inches required. xx = the number of sixteenths. (Example: for 1.5", yxx = 108; for 2-15/16" yxx = 215; etc.)

For METRIC dimensions, annotate yxx in the closest inch dimension and add metric dimension to note on order

ENGINEERING/TECHNICAL

TIGEAR-2

Shipping Weights - Approximate

Standard and E-Z KLEEN

Input Style	Motor Frame	Reducer Case Size									
		13	**15**	**17**	**20**	**23**	**26**	**30**	**35**	**40**	**47**
Quill and Separate	56/140	17	20	26	31	45	51	81	100	160	
	180/210					47	53	86	102	160	245
	250									160	245

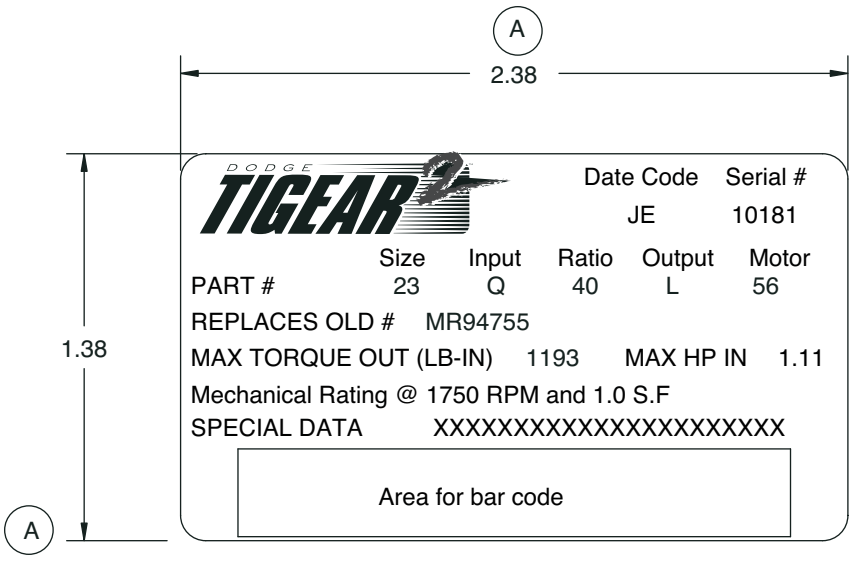
Input Style	Motor Frame	Reducer Case Size									
		13	**15**	**17**	**20**	**23**	**26**	**30**	**35**	**40**	**47**
3-Piece Coupled	56/140	18	22	29	34	50	57	91	113	166	
	180/210					53	60	108	120	166	251
	250									166	251

ULTRA KLEEN

Input Style	Motor Frame	Reducer Case Size									
		17	21	23	26	30					
Quill	56/140	28	38	50	65	79					
	180			50	65	79					

Input Style	Motor Frame	Reducer Case Size									
		17	**23**	**30**							
3-Piece Coupled	56/140	32	58	83							
	180		58	83							

Nameplate Layout



Manufactured Date Code Chart

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1966	AR	BR	CR	DR	ER	FR	GR	HR	JR	KR	LR	MR
1967	AS	BS	CS	DS	ES	FS	GS	HS	JS	KS	LS	MS
1968	AT	BT	CT	DT	ET	FT	GT	HT	JT	KT	LT	MT
1969	AU	BU	CU	DU	EU	FU	GU	HU	JU	KU	LU	MU
1970	AV	BV	CV	DV	EV	FV	GV	HV	JV	KV	LV	MV
1971	AW	BW	CW	DW	EW	FW	GW	HW	JW	KW	LW	MW
1972	AX	BX	CX	DX	EX	FX	GX	HX	JX	KX	LX	MX
1973	AY	BY	CY	DY	EY	FY	GY	HY	JY	KY	LY	MY
1974	AZ	BZ	CZ	DZ	EZ	FZ	GZ	HZ	JZ	KZ	LZ	MZ
1975	NA	PA	QA	RA	SA	TA	UA	VA	WA	XA	YA	ZA
1976	NB	PB	QB	RB	SB	TB	UB	VB	WB	XB	YB	ZB
1977	NC	PC	QC	RC	SC	TC	UC	VC	WC	XC	YC	ZC
1978	ND	PD	QD	RD	SD	TD	UD	VD	WD	XD	YD	ZD
1979	NE	PE	QE	RE	SE	TE	UE	VE	WE	XE	YE	ZE
1980	NF	PF	QF	RF	SF	TF	UF	VF	WF	XF	YF	ZF
1981	NG	PG	QG	RG	SG	TG	UG	VG	WG	XG	YG	ZG
1982	NH	PH	QH	RH	SH	TH	UH	VH	WH	XH	YH	ZH
1983	NJ	PJ	QJ	RJ	SJ	TJ	UJ	VJ	WJ	XJ	YJ	ZJ
1984	NK	PK	QK	RK	SK	TK	UK	VK	WK	XK	YK	ZK
1985	NL	PL	QL	RL	SL	TL	UL	VL	WL	XL	YL	ZL
1986	NM	PM	QM	RM	SM	TM	UM	VM	WM	XM	YM	ZM
1987	NN	PN	QN	RN	SN	TN	UN	VN	WN	XN	YN	ZN
1988	NP	PP	QP	RP	SP	TP	UP	VP	WP	XP	YP	ZP
1989	NQ	PQ	QQ	RQ	SQ	TQ	UQ	VQ	WQ	XQ	YQ	ZQ
1990	NR	PR	QR	RR	SR	TR	UR	VR	WR	XR	YR	ZR
1991	NS	PS	QS	RS	SS	TS	US	VS	WS	XS	YS	ZS
1992	NT	PT	QT	RT	ST	TT	UT	VT	WT	XT	YT	ZT
1993	NU	PU	QU	RU	SU	TU	UU	VU	WU	XU	YU	ZU
1994	NW	PW	QW	RW	SW	TW	UW	VW	WW	XW	YW	ZW
1995	NX	PX	QX	RX	SX	TX	UX	VX	WX	XX	YX	ZX
1996	NY	PY	QY	RY	SY	TY	UY	VY	WY	XY	YY	ZY
1997	NZ	PZ	QZ	RZ	SZ	TZ	UZ	VZ	WZ	XZ	YZ	ZZ
1998	AA	BA	CA	DA	EA	FA	GA	HA	JA	KA	LA	MA
1999	AB	BB	CB	DB	EB	FB	GB	HB	JB	KB	LB	MB
2000	AC	BC	CC	DC	EC	FC	GC	HC	JC	KC	LC	MC
2001	AD	BD	CD	DD	ED	FD	GD	HD	JD	KD	LD	MD
2002	AE	BE	CE	DE	EE	FE	GE	HE	JE	KE	LE	ME
2003	AF	BF	CF	DF	EF	FF	GF	HF	JF	KF	LF	MF
2004	AG	BG	CG	DG	EG	FG	GG	HG	JG	KG	LG	MG
2005	AH	BH	CH	DH	EH	FH	GH	HH	JH	KH	LH	MH
2006	AJ	BJ	CJ	DJ	EJ	FJ	GJ	HJ	JJ	KJ	LJ	MJ
2007	AK	BK	CK	DK	EK	FK	GK	HK	JK	KK	LK	MK
2008	AL	BL	CL	DL	EL	FL	GL	HL	JL	KL	LL	ML
2009	AM	BM	CM	DM	EM	FM	GM	HM	JM	KM	LM	MM
2010	AN	BN	CN	DN	EN	FN	GN	HN	JN	KN	LN	MN
2011	AP	BP	CP	DP	EP	FP	GP	HP	JP	KP	LP	MP
2012	AQ	BQ	CQ	DQ	EQ	FQ	GQ	HQ	JQ	KQ	LQ	MQ
2013	AR	BR	CR	DR	ER	FR	GR	HR	JR	KR	LR	MR
2014	AS	BS	CS	DS	ES	FS	GS	HS	JS	KS	LS	MS
2015	AT	BT	CT	DT	ET	FT	GT	HT	JT	KT	LT	MT

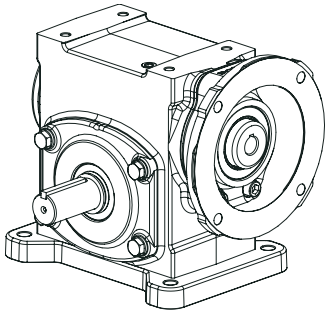
FEATURES/BENEFITS PAGE G4-2	SPECIFICATION PAGE G4-8	NOMENCLATURE PAGE G4-9	RATINGS/DIMENSIONS PAGE G4-16

MOUNTING POSITIONS

TIGEAR-2 Mounting Positions

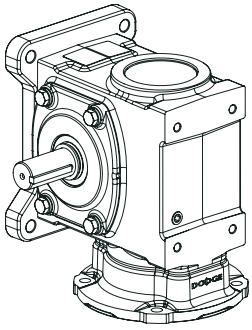
TIGEAR-2 reducers are supplied with a high performance lubricant factory filled to a level suitable for all approved mounting positions. Positions shown as not recommended do NOT void the product warrant. They are however, positions that can cause problems in certain applications. Mounting position nomenclature is NOT required when ordering. Mounting positions apply to all input and output configurations.

Floor Mounted,
Motor Adapter Or Input Shaft Above The Output Shaft

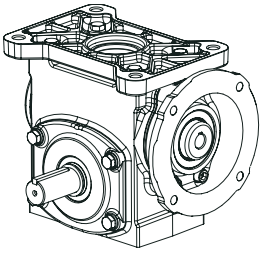


Wall Mounted,
Motor Adapter Or Input Shaft Facing Down

See Note 2

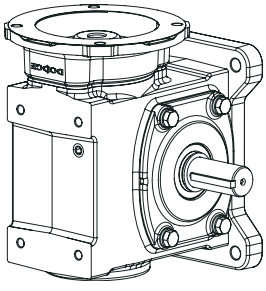


Ceiling Mounted,
Motor, Motor Adapter Or Input Shaft Above The Output Shaft



Wall Mounted,
Motor Adapter Or Input Shaft Facing Up

See Note 3



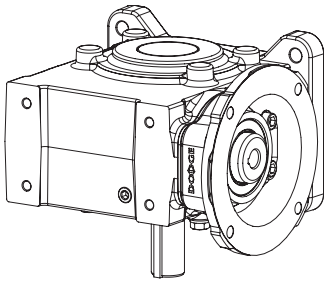
Recommend 3-piece Coupled Input with Special Sealed Input Bearing. (See Mod Express, page G4-127 for additional information.)

MOUNTING POSITIONS

TIGEAR-2 Mounting Positions

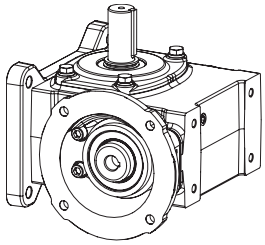
Wall Mounted,
Output Shaft Down

See Note 4



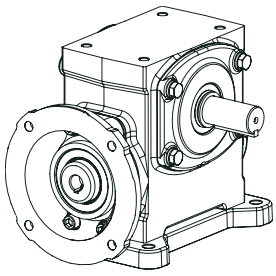
Wall Mounted,
Output Shaft Up

See Note 4



Floor or Ceiling Mounted,
Motor Adapter Or Input Shaft Below Output Shaft

See Note 1



Note 1 Not recommended due to flooded input seal.

Note 2 Not recommended due to the flooded input seal and the upper bearing which will not get sufficient lubrication.

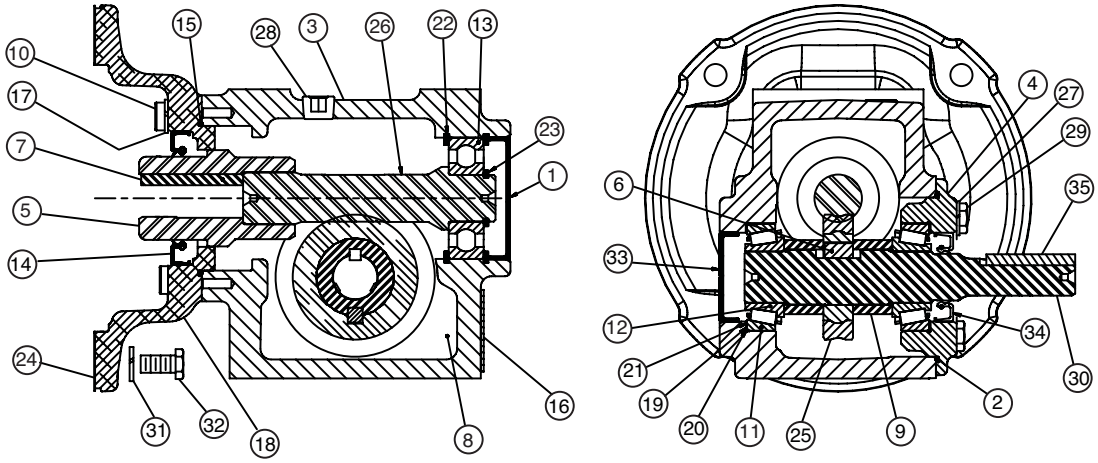
Note 3 Not recommended for 3-piece coupled input. The upper input bearing will not get sufficient lubrication.

Note 4 Not recommended for Quill input

RENEWAL PARTS

TIGEAR-2 With Quill Input / Solid Output

Sizes 13 - 23



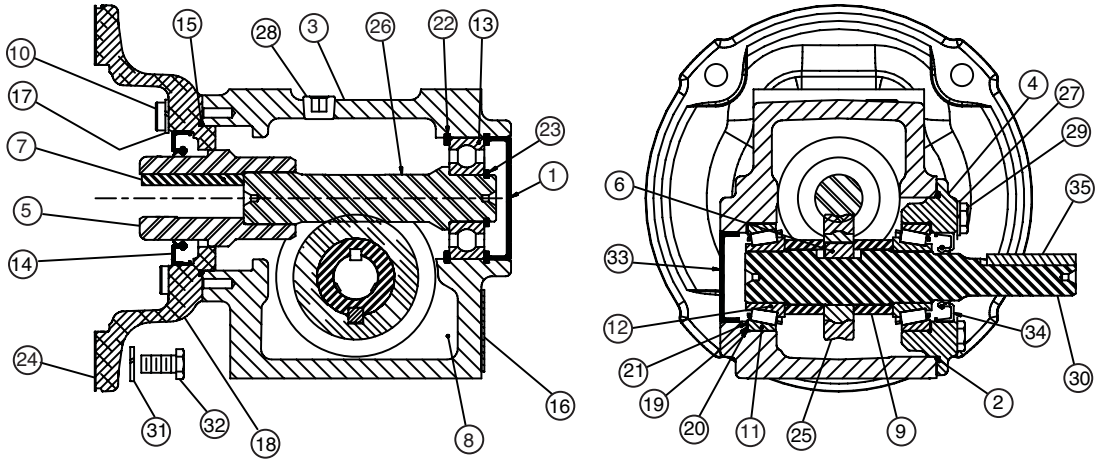
Ref No.	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT BORE PLUG	1	335603	335603	335600	335600	335601
2	O-RING	1	276019	276019	276134	276355	334307
3	TIG2 SOLID GEARCASE	1	333210	333211	333212	333213	333214
4	T2 133& 150 SOLID BRG HSG	1	333265	333265	333266	333267	333268
5	QUILL CPLG 150 56C ✤	1	-----	-----	-----	-----	-----
6	GEAR KEY	1	333650	333661	333666	333671	333686
7	DRIV-LOK KEY 56-140	1	333698	333698	333667	333667	333698
	DRIV-LOK KEY 180TC	1	-----	-----	-----	-----	333707
	DRIV-LOK KEY 210TC	1	-----	-----	-----	-----	-----
	DRIV-LOK KEY 250TC	1	-----	-----	-----	-----	-----
8	TIGEAR 2 LUBRICANT	1	334863	334863	334863	334863	334863
9	SOLID SPACER	2	333725	333726	333727	333728	333729
10	SOCKET HEAD CAP SCR GR8	4	333801	333801	333801	333801	51492
	SCKT HD CAP SCR 180-210-250	4	-----	-----	-----	-----	-----
11-12	BEARING CUP/CONE ASSM	2	335337	335337	411626-01-C	411626-01-A	411626-01-A
13	BALL BEARING	1	334218	334218	334219	334219	334220
14	INPUT SEAL T2 56-140	1	334274	334274	334274	334274	334276
	INPUT SEAL T2 180-210-250	1	-----	-----	-----	-----	-----
15	"O-RING, NITRILE"	1	334301	334301	334301	334301	276355
16	TIGEAR 2 NAMEPLATE	1	334305	334305	334305	334305	334305
17	MED LOCKWASHER	4	419010	419010	419010	419010	275803

✤ Contact DODGE Renewal Parts

RENEWAL PARTS

TIGEAR-2 With Quill Input / Solid Output

Sizes 13 - 23



Ref No.	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
18	MOTOR ADAPTER T2 56-140	1	333228	333228	333228	333228	333229
	MOTOR ADAPTER 180	1	-----	-----	-----	-----	334681
19-21	SHIM KIT	1	411642-46-E	411642-46-E	411623-33-A	411623-33-B	411623-33-B
22	INTERNAL RET RING	2	411637-02-AV	411637-02-AV	58256	58256	411637-01-A
23	EXTERNAL RET RING	1	411637-02-E	411637-02-AY	411637-02-AY	411637-02-N	
24	56/140 M/A. GASKET	1	602028-43-F	602028-43-F	602028-43-F	602028-43-F	602028-43-F
	MTR ADPT GSKT 180-210-250	1	-----	-----	-----	-----	276335
25	TIG2 SOLID GEAR ✤	1	-----	-----	-----	-----	-----
26	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----
27	MED LOCKWASHER	4	419009	419009	419010	419010	275803
28	PIPE PLUG 1/4" SOC.	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
29	HEX HEAD CAP SCREW GR5	4	51302	51302	411405	411405	51929
30	SOLID O/P SHFT-SINGLE EXTN	1	333604	333605	333606	333607	333608
31	LOCK WASHER 56-140	4	275803	275803	275803	275803	275803
	LOCK WASHER 180-210	4	-----	-----	-----	-----	-----
32	HEX HD CAP SCR MTR 56-140	4	51929	51929	51929	51492	51929
	HEX HD CAP SCR MTR 180-210	4	-----	-----	-----	-----	41163158X
	HEX HD CAP SCR MTR 250	4	-----	-----	-----	-----	-----
33	OUTPUT BORE PLUG	1	335605	335605	335606	335608	335608
34	TIG2 SEAL, OUTPUT	1	334271	334271	334272	334273	334273
35	KEY	1	333665	333660	333665	333827	333685

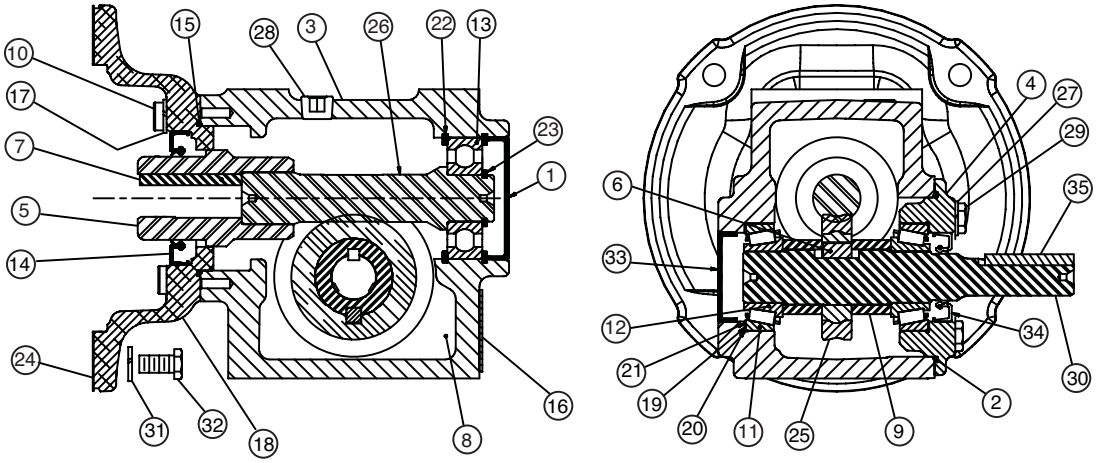
✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With Quill Input / Solid Output

Sizes 26 - 47



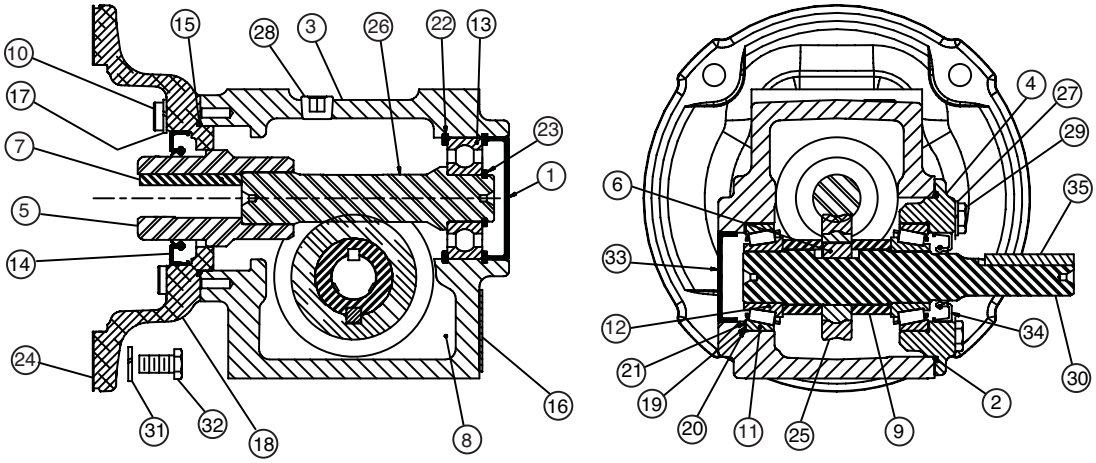
Ref No.	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT BORE PLUG	1	335609	335602	335604	335610	335613
2	O-RING	1	334302	334308	276358	334313	334315
3	TIG2 SOLID GEARCASE	1	333215	333216	333217	334506	334576
4	T2 133& 150 SOLID BRG HSG	1	333269	333270	333271	334510	334580
5	QUILL CPLG 150 56C ✤	1	-----	-----	-----	-----	-----
6	GEAR KEY	1	333696	333706	333775	334564	334624
7	DRIV-LOK KEY 56-140	1	333698	333698	333715	334557	334557
	DRIV-LOK KEY 180TC	1	333707	333707	333707	334558	334558
	DRIV-LOK KEY 210TC	1	-----	-----	333721	334559	334559
	DRIV-LOK KEY 250TC	1	-----	-----	-----	334560	334560
8	TIGEAR 2 LUBRICANT	1	334862	334862	334862	334862	334862
9	SOLID SPACER	2	333730	333731	333732	334565	334625
10	SOCKET HEAD CAP SCR GR8	4	51492	51492	51952	51952	51952
	SCKT HD CAP SCR 180-210-250	4	-----	-----	334374	334374	334374
11-12	BEARING CUP/CONE ASSM	2	411626-01-A	335338	411626-01-R	335340	335344
13	BALL BEARING	1	334221	334222	334223	334224	334225
14	INPUT SEAL T2 56-140	1	334276	334276	334276	334276	334276
	INPUT SEAL T2 180-210-250	1	-----	-----	334279	334279	334279
15	O-RING, NITRILE	1	276355	276355	334302	334302	334302
16	TIGEAR 2 NAMEPLATE	1	334305	334305	334305	334305	334305
17	MED LOCKWASHER	4	275803	275803	275855	275855	275855

✤ Contact DODGE Renewal Parts

RENEWAL PARTS

TIGEAR-2 With Quill Input / Solid Output

Sizes 26 - 47



Ref No.	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
18	MOTOR ADAPTER T2 56-140	1	333229	333229	334759	334759	-----
	MOTOR ADAPTER 180-210	1	334681	334681	333231	333231	333231
	MOTOR ADPT PLT 250TC (1)	1	-----	-----	-----	334570	334570
19-21	SHIM KIT	1	411623-33-B	335330	411623-33-C	335331	335336
22	INTERNAL RET RING	2	278715	411637-02-AC	278717	51334	51335
23	EXTERNAL RET RING	1	411637-02-AP	411637-02-AR	411637-02-BA	334404	333933
24	56/140 M/A. GASKET	1	602028-43-F	602028-43-F	602028-43-F	602028-43-F	602028-43-F
	MTR ADPT GSKT 180-210-250 (4)	1	276335	276335	276335	276335	276335
25	TIG2 SOLID GEAR ✤	1	-----	-----	-----	-----	-----
26	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----
27	MED LOCKWASHER	4	275803	275855	275855	419036	419036
28	PIPE PLUG 1/4" SOC.	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
29	HEX HEAD CAP SCREW GR5	4	51929	51952	51952	411483	411484
30	SOLID O/P SHFT-SINGLE EXTN	1	333609	333610	333611	334554	334619
31	LOCK WASHER 56-140	4	275803	275803	275803	275803	275803
	LOCK WASHER 180-210	4	-----	-----	275855	275853	275853
32	HEX HD CAP SCR MTR 56-140	4	51929	51929	51929	51929	51929
	HEX HD CAP SCR MTR 180-210	4	411631-63-A	411631-63-A	411631-58-X	334896	334896
	HEX HD CAP SCR MTR 250	4	-----	-----	-----	276446	276446
33	OUTPUT BORE PLUG	1	335608	335607	335614	335611	335612
34	TIG2 SEAL, OUTPUT	1	334273	334274	334275	334277	334278
35	KEY	1	333695	333705	333716	333829	333829

(1) 250TC adpt plate bolts onto 180-210 motor adapter.

(4) Frame size 250 uses qty 2.

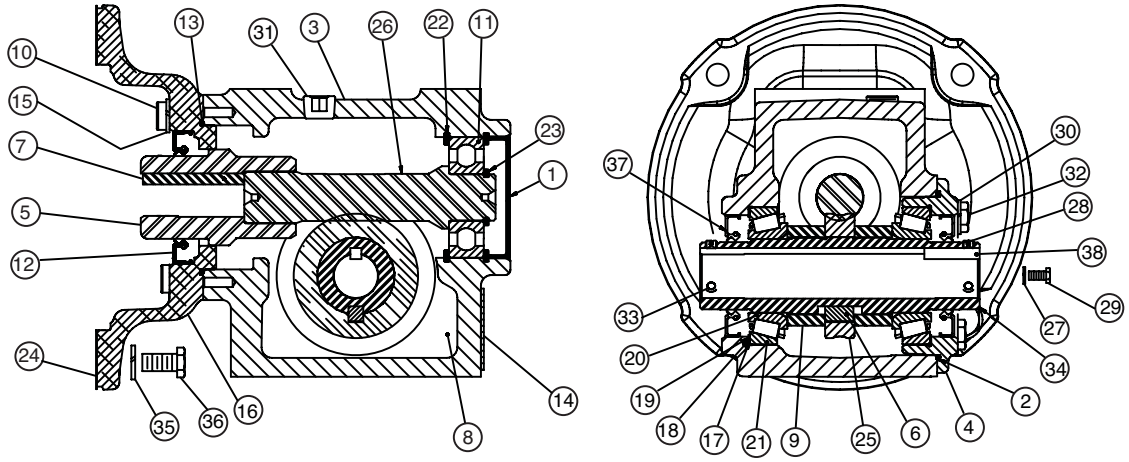
✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With Quill Input / Hollow Output

Sizes 13 - 23



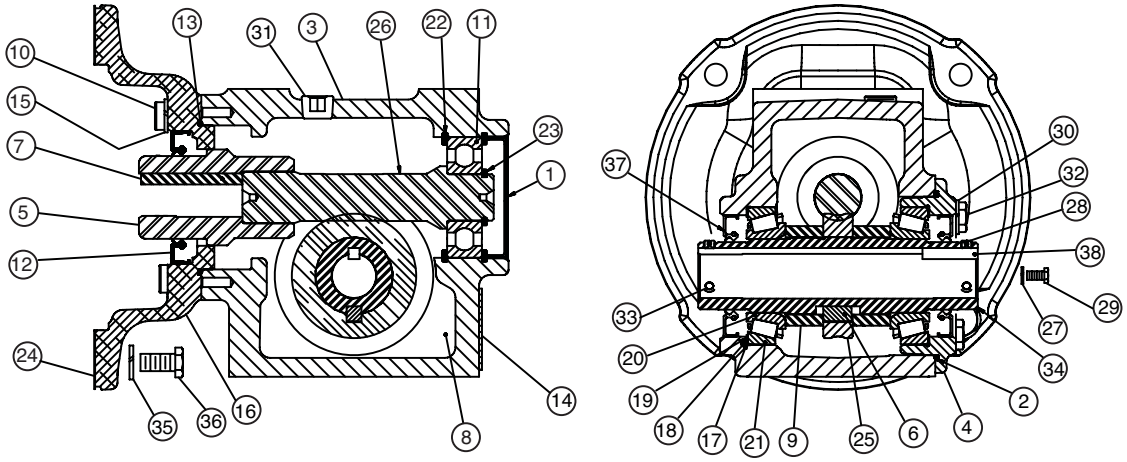
Ref No	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
1	I/P RIBBED BORE PLUG	1	335603	335603	335600	335600	335601
2	O-RING	1	276019	276019	276134	276355	334307
3	TIG2 HOLLOW GEARCASE	1	333218	333219	333220	333221	333222
4	T2 HOLLOW BRG HOUSING	1	333281	333281	333282	333283	333284
5	QUILL CPLG ✤	1	-----	-----	-----	-----	-----
6	SOLID GEAR KEY	1	333650	333650	333666	333671	333686
7	DRIV-LOK KEY 56-140	1	333698	333698	333667	333667	333698
	DRIV-LOK KEY 180TC	1	-----	-----	-----	-----	333707
8	TIGEAR 2 LUBRICANT	1	334863	334863	334863	334863	334862
9	TIG2 HOLLW O/P SPACER	2	333733	333734	333735	333736	333737
10	SOCKET HEAD CAP SCREW	4	333801	333801	333801	333801	51492
11	BALL BRG.	1	334218	334218	334219	334219	334220
12	TIG2 SEAL, INPUT 56-140	1	334274	334274	334274	334274	334276
	TIG2 SEAL, INPUT 180-210	1	-----	-----	-----	-----	-----
13	O-RING. NITRILE	1	334301	334301	334301	334301	276355
14	TIGEAR 2 NAMEPLATE FIN	1	334305	334305	334305	334305	334305
15	MED LOCKWASHER	4	419010	419010	419010	419010	275803
16	MOTOR ADAPTER T2 56-140	1	333228	333228	333228	333228	333229
	MOTOR ADAPTER, 180	1	-----	-----	-----	-----	334681
17-19	SHIM KIT	1	411623-33-B	411623-33-B	335330	411623-33-C	335331

✤ Contact DODGE Renewal Parts

RENEWAL PARTS

TIGEAR-2 With Quill Input / Hollow Output

Sizes 13 - 23



Ref No	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
20-21	BEARIN CUP/CONE ASSEMBLY	2	411626-01-A	411626-01-A	335338	335339	335340
22	INTERNAL RET RING	2	411637-02-AV	411637-02-AV	58256	58256	411637-01-A
23	EXTERNAL RET RING	1	411637-02-E	411637-02-E	411637-02-AY	411637-02-AY	411637-02-N
24	56/140 M/A. GASKET	1	602028-43-F	602028-43-F	602028-43-F	602028-43-F	602028-43-F
	MOTOR ADPT GASKET 180-210-250	1	-----	-----	-----	-----	276335
25	TIG2 HOLLOW GEAR ✤	1	-----	-----	-----	-----	-----
26	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----
27	MED LOCKWASHER	2	419007	419007	419007	419007	419009
28	SET SCREW	2	400140	400140	400140	400140	400140
29	HEX HEAD CAP SCREW	2	58270	58270	333800	333800	51302
30	MED LOCKWASHER	4	419009	419009	419010	419010	275803
31	PIPE PLUG 1/4" OC.	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
32	HEX HEAD CAP SCREW	4	51302	51302	411405	411405	51929
33	SET SCREW	4	275953	275953	275953	275953	275953
34	TIG2 HOLLOW O/P SHAFT	1	333629	333629	333631	334789	333633
35	LOCK WASHER 56-140	4	275803	275803	275803	275803	275803
	LOCK WASHER 180	4	-----	-----	-----	-----	-----
36	HEX HEAD CAP SCREW	4	51492	51492	51929	51492	51929
	SHCS MTR MOUNTING 180-210	4	-----	-----	-----	-----	411631-63-A
	SHCS MTR MOUNTING 250	4	-----	-----	-----	-----	-----
37	SEAL TIGEAR 2, OUTPUT	2	334273	334273	334274	334276	334277
38	OUTPUT KEY	1	333831	333831	333827	333827	333687

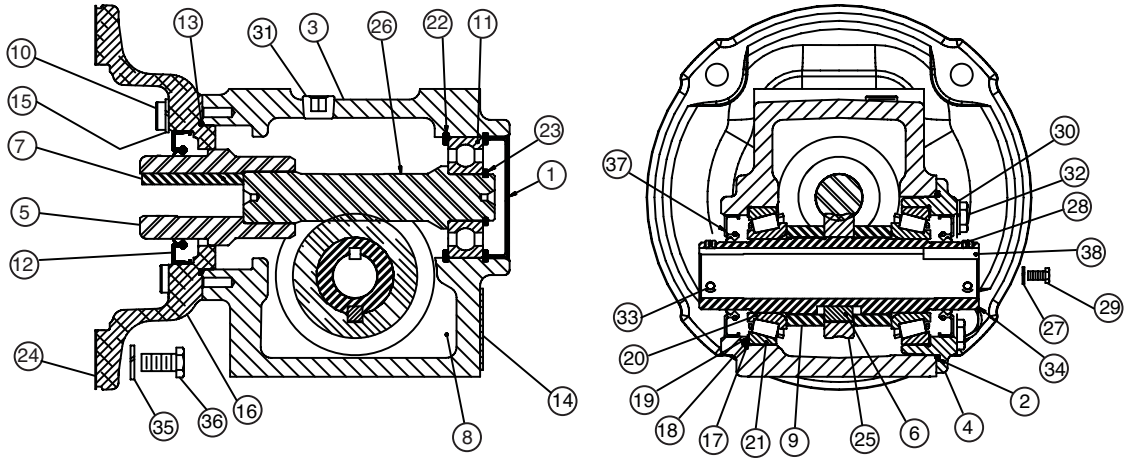
✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With Quill Input / Hollow Output

Sizes 26 - 47



Ref No	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
1	I/P RIBBED BORE PLUG	1	335609	335602	335604	335610	335613
2	O-RING	1	334302	334308	276358	334313	334315
3	TIG2 HOLLOW GEARCASE	1	333223	333224	333225	334507	334577
4	T2 HOLLOW BRG HOUSING	1	333285	333286	333287	334512	334582
5	QUILL CPLG ✤	1	-----	-----	-----	-----	-----
6	SOLID GEAR KEY	1	333670	333712	333717	334564	334624
7	DRIV-LOK KEY 56-140	1	333698	333698	333715	334557	-----
	DRIV-LOK KEY 180TC	1	333707	333707	333707	334558	334558
	DRIV-LOK KEY 210TC	1	-----	-----	333721	334559	334559
	DRIV-LOK KEY 250TC	1	-----	-----	-----	334560	334560
8	TIGEAR 2 LUBRICANT	1	334862	334862	334862	334862	334862
9	TIG2 HOLLW O/P SPACER	2	333738	333739	333740	334566	334626
10	SOCKET HEAD CAP SCREW	4	51492	51492	334374	334374	334374
11	BALL BRG.	1	334221	334222	334223	334224	334225
12	TIG2 SEAL, INPUT 56-140	1	334276	334276	334276	334276	334276
	TIG2 SEAL, INPUT 180-210	1	-----	-----	334279	334279	334279
13	O-RING. NITRILE	1	276355	276355	334302	334302	334302
14	TIGEAR 2 NAMEPLATE FIN	1	334305	334305	334305	334305	334305
15	MED LOCKWASHER	4	275803	275803	275855	275855	275855
16	MOTOR ADAPTER T2 56-140	1	333229	333229	334759	334759	-----
	MOTOR ADAPTER, 180-210TC	1	334681	334681	333231	333231	333231
	MOTOR ADPT PLATE 250TC (2)	1	-----	-----	-----	334570	334570
17-19	SHIM KIT	1	335332	335333	335333	335334	335335

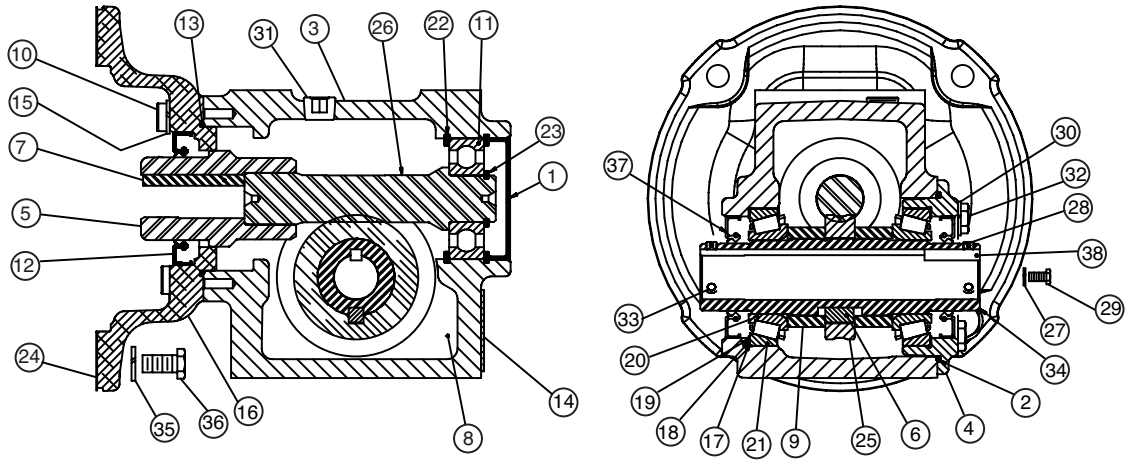
(2) Adapter plate bolts onto 180-210 adapter **333231**.

✤ Contact DODGE Renewal Parts

RENEWAL PARTS

TIGEAR-2 With Quill Input / Hollow Output

Sizes 26 - 47



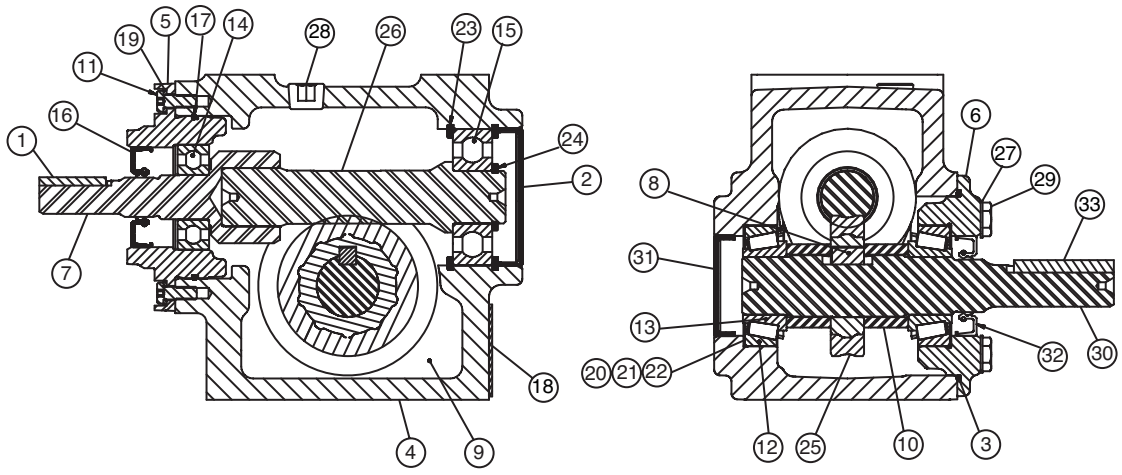
Ref No	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
20-21	BEARIN CUP/CONE ASSEMBLY	2	411626-01-BJ	335341	335341	335342	335343
22	INTERNAL RET RING	2	278715	411637-02-AC	278717	51334	51335
23	EXTERNAL RET RING	1	411637-02-AP	411637-02-AR	411637-02-BA	334404	333933
24	56/140 M/A. GASKET	1	602028-43-F	602028-43-F	602028-43-F	602028-43-F	-----
	MOTOR ADPT GASKET 180-210-250 (3)	1	276335	276335	276335	276335	276335
25	TIG2 HOLLOW GEAR ✤	1	-----	-----	-----	-----	-----
26	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----
27	MED LOCKWASHER	2	419009	419009	419009	419009	419009
28	SET SCREW	2	400140	400140	400140	400140	275953
29	HEX HEAD CAP SCREW	2	51302	053204	411396	411396	411402
30	MED LOCKWASHER	4	275803	275855	275855	419036	419036
31	PIPE PLUG 1/4" SOC.	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
32	HEX HEAD CAP SCREW	4	51929	51952	51952	411483	411484
33	SET SCREW	4	275962	275954	275954	333805	333805
34	TIG2 HOLLOW O/P SHAFT	1	333634	333635	333636	334556	334621
35	LOCK WASHER 56-140	4	275803	275803	275803	275803	-----
	LOCK WASHER 180	4	-----	-----	-----	275853	275853
36	HEX HEAD CAP SCREW	4	51929	51929	51929	51929	-----
	SHCS MTR MOUNTING 180-210	4	411631-63-A	411631-63-A	411631-58-X	334896	334896
	SHCS MTR MOUNTING 250	4	-----	-----	-----	276446	276446
37	SEAL TIGEAR 2, OUTPUT"	2	334278	334279	334279	334280	334281
38	OUTPUT KEY	1	333687	333709	333709	334563	334623

✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With Separate Input / Solid Output
Sizes 13 - 23



Ref No	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT KEY	1	333830	333830	333831	333831	333831
2	I/P RIBBED B/P	1	335603	335603	335600	335600	335601
3	O-RING	1	276019	276019	276134	276355	334307
4	TIG2 SOLID GEARCASE	1	333210	333211	333212	333213	333214
5	T2 I/P BRG CARRIER	1	333245	333245	333246	333246	333249
6	T2 SOLID BRG HSG	1	333265	333265	333266	333267	333268
7	TIG2 INPUT COUPLING	1	-----	-----	-----	-----	-----
8	SOLID GEAR KEY	1	333650	333661	333666	333671	333686
9	TIGEAR 2 LUBRICANT	1	334863	334863	334863	334863	334862
10	SOLID SPACER	2	333725	333726	333727	333728	333729
11	LHHCS PLAIN	2	333808	333808	333808	333808	333807
12-13	BEARING CUP/CONE ASSM	2	335337	335337	411626-01-C	411626-01-A	411626-01-A
14	BALL BEARING	1	334211	334211	334212	334212	334213
15	BALL BEARING	1	334218	334218	334219	334219	334220
16	TIG2 INPUT SEAL	1	334270	334270	334271	334271	334272
17	O-RING, NITRILE	1	334300	334300	334300	334300	334303
18	TIGEAR 2 NAMEPLATE	1	334305	334305	334305	334305	334305
19	MED LOCKWASHER	2	419007	419007	419007	419007	419009
20-22	SHIM KIT	1	411642-46-E	411642-46-E	411623-33-A	411623-33-B	411623-33-B
23	INTERNAL RET RING	2	411637-02-AV	411637-02-AV	58256	58256	411637-01-A
24	EXTERNAL RET RING	1	411637-02-E	411637-02-E	411637-02-AY	411637-02-AY	411637-02-N
25	SOLID GEAR ✤	1	-----	-----	-----	-----	-----
26	WORMSHAFT ✤	1	-----	-----	-----	-----	-----
27	PIPE PLUG 1/4" SOC. (1)	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
28	MED LOCKWASHER	4	419009	419009	419010	419010	275803
29	HEX HEAD CAP SCREW	4	51302	51302	411405	411405	51929
30	O/P SHAFT, SINGLE EXTN	1	333604	333605	333606	333607	333608
31	O/P RIBBED BORE PLUG	1	333605	333605	335606	335608	335608
32	TIG2 SEAL, OUTPUT	1	334271	334271	334272	334273	334273
33	KEY, OUTPUT	1	333665	333660	333665	333827	333827

(1) Size 400 & 475 uses qty 1

(2) Size 475 requires 266 oz. of lube. Order qty 2 (gal) **334862** & qty 1 (qt.) of **334863**.

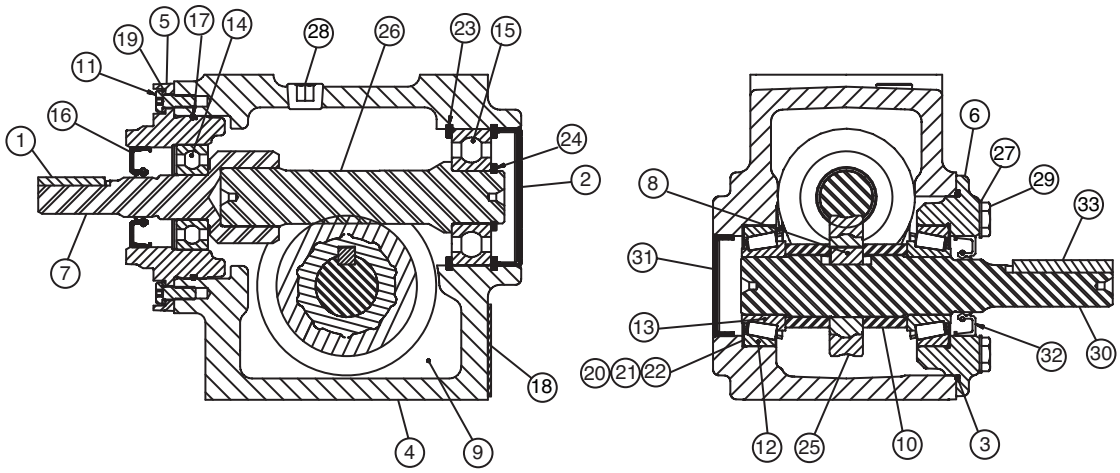
✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With Separate Input / Solid Output

Sizes 26 - 47



Ref No	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT KEY	1	333831	333831	333826	334561	334561
2	I/P RIBBED B/P	1	335609	335602	335604	335610	335613
3	O-RING	1	334302	334308	276358	334313	334315
4	TIG2 SOLID GEARCASE	1	333215	333216	333217	334506	334576
5	T2 I/P BRG CARRIER	1	333249	333250	333253	334508	334508
6	T2 SOLID BRG HSG	1	333269	333270	333271	334510	334580
7	TIG2 INPUT COUPLING ✤	1	-----	-----	-----	-----	-----
8	SOLID GEAR KEY	1	333696	333706	333775	334564	334624
9	TIGEAR 2 LUBRICANT	1	334862	334862	334862	334862	334862 (2)
10	SOLID SPACER	2	333730	333731	333732	334565	334625
11	LHHCS PLAIN	2	333807	333807	333807	333807	333807
12-13	BEARING CUP/CONE ASSM	2	411626-01-A	335338	411626-01-R	335340	335344
14	BALL BEARING	1	334213	334214	334215	334216	334216
15	BALL BEARING	1	334221	334222	334223	334224	334225
16	TIG2 INPUT SEAL	1	334272	334272	334272	334274	334274
17	O-RING, NITRILE	1	334303	334303	334314	334314	334314
18	TIGEAR 2 NAMEPLATE	1	334305	334305	334305	334305	334305
19	MED LOCKWASHER	2	419009	419009	419009	419009	419009
20-22	SHIM KIT	1	411623-33-B	335330	411623-33-C	335331	335336
23	INTERNAL RET RING	2	278715	411637-02-AC	278717	51334	51335
24	EXTERNAL RET RING	1	411637-02-AP	411637-02-AR	411637-02-BA	334404	333933
25	SOLID GEAR ✤	1	-----	-----	-----	-----	-----
26	WORMSHAFT✤	1	-----	-----	-----	-----	-----
27	PIPE PLUG 1/4" SOC. (1)	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
28	MED LOCKWASHER	4	275803	275855	275855	419036	419036
29	HEX HEAD CAP SCREW	4	51929	51952	51952	411483	411484
30	O/P SHAFT, SINGLE EXTN	1	333609	333610	333611	334554	334619
31	O/P RIBBED BORE PLUG	1	335608	335607	335614	335611	335612
32	TIG2 SEAL, OUTPUT	1	334273	334274	334275	334277	334278
33	KEY, OUTPUT	1	333695	333705	333716	333829	333829

(1) Size 400 & 475 uses qty 1

(2) Size 475 requires 266 oz. of lube. Order qty 2 (gal) **334862** & qty 1 (qt.) of **334863**.

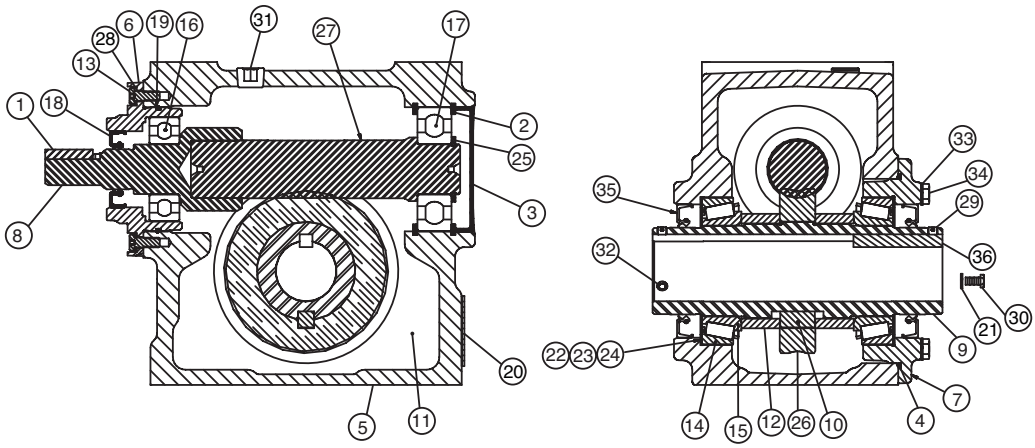
✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With Separate Input / Hollow Output

Sizes 13 - 23



Ref No	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT KEY	1	333830	333830	333831	333831	333831
2	INTERNAL RET RING	2	411637-02-AV	411637-02-AV	58256	58256	411637-01-A
3	I/P RIBBED BORE PLUG	1	335603	335603	335600	335600	335601
4	O-RING	1	276019	276019	276134	276355	334307
5	TIG2 HOLLOW GEARCASE	1	333218	333219	333220	333221	333222
6	T2 I/P BRG CARRIER	1	333245	333245	333246	333246	333249
7	T2 HOLLOW BRG HOUSING	1	333281	333281	333282	333283	333284
8	TIG2 SEP INPUT CPLG ✤	1	-----	-----	-----	-----	-----
9	HOLLOW OUTPUT SHAFT	1	333629	333629	333631	334789	333633
10	H/O GEAR KEY	1	333650	333650	333666	333671	333686
11	TIGEAR 2 LUBRICANT	1	334863	334863	334863	334863	334863
12	HOLLOW O/P SPACER	2	333733	333734	333735	333736	333737
13	LHHCS PLAIN	2	333808	333808	333808	333808	333807
14-15	BEARING CUP/CONE ASSM	2	411626-01-A	411626-01-A	335338	335339	335340
16	BALL BEARING	1	334211	334211	334212	334212	334213
17	BALL BEARING.	1	334218	334218	334219	334219	334220
18	INPUT SEAL	1	334270	334270	334271	334271	334272
19	O-RING, NITRILE	1	334300	334300	334300	334300	334303
20	TIGEAR 2 NAMEPLATE	1	334305	334305	334305	334305	334305
21	MED LOCKWASHER	2	419007	419007	419007	419007	419009
22-24	SHIM KIT	1	411623-33-B	411623-33-B	335330	411623-33-C	335331
25	EXTERNAL RET RING	1	411637-02-E	411637-02-E	411637-02-AY	411637-02-AY	411637-02-N
26	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----
27	TIG2 HOLLOW GEAR ✤	1	-----	-----	-----	-----	-----
28	MED LOCKWASHER	2	419007	419007	419007	419007	419009
29	SET SCREW	2	400140	400140	400140	400140	400140
30	HEX HEAD CAP SCREW	2	58270	58270	333800	333800	51302
31	PIPE PLUG 1/4" SOC.	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
32	SET SCREW	4	275953	275953	275953	275953	275953
33	MED LOCKWASHER	4	419009	419009	419010	419010	275803
34	HEX HEAD CAP SCREW	4	51302	51302	411405	411405	51929
35	OUTPUT SEAL T2	2	334273	334273	334274	334276	334277
36	OUTPUT KEY	1	333831	333831	333827	333827	333687

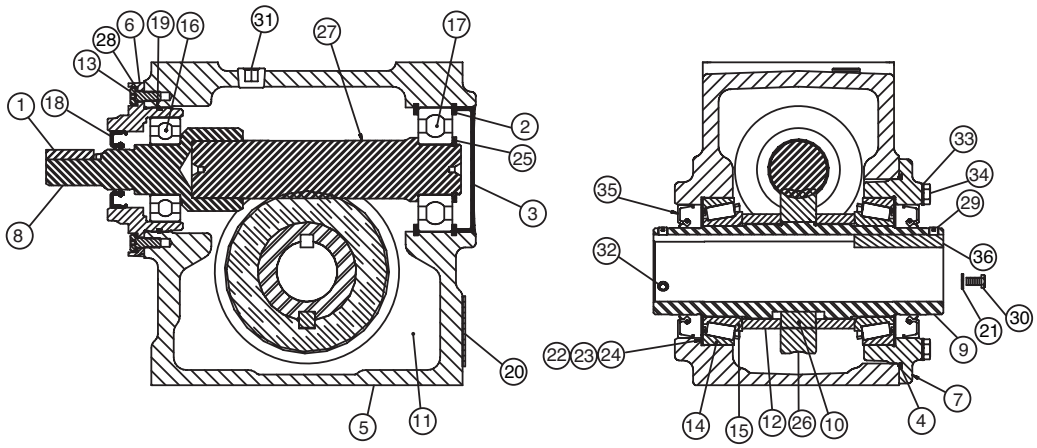
✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With Separate Input / Hollow Output

Sizes 26 - 47



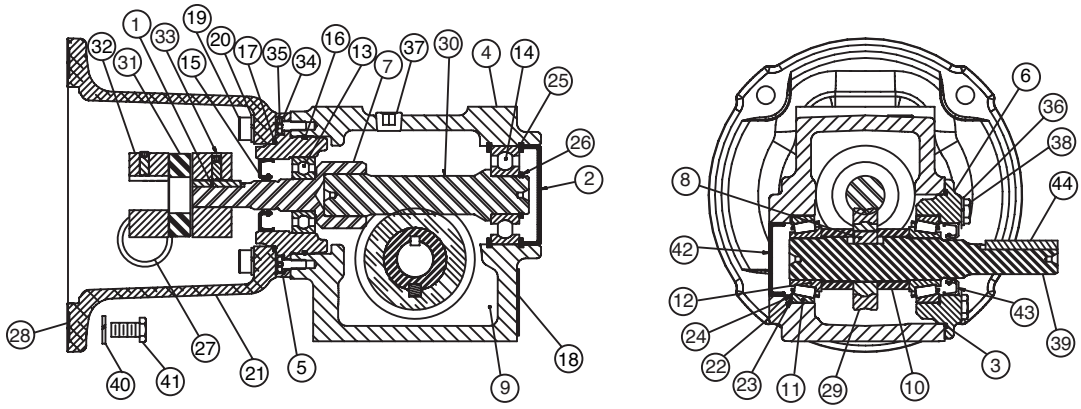
Ref No	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT KEY	1	333831	333831	333826	334561	334561
2	INTERNAL RET RING	2	278715	411637-02-AC	278717	51334	51335
3	I/P RIBBED BORE PLUG	1	335609	335602	335604	335610	335613
4	O-RING	1	334302	334308	276358	334313	334315
5	TIG2 HOLLOW GEARCASE	1	333223	333224	333225	334507	334577
6	T2 I/P BRG CARRIER	1	333249	333250	333253	334508	334508
7	T2 HOLLOW BRG HOUSING	1	333285	333286	333287	334512	334582
8	TIG2 SEP INPUT CPLG ✤	1	-----	-----	-----	-----	-----
9	HOLLOW OUTPUT SHAFT	1	333634	333635	333636	334556	334621
10	H/O GEAR KEY	1	333670	333712	333717	334564	334624
11	TIGEAR 2 LUBRICANT	1	334862	334862	334862	334862	334862
12	HOLLOW O/P SPACER	2	333738	333739	333740	334566	334626
13	LHHCS PLAIN	2	333807	333807	333807	333807	333807
14-15	BEARING CUP/CONE ASSM	2	411626-01-BJ	335341	335341	335342	335343
16	BALL BEARING	1	334213	334214	334215	334216	334216
17	BALL BEARING.	1	334221	334222	334223	334224	334225
18	INPUT SEAL	1	334272	334272	334272	334274	334274
19	O-RING, NITRILE	1	334303	334303	334314	334314	334314
20	TIGEAR 2 NAMEPLATE	1	334305	334305	334305	334305	334305
21	MED LOCKWASHER	2	419009	419009	419009	419009	419009
22-24	SHIM KIT	1	335332	335333	335333	335334	335335
25	EXTERNAL RET RING	1	411637-02-AP	411637-02-AR	411637-02-BA	334404	333933
26	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----
27	TIG2 HOLLOW GEAR ✤	1	-----	-----	-----	-----	-----
28	MED LOCKWASHER	2	419009	419009	419009	419009	419009
29	SET SCREW	2	400140	400140	400140	400140	275953
30	HEX HEAD CAP SCREW	2	51302	053204	411396	411396	411402
31	PIPE PLUG 1/4" SOC.	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
32	SET SCREW	4	275962	275954	275954	333805	333805
33	MED LOCKWASHER	4	275803	275855	275855	419036	419036
34	HEX HEAD CAP SCREW	4	51929	51952	51952	411483	411483
35	OUTPUT SEAL T2	2	334278	334279	334279	334280	334281
36	OUTPUT KEY	1	333687	333709	333709	334563	334623

✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With 3-Piece Coupled Input / Solid Output
Sizes 13 - 23



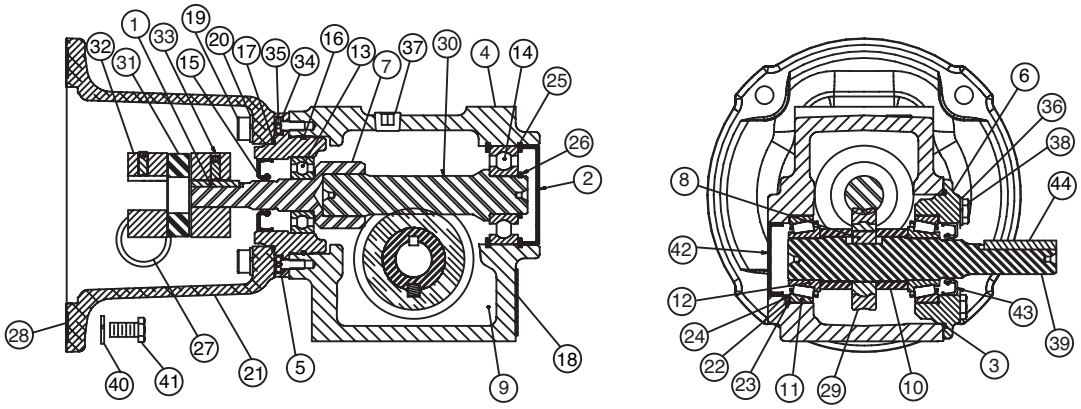
Ref No	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT KEY	1	333831	333831	333831	333831	333831
2	INPUT BORE PLUG	1	335603	335603	335600	335600	335601
3	O-RING	1	276019	276019	276134	276355	334307
4	TIG2 SOLID GEARCASE	1	333210	333211	333212	333213	333214
5	T2 INPUT BRG CARRIER	1	333245	333245	333246	333246	333249
6	T2 SOLID BRG HSG	1	333265	333265	333266	333267	333268
7	TIG2 INPUT CPLG ✤	1	-----	-----	-----	-----	-----
8	SOLID GEAR KEY	1	333650	333661	333666	333671	333686
9	TIGEAR 2 LUBRICANT	7	334863	334863	334863	334863	334862
10	SOLID SPACER	2	333725	333726	333727	333728	333729
11-12	BEARING CUP/CONE ASSEMBLY	2	335337	335337	411626-01-C	411626-01-A	411626-01-A
13	BALL BRG. C3 CLRNC	1	334211	334211	334212	334212	334213
14	BALL BRG. C3 CLRNC	1	334218	334218	334219	334219	334220
15	TIG2 SEAL, INPUT	1	334270	hh	334271	334271	334272
16	O-RING, NITRILE	1	334300	334300	334300	334300	334303
17	O-RING, NITRILE	1	334304	334304	334304	334304	276355
18	NAMEPLATE T2	1	334305	334305	334305	334305	334305
19	CAP SCREW 56-140	4	417371	417371	417371	417371	417111
	SOCKET HEAD CAP SCR 180-210	1	-----	-----	-----	-----	-----
20	MED LOCKWASHER	4	419010	419010	419010	419010	275803
21	MOTOR ADAPTER 56-140	1	333236	333236	333236	333236	333237
	MOTOR ADAPTER	1	-----	-----	-----	-----	334683
22-24	SHIM KIT	1	411642-46-E	411642-46-E	411623-33-A	411623-33-B	411623-33-B
25	INT RING	2	411637-02-AV	411637-02-AV	58256	58256	411637-01-A
26	EXT RING	1	411637-02-E	411637-02-E	411637-02-AY	411637-02-AY	411637-02-N
27	DUST CAP 1" HOLE	1	411709-65-H	411709-65-H	411709-65-H	411709-65-H	411709-65-H
28	56/140 MTR ADPT GASKET	1	602028-43-F	602028-43-F	602028-43-F	602028-43-F	602028-43-F
	MOTOR ADPT GASKET 180-210	1	-----	-----	-----	-----	276335

✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With 3-Piece Coupled Input / Solid Output
Sizes 13 - 23



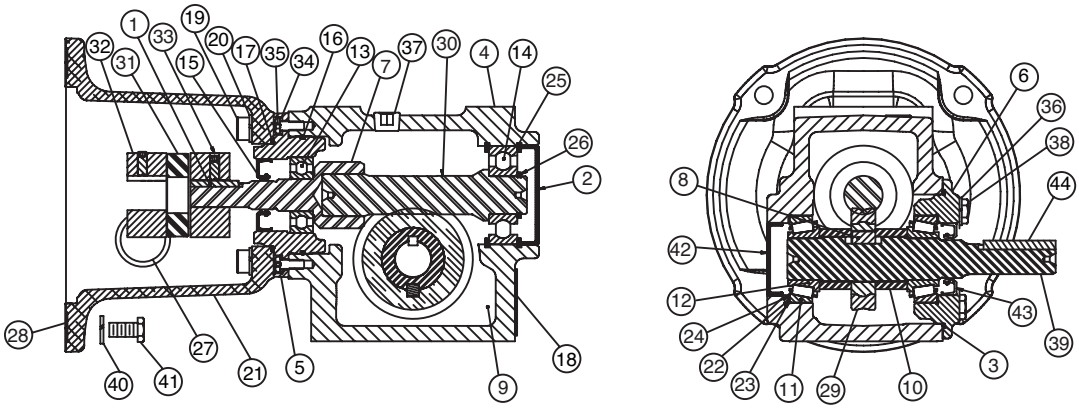
Ref No	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
29	TIG2 SOLID GEAR ✤	1	-----	-----	-----	-----	-----
30	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----
31	COUPLING SPIDER 56 MTR	1	278911	278911	278911	278911	278911
	COUPLING SPIDER 140 MTR	1	-----	-----	278912	278912	278912
	COUPLING SPIDER 180 MTR	1	-----	-----	-----	-----	275794
32	5/8 COUPLING, 56 MOTOR	1	278900	278900	278900	278900	278900
	7/8 COUPLING, 140 MOTOR	1	-----	-----	276169	276169	276169
	1-1/8 COUPLING, 180 MOTOR	1	-----	-----	-----	-----	278907
33	COUPLING HUB, REDUCER 56	1	334309	334309	278900	278900	278901
	COUPLING HUB, REDUCER 140	1	-----	-----	334306	334306	276169
	COUPLING HUB, REDUCER 180	1	-----	-----	-----	-----	275806
34	MED LOCKWASHER	2	419007	419007	419007	419007	419009
35	LHHCS PLAIN	2	333808	333808	333808	333808	333807
36	MED LOCKWASHER	4	419009	419009	419010	419010	275803
37	"PIPE PLUG 1/4" SOC.	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
38	HEX HEAD CAP SCREW	4	51302	51302	411405	411405	51929
39	T2 SGL SOLID OUTPUT SHAFT	1	333604	333605	333606	333607	333608
40	LOCK WASHER 56-140	4	275803	275803	275803	275803	275803
41	3/8-16 X 1 HHCS PLN ZC 56-140	4	51929	51929	51929	51929	51929
	SOC HD CAP SCREW 180	4	-----	-----	-----	-----	411631-63-A
42	OUTPUT BORE PLUG	1	335605	335605	335606	335608	335608
43	TIG2 SEAL, OUTPUT	1	334271	334271	334272	334273	334273
44	KEY, OUTPUT SHAFT	1	333665	333660	333665	333827	333685

✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With 3-Piece Coupled Input / Solid Output
Sizes 26 - 47



Ref No	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT KEY	1	333831	333831	333826	334561	334561
2	INPUT BORE PLUG	1	335609	335602	335604	335610	335613
3	O-RING	1	334302	334308	276358	334313	334315
4	TIG2 SOLID GEARCASE	1	333215	333216	333217	334506	334576
5	T2 INPUT BRG CARRIER	1	333249	333250	333253	334508	334508
6	T2 SOLID BRG HSG	1	333269	333270	333271	334510	334580
7	TIG2 INPUT CPLG ✤	1	-----	-----	-----	-----	-----
8	SOLID GEAR KEY	1	333696	333706	333775	334564	334624
9	TIGEAR 2 LUBRICANT	7	334862	334862	334862	334862	334862
10	SOLID SPACER	2	333730	333731	333732	334565	334625
11-12	BEARING CUP/CONE ASSEMBLY	2	411626-01-A	335338	411626-01-R	335340	335344
13	BALL BRG. C3 CLRNC	1	334213	334214	334215	334216	334216
14	BALL BRG. C3 CLRNC	1	334221	334222	334223	334224	334225
15	TIG2 SEAL, INPUT	1	334272	334272	334272	334274	334274
16	O-RING, NITRILE	1	334303	334303	334314	334314	334314
17	O-RING, NITRILE	1	276355	276355	276355	276355	276355
18	NAMEPLATE T2	1	334305	334305	334305	334305	334305
19	CAP SCREW 56-140	4	417111	417111	334895	-----	-----
	SOCKET HEAD CAP SCR 180-210	1	-----	-----	334373	334373	334373
20	MED LOCKWASHER	4	275803	275803	275855	333783	333783
21	MOTOR ADAPTER 56-140	1	333237	333237	334757	-----	-----
	MOTOR ADAPTER 180	1	334683	334683	333239	333239	333239
	MOTOR ADPT PLT-BOLT ON 210 (2)	1	-----	-----	334571	334571	334571
	MOTOR ADPT PLT-BOLT ON 250 (2)	1	-----	-----	-----	334570	334570
22-24	SHIM KIT	1	411623-33-B	335330	411623-33-C	335331	335336
25	INT RING	2	278715	411637-02-AC	278717	51334	51335
26	EXT RING	1	411637-02-AP	411637-02-AR	411637-02-BA	334404	333933
27	DUST CAP 1" HOLE	1	411709-65-H	411709-65-H	411709-65-H	411709-65-H	411709-65-H
28	56/140 MTR ADPT GASKET	1	602028-43-F	602028-43-F	602028-43-F	-----	-----
	MOTOR ADPT GASKET 180-210	1	276335	276335	276335	276335	276335

(2) Adapter plate bolts onto 180 adapter **334683**.

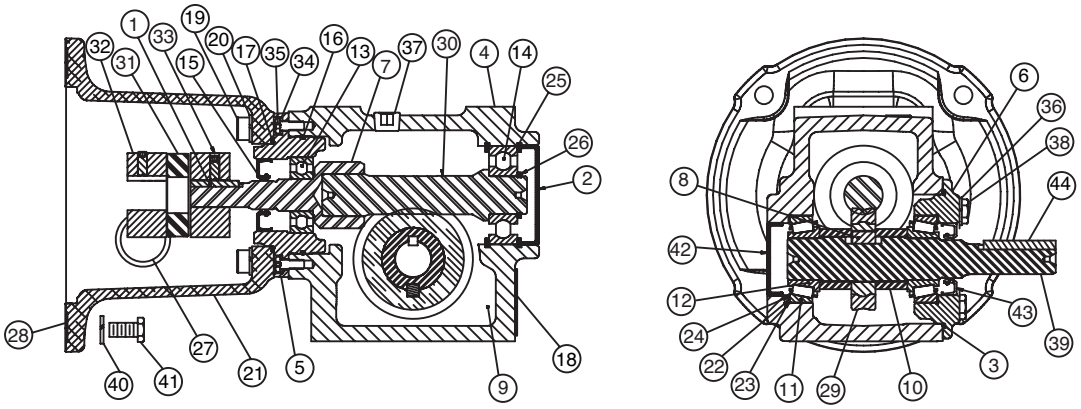
✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With 3-Piece Coupled Input / Solid Output

Sizes 26 - 47



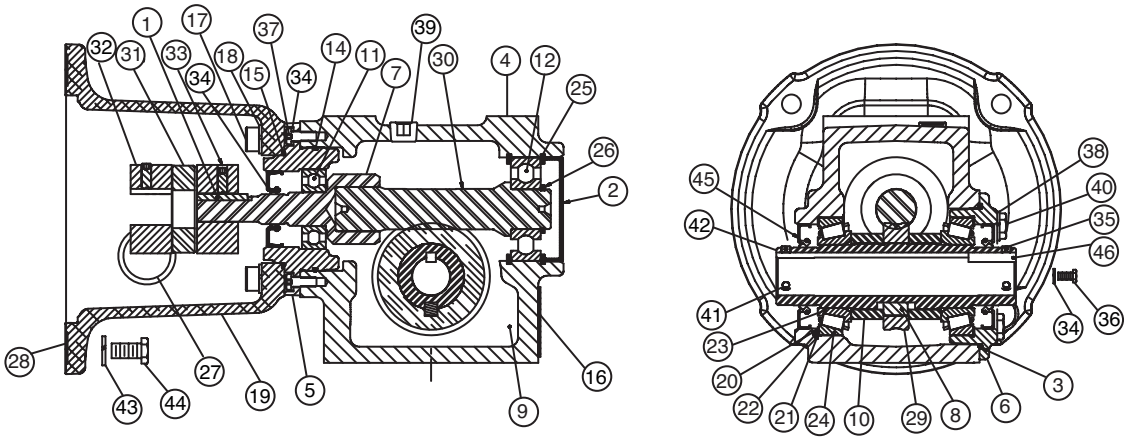
Ref No	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
29	TIG2 SOLID GEAR ✤	1	-----	-----	-----	-----	-----
30	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----
31	COUPLING SPIDER 56 MTR	1	278911	278911	278912	-----	-----
	COUPLING SPIDER 140 MTR	1	278912	278912	278912	-----	-----
	COUPLING SPIDER 180 MTR	1	275794	275794	275794	275794	275794
	COUPLING SPIDER 210-250 MTR	1	-----	-----	334291	334291	334291
32	5/8 COUPLING, 56 MOTOR	1	278900	278900	334292	-----	-----
	7/8 COUPLING, 140 MOTOR	1	276169	276169	276169	-----	-----
	1-1/8 COUPLING, 180 MOTOR	1	278907	278907	278907	278907	278907
	1-3/8 COUPLING, 210 MOTOR	1	-----	-----	334286	334286	334286
	1-3/8 COUPLING, 250 MOTOR	1	-----	-----	-----	334288	334288
33	COUPLING HUB, REDUCER 56	1	278901	278901	276169	-----	-----
	COUPLING HUB, REDUCER 140	1	276169	276169	276169	-----	-----
	COUPLING HUB, REDUCER 180	1	275806	275806	275806	278907	278907
	COUPLING HUB, REDUCER 210-250	1	-----	-----	334285	334290	334290
34	MED LOCKWASHER	2	419009	419009	419009	419009	419009
35	LHHCS PLAIN	2	333807	333807	333807	333807	333807
36	MED LOCKWASHER	4	275803	275855	275855	419036	419036
37	PIPE PLUG 1/4" SOC.	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
38	HEX HEAD CAP SCREW	4	51929	51952	51952	411483	411484
39	T2 SGL SOLID OUTPUT SHAFT	1	333609	333610	333611	334554	334619
40	LOCK WASHER 56-140	4	275803	275803	275803	-----	-----
	LOCK WASHER 210-250	4	-----	-----	275853	275853	275853
41	3/8-16 X 1 HHCS PLN ZC 56-140	4	51929	51929	51929	-----	-----
	SOC HD CAP SCREW 180	4	41163158X	41163158X	334900	334900	334900
	HEX HD CAP SCREW 210	4	-----	-----	334902	334902	334902
	HEX HD CAP SCREW 250	4	-----	-----	-----	334901	334901
42	OUTPUT BORE PLUG	1	335608	335607	335614	335611	335612
43	TIG2 SEAL, OUTPUT	1	334273	334274	334275	334277	334278
44	KEY, OUTPUT SHAFT	1	333695	333705	333716	333829	333829

✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With 3-Piece Coupled Input / Hollow Output
Sizes 13 - 23



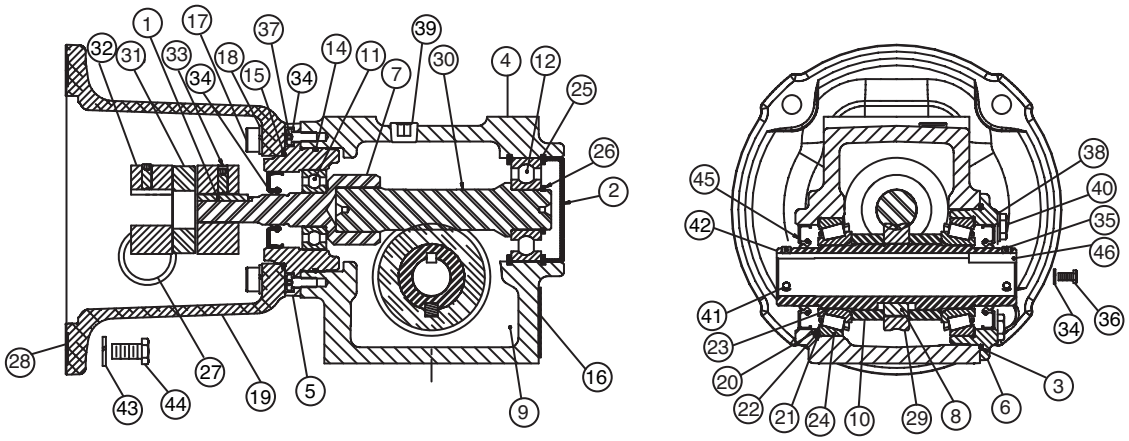
Ref No	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT KEY	1	333830	333830	333831	333831	333831
2	INPUT BORE PLUG	1	335603	335603	335600	335600	335601
3	O-RING	1	276019	276019	276134	276355	334307
4	TIG2 HOLLOW GEARCASE	1	333218	333219	333220	333221	333222
5	T2 I/P BRG CARRIER	1	333245	333245	333246	333246	333249
6	T2 HOLLOW BRG HOUSING	1	333281	333281	333282	333283	333284
7	TIG2 SEP INPUT CPLG ✤	1	-----	-----	-----	-----	-----
8	GEAR KEY	1	333650	333650	333666	333671	333686
9	TIGEAR 2 LUBRICANT	1	334863	334863	334863	334863	334863
10	TIG2 HOLLW O/P SPACER	2	333733	333734	333735	333736	333737
11	BALL BEARING	1	334211	334211	334212	334212	334213
12	BALL BEARING	1	334218	334218	334219	334219	334220
13	TIG2 SEAL, INPUT	1	334270	334270	334271	334271	334272
14	O-RING, NITRILE	1	334300	334300	334300	334300	334303
15	O-RING, NITRILE	1	334304	334304	334304	334304	276355
16	NAMEPLATE T2	1	334305	334305	334305	334305	334305
17	CAD PLTD SCREW 56-140	4	417371	417371	417371	417371	417111
	CAD PLTD SCREW 180-210-250	4	-----	-----	-----	-----	-----
18	MED LOCKWASHER	4	419010	419010	419010	419010	275803
19	T2 ADPT. M. ADPTR 56-140	1	333236	333236	333236	333236	333237
	MOTOR ADAPTER 180	1	-----	-----	-----	-----	334683
20-22	SHIM KIT	1	411623-33-B	411623-33-B	335330	411623-33-C	335331
23-24	BEARING CUP/CONE ASSEMBLY	2	411626-01-A	411626-01-A	335338	335339	335340
25	INT RING	2	411637-02-AV	411637-02-AV	58256	58256	411637-01-A
26	EXT RING	1	411637-02-E	411637-02-E	411637-02-AY	411637-02-AY	411637-02-N
27	DUST CAP 1" HOLE	1	411709-65-Q	411709-65-Q	411709-65-Q	411709-65-Q	411709-65-Q
28	56/140 M/A. GASKET	1	602028-43-F	602028-43-F	602028-43-F	602028-43-F	602028-43-F
	MOTOR GASKET 180-210	1	-----	-----	-----	-----	276335
29	TIG2 HOLLOW GEAR ✤	1	-----	-----	-----	-----	-----
30	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----

✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With 3-Piece Coupled Input / Hollow Output
Sizes 13 - 23

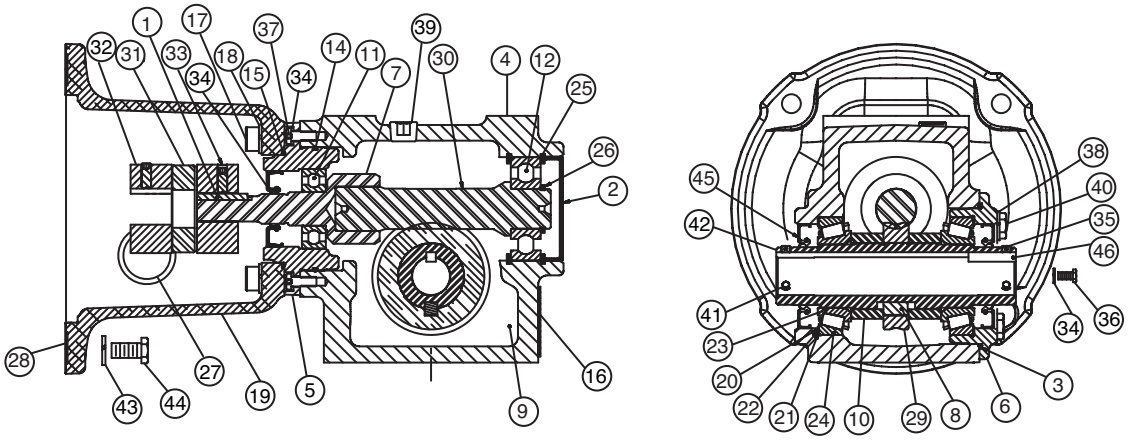


Ref No	Description	Qty	13	15	17	20	23
			Part Number	Part Number	Part Number	Part Number	Part Number
31	SPIDER 56C	1	278911	278911	278911	278911	278911
	SPIDER 140TC	1	335603	335603	335600	335600	335601
	SPIDER 180TC	1	-----	-----	-----	-----	275794
32	5/8 COUPLING HUB-MOTOR 56C	1	278900	278900	278900	278900	278900
	7/8 COUPLING HUB-MOTOR 140TC	1	-----	-----	276169	276169	276169
	1-1/8 COUPLING HUB-MTR 180TC	1	-----	-----	-----	-----	278907
33	COUPLING - REDUCER 56C	1	334309	334309	278900	278900	278901
	COUPLING - REDUCER 140TC	1	-----	-----	334306	334306	276169
	COUPLING - REDUCER 180TC	1	-----	-----	-----	-----	275806
34	MED LOCKWASHER	4	419007	419007	419007	419007	419009
35	SET SCREW	2	400140	400140	400140	400140	400140
36	HHCS GR5 ZC	2	58270	58270	333800	333800	51302
37	LHHCS PLAIN	2	333808	333808	333808	333808	333807
38	MED LOCKWASHER	4	419009	419009	419010	419010	275803
39	"PIPE PLUG 1/4" SOC.	2	411647-34-B	411647-34-B	411647-34-B	411647-34-B	411647-34-B
40	HEX HEAD CAP SCREW	4	51302	51302	411405	411405	51929
41	SET SCREW	4	275953	275953	275953	275953	275953
42	HOLLOW OUTPUT SHAFT	1	333629	333629	333631	334789	333633
43	LOCK WASHER 56-140	4	275803	275803	275803	275803	275803
44	3/8-16 X 1 HHCS PLN ZC 56-140	4	51929	51929	51929	51929	51929
	SOCKET HEAD CAP SCR 180	4	-----	-----	-----	-----	41163158X
45	SEAL TIGEAR 2, OUTPUT	2	334273	334273	334274	334276	334277
46	OUTPUT KEY	2	333831	333831	334897	333827	333687

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RENEWAL PARTS

TIGEAR-2 With 3-Piece Coupled Input / Hollow Output
Sizes 26 - 47



Ref No	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
1	INPUT KEY	1	333831	333831	333826	334561	334561
2	INPUT BORE PLUG	1	335609	335602	335604	335610	335613
3	O-RING	1	334302	334308	276358	334313	334315
4	TIG2 HOLLOW GEARCASE	1	333223	333224	333225	334507	334577
5	T2 I/P BRG CARRIER	1	333249	333250	333253	334508	334508
6	T2 HOLLOW BRG HOUSING	1	333285	333286	333287	334512	334582
7	TIG2 SEP INPUT CPLG ✤	1	-----	-----	-----	-----	-----
8	GEAR KEY	1	333670	333712	333717	334564	334624
9	TIGEAR 2 LUBRICANT	1	334862	334862	334862	334862	334862
10	TIG2 HOLLW O/P SPACER	2	333738	333739	333740	334566	334626
11	BALL BEARING	1	334213	334214	334215	334216	334216
12	BALL BEARING	1	334221	334222	334223	334224	334225
13	TIG2 SEAL, INPUT	1	334272	334272	334272	334274	334274
14	O-RING, NITRILE	1	334303	334303	334314	334314	334314
15	O-RING, NITRILE	1	276355	276355	276355	276355	276355
16	NAMEPLATE T2	1	334305	334305	334305	334305	334305
17	CAD PLTD SCREW 56-140	4	417111	417111	334895	-----	-----
	CAD PLTD SCREW 180-210-250	4	-----	-----	334373	334373	334373
18	MED LOCKWASHER	4	275803	275803	275855	333783	333783
19	T2 ADPT. M. ADPTR 56-140	1	333237	333237	334757	-----	-----
	MOTOR ADPT PLT 180	1	334683	334683	333239	333239	333239
	MTR ADPT PLT-BOLT ON 210 (2)	1	-----	-----	334571	334571	334571
	MTR ADPT PLT-BOLT ON 250 (2)	1	-----	-----	-----	334570	334570
20-22	SHIM KIT	1	335332	335333	335333	335334	335335
23-24	BEARING CUP/CONE ASSEMBLY	2	41162601BJ	335341	335341	335342	335343
25	INT RING	2	278715	411637-02-AC	278717	51334	51335
26	EXT RING	1	411637-02-AP	411637-02-AR	411637-02-BA	334404	333933
27	DUST CAP 1" HOLE	1	411709-65-Q	411709-65-Q	411709-65-Q	411709-65-Q	411709-65-Q
28	56/140 M/A. GASKET	1	602028-43-F	602028-43-F	602028-43-F	-----	-----
	MOTOR GASKET 180-210	1	276335	276335	276335	276335	276335
29	TIG2 HOLLOW GEAR ✤	1	-----	-----	-----	-----	-----
30	TIG2 WORMSHAFT ✤	1	-----	-----	-----	-----	-----

(2) Adpt plate bolts onto 180 adpt **333239**.

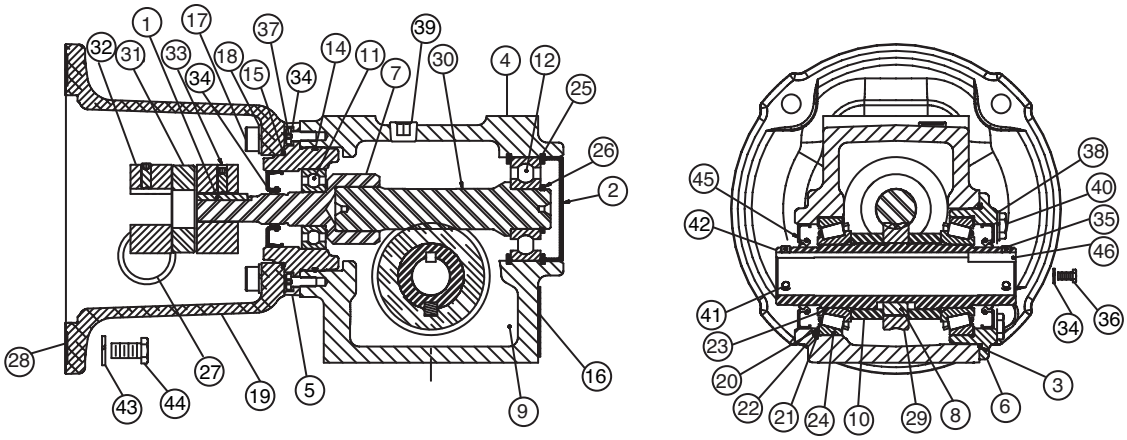
✤ Contact DODGE Renewal Parts

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RENEWAL PARTS

TIGEAR-2 With 3-Piece Coupled Input / Hollow Output

Sizes 26 - 47



Ref No	Description	Qty	26	30	35	40	47
			Part Number	Part Number	Part Number	Part Number	Part Number
31	SPIDER 56C	1	278911	278911	-----	-----	-----
	SPIDER 140TC	1	278912	278912	278912	278907	-----
	SPIDER 180TC	1	275794	275794	275794	275794	275794
	SPIDER 210-250	1	-----	-----	334291	334291	334291
32	5/8 COUPLING HUB-MOTOR 56C	1	278900	278900	-----	-----	-----
	7/8 COUPLING HUB-MOTOR 140TC	1	276169	276169	276169	-----	-----
	1-1/8 COUPLING HUB-MTR 180TC	1	278907	278907	278907	278907	278907
	1-3/8 COUPLING HUB-MTR 210TC	1	-----	-----	334286	334286	334286
	1-5/8 COUPLING HUB-MTR 250TC	1	-----	-----	-----	334288	334288
33	COUPLING - REDUCER 56C	1	278901	278901	-----	-----	-----
	COUPLING - REDUCER 140TC	1	276169	276169	276169	-----	-----
	COUPLING - REDUCER 180TC	1	275806	275806	275806	278907	278907
	COUPLING - REDUCER 210-250	1	-----	-----	334285	334290	334290
34	MED LOCKWASHER	4	419009	419009	419009	419009	419009
35	SET SCREW	2	400140	400140	400140	400140	275953
36	HHCS GR5 ZC	2	51302	053204	411396	411396	411402
37	LHHCS PLAIN	2	333807	333807	333807	333807	333807
38	MED LOCKWASHER	4	275803	275855	275855	419036	419036
39	PIPE PLUG 1/4"SOC.	2	411631-58-X	411647-34-B	334900	334900	334900
40	HEX HEAD CAP SCREW	4	51929	51952	51952	411483	411484
41	SET SCREW	4	275962	275954	275954	333805	333805
42	HOLLOW OUTPUT SHAFT	1	333634	333635	333636	334556	334621
43	LOCK WASHER 56-140	4	275803	275803	275803	-----	-----
	LOCK WASHER 210	4	-----	-----	275853	275853	275853
	LOCK WASHER 250	4	-----	-----	-----	275853	275853
44	3/8-16 X 1 HHCS PLN ZC 56-140	4	51929	51929	51929	-----	-----
	SOCKET HEAD CAP SCR 180	4	41163158X	41163158X	334900	334900	334900
	HEX HD CAP SCREW 210	4	-----	-----	334902	334902	334902
	HEX HD CAP SCREW 250	4	-----	-----	-----	334901	334901
45	SEAL TIGEAR 2, OUTPUT	2	334278	334279	334279	334280	334281
46	OUTPUT KEY	2	333687	333709	333709	334563	334623

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NOTES

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Vibration Frequencies of DODGE Anti-Friction Mounted Bearings

More and more manufacturing facilities are getting involved with plant-wide preventive maintenance programs. By monitoring vibration levels of motors, pumps, fans and compressors, maintenance supervisors can predict imminent failures. Knowing that a piece of equipment is showing signs of potential failure permits scheduling of maintenance at an appropriate time and avoids the consequences of catastrophic failures. Shown on Table 1 - Table 10are vibration frequencies generated by bearing components defects. All frequencies are based on unity inner ring or cone rotation.

How to Use the Tables

If a 2-7/16 Type E pillow block is rotating at 1000 RPM, the vibration due to a failed component will show up at the following frequencies: (Table 3, Line 6)

Frequency

Cup Nick or Spall	1000 x 9.249 = 9249 RPM
Cone Nick or Spall	1000 x 11.751 = 11751 RPM
Roller Nick or Spail	1000 x 8.068 = 8068 RPM
Roll Size Variation	1000 x.440 = 440 RPM

Since all the values on Table 1 - Table 10 are based on unity inner ring or cone rotation, the vibration due to flaws will show up at the frequencies obtained by multiplying the RPM times the factors found on the appropriate table. The resulting product will have units of REV./MIN.

Table 1: All Setscrew, Eccentric & D-Lok Ball Bearing Parameters for Vibration Analysis (1-RPS)

Series	SC Bore	SCM Bore	# Balls	Diameter of Balls	Pitch Diameter	Outer Ring Frequency Hz	Inner Ring Frequency Hz	Ball Spin Frequency Hz	Cage Frequency Hz
203	1/2 - 5/8		8	17/64	1.1506	3.076569	4.923431	2.050406	0.384571
204	1/2 - 3/4		8	5/16	1.3251	3.056675	4.943325	2.002244	0.382084
205	7/8 - 1		9	5/16	1.5325	3.582382	5.417618	2.350042	0.398042
206	1-1/6 - 1-1/4	1	9	3/8	1.823	3.574328	5.425672	2.327814	0.397148
207	1-1/4 - 1-7/16	1-3/16	9	7/16	2.136	3.578301	5.421699	2.338732	0.397589
208	1-1/2 - 1-5/8	1-7/16 - 1-1/2	9	1/2	2.387	3.557394	5.442606	2.282266	0.395266
209	1-11/16 - 1-3/4	1-1/2	9	13/25	2.5591	3.585616	5.414384	2.359075	0.398402
210	1-15/16 - 2	1-11/16 - 1-3/4	10	1/2	2.7645	4.095677	5.904323	2.674068	0.409568
211	2 2-1/4	1-15/16 - 2	10	9/16	3.092	4.090395	5.909605	2.657484	0.409039
212	2-1/4 - 2-7/16	2-3/16 - 2-1/4	10	5/8	3.385	4.076809	5.923191	2.615681	0.407681
214	2-11/16	2-7/16 - 2-1/2	10	11/16	3.775	4.089404	5.910596	2.654395	0.408940
215	2-15/16	2-11/16	11	11/16	4.085	4.574357	6.425643	2.886760	0.415851
216		2-15/16 - 3	11	3/4	4.33	4.547344	6.452656	2.800062	0.413395
218		3-7/16 - 3-1/2	11	27/32	4.9199	4.556764	6.443236	2.829748	0.414251

Table 2: CC Ball Bearing Parameters For Vibration Analysis (1-RPS)

Series	Shaft Size	# Balls	Diameter of Balls	Pitch Diameter	Outer Ring Frequency Hz	Inner Ring Frequency Hz	Ball Spin Frequency Hz	Cage Frequency Hz
205	15/16 - 1	9	5/16	1.516	3.572394	5.427606	2.322533	0.396933
206	1-1/8 - 1-3/16	9	3/8	1.811	3.568194	5.431806	2.311133	0.396466
207	1-1/4 - 1-7/16	9	7/16	2.106	3.565171	5.434829	2.302987	0.396130
209	1-11/16 - 1-3/4	9	1/2	2.362	3.547417	5.452583	2.256157	0.394157
210	1-15/16	10	1/2	2.756	4.092888	5.907112	2.665289	0.409289
211	2-3/16	10	9/16	3.051	4.078171	5.921829	2.619817	0.407817

Table 3: Type E, K, DI and TAF Tapered Roller Bearing Parameters For Vibration Analysis (1-RPS)

Bore Size	# Rollers Per Row	Mean Diameter of Rollers	Pitch Diameter	Contact Angle	Cup Frequency Hz	Cone Frequency Hz	Roller Spin Frequency Hz	Cage Frequency Hz
1-3/16 - 1-1/4	19	0.23	1.774	17.533	8.325540	10.674460	3.797580	0.438186
1-3/8 - 1-7/16	20	0.29	2.084	16.5	8.665750	11.334250	3.529138	0.433287
1-1/2 - 1-11/16	18	0.35	2.411	16	7.744100	10.255900	3.377216	0.430228
1-3/4 - 2	17	0.41	2.709	12.033	7.241814	9.758186	3.231274	0.425989
'2-3/16	19	0.41	3.014	13.283	8.242270	10.757730	3.611184	0.433804
2-1/4 - 2-1/2	21	0.41	3.337	14.5	9.251011	11.748989	4.011931	0.440524
2-11/16 - 3	24	0.41	3.9	16.733	10.791879	13.208121	4.707891	0.449662
3-3/16 - 3-1/2	26	0.46	4.78	18.167	11.811316	14.188684	5.152213	0.454281
3-15/16 - 4	26	0.51	5.12	17.567	11.765467	14.234533	4.974340	0.452518
4-7/16 - 4-1/2	25	0.59	5.727	18.983	11.282275	13.717725	4.807330	0.451291
4-15/16 - 5	25	0.68	6.568	17	11.262395	13.737605	4.782071	0.450496
5-7/16 - 6	32	0.67	8.444	17.75	14.790895	17.209105	6.265507	0.462215
6-7/16 - 7	27	0.93	9.791	19.167	12.288783	14.711217	5.221605	0.455140

Cup Frequency = N * RPM * (1 - (Bd * cos a / Pd)) / 2
Cone Frequency = N * RPM * (1 + (Bd * cos a / Pd)) / 2
Roller Spin Frequency = Pd * RPM * (1 - (Bd * cos a / Pd) ^2) / (2 * Bd)
Cage Frequency = RPM * (1 - (Bd * cos a / Pd)) / 2

Pd = Pitch Diameter
N = Number of rollers
Bd = Roller Diameter
a = Cup Angle (contact angle)

Table 4: Type C Tapered Roller Bearing Parameters For Vibration Analysis (1-RPS)

Bore Size	# Rollers Per Row	Mean Diameter of Rollers	Pitch Diameter	Contact Angle	Cup Frequency Hz	Cone Frequency Hz	Roller Spin Frequency Hz	Cage Frequency Hz
1-3/16 - 1-7/16	19	0.31	2.251	14.92	8.235801	10.764199	3.566352	0.433463
1-1/2 - 1-3/4	21	0.32	2.604	11.50	9.235581	11.764419	4.009748	0.439790
1-15/16	22	0.33	2.848	15.00	9.768852	12.231148	4.261097	0.444039
2 - 2-1/4	21	0.40	3.335	16.83	9.294571	11.705429	4.113807	0.442599
2-3/16 - 2-7/16	25	0.35	3.533	18.00	11.322284	13.677716	5.002340	0.452891
2-1/2 - 2-11/16	23	0.43	3.827	16.50	10.261076	12.738924	4.398352	0.446134
2-7/16 - 2-15/16	26	0.42	4.22	16.50	11.759442	14.240558	4.978061	0.452286
3 - 3-3/16	22	0.55	4.612	16.50	9.742225	12.257775	4.137910	0.442828
3-1/4 - 3-7/16	24	0.51	4.761	16.42	10.766982	13.233018	4.618367	0.448624
3-1/2 - 4	25	0.59	5.727	18.98	11.282253	13.717747	4.807328	0.451290
4-7/16 - 4-1/2	33	0.46	3.109	11.50	14.107710	18.892290	3.308310	0.427506
4-15/16 - 5	26	0.68	6.983	18.00	11.796028	14.203972	5.090519	0.453693

Cup Frequency = N * RPM * (1 - (Bd * cos a / Pd)) / 2
Cone Frequency = N * RPM * (1 + (Bd * cos a / Pd)) / 2
Roller Spin Frequency = Pd * RPM * (1 - (Bd * cos a / Pd) ^2) / (2 * Bd)
Cage Frequency = RPM * (1 - (Bd * cos a / Pd)) / 2

Pd = Pitch Diameter
N = Number of rollers
Bd = Roller Diameter
a = Cup Angle (contact angle)

Type 5: Special Duty Tapered Roller Bearing Parameters For Vibration Analysis (1-RPS)

Bore Size	# Rollers Per Row	Mean Diameter of Rollers	Pitch Diameter	Contact Angle	Cup Frequency Hz	Cone Frequency Hz	Roller Spin Frequency Hz	Cage Frequency Hz
1-3/8 - 1-1/2	16	0.40	2.563	11.54	6.776702	9.223298	3.128839	0.423544
1-9/16 - 1-3/4	18	0.40	2.854	12.72	7.769570	10.230430	3.500820	0.431643
1-7/8 - 2	19	0.41	3.014	13.28	8.242255	10.757745	3.611183	0.433803
2-1/8 - 2-1/4	22	0.41	3.475	15	9.746381	12.253619	4.182764	0.443017
2-3/8 - 2-1/2	20	0.46	3.695	14.38	8.794078	11.205922	3.957897	0.439704
2-5/8 - 3	22	0.51	4.336	15.07	9.750677	12.249323	4.196146	0.443213
3-3/16 - 3-1/2	23	0.59	5.22	17.42	10.259806	12.740194	4.372280	0.446079
3-11/16 - 4	23	0.68	5.942	15.50	10.231809	12.768191	4.315984	0.444861
4-7/16 - 4-1/2	26	0.68	6.983	18	11.796028	14.203972	5.090519	0.453693
4-15/16 - 5	24	0.81	7.537	16.42	10.762960	13.237040	4.603028	0.448457
5-7/16 - 6	24	0.93	9.123	17.33	10.832249	13.167751	4.858391	0.451344
6-1/2 - 7	29	0.93	10.19	19.23	13.250482	15.749518	5.437812	0.456913
7-15/16 - 8	27	1.12	11.471	12.42	12.212741	14.787259	5.074422	0.452324
8-1/2 - 10	41	0.87	13.979	16.40	19.276067	21.723933	8.005271	0.470148
11 - 12	37	1.20	16.061	12.50	17.150534	19.849466	6.656476	0.463528

Cup Frequency = N * RPM * (1 - (Bd * cos a / Pd)) / 2
Cone Frequency = N * RPM * (1 + (Bd * cos a / Pd)) / 2
Roller Spin Frequency = Pd * RPM * (1 - (Bd * cos a / Pd) ^2) / (2 * Bd)
Cage Frequency = RPM * (1 - (Bd * cos a / Pd)) / 2

Pd = Pitch Diameter
N = Number of rollers
Bd = Roller Diameter
a = Cup Angle (contact angle)

Table 6: All Steel Tapered Roller Bearing Parameters For Vibration Analysis (1-RPS)

Bore Size	# Rollers Per Row	Mean Diameter of Rollers	Pitch Diameter	Contact Angle	Cup Frequency Hz	Cone Frequency Hz	Roller Spin Frequency Hz	Cage Frequency Hz
2-11/16 - 3	27	0.36	4.114	15.50	12.361632	14.638368	5.673261	0.457838
3-1/4 - 3-1/2	26	0.51	5.120	17.57	11.765488	14.234512	4.974342	0.452519
3-15/16 - 4	33	0.48	5.814	12.50	15.170061	17.829939	6.016904	0.459699
4-7/16 - 4-1/2	29	0.60	6.503	12.92	13.196026	15.803974	5.375340	0.455035
4-15/16 - 5	32	0.61	7.355	12.50	14.704466	17.295534	5.989163	0.459515
5-7/16	27	0.84	8.272	12	12.159067	14.840933	4.875231	0.450336
5-15/16 - 6	26	0.85	8.323	12	11.701366	14.298634	4.847026	0.450053
6-7/16 - 7	32	0.81	9.748	12.50	14.702011	17.297989	5.977683	0.459438
7-1/2 - 8	27	1.12	11.471	12.42	12.212741	14.787259	5.074422	0.452324
9 - 10	32	1.28	14.026	12.03	14.571921	17.428079	5.435259	0.455373

Cup Frequency = N * RPM * (1 - (Bd * cos a / Pd)) / 2
Cone Frequency = N * RPM * (1 + (Bd * cos a / Pd)) / 2
Roller Spin Frequency = Pd * RPM * (1 - (Bd * cos a / Pd) ^2) / (2 * Bd)
Cage Frequency = RPM * (1 - (Bd * cos a / Pd)) / 2

Pd = Pitch Diameter
N = Number of rollers
Bd = Roller Diameter
a = Cup Angle (contact angle)

Table 7: Spherical Roller Bearing Parameters for Vibration Analysis (1-RPS)

Basic Bearing Series	USAF/SAF-XT Bore Sizes (in)	S2000 Unisphere II Sizes (in)	Imperial Bore Sizes (in)	# Rollers Per Row	Diameter of Rollers	Pitch Diameter	Contact Angle	Outer Ring Frequency Hz	Inner Ring Frequency Hz	Spin Frequency Hz	Cage Frequency Hz
22207E1ASKM				15	0.3937	2.166	11.750	6.165339	8.834661	2.663713	0.411023
22208E1ASKM		1-3/8 - 1-1/2	1-1/8 - 1-1/2	15	0.4488	2.449	10.583	6.148942	8.851058	2.639849	0.409929
22209E1ASKM	1-7/16	1-11/16 - 1-3/4	1 5/8 - 1-3/4	17	0.4291	2.665	9.750	7.151157	9.848843	3.027139	0.420656
22210E1ASKM	1-11/16	1-15/16 - 2	1 7/8 - 2	18	0.4331	2.858	9.083	7.653247	10.346753	3.225588	0.425180
22211E1ASKM	1-15/16	2-3/16	2-3/16 - 2-1/4	19	0.4646	3.189	8.750	8.132069	10.867931	3.360826	0.428004
22213E1ASKM	2-3/16	2 -7/16	2-3/8 - 2-1/2	18	0.5827	3.795	9.083	7.635432	10.364568	3.181534	0.424191
22215E1ASKM	2 7/16 - 2-1/2	2-11/16 - 3	2-11/16 - 3	20	0.5748	4.197	8.250	8.644623	11.355377	3.583768	0.432231
22216E1ASKM	2-11/16 - 2-3/4			19	0.6535	4.48	8.167	8.128283	10.871717	3.356234	0.427804
22217E1ASKM	2-15/16 - 3			18	0.7323	4.764	8.417	7.631462	10.368538	3.177554	0.423970
22218E1ASKM	3-3 /16	3-7 /16	3-3/16 - 3-1 /2	18	0.7795	5.079	8.833	7.635107	10.364893	3.182930	0.424173
22220E1ASKM	3-7 /16 - 3-1 /2	3-1 5/16 - 4	3-1 1/16 - 4	18	0.878	5.705	9.000	7.631952	10.368048	3.173794	0.423997
22222E1ASKM	3-1 5/16 - 4	4-7/16	4-7/16 - 4-1/2	17	1.0197	6.287	9.417	7.139947	9.860053	3.003844	0.419997
22224E1ASKM	4-3/16			18	1.0472	6.819	9.417	7.636487	10.363513	3.181095	0.424249
22226E1ASKM	4-7/16 - 4-1/2	4-15/16	4-15/16 - 5	18	1.1181	7.307	9.750	7.642733	10.357267	3.193282	0.424596
22228E1ASKM	4-15/16 - 5		5-7/16 - 5-1/2	18	1.2165	7.933	9.583	7.639139	10.360861	3.186035	0.424397
22230E1ASKM	5-3/16			18	1.315	8.559	9.500	7.636209	10.363791	3.179646	0.424234
22232E1ASKM	5-7/16 - 5-1/2		5-15/16 - 6	18	1.4094	9.189	9.667	7.639189	10.360811	3.185371	0.424399
22234E1ASKM	5-15/16 - 6			17	1.5827	9.74	9.833	7.139085	9.860915	2.998143	0.419946
22236E1ASKM	6-7/16 - 6-1/2		6-7/16 - 7	18	1.5591	10.157	9.417	7.637116	10.362884	3.182632	0.424284
22238E1ASKM	6-15/16 - 7			20	1.4961	10.669	10.667	8.621944	11.378056	3.497892	0.431097
22240E1ASKM	7-3/16			19	1.6142	11.021	10.833	8.133372	10.866628	3.343119	0.428072
22244E1ASKM	7-1/2 - 8			19	1.8504	12.48	10.833	8.116546	10.883454	3.300728	0.427187
23048KMB	8-7/16 - 9			29	1.1417	12.008	9.333	13.139616	15.860384	5.212536	0.453090
23052KMB	9-7/16 - 9-1/2			27	1.378	13.228	9.667	12.113633	14.886367	4.749092	0.448653
23056KMB	9-15/16 - 10-1/2			28	1.378	13.976	9.333	12.637908	15.362092	5.023115	0.451354

Outer Ring Frequency = N * RPM * (1 - (Bd * cos a / Pd)) / 120
Inner Ring Frequency = N * RPM * (1 + (Bd * cos a / Pd)) / 120
Roller Spin Frequency = Pd * RPM * (1 - (Bd * cos a / Pd) ^2) / (120 * Bd)
Cage Frequency = RPM * (1 - (Bd * cos a / Pd)) / 120

Pd = Pitch Diameter
N = Number of rollers
Bd = Roller Diameter
a = Contact Angle

Table 8: DODGE USAF Air Handling Spherical Roller Bearing Parameters For Vibration Analysis (1-RPS)

Bore Size	Basic Bearing Series	# Rollers Per Row	Diameter of Rollers	Pitch Diameter	Contact Angle	Outer Ring Frequency Hz	Inner Ring Frequency Hz	Roller Spin Frequency Hz	Cage Frequency Hz
1-7/16	22209E1K	17	0.3937	2.5976	10.0000	7.231287	9.768713	3.225462	0.425370
1-11/16	22210E1K	19	0.3937	2.7976	9.2500	8.180471	10.819529	3.484413	0.430551
1-15/16	22211E1K	18	0.4528	3.0921	8.9200	7.698000	10.302000	3.342963	0.427667
2-3/16	22213E1K	19	0.5315	3.7110	9.2500	8.157076	10.842924	3.421302	0.429320
2-7/16 - 2-1/2	22215E1K	21	0.5315	4.1098	8.3300	9.156413	11.843587	3.802922	0.436020
2-11/16 - 2-3/4	22216E1K	20	0.5709	4.3638	8.2500	8.705275	11.294725	3.757794	0.435264
2-15/16 - 3	22217E1K	20	0.6299	4.6811	8.5000	8.669157	11.330843	3.649937	0.433458
3-3/16	22218E1K	20	0.6693	4.9602	8.8300	8.666651	11.333349	3.639636	0.433333
3-7/16 - 3-1/2	22220E1K	19	0.7677	5.5606	9.0000	8.204572	10.795428	3.554256	0.431820
3-15/16 - 4	22222E1K	19	0.8661	6.1559	9.4200	8.181428	10.818572	3.485342	0.430601
4-3/16	22224E1K	19	0.9252	6.6382	9.5800	8.194401	10.805599	3.519683	0.431284
4-7/16 - 4-1/2	22226E1K	19	0.9843	7.1358	9.9200	8.209178	10.790822	3.557887	0.432062
4-15/16 - 5	22228E1K	19	1.0630	7.7232	9.6700	8.211024	10.788976	3.565861	0.432159

Outer Ring Frequency = N * RPM * (1 - (Bd * cos a / Pd)) / 120
Inner Ring Frequency = N * RPM * (1 + (Bd * cos a / Pd)) / 120
Roller Spin Frequency = Pd * RPM * (1 - (Bd * cos a / Pd) ^2) / (120 * Bd)
Cage Frequency = RPM * (1 - (Bd * cos a / Pd)) / 120

Pd = Pitch Diameter
N = Number of rollers
Bd = Roller Diameter
a = Contact Angle

ENGINEERING

Table 9: Split-Spherical Roller Bearing Parameters For Vibration Analysis

Bore Size	Basic Bearing Series	# Rollers Per Row	Diameter of Rollers	Pitch Diameter	Contact Angle	Outer Ring Frequency Hz	Inner Ring Frequency Hz	Roller Spin Frequency Hz	Cage Frequency Hz
2-3/16	22213SS	17	0.559	3.414	9.000	7.125120	9.874880	2.973241	0.419125
2-7/16	22215SS	18	0.551	3.748	9.083	7.693012	10.306988	3.328155	0.427390
2-11/16	22216SS	19	0.579	3.950	8.667	8.124082	10.875918	3.341232	0.427583
2-15/16	22217SS	20	0.575	4.153	8.250	8.630263	11.369737	3.544783	0.431513
3-3/16	22218SS	19	0.654	4.435	8.167	8.114365	10.885635	3.321078	0.427072
3-7/16	22220SS	18	0.780	5.079	8.833	7.635107	10.364893	3.182930	0.424173
3-15/16 - 4	22222SS	18	0.878	5.634	9.000	7.614712	10.385288	3.132415	0.423040
4-3/16	22224SS	17	1.110	6.203	9.417	6.999864	10.000136	2.707845	0.411757
4-7/16 - 4-1/2	22226SS	18	1.047	6.727	9.417	7.617839	10.382161	3.136146	0.423213
4-15/16	22228SS	18	1.118	7.202	9.750	7.622945	10.377055	3.145244	0.423497
5-3/16	22230SS	18	1.217	7.822	9.583	7.619828	10.380172	3.139355	0.423324
5-7/16	22232SS	18	1.315	8.442	9.500	7.617307	10.382693	3.134123	0.423184
5-15/16 - 6	22234SS	18	1.409	9.059	9.667	7.619661	10.380339	3.138182	0.423314
6-7/16 - 6-1/2	22236SS	18	1.409	9.059	9.667	7.619661	10.380339	3.138182	0.423314
6-15/16 - 7	22238SS	18	1.559	10.021	9.417	7.618619	10.381381	3.138004	0.423257
7-3/16	22240SS	16	1.579	10.716	9.417	6.837308	9.162692	3.322243	0.427332
7-1/2 - 8	22244SS	16	1.752	11.257	9.500	6.771984	9.228016	3.136916	0.423249
8-1/2 - 9	23048SS	20	1.307	11.189	8.083	8.843406	11.156594	4.222831	0.442170
9-1/2	23052SS	22	1.339	11.949	8.417	9.780985	12.219015	4.408432	0.444590
10	23056SS	20	1.539	13.175	8.667	8.844916	11.155084	4.222170	0.442246

Outer Ring Frequency = N * RPM * (1 - (Bd * cos a / Pd)) / 12
Olnner Ring Frequency = N * RPM * (1 + (Bd * cos a / Pd)) / 120
Roller Spin Frequency = Pd * RPM * (1 - (Bd * cos a / Pd) ^2) / (120 * Bd)
Cage Frequency = RPM * (1 - (Bd * cos a / Pd)) / 120

Pd = Pitch Diameter
N = Number of rollers
Bd = Roller Diameter
a = Contact Angle

Table 10: USDAF Spherical Roller Bearing Parameters For Vibration Analysis (1-RPS)

Bore Size	Basic Bearing Series	# Rollers Per Row	Diameter of Rollers	Pitch Diameter	Contact Angle	Outer Ring Frequency Hz	Inner Ring Frequency Hz	Roller Spin Frequency Hz	Cage Frequency Hz
10-15/16 - 11	23060K	27	1.575	15.066	9.5	12.108065	14.891935	4.732011	0.448447
11-7/16 - 12	23064K	28	1.575	15.85	9.333	12.627248	15.372752	4.983368	0.450973
12-7/16 - 12-1/2	23068K	27	1.732	17.007	9.5	12.144010	14.855990	4.860109	0.449778
12-15/16 - 13-1/2	23072K	28	1.732	17.793	9.333	12.655257	15.344743	5.089157	0.451973
13-15/16 - 14	23076K	30	1.732	18.587	9	13.619458	16.380542	5.320311	0.453982
15	23080K	29	1.929	19.822	9.167	13.106938	15.893062	5.090472	0.451963
15-3/4	23084K	30	1.929	20.609	9	13.613287	16.386713	5.296232	0.453776
9-7/16 - 9-1/2	23152K	23	1.693	13.914	12.5	10.133894	12.866106	4.051285	0.440604
10-7/16 - 10-1/2	23156K	24	1.732	14.711	12	10.618053	13.381947	4.190502	0.442419
10-15/16 - 11	23160K	23	1.89	15.923	12.333	10.166494	12.833506	4.155793	0.442021
11-15/16 - 12	23164K	23	2.087	17.044	12.833	10.127024	12.872976	4.025170	0.440305
12-7/16 - 12-1/2	23168K	23	2.244	18.272	12.833	10.122953	12.877047	4.012925	0.440128
13-7/16 - 13-1/2	23172K	24	2.244	19.077	12.333	10.621032	13.378968	4.194537	0.442543
13-15/16 - 14	23176K	25	2.323	19.833	12	11.067894	13.932106	4.212801	0.442716
8-15/16 - 9	23248K	20	1.929	13.523	14	8.615913	11.384087	3.438035	0.430796
9-7/16 - 9-1/2	23252K	19	2.126	14.745	14	8.170935	10.829065	3.399907	0.430049
10-7/16 - 10-1/2	23256K	20	2.126	15.537	13.583	8.669925	11.330075	3.589401	0.433496
10-15/16 - 11	23260K	20	2.323	16.706	13.833	8.649811	11.350189	3.530230	0.432491
11-15/16 - 12	23264K	20	2.441	17.878	14	8.675192	11.324808	3.597751	0.433760
12-7/16 - 12-1/2	23268K	20	2.638	19.048	14.167	8.657198	11.342802	3.545213	0.432860

Outer Ring Frequency = N * RPM * (1 - (Bd * cos a / Pd)) / 120
Inner Ring Frequency = N * RPM * (1 + (Bd * cos a / Pd)) / 120
Roller Spin Frequency = Pd * RPM * (1 - (Bd * cos a / Pd) ^2) / (120 * Bd)
Cage Frequency = RPM * (1 - (Bd * cos a / Pd)) / 120

Pd = Pitch Diameter
N = Number of rollers
Bd = Roller Diameter
a = Contact Angle

Mounted Bearings Life Adjustment Factor

1.1 GENERAL. For certain applications, it is desirable to specify life for reliability other than 90%. In such cases a life adjustment factor for reliability may be applied to the RATING LIFE. Section 1.2 discusses life adjustment factors for reliability.

Some bearing steels; e.g., vacuum-melted steels, and improved processing techniques, permit manufacture of bearings which offer endurance greater than that calculated by the RATING LIFE formula. Section 1.3 recommends methods to incorporate life adjustment factors for bearing materials into the life formula.

Bearing life calculated according to the RATING LIFE formula assumes proper application conditions. If lubrication is not adequate, loading unusual, or temperatures extreme, the ability of the bearing to attain or exceed the RATING LIFE is seriously impaired. Section 1.4 contains some basic recommendations concerning the effect of unusual application conditions on bearing life.

1.2 LIFE ADJUSTMENT FACTOR FOR RELIABILITY. Bearing life estimated in accordance with this standard is RATING LIFE; i.e., the life associated With 90% reliability or the life which 90% of a group of apparently identical bearings in a given application under similar conditions of load and speed will complete or exceed. While RATING LIFE has proven useful over a period of years as a criterion of performance, some applications require definition of life at reliabilities greater than 90%.

To determine bearing life with reliabilities other than 90% (as previously calculated in the Selection Procedure) the L_{10} must be adjusted by factor a_1, such that $L_n = a_1 \times L10$.

The life adjustment factors for reliability from Table 11 are recommended.

Table 11: Life Adjustment Factors For Reliability

Reliability %	Ln		Life Adjustment Factor for Reliability a1
90	L10		1
95	L5		0.62
96	L4	(Rating Life)	0.53
97	L3		0.44
98	L2		0.33
99	L1		0.21

1.3 LIFE ADJUSTMENT FACTOR FOR MATERIAL. For bearings, which incorporate improved materials and processing, the L_{10} (as previously calculated in the Selection Procedure) must be adjusted by factor a_2. Factor a_2 depends upon steel analysis, metallurgical processing, forming methods, heat treatment and manufacturing methods in general.

Bearings fabricated from consumable vacuum remelted steels and certain other special analysis steels have demonstrated extraordinarily long endurance. These steels are of exceptionally high quality, and bearings fabricated from these are usually considered special manufacture. As such, a_2 values will not be specified for such steels in this discussion. Generally, a_2 values for such steels can be obtained from the bearing manufacturer.

1.4 LIFE ADJUSTMENT FACTOR FOR APPLICATION CONDITIONS.

Application conditions which affect bearing life include:

1. Lubrication.
2. Load distribution (including effects of clearance, misalignment, housing, and shaft stiffness, type of loading and thermal gradients).
3. Temperature.
   Consideration of (1.2) and (1.3) above requires analytical and experimental techniques beyond the scope of this discussion, therefore, the user should consult the bearing manufacturer for evaluations and recommendations.
   In most bearing applications, lubrication serves to separate the rolling surfaces; i.e., rolling elements and raceways; to reduce retainer-rolling elements and retainer-land friction and sometimes to act as a coolant to remove frictional heat generated by the bearing.
   If all limitations and qualifications specified by this discussion are observed, then the life adjustment application factor for bearings which are adequately lubricated is 1; i.e., a_3=1.
   Operating conditions where a_3 might be less than 1 include:
   a) exceptionally low values of Ndm (rpm times bore diameter in mm); e.g., Ndm 1000.
   b) Lubricant viscosity less than 20.4 centistokes (100 SUS) at operating temperature.
   c) Excessively high operating temperatures.
   When a3 is less than 1, it may not be assumed that the deficiency in lubrication can be overcome by using an improved steel.

1.5 FACTOR COMBINATIONS. A fatigue life formula including the life adjustment factors is:

Ball Bearings:

$$L_n = a_1 \times a_2 \times a_3 \left(\frac{C^*}{P}\right)^3 \times \frac{(16.667)}{RPM}$$

Tapered Roller Bearings:

$$L_n = a_1 \times a_2 \times a_3 \left(\frac{C90^*}{P}\right)^{10/3} \times \frac{(1{,}500{,}000)}{RPM}$$

Spherical Roller Bearings:

$$L_n = a_1 \times a_2 \times a_3 \left(\frac{C^*}{P}\right)^{10/3} \times \frac{(16.667)}{RPM}$$

Indiscriminate application of the life adjustment factors in this formula may lead to serious over-estimation of bearing endurance, since fatigue life is only one criterion for bearing selection.

Care must be exercised to select bearings which are of sufficient size for the application. Undersizing of shaft and housing structures by using bearings which appear adequate from a life standpoint could lead to misalignment and fitting problems which could invalidate the formulas in this discussion.

* C = Basic Load Rating computed in accordance with ABMA-ANSI Standards. C90 = C x .259

V-Belt Drive Formulas

V-belt tensioning In cases where tensioning of a drive effects belt pull and bearing loads, the following formulas may be used.

$$T_1 - T_2 = 33{,}000 \left(\frac{HP}{V}\right)$$

where: T_1 = tight side tension, pounds
T_2 = slack side tension, pounds
HP = design horsepower
V = belt speed, feet per minute

$$T_1 + T_2 = 33{,}000\ (2.5\text{-}G) \left(\frac{HP}{GV}\right)$$

where: T_1 = tight side tension, pounds
T_2 = slack side tension, pounds
HP = design horsepower
V = belt speed, feet per minute"
G = arc of contact correction factor*

$$T_1/T_2 = \frac{1}{1\text{-}0.8G} \quad (\text{Also } T1/T2 = e^{K\emptyset})$$

where: T_1 = tight side tension, pounds
T_2 = slack side tension, pounds
G = arc of contact correction factor*
e = base of natural logarithms
K = .51230, a constant for V-belt drive design
Ø = arc of contact in radians

$$T_1 = 41{,}250\ (HP/GV)$$

where: T_1 = tight side tension, pounds
HP = design horsepower
V = belt speed, feet per minute
G = arc of contact correction factor

$$T_2 = 33{,}000\ (1.25\text{-}G)\ (HP/GV)$$

where: T_2 = slack side tension, pounds
HP = design horsepower
V = belt speed, feet per minute
G = arc of contact correction factor

Belt Speed

$$V = \frac{(PD)\ (RPM)}{3.82} = (PD)\ (rpm)\ (.262)$$

where: V = belt speed, feet per minute
PD = pitch diameter of sheave or pulley
rpm = revolutions per minute of the same sheave or pulley

* See Table 12 at left

Table 12: Arc of Contact Correction Factor G

D-d / C	Small Sheave Arc of Contact	Factor G	D-d / C	Small Sheave Arc of Contact	Factor G
.00	180°	1.00	.80	133°	.87
.10	174°	.99	.90	127°	.85
.20	169°	.97	1.00	120°	.82
.30	163°	.96	1.10	130°	.80
.40	157°	.94	1.20	106°	.77
.50	151°	.93	1.30	99°	.73
.60	145°	.91	1.40	91°	.70
.70	139°	.89	1.50	83°	.65

D = Diam. of large sheave. d = Diam. of small sheave
C = Center distance

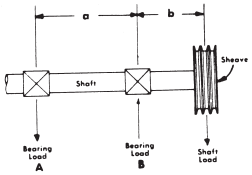
Table 13: Allowable Sheave Rim Speed

Sheave Material	Rim Speed in Feet per Minute
Cast Iron	6,500
Ductile Iron	8,000
Steel	10,000

NOTE: Above rim speed values are maximum for normal considerations. In some cases these values may be exceeded. Consult factory and include complete details of proposed application.

Bearing Load Calculations

To find actual bearing loads, it is necessary to know machine component weights and values of all other forces contributing to the load. Sometimes it becomes desirable to know the bearing load imposed by the V-belt drive alone. This can be done if you know bearing spacing with respect to the sheave center and shaft load and apply it to the following formulas:

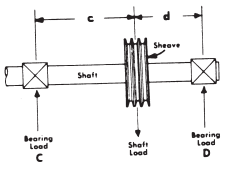


Overhung Sheave

$$\text{Load at B, lbs.} = \frac{\text{Shaft Load x } (a + b)}{a}$$

$$\text{Load at A, lbs} = \text{Shaft Load x } \frac{b}{a}$$

Where: a and b = Spacing, inches



Sheave Between Bearings

$$\text{Load at D, lbs.} = \frac{\text{Shaft Load x } c}{c + d}$$

$$\text{Load at C, lbs} = \frac{\text{Shaft Load x } d}{c + d}$$

Where: c and d = Spacing, inches

Nominal V-Belt Cross Sections

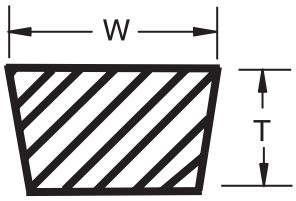


Table 14: Nominal V-Belt Cross Sections

Belt Section	Industry Standard Description	Width W, in Inches	Thickness T, in Inches
3L	FHP, Single	3/8	7/32
4L		1/2	5/16
5L		21/32	3/8
3V	Narrow	3/8	5/16
5V		5/8	17/32
8V		1	29/32
A	Classical Multiple	1/2	5/16
B		21/32	13/32
C		7/8	17/32
D		1-1/4	3/4

Pulley Dia. Inches	FPM												
	100	150	200	250	300	350	400	500	600	700	800	900	1000
6	64	95	127	159	191	223	254	318	382	445	509	573	636
8	48	72	95	119	143	167	191	239	286	334	382	429	477
10	38	57	76	95	115	134	153	191	229	267	305	344	382
12	32	48	64	80	95	111	127	159	191	223	254	286	318
14	27	41	55	68	82	95	109	136	164	191	218	245	273
16	24	36	48	60	72	83	95	119	143	167	191	215	239
18	21	32	42	53	64	74	85	106	127	148	170	191	212
20	19	29	38	48	57	67	76	95	115	134	153	172	191
24	16	24	32	40	48	56	64	80	95	111	127	143	159
30	13	19	25	32	38	45	51	64	76	89	102	115	127
36	11	16	21	27	32	37	42	53	64	74	85	95	106
42	9	14	18	23	27	32	36	45	55	64	73	82	91
48	8	12	16	20	24	28	32	40	48	56	64	72	80
54	7	11	14	18	21	25	28	35	42	49	57	64	71
60	6	10	13	16	19	22	25	32	38	45	51	57	64

For values not shown use formula below:

SFM =.2618 x D x RPM

SFM = Surface feet Per Minute

D = Pulley Diameter, Inches

RPM = Revolutions per Minute

Table 15: Material Characteristics

MATERIAL	DENSITY (LB/fT3)	ANGLE OF REPOSE (DEG)	RECOMMENDED MAXIMUM INCLINATION
Alfalfa, Ground	16	45°	
Alum, Lumpy	50 - 60	35°	
Alum, Pulverized	45 - 50	35°	
Alumina	60	30°	10-12
Aluminum Oxide	70 - 120	30°	
Ammonium Sulphate	45 - 60	45°	
Asbestos, Shredded	20 - 25	45°	
Ashes, Dry	35 - 40	45°	
Ashes, Wet	45 - 50	45°	
Ashes, Soft Coal	35 - 45	40°	
Asphalt, Crushed	45	35°	
Bagasse	7.50	45°	
Bakelite, Powder	30 - 40	45°	
Baking Powder	40 - 50	35°	
Bark, Wood Refuse	10 - 20	45°	27
Barley	38	25°	10-15
Basalt	80 - 120	25°	
Bauxite, Crushed	75 - 85	35°	20
Beans, Castor, Whole	30 - 45	25°	8-10
Beans, Cocoa	30 - 45	35°	
Beans, Navy	50	25°	
Beans, Whole	45	45°	
Bentonite, Crude	35 - 40	45°	
Bentonite, Fine	50 - 60	45°	
Bones, Pulverized	50 - 60	45°	
Borax, Fine	50 - 55	35°	
Borax Coarse	60 - 70	35°	
Bran	16	35°	
Brewers Grain, Dry	25 - 35	45°	
Brewers Grain, Wet	55 - 60	45°	
Buck Wheat	40	25°	11-13
Calcium, Carbide	70 - 80	35°	
Carbon Black, Pellets	25	25°	
Carbon Black, Powder	5	35°	
Cast Iron Chips	100 -120	45°	
Cement, Clinker	75 - 90	35°	
Cement, Portland	80 -100	35°	20-23
Chalk, Fine	65 - 75	45°	
Chalk, Lumpy	80 - 95	45°	
Charcoal, Wood	15 - 30	35°	20-25
Chromium Ore	125 - 140	35°	
Cinders, Coal	40	35°	20
Clay, Dry, Fine	100 - 120	35°	20-22
Clay, Dry, Lumpy	60 - 75	35°	18-20
Coal, Anthracite, Coarse	60 - 70	35°	18
Coal, Anthracite, Loose	50 - 60	30°	16
Coal, Bituminous, Coarse	50 - 60	35°	18
Coal, Bituminous, Loose	45 - 50	35°	16
Cocoa Nibs	35 - 40	35°	
Coconut, Shredded	20 - 25	45°	
Coffee, Fresh Beans	30 - 40	35°	10-15
Coffee, Roasted Beans	22 - 30	25°	
Coke, Loose	23 - 32	35°	18
Coke Pulverized	25 - 35	45°	20-22
Coke, Petroleum Calcinated	35 - 45	35°	20
Concrete, Cinder	112	0°	12-30
Concrete, Gravel & Sand	150	0°	
Copper Ore	120 - 150	35°	20
Copper Sulfate	75 - 85	30°	17
Cork, Ground	5 - 15	45°	
Corn, On Cob	45	0°	

MATERIAL	DENSITY (LB/fT3)	ANGLE OF REPOSE (DEG)	RECOMMENDED MAXIMUM INCLINATION
Corn, Shelled	45	25°	10
Corn Sugar	30	35°	
Corn Grits	40 - 45	35°	
Cornmeal	32- 40	35°	22
Cottonseed, Dry, De-Linted	35	35°	16
Cottonseed, Dry, Not De-Linted	18- 25	45°	19
Cottonseed, Cake, Lumpy	40- 45	35°	
Cottonseed, Hulls	12	45°	
Cottonseed, Meal	35- 40	35°	22
Cottonseed, Meats	40	35°	
Cryolite	90-110	35°	
Cullet	80-120	35°	20
Diatomaceous Earth	11- 14	35°	
Dolomite, Lumpy	90-100	35°	22
Dolomite, Pulverized	46	40°	
Earth, Dry"	70- 80	35°	20
Earth, Moist	75-110	40°	23
Earth, Fullers Dry	30- 35	23°	20
Emery	225	25°	
Epsom Salt	40- 50	35°	
Feldspar, Lumps	70-100	35°	17
Feldspar, Dust	80-100	40°	
Fish, Meal	35- 40	40°	
Fish, Scrap	40- 50	0°	
Flaxseed, Whole	45	25°	12
Flaxseed, Meal	25	35°	
Flour, Wheat	35- 40	45°	21
Flue Dust, Dry	30- 40	20°	
Fluorspar, Dust	85- 95	45°	
Fluorspar, Lumps	80-110	45°	
Foundry, Refuse	60- 80	35°	
Foundry Sand, Loose	80- 90	35°	
Foundry Sand, Rammed	100-110	0°	
Galena	250	35°	
Garbage, Average	30	25°	
Glass, Batch Fiber	45 - 55	10°	
Glass, Batch Wool	80-100	35°	20-22
Glass, Broken	80-100	10°	
Glue, Animal, Flaked	35	25°	
Glue, Vegetable, Powdered	40	35°	
Gluten, Meal	39	35°	
Granite, Lumps	150 -170	25°	
Graphite, Flakes	40	35°	
Graphite, Powder	30	25°	
Graphite, Ore	65 - 75	35°	
Grass Seed	10	35°	
Gravel, Dry	90-100	35°	15-17
Gravel, Wet	100-120	35°	
Gypsum, Lumps	90-100	35°	15
Gypsum, Ground	75- 80	35°	21
Hay, Loose	5	0°	
Hay, Pressed	25	0°	
Hominy	35- 50	35°	
Hops, Spent, Dry	25- 35	45°	
Hops, Spent, Wet	55- 60	45°	
Ice, Crushed	35- 40	20-	
Ilmenite Ore	140-160	35°	
Iron Ore	120-180	35°	18-20
Iron Ore, Pellets	120-140	35°	13-15
Iron Sulphate	50- 75	35°	
Iron Sulfide	120-140	35°	

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Table 16: Material Characteristics

MATERIAL	DENSITY (LB/fT3)	ANGLE OF REPOSE (DEG)	RECOMMENDED MAXIMUM INCLINATION
Kaolin, Clay	60	35°	19
Lactose	30	35°	
Lead Ore, Crushed	180 - 270	30°	
Lead Oxides	60 - 150	40°	
Lead Sulfate	170 - 190	45°	
Lead Sulfide	240 - 260	35°	
Lignite, Air Dried	45 - 55	35°	
Lime, Ground	60 - 65	40°	23
Lime, Hydrated	40	40°	21
Lime, Pebble	30 - 40	40°	17
Limestone, Loose	80 - 100	35°	20
Limestone, Pulverized	85 - 90	45°	18
Linseed, Whole	45 - 50	25°	
Linseed, Meal	30 - 40	35°	20
Magnesium Chloride	30 - 35	40°	
Magnesium Sulfate	40 - 60	35°	
Malt, Dry	25 - 30	30°	
Malt, Wet	60 - 65	45°	
Malt, Meal	35 - 40	35°	
Manganese Ore	125 - 140	40°	
Manganese Oxide	120	35°	
Manganese Sulfate	70	35°	
Manure	25	0°	
Marble, Crushed	80 - 95	35°	
Marl	80	35°	
Mica, Flakes	20	20°	
Mica, Ground	15	35°	23
Milk, Dried, Flaked	5	35°	
Milk, Malted	25 - 35	45°	
Milk, Powdered	20 - 30	40°	
Milo Maize	55 - 60	35°	
Molybdenum Ore	100 - 110	40°	
Mortar, Wet	150	0°	
Niacin	35	35°	
Nickel-Cobalt Sulfate Ore	80 - 150	35°	
Oats	25 - 35	25°	10
Oats, Rolled	20	35°	
Oil Cake	50	45°	
Oxalic Acid Crystals	60	35°	
Oyster Shells, Ground	50 - 60	35°	
Oyster Shells, Whole	80	35°	
Paper Pulp Stock	40 - 60	20°	
Peanuts, Shelled	35 - 45	35°	
Peanuts, Not Shelled	15 - 20	35°	
Peas, Dried	45 - 50	0°	
Phosphate, Fertilizer	50 - 60	35°	30
Phosphate, Rock, Crushed	60 - 100	35°	25
Potash	70 - 80	30°	
Potassium Chloride	120 - 130	35°	
Potassium Nitrate	75 - 80	25°	
Potassium Sulfate	45	45°	
Potatoes, White”	48	0°	
Pumice, Ground	40 - 45	45°	
Pyrites, Lumps	135 - 145	25°	
Pyrites, Pellets	120 - 130	35°	
Quartz, Lumps	95 - 100	25°	
Quartz, Sand	70 - 80	25°	
Rice, Hulled	45 - 50	20°	8
Rice, Rough	35	35°	
Rice, Grits	40 - 45	35°	
Rock, Crushed	100 - 150	30°	

MATERIAL	DENSITY (LB/fT3)	ANGLE OF REPOSE (DEG)	RECOMMENDED MAXIMUM INCLINATION
Rubber, Pellets	50 - 55	35°	22
Rubber, Ground Scrap	25 - 35	45°	18
Rye	42 - 45	25°	8
Rye Meal	35 - 40	20°	
Salt Cake	80 - 95	30°	21
Salt, Coarse”	45 - 55	35°	18-22
Salt, Fine”	70 - 80	35°	11
Sand, Wet	110 - 130	45°	20-22
Sand, Dry	90 - 110	35°	16-18
Sand, Loose, Foundry	80 - 100	35°	22
Sand, Foundry, Rammed	100 - 110	0°	24
Sandstone	80 - 90	35°	
Sawdust	10 - 25	30°	22
Scale, Rolling Mill	125 - 160	45°	
Sewage Sludge, Dry	45 - 55	35°	
Sewage Sludge, Wet	50 - 60	35°	
Shale, Broken	90 - 100	25°	
Shale, Crushed	85 - 90	40°	22
Silica Gel, Dry	45	35°	
Slag, Blast Furnace	80 - 90	25°	10
Slag, Granular, Dry	60 - 65	25°	13-16
Slag, Granular, Wet	90 - 100	45°	20-22
Slate, Ground	80 - 90	30°	15
Slate, Lumps	85 - 95	0°	
Snow, Compacted	15 - 50	0°	
Soap	10 - 25	35°	
Soda Ash, Briquettes	50	20°	7
Soda Ash, Heavy	55 - 65	30°	19
Soda Ash, Light	20 - 35	35°	22
Sodium Aluminum, Ground	72	35°	
Sodium Nitrate, Ground	70 - 80	24°	11
Sodium Phosphate	50 - 65	35°	
Soybeans, Cracked	30 - 40	35°	15-18
Soybeans, Whole”	45 - 50	25°	12-16
Starch, Powdered	25 - 45	25°	12
Steel, Chips	100 - 150	35°	18
Steel, Turnings	60 - 120	45°	
Sugar, Cane, Raw	55 - 65	45°	
Sugar. Granulated, Dry	50 - 55	35°	
Sugar, Granulated, Wet	55 - 65	40°	
Sugar Cane, Knifed	15 - 18	45°	
Sulphur, Lumps	80 - 85	35°	
Sulphur, Dust	50 - 70	35°	
Saconite, Pellets	120 - 140	35°	13-15
Salc, Granulated	50 - 70	20°	
Titanium Dioxide	140	35°	
Titanium Sponge	60 - 70	45°	
Tobacco, Leaves	14	45°	
Tobacco, Scraps	15 - 25	45°	
Tobacco, Stems	15	45°	
Traprock, Crushed	95 - 110	35°	
Traprock, Lumps	100 - 110	35°	
Turf	20 - 30	0°	
Walnut, Shells	35 - 45	35°	
Wheat	48	25°	12
Wheat, Cracked	40 - 45	35°	
Wheat Germ, Dry	20 - 30	25°	27
Wood Chips	10 - 30	45°	22
Zinc Ore, Granular	160	35°	
Zinc Oxide	10 - 35	45°	

Shafting

Table 17: Typical Commercial Shaft Tolerances

Shaft Size	Plus	Minus
Up to 1-1/2”	.000	.002
Over 1-1/2 to 2-1/2”	.000	.003
Over 2-1/2 to 4”	.000	.004
Over 4 to 6”	.000	.005
Over 6 to 8”	.000	.006
Over 8 to 9”	.000	.007
Over 9”	.000	.008

Table 18: Shaft Tolerances

Shaft Size	Tolerance, Inches
Up to 1-1/2”	+.0000 -.0005”
1-5/8 to 4”	+.000 -.001”
4-7/16 to 6”	+.000 -.0015”
6-7/16 to 8”	+.000 -.002”

Table 18 lists the recommended tolerances for all setscrew locking, eccentric locking and D-LOK locking ball and roller bearings

Table 19: Shaft Tolerances

Shaft Size	Tolerance, Inches
Up to 1-1/2”	+.000 -.002”
1-9/16 to 2-1/2”	+.000 -.003”
2-5/8 to 4”	+.000 -.004”
4-3/16 to 6”	+.000 -.005”
6-7/16” and above	+.000 -.006”

Table 19 list the recommended tolerances for all tapered adapter sleeve ball and roller bearings

Standard Shafting-Table 17 indicates standard shafting is cold drawn in the smaller sizes and turned and polished in the larger diameters. It has a smooth surface, is commercially straight and is readily machinable; suitable and recommended for general power transmission and material handling service.

Special Shafting-While standard shafting is suitable for most installations, special shafting is sometimes required for certain chemical, temperature or physical requirements. Such materials as high carbon steel, alloy steel, stainless steel, brass, Monel metal, etc., can be furnished plain or heat treated. Stepped, flanged, hollow or other special forms are available.

Special shafting should be avoided in favor of standard shafting wherever possible because special shafting is usually considerably more expensive and requires a greater length of time to obtain, which is an especially important consideration should quick replacement ever become necessary.

Ordering Shafting-Standard shafting can be obtained from most supply houses and dealers who handle power transmission material.

Turning Down Shaft Ends-When necessary to turn down shaft ends, use as large a fillet as possible to keep the stress concentration to a minimum. The radius of this fillet should preferably be not less than the difference in the two diameters joined by the fillet. The fillet should be finished and polished as smoothly as possible to avoid scratches which might start cracks and lead to failure of the shaft by fatigue.

Selection of Shaft Diameters

Tables 20 - 23 inclusive can be used to find approximate shaft diameter for various service conditions For greater accuracy use chart under heading “Combined Torsion and Bending of Standard Shafts” (B16-19).

Tables and chart are based upon a safe shear stress of 6,000 pounds per square inch for standard keyseated shafting. Be generous in the selection of shaft diameters as liberal diameters not only reduce deflection and vibration but also generally increase bearing life.

When necessary to use other than standard shafting, find the required diameter for standard shafting as outlined above and multiply by proper factor shown in Table 24, under heading “Factors for Shafting Other than Standard Shafting, “(B16-18).

Selection of Shaft Diameters (Cont'd)

Table 20: No Bending Moment (Shafts without pulleys, sprockets or gears - Torsion only)

Shaft Size	Horse Power at Various Revolutions per Minute																		
	25	50	75	100	125	150	175	200	225	250	275	300	350	400	500	600	700	800	900
15/16	0.30	0.70	1.10	1.50	1.90	2.30	2.60	3	3.40	3.80	4.20	4.60	5.30	6.10	7.70	9.20	10.70	12.30	13.80
1-3/16	0.70	1.50	2.30	3.10	3.90	4.60	5.40	6.20	7	7.80	8.60	9.30	10.90	12.50	15.60	18.70	21.90	25	28.10
1-7/16	1.30	2.70	4.10	5.50	6.90	8.30	9.70	11.10	12.40	13.80	15.20	16.60	19.40	22.20	27.70	33.30	38.80	44.40	49.90
1-11/16	2.20	4.40	6.60	8.90	11.20	13.40	15.70	17.90	20.20	22.40	24.70	26.90	31.40	35.90	44.90	53.80	62.80	71.80	80.80
1-15/16	3.30	6.70	10.10	13.50	16.90	20.30	23.70	27.10	30.50	33.90	37.30	40.70	47.50	54.30	67.90	81.50	95.10	108	122
2-3/16	4.90	9.80	14.60	19.50	24.40	29.30	34.20	39.10	44	48.90	53.80	58.60	68.40	78.20	97.80	117	136	156	176
2-7/16	6.70	13.50	20.20	27	33.80	40.60	47.30	54.10	60.90	67.60	74.40	81.20	94.70	108	135	162	189	216	243
2-11/16	9	18.10	27.10	36.20	45.30	54.40	63.40	72.50	81.60	90.70	99.70	108	126	145	181	217	253	290	326
2-15/16	11.80	23.60	35.40	47.30	59.20	71	82.90	94.70	106	118	130	142	165	189	236	284	331	379	426
3-7/16	19	37.90	57	75.90	94.90	113	132	151	170	189	208	227	265	303	379	455	531	607	683
3-15/16	28.50	57	85.50	114	142	171	199	228	256	285	313	342	399	456	570	684	798	912	1026
4-7/16	40.80	81.60	122	163	204	245	286	327	367	408	449	490	572	653	816	980	1143	1306	1470

Table 21: Limited Bending Moment (Pulleys, sprockets or gears near bearings. Ordinary line shafts.)

Shaft Size	Horse Power at Various Revolutions per Minute																		
	25	50	75	100	125	150	175	200	225	250	275	300	350	400	500	600	700	800	900
15/16	0.20	0.50	0.70	1	1.20	1.50	1.70	2	2.30	2.50	2.80	3	3.50	4.10	5.10	6.10	7.10	8.20	9.20
1-3/16	0.50	1	1.50	2	2.60	3.10	3.60	4.10	4.70	5.20	5.70	6.20	7.30	8.30	10.40	12.50	14.60	16.70	18.80
1-7/16	0.90	1.80	2.70	3.70	4.60	5.50	6.40	7.40	8.30	9.20	10.10	11.10	12.90	14.80	18.50	22.20	25.90	29.60	33.30
1-11/6	1.40	2.90	4.30	5.90	7.40	8.90	10.40	11.90	13.40	14.90	16.40	17.90	20.90	23.90	29.90	35.90	41.90	47.90	53.90
1-15/16	2.20	4.50	6.70	9	11.30	13.60	15.80	18.10	20.40	22.60	24.90	27.20	31.70	36.20	45.30	54.40	63.40	72.50	81.60
2-3/16	3.20	6.50	9.70	13	16.30	19.50	22.80	26.10	29.30	32.60	35.80	39.10	45.60	52.20	65.20	78.30	91.30	104	117
2-7/16	4.50	9	13.50	18	22.50	27	31.60	36.10	40.60	45.10	49.60	54.10	63.20	72.20	90.20	108	126	144	162
2-11/16	6	12.10	18.10	24.20	30.20	36.30	42.30	48.40	54.40	60.50	66.50	72.60	84.70	96.80	121	145	169	193	217
2-15/16	7.90	15.80	23.70	31.60	39.50	47.40	55.30	63.20	71.10	79	86.90	94.80	110	126	158	189	221	252	284
3-7/16	12.60	25.30	37.90	50.60	63.30	75.90	88.60	101	113	126	139	151	177	202	253	303	354	405	455
3-15/16	19	38	57	76.10	94.10	114	133	152	171	190	209	228	266	304	380	456	532	608	685
4-7/16	27	54	81	108	136	163	190	217	245	272	299	326	381	435	544	653	762	871	980
4-15/16	37	75	112	150	187	225	262	300	337	375	412	450	525	600	750	900	1050	1200	1350
5-7/16	50	100	150	200	250	300	350	400	451	501	551	601	701	801	1002	1202	1403	1603	1804
5-15/16	65	130	195	261	326	391	456	522	587	652	717	783	913	1044	1305	1566	1827	2088	2349
6-1/2	85	171	256	342	427	513	598	684	769	855	940	1026	1197	1368	1710	2052	2394	2736	3078

Selection of Shaft Diameters (Cont'd)

Table 22: Heavy Bending Moment. (Use for main or important shafts.)

Shaft Size	Horse Power at Various Revolutions per Minute																		
	25	50	75	100	125	150	175	200	225	250	275	300	350	400	500	600	700	800	900
1-11/16	0.80	1.70	2.50	3.50	4.40	5.30	6.20	7.10	8	8.90	9.80	10.70	12.50	14.30	17.90	21.50	25.10	28.70	32.30
1-15/16	1.30	2.70	4	5.40	6.70	8.10	9.50	10.80	12.20	13.50	14.90	16.30	19	21.70	27.10	32.60	38	43.50	48.90
2-3/16	1.90	3.90	5.80	7.80	9.70	11.70	13.70	15.60	17.60	19.50	21.50	23.40	27.40	31.30	39.10	46.90	54.80	62.60	70.40
2-7/16	2.70	5.40	8.10	10.80	13.50	16.20	18.90	21.60	24.30	27	29.70	32.40	37.90	43.30	54.10	64.90	75.80	86.60	97.40
2-11/16	3.60	7.20	10.80	14.50	18.10	21.70	25.40	29	32.60	36.20	39.90	43.50	50.80	58	72.50	87.10	101	116	130
2-15/16	4.70	9.40	14.10	18.90	23.60	28.40	33.10	37.90	42.60	47.30	52.10	56.80	66.30	75.80	94.70	113	132	151	170
3-7/16	7.50	15.10	22.60	30.30	37.90	45.50	53.10	60.70	68.30	75.90	83.50	91.10	106	121	151	182	212	243	273
3-15/16	11.40	22.80	34.20	45.60	57	68.40	79.90	91.30	102	114	125	136	159	182	228	273	319	365	410
4-7/16	16.30	32.60	48.90	65.30	81.60	98	114	130	147	163	179	196	228	261	326	392	457	522	588
4-15/16	22.50	45	67.50	90	112	135	157	180	202	225	247	270	315	360	450	540	630	720	810
5-7/16	30	60	90	120	150	180	210	240	270	300	330	360	420	480	601	721	841	961	1082
5-15/16	39	78	117	156	195	234	273	313	352	391	430	469	547	626	782	939	1095	1252	1409
6-1/2	51	102	153	205	256	308	359	410	462	513	564	616	718	821	1027	1232	1437	1643	1848
7	64	128	192	256	320	384	448	513	577	641	705	769	897	1026	1282	1539	1795	2052	2308
7-1/2	78.50	157	235	315	394	473	552	631	709	788	867	946	1104	1262	1577	1893	2208	2524	2839
8	95.50	191	286	382	478	574	670	765	861	957	1053	1148	1340	1531	1914	2297	2680	3063	3446
8-1/2	114	229	343	459	574	688	803	918	1033	1148	1263	1377	1607	1837	2296	2755	3215	3674	4133
9	136	272	408	545	681	817	954	1090	1226	1363	1499	1635	1908	2181	2726	3271	3816	4362	4907
9-1/2	160	320	480	641	801	961	1122	1282	1442	1603	1763	1923	2244	2565	3206	3847	4488	5130	5771
10	186	373	559	747	934	1121	1308	1495	1682	1869	2056	2243	2617	2991	3739	4487	5235	5983	6731

Table 23: Severe Conditions (Heavy shock loads. Excessively tight belts, long clutch sleeves.)

Shaft Size	Horse Power at Various Revolutions per Minute																		
	25	50	75	100	125	150	175	200	225	250	275	300	350	400	500	600	700	800	900
1-11/16	0.4	0.8	1.2	1.7	2.2	2.6	3.1	3.5	4	4.4	4.9	5.3	6.2	7.1	8.9	10.7	12.5	14.3	16.10
1-15/16	0.6	1.3	2	2.7	3.3	4	4.7	5.4	6.1	6.7	7.4	8.1	9.5	10.8	13.5	16.3	19	21.7	24.40
2-3/16	0.90	1.90	2.90	3.90	4.80	5.80	6.80	7.80	8.80	9.70	10.70	11.70	13.70	15.60	19.50	23.40	27.40	31.30	35.20
2-7/16	1.30	2.70	4	5.40	6.70	8.10	9.40	10.80	12.10	13.50	14.80	16.20	18.90	21.60	27	32.40	37.90	43.30	48.70
2-11/16	1.80	3.60	5.40	7.20	9	10.80	12.70	14.50	16.30	18.10	19.90	21.70	25.40	29	36.20	43.50	50.50	58	65
2-15/16	2.30	4.70	7	9.40	11.80	14.20	16.50	18.90	21.30	23.60	26	28.40	33.10	37.90	47.30	56.50	66	75.50	85
3-7/16	3.70	7.50	11.30	15.1	18.90	22.70	26.50	30.30	34.10	37.90	41.70	45.50	53	60.50	75.50	91	106	121	136
3-15/16	5.70	11.40	17.10	22.8	28.50	34.20	39.90	45.60	51	57	62.50	68	79.50	91	114	136	159	182	205
4-7/16	8.10	16.30	24.40	32.6	40.80	49	57	65	73.50	81.50	89.50	98	114	130	163	196	228	261	294
4-15/16	11.20	22.50	33.70	45	56	67.50	78.50	90	101	112	123	135	157	180	225	270	315	360	405
5-7/16	15	30	45	60	75	90	105	120	135	150	165	180	210	240	300	360	420	480	541
5-15/16	19.50	39	58.50	78	97.10	117	136	156	171	195	215	234	273	313	391	469	547	626	704
6-1/2	25.50	51	76.50	102.5	128	154	179	205	231	256	282	308	359	410	513	616	718	821	924
7	32	64.90	96	128	160	192	224	256	288	320	352	384	448	513	641	769	897	1026	1154
7-1/2	39.20	78.50	117	157	197	236	276	315	354	394	433	473	552	631	788	946	1104	1262	1419
8	47.70	95.50	143	191	239	287	335	382	430	478	526	574	670	765	957	1148	1340	1531	1723
8-1/2	57	114	171	229	287	344	401	459	516	574	631	688	803	918	1148	1377	1607	1837	2066
9	68	136	204	272	340	408	477	545	613	681	749	817	954	1090	1363	1635	1908	2181	2453
9-1/2	80	160	240	320	400	480	561	641	721	801	881	961	1122	1282	1603	1923	2244	2565	2885
10	93	186	279	373	467	560	654	747	841	934	1028	1121	1308	1495	1869	2243	2617	2991	3365

Caution Be generous in the selection of shaft diameters as liberal diameters not only reduce deflection and vibration but also generally increase bearing life. See notes on next page.

Selection of Shaft Diameters (Cont'd)

Shaft Stiffness, Shaft Deflection-Standard shafting of adequate strength usually has a sufficiently large diameter to prevent excessive deflection in ordinary installations. It is wise to select shafting of generous diameter, as the greater the diameter, the greater the stiffness. A high tensile strength alloy shaft, although stronger, is no stiffer than a standard shaft of the same diameter.

While it is sometimes possible to use an alloy shaft of less diameter than a standard shaft of equal strength, this practice is usually inadvisable, as the deflection is increased.

Shafts carrying medium or long clutch sleeves should be especially generous.

High Speed Shafts - High speed sometimes causes shaft whipping or vibration. This can be prevented by making the shaft diameter generous and the distance between bearing centers short.

Location of the bearings close to wheels and couplings is advisable whether the shaft is transmitting heavy or light loads.

The use of high tensile strength alloy shafting instead of standard shafting is of no help in preventing vibration as this will not improve the stiffness nor deflection characteristics of the shaft.

Stepped Shafts - For a heavily loaded wheel, a shaft with a boss or enlarged section under the wheel and turned to a smaller diameter at the bearings often provides the most economical installation. The two different diameters should be joined by a very generous fillet, otherwise a dangerous concentration of stress will occur at the fillet. See heading -"Turning Down Shaft Ends." (B16-15).

Shaft Keyseats - Plain keyseats are preferable to round end keyseats in respect to causing the least concentration of stress. However, round end keyseats are often used because of design and assembly requirements. Ends left by the milling cutter should not project into babbitted or bronze bushed bearing, but may project under the sleeve of any DODGE anti-friction bearing.

Shaft diameters obtained from the tables or chart allow for the use of keyseats.

Shaft Bearings - On ordinary line shafting, bearings are commonly spaced about eight feet centers. On large diameter shafts, the spacing may be somewhat greater.

Wheels and clutches should be located near bearings to avoid dangerous bending, deflection and vibration.

Bearings should be mounted on adequate supports so that accurate alignment may be maintained. Shaft misalignment may cause shaft or bearing failure.

Shaft Couplings - Where a rigid coupling is used, it is preferable to have a bearing fairly close. Where a cutoff coupling or a flexible coupling is used, locate bearings close to each end of the coupling.

Expansion of Shafting - Where changes in the length of the shaft due to changes in temperature are to be expected and the bearings are mounted on supporting structures other than steel, consideration must be given to expansion. For more detailed information see B16-20, headed: "Expansion of Shafting."

Factors for Shafting Other Than Standard Shafting

When it is necessary to use other than standard shafting, multiply required diameter for standard shafting as found in the tables or chart by proper factor from Table 24 below.

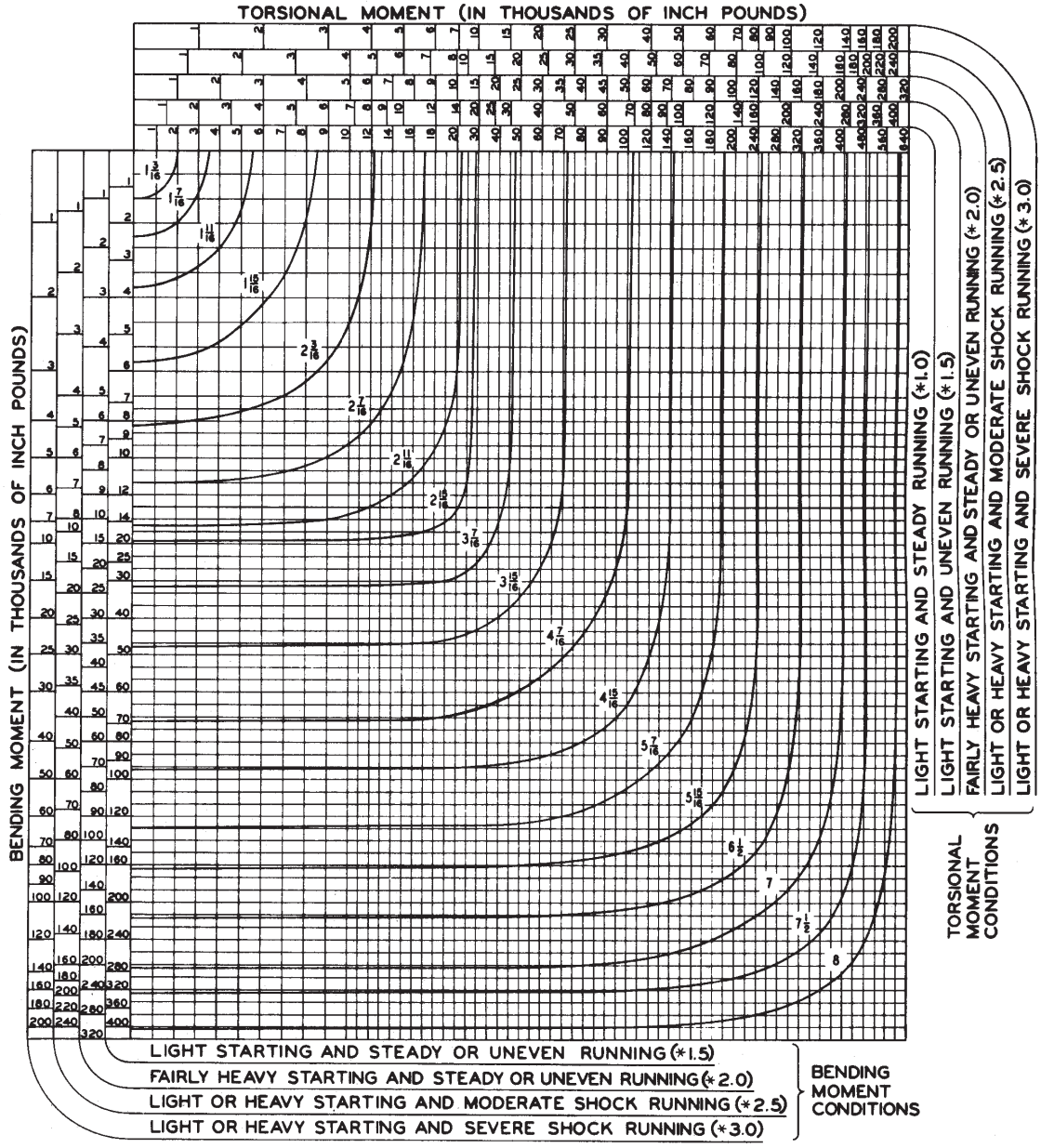
Standard keyseated shafting, using a safe shear stress of 6,000 PSI is the basis of shafting tables and chart. For safe shear stress of other materials, use 1/10 of nominal ultimate tensile strength. For example, use 8,000 for C1045 and 10,000 for 4140 keyseated shafting. When definite physical specifications are known the least of 13.5% of minimum ultimate tensile strength and 22.5% of minimum elastic limit in tension may be used for keyseated shafting; 18% and 30% respectively if not keyseated.

Caution - As the deflection of steel shafting depends upon the diameter and not upon the analysis of the steel, care should be exercised in the use of alloy shafting not to reduce the diameter unduly. Deflection should not be excessive and bearing capacities should be adequate. It is usually best to use standard shafting instead of a smaller diameter alloy shaft. The smaller alloy shaft may safely transmit the torque but often is undesirable in respect to deflection, vibration and bearing life

Table 24: Shear Stress Factors

Safe Shear Stress	Factor	Safe Shear Stress	Factor	Safe Shear Stress	Factor	Safe Shear Stress	Factor	Safe Shear Stress	Factor
500	2.289	3,000	1.260	5,500	1.029	9,000	.874	14,000	.754
1,000	1.817	3,500	1.197	6,000	1.000	10,000	.843	15,000	.737
1,500	1.587	4,000	1.145	6,500	.974	11,000	.817	16,000	.721
2,000	1.442	4,500	1.101	7,000	.950	12,000	.794	17,000	.707
2,500	1.339	5,000	1.063	8,000	.909	13,000	.773	18,000	.693

Combine Torsion and Bending of Standard Shaft (Based on a Safe Shear Stress of 6,000 PS for KeyseatedShafting)



Example: Engine extension shaft driving single cylinder compressor, 15,000 pound-inches torsional moment, 14,000 pound- inches bending moment. Because of the heavy shock running load conditions use scales designated “Light or Heavy Starting and Severe Shock Running”. Project a line down from 15,000 torsional moment. Project a line to the right from 14,000 bending moment. The two lines intersect between 3-7/16 and 3-15/ 16 curves. Use 3-15/16 standard shafting.

Note: The above chart is based on ASME approved standard ASA-B17C-1927 withdrawn in 1954. If the latest shaft selection analysis is required refer to ANSI/ASME B106.1M-1985.

Note: If considering use of other shafting material refer to “Selection of Shaft Diameters” on page B16-18.

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ENGINEERING

Expansion of Shafting

Provision should be made to permit the free movement of shafting endwise due to temperature changes. One bearing should serve as an anchor bearing to locate the shaft endwise. All other bearings should permit the shaft to move freely endwise.

The anchor bearing is often located near an important wheel. On long shafts it should preferably be located near the center of the shaft to keep the expansion of the two ends to a minimum. If the anchor bearing is babbitted it should be fitted with collars. If it is an anti-friction bearing it should be of the non-expansion type, which is the designation of DODGE roller and ball bearings for use as anchor bearings.

All bearings on the shafting other than the anchor bearing should permit the shaft to move freely endwise. If babbitted there should be no thrust collars. If anti-friction these bearings should be of the expansion type.

Several shafts firmly fastened together expand as if one continuous shaft. An example of this is line shafting with flange couplings. If the expansion is considered excessive a long line shaft may be split into two or more sections, the sections being connected with expansion couplings.

Amount of Expansion to be provided for-

The amount of shaft expansion is given in Table 25 below. For example, with a 100°F temperature rise on a 150 ft. line shaft with the anchor bearing located 70 ft. from one end and 80 ft. from the other end the ends will move .529” and .605” respectively away from the anchor bearing. The structure supporting the bearings may also expand but usually not as rapidly and as much as the shafting. Several cases follow:

Case 1- Bearings supported on steel structures, where the shaft and structure are exposed to the same temperatures, will expand at the same rate. Expansion allowance is usually not required. If the shaft is exposed to a higher temperature than the support, allowances should be made. For example, if the shaft temperature is expected to change 80°, and the temperature of the structure 60°, the resulting movement between shafting and support ends will be equivalent to a 20° change.

Case 2 - For bearings supported on wood, brick, or concrete walls, or on piers with foundations in the ground, the amount of expansion is usually considered negligible. Therefore, the full amount of shafting expansion as calculated in Table 25 below, may be accommodated.

Case 3 - Certain structural designs have built-in flexibility. Where this is the case, expansion type bearings are not necessary.

Case 4 - Short shafts with only two bearings are usually designed without compensation for expansion, if temperature variations are not excessive.

Advice on Expansion Problems-

DODGE power transmission engineers will gladly make recommendations concerning shaft expansion problems and the use of suitable bearings.

Table 25: Linear Expansion of Steel Shafting

Base on Expansion In Inches = 0.0000063 x 12 x Length in Feet x Temp. Increase in Degrees Fahrenheit

Length (Feet)	Temperature Increase-Degrees F.					Length (Feet)	Temperature Increase-Degrees F.				
	20°	40°	60°	80°	100°		20°	40°	60°	80°	100°
1	.0015	.0030	.0045	.0060	.0075	40	.060	.121	.181	.242	.302
2	.0030	.0060	.0091	.0121	.0151	45	.068	.136	.204	.272	.340
3	.0045	.0091	.0136	.0181	.0227	50	.076	.151	.227	.302	.378
4	.0060	.0121	.0181	.0242	.0302	55	.083	.166	.249	.333	.416
5	.0076	.0151	.0227	.0302	.0378	60	.091	.181	.272	.363	.454
6	.0091	.0181	.0272	.0363	.0454	65	.098	.197	.295	.393	.491
7	.0106	.0212	.0318	.0423	.0529	70	.106	.212	.317	.423	.529
8	.0121	.0242	.0363	.0484	.0605	75	.113	.227	.340	.454	.567
9	.0136	.0272	.0408	.0544	.0680	80	.121	.242	.363	.484	.605
10	.0151	.0302	.0454	.0605	.0756	85	.129	.257	.386	.514	.643
12	.0181	.0363	.0544	.0726	.0907	90	.136	.272	.408	.544	.680
14	.0212	.0423	.0635	.0847	.1058	95	.144	.287	.431	.575	.718
16	.024	.048	.073	.097	.121	100	.151	.302	.454	.605	.756
18	.027	.054	.082	.109	.136	110	.166	.333	.499	.665	.832
20	.030	.060	.091	.121	.151	120	.181	.363	.544	.726	.907
25	.038	.076	.113	.151	.189	130	.197	.393	.590	.786	.983
30	.045	.091	.136	.181	.227	140	.212	.423	.635	.847	1.058
35	.053	.106	.158	.212	.265	150	.227	.454	.680	.907	1.134

Weights and Properties of Steel Shafting

Table 26: Weight of Round Steel Shafting

Shaft Size	Weight of Shafting for Various Lengths in feet																	Weight Per Inc.
	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20	22	24	
3/4	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15	18	21	24	27	30	33	36	.125
7/8	2.0	4.0	6.1	8.1	10.2	12.2	14.3	16.3	18.4	20	25	29	33	37	41	45	49	.170
*15/16	2.3	4.7	7.0	9.4	11.7	14.1	16.5	18.8	21.2	23	28	33	38	42	47	52	56	.195
1	2.7	5.3	8.0	10.6	13.3	16.0	18.6	21.3	24.0	27	32	37	43	48	53	59	64	.223
1-1/8	3.4	6.8	10.0	13.4	16.7	20.1	23.4	26.7	30.1	34	41	47	54	61	68	74	81	.281
*1-3/16	3.8	7.6	11.3	15.1	18.9	22.6	26.4	30.1	34.0	38	45	53	60	68	75	83	90	.314
1-1/4	4.2	8.3	12.5	16.7	20.8	25.0	29.2	33.3	37.5	42	50	58	67	75	83	92	100	.348
1-3/8	5.0	10.1	15.3	20.2	25.3	30.3	35.4	40.4	45.4	50	60	71	81	91	101	111	121	.420
*1-7/16	5.5	11	17	22	28	33	39	44	50	55	66	77	88	99	110	121	133	.460
1-1/2	6.0	12	18	24	30	36	42	48	54	60	72	84	96	108	120	132	144	.500
*1-11/16	7.6	15	23	30	38	46	53	61	68	76	91	107	122	137	152	167	183	.634
*1-15/16	10.0	20	30	40	50	60	70	80	90	100	120	140	161	181	201	221	241	.835
2	10.7	21	32	43	53	64	75	85	96	107	128	150	171	192	214	235	256	.890
*2-3/16	12.8	26	38	51	64	77	90	102	115	128	153	179	205	230	256	281	307	1.06
*2-7/16	15.9	32	48	63	79	95	111	127	143	159	190	222	254	286	317	349	381	1.32
2-1/2	16.7	34	50	67	83	100	117	134	150	167	200	234	267	301	334	367	401	1.39
*2-11/16	19.3	39	58	77	97	116	135	154	174	193	232	270	309	348	386	425	463	1.61
*2-15/16	23.0	46	69	92	115	138	161	184	208	231	277	323	369	415	461	507	553	1.92
*3-7/16	31.6	63	95	126	158	189	221	253	284	316	379	442	505	568	631	695	758	2.63
*3-15/16	41.4	83	124	166	207	248	290	331	373	414	497	580	662	745	828	911	994	3.45
*4-7/16	52.6	105	158	210	263	315	368	421	473	526	631	736	841	946	1052	1157	1262	4.38
*4-15/6	65.1	130	195	260	326	391	456	521	586	651	781	911	1041	1172	1302	1432	1562	5.42
*5-7/16	79.0	158	237	316	395	474	553	632	711	790	947	1105	1263	1421	1579	1737	1894	6.58
*6	96	192	288	384	481	577	673	769	865	961	1154	1346	1538	1730	1923	2115	2307	8.01

* **Recommended Diameters** These shaft diameters are recommended for use whenever possible as various transmission items such as couplings, collars, clutches, pulleys, etc., are carried in stock in these sizes, at least up to 3-15/16", in the principal cities throughout the United States.

Table 27: Weight and Properties of Round Steel Shafting

Shaft Size	Weight per Inch	Section Modulus		Moment of Inertia		Shaft Size	Weight per Inch	Section Modulus		Moment of Inertia	
		Bending	Torsion	Bending	Torsion			Bending	Torsion	Bending	Torsion
1/16	.00087	.000024	.000048	.000001	.000002	2-7/16	1.32	1.422	2.844	1.733	3.466
1/8	.0035	.000192	.000383	.000012	.000024	2-1/2	1.39	1.534	3.068	1.918	3.835
3/16	.0078	.000647	.001294	.000061	.000121	2-9/16	1.46	1.652	3.304	2.117	4.233
1/4	.0139	.001534	.003068	.000192	.000383	2-5/8	1.53	1.776	3.552	2.331	4.661
5/16	.0217	.002996	.005992	.000468	.000936	2-11/16	1.61	1.906	3.811	2.561	5.122
3/8	.0313	.005177	.010354	.000971	.001941	2-3/4	1.68	2.042	4.084	2.807	5.615
7/16	.0425	.008221	.016442	.001798	.003597	2-13/16	1.76	2.184	4.368	3.071	6.143
1/2	.0556	.0123	.0245	.0031	.0061	2-7/8	1.84	2.333	4.666	3.354	6.707
9/16	.0703	.0175	.0349	.0049	.0098	2-15/16	1.92	2.489	4.977	3.655	7.310
5/8	.0868	.0240	.0479	.0075	.0150	3	2.00	2.651	5.301	3.976	7.952
11/16	.1051	.0319	.0638	.0110	.0219	3-1/16	2.08	2.820	5.640	4.318	8.636
3/4	.125	.0414	.0828	.0155	.0311	3-1/8	2.17	2.996	5.992	4.681	9.363
13/16	.1467	.0527	.1053	.0214	.0428	3-3/16	2.26	3.179	6.359	5.067	10.13
7/8	.1701	.0658	.1315	.0288	.0575	3-1/4	2.35	3.370	6.740	5.477	10.95
15/16	.1954	.0809	.1618	.0379	.0758	3-5/16	2.44	3.568	7.137	5.910	11.82
1	.22	.0982	.1963	.0491	.0982	3-3/8	2.53	3.774	7.548	6.369	12.74
1-1/16	.25	.1178	.2355	.0626	.1251	3-7/16	2.63	3.988	7.976	6.854	13.71
1-1/8	.28	.1398	.2796	.0786	.1573	3-1/2	2.72	4.209	8.419	7.366	14.73
1-3/16	.31	.1644	.3288	.0976	.1952	3-9/16	2.82	4.439	8.878	7.907	15.81
1-1/4	.35	.1917	.3835	.1198	.2397	3-5/8	2.92	4.677	9.353	8.476	16.95
1-5/16	.38	.2220	.4439	.1457	.2913	3-11/16	3.02	4.923	9.845	9.076	18.15
1-3/8	.42	.2552	.5104	.1755	.3509	3-3/4	3.13	5.177	10.35	9.707	19.41
1-7/16	.46	.2916	.5832	.2096	.4192	3-13/16	3.23	5.440	10.88	10.37	20.74
1-1/2	.50	.3313	.6627	.2485	.4970	3-7/8	3.34	5.712	11.42	11.07	22.14
1-9/16	.54	.3745	.7490	.2926	.5852	3-15/16	3.45	5.993	11.99	11.80	23.60
1-5/8	.59	.4213	.8425	.3423	.6846	4	3.56	6.283	12.57	12.57	25.13
1-11/16	.63	.4718	.9435	.3981	.7961	4-1/16	3.67	6.582	13.16	13.37	26.74
1-3/4	.68	.5262	1.052	.4604	.9208	4-1/8	3.78	6.891	13.78	14.21	28.42
1-13/16	.73	.5846	1.169	.5298	1.060	4-3/16	3.90	7.209	14.42	15.09	30.19
1-7/8	.78	.6471	1.294	.6067	1.213	4-1/4	4.01	7.536	15.07	16.01	32.03
1-15/16	.83	.7140	1.428	.6917	1.384	4-5/16	4.13	7.874	15.75	16.98	33.96
2	.89	.7854	1.571	.7854	1.571	4-3/8	4.25	8.221	16.44	17.98	35.97
2-1/16	.94	.8614	1.723	.8883	1.777	4-7/16	4.38	8.579	17.16	19.03	38.07
2-1/8	1.00	.9421	1.884	1.001	2.002	4-1/2	4.50	8.946	17.89	20.13	40.26
2-3/16	1.06	1.028	2.055	1.124	2.248	4-9/16	4.63	9.324	18.65	21.27	42.54
2-1/4	1.13	1.118	2.237	1.258	2.516	4-5/8	4.75	9.713	19.43	22.46	44.92
2-5/16	1.19	1.214	2.428	1.404	2.808	4-11/16	4.88	10.11	20.22	23.70	47.40
2-3/8	1.25	1.315	2.630	1.562	3.124	4-3/4	5.01	10.52	21.04	24.99	49.98

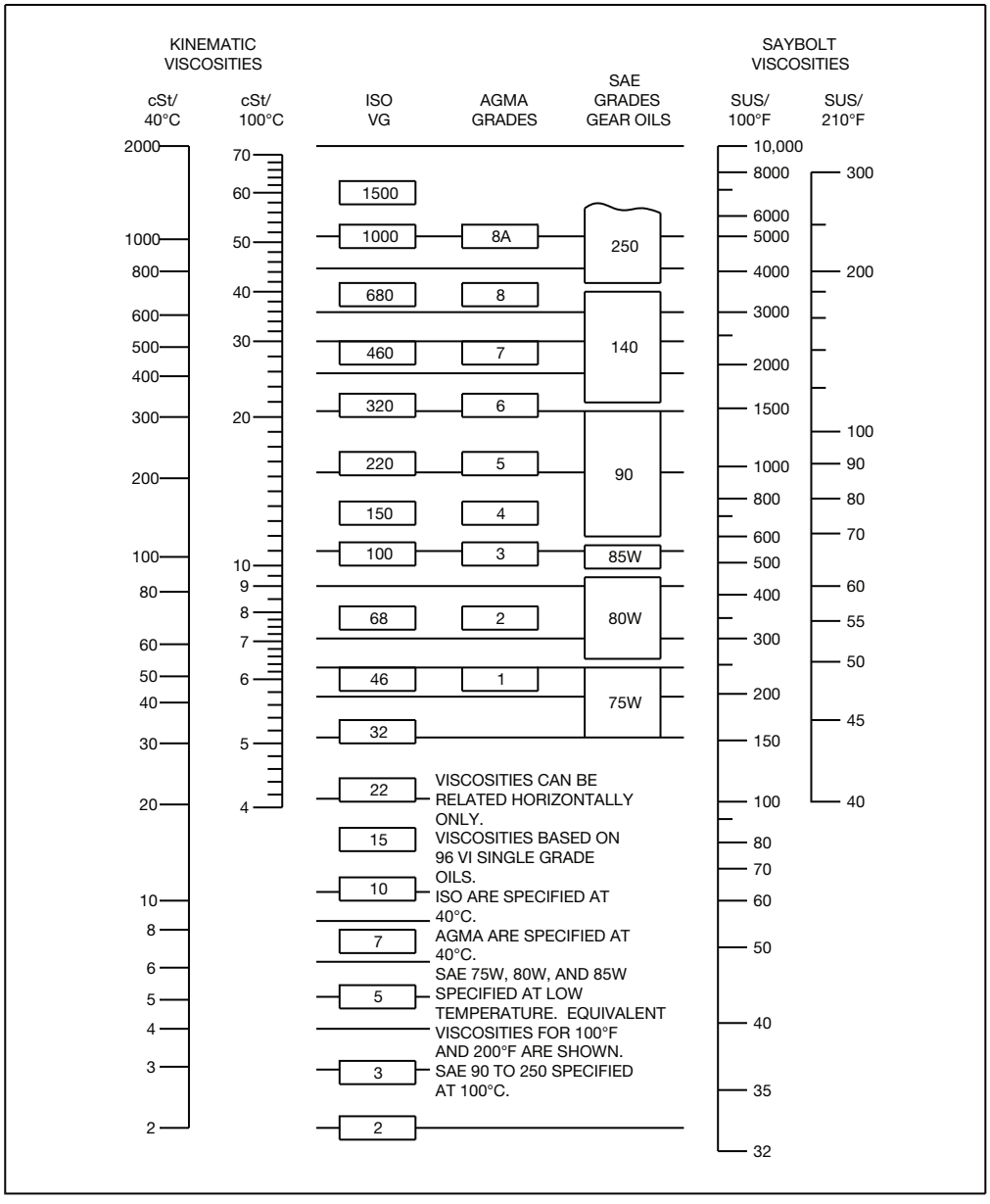
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Table 27: Weight and Properties of Round Steel Shafting

Shaft Size	Weight per Inch	Section Modulus		Moment of Inertia		Shaft Size	Weight per Inch	Section Modulus		Moment of Inertia	
		Bending	Torsion	Bending	Torsion			Bending	Torsion	Bending	Torsion
4-13/16	5.15	10.94	21.88	26.33	52.66	13-1/2	40.50	241.50	483.10	1630	3261
4-7/8	5.28	11.37	22.75	27.72	55.45	13-3/4	42.00	255.20	510.40	1755	3509
4-15/16	5.42	11.82	23.63	29.17	58.35	14	43.60	269.40	538.80	1886	3771
5	5.56	12.27	24.54	30.68	61.36	14-1/4	45.10	284.10	568.20	2024	4048
5-1/16	5.70	12.74	25.48	32.24	64.49	14-1/2	46.70	299.30	598.60	2170	4340
5-1/8	5.84	13.22	26.43	33.86	67.73	14-3/4	48.40	315.00	630.10	2324	4647
5-3/16	5.98	13.70	27.41	35.55	71.09	15	50.00	331.30	662.70	2485	4970
5-1/4	6.13	14.21	28.41	37.29	74.58	15-1/4	51.70	348.20	696.40	2655	5310
5-5/16	6.27	14.72	29.44	39.10	78.20	15-1/2	53.40	365.60	731.20	2833	5667
5-3/8	6.42	15.25	30.49	40.97	81.94	15-3/4	55.10	383.60	767.10	3021	6041
5-7/16	6.58	15.78	31.57	42.91	85.82	16	56.90	402.10	804.20	3217	6434
5-1/2	6.72	16.33	32.67	44.92	89.84	16-1/4	58.70	421.30	842.50	3422	6846
5-9/16	6.88	16.90	33.79	46.99	93.99	16-1/2	60.50	441.00	882.00	3638	7277
5-5/8	7.03	17.47	34.95	49.14	98.29	16-3/4	62.40	461.40	922.70	3864	7728
5-11/16	7.19	18.06	36.12	51.36	102.70	17	64.20	482.30	964.70	4100	8200
5-3/4	7.35	18.66	37.33	53.66	107.30	17-1/4	66.10	503.90	1008	4346	8693
5-13/16	7.51	19.28	38.56	56.03	112.10	17-1/2	68.10	526.20	1052	4604	9208
5-7/8	7.67	19.91	39.82	58.48	117.00	17-3/4	70.00	549.10	1098	4873	9745
5-15/16	7.84	20.55	41.10	61.01	122.00	18	72.00	572.60	1145	5153	10306
6	8.00	21.21	42.41	63.62	127.20	18-1/4	74.00	596.70	1193	5445	10891
6-1/16	8.17	21.88	43.75	66.31	132.60	18-1/2	76.10	621.60	1243	5750	11500
6-1/8	8.34	22.56	45.12	69.09	138.20	18-3/4	78.10	647.10	1294	6067	12134
6-3/16	8.51	23.26	46.51	71.95	143.90	19	80.20	673.40	1347	6397	12794
6-1/4	8.68	23.97	47.94	74.90	149.80	19-1/4	82.40	700.30	1401	6741	13481
6-5/16	8.86	24.69	49.39	77.94	155.90	19-1/2	84.50	728.00	1456	7098	14195
6-3/8	9.03	25.44	50.87	81.08	162.20	19-3/4	86.70	756.30	1513	7469	14937
6-7/16	9.21	26.19	52.38	84.30	168.60	20	88.90	785.40	1571	7854	15708
6-1/2	9.39	26.96	53.92	87.62	175.20	20-1/4	91.10	815.20	1630	8254	16508
6-5/8	9.76	28.55	57.09	94.56	189.10	20-1/2	93.40	845.80	1692	8669	17339
6-3/4	10.10	30.19	60.39	101.90	203.80	20-3/4	95.70	877.10	1754	9100	18200
6-7/8	10.50	31.90	63.80	109.70	219.30	21	98.00	909.20	1818	9547	19093
7	10.90	33:67	67.35	117.90	235.70	21-1/4	100.40	942.10	1884	10009	20019
7-1/8	11.30	35.51	71.02	126.50	253.00	21-1/2	102.70	975.70	1951	10489	20978
7-1/4	11.70	37.41	74.82	135.60	271.20	21-3/4	105.10	1010	2020	10985	21970
7-3/8	12.10	39.38	78.76	145.20	290.40	22	107.60	1045	2091	11499	22998
7-1/2	12.50	41.42	82.84	155.30	310.60	22-1/4	110.00	1081	2163	12031	24061
7-5/8	12.90	43.52	87.05	165.90	331.90	22-1/2	112.50	1118	2237	12581	25161
7-3/4	13.30	45.70	91.40	177.10	354.20	22-3/4	115.00	1156	2312	13149	26298
7-7/8	13.80	47.95	95.89	188.80	377.60	23	117.60	1194	2389	13737	27473
8	14.30	50.27	100.50	201.10	402.10	23-1/4	120.10	1234	2468	14344	28687
8-1/8	14.70	52.66	105.30	213.90	427.90	23-1/2	122.70	1274	2548	14971	29941
8-1/4	15.10	55.13	110.30	227.40	454.80	23-3/4	125.40	1315	2630	15618	31236
8-3/8	15.60	57.67	115.30	241.50	483.00	24	128.00	1357	2714	16286	32572
8-1/2	16.10	60.29	120.60	256.20	512.50	24-1/4	130.70	1400	2800	16975	33951
8-5/8	16.50	62.99	126.00	271.60	543.30	24-1/2	133.40	1444	2888	17686	35372
8-3/4	17.00	65.77	131.60	287.70	575.50	24-1/4	136.20	1488	2977	18419	36838
8-7/8	17.50	68.63	137.30	304.50	609.10	25	138.90	1534	3068	19175	38350
9	18.00	71.57	143.10	322.10	644.10	25-1/4	141.70	1580	3161	19954	39907
9-1/8	18.50	74.59	149.20	340.30	680.70	25-1/2	144.50	1628	3256	20755	41511
9-1/4	19.00	77.70	155.40	359.40	718.70	25-3/4	147.40	1676	3352	21581	43163
9-3/8	19.50	80.89	161.80	379.20	758.40	26	150.30	1726	3451	22432	44864
9-1/2	20.10	84.17	168.30	399.80	799.60	26-1/4	153.20	1776	3552	23307	46614
9-5/8	20.60	87.54	175.10	421.30	842.60	26-1/2	156.10	1827	3654	24208	48415
9-3/4	21.10	90.99	182.00	443.60	887.20	26-3/4	159.00	1879	3758	25134	50268
9-7/8	21.70	94.54	189.10	466.80	933.60	27	162.00	1932	3865	26087	52174
10	22.20	98.17	196.30	490.90	981.70	27-1/2	168.10	2042	4083	28074	56148
10-1/4	23.40	105.72	211.40	541.80	1084	28	174.30	2155	4310	30172	60344
10-1/2	24.50	113.65	227.30	596.70	1193	28-1/2	180.50	2273	4545	32385	64771
10-3/4	25.70	121.96	243.90	655.50	1311	29	186.90	2394	4789	34719	69437
11	26.90	130.67	261.30	718.70	1437	29-1/2	193.40	2520	5041	37176	74351
11-1/4	28.10	139.78	279.60	786.30	1573	30	200.00	2651	5301	39761	79522
11-1/2	29.40	149.31	298.60	858.50	1717	30-1/2	206.80	2785	5571	42479	84957
11-3/4	30.70	159.26	318.50	935.70	1871	31	213.60	2925	5849	45333	90666
12	32.00	169.65	339.30	1018	2036	31-1/2	220.50	3069	6137	48329	96659
12-1/4	33.40	180.47	360.90	1105	2211	32	227.60	3217	6434	51472	102944
12-1/2	34.70	191.75	383.50	1198	2397	32-1/2	234.80	3370	6740	54765	109530
12-3/4	36.10	203.48	407.00	1297	2594	33	242.10	3528	7056	58214	116428
13	37.60	215.69	431.40	1402	2804	34	256.90	3859	7717	65597	131194
13-1/4	39.00	228.37	456.70	1513	3026	35	272.30	4209	8418	73662	147324

Viscosity Classification Equivalents

OIL VISCOSITY EQUIVALENCY CHART



ISO VISCOSITY CLASSIFICATION SYSTEM

All industrial oils are graded according to the ISO Viscosity Classification System, approved by the International Standards Organizations (ISO). Each ISO viscosity grade number corresponds to the mid-point of viscosity range expressed in centistokes (cSt) at 40°C. For example, a lubricant with an ISO grade of 32 has a viscosity within the range of 28.80-35.2, the midpoint of which is 32.

Rule-of-Thumb: The comparable ISO grade of a competitive product whose viscosity in SUS at 100°F is known can be determined by using the following conversion formula:

SUS @ 100° F ÷ 5 = cSt @ 40°C

English Standard Measures

Long Measure

1 mile = 1760 yards = 5280 feet.
1 yard = 3 feet = 36 inches.
1 foot = 12 inches.

Surveyor's Measure

1 mile = 8 furlongs = 80 chains.
1 furlong = 10 chains = 220 yards.
1 chain = 4 rods = 22 yards = 66 feet = 100 links.
1 link = 7.92 inches.

Square Measure

1 square mile = 640 acres = 6400 square chains.
1 acre = 10 square chains = 4840 square yards = 43,560 square feet.
1 square chain = 16 square rods = 484 square yards = 4356 square feet.
1 square rod = 30.25 square yards = 272.25 square feet = 625 square links.
1 square yard = 9 square feet.
1 square foot = 144 square inches.
An acre is equal to a square, the side of which is 208.7 feet.

Dry Measure

1 bushel (U.S. or Winchester struck bushel) = 1.2445 cubic foot = 2150.42 cubic inches.
1 bushel = 4 pecks = 32 quarts = 64 pints.
1 peck = 8 quarts = 16 pints.
1 quart = 2 pints.
1 heaped bushel = 1 1/4 struck bushel.
1 cubic foot = 0.8036 struck bushel.
1 British Imperial bushel=8 Imperial gallons=1.2837 cubic foot = 2218.19 cubic inches.

Liquid Measure

1 U.S. gallon = 0.1337 cubic foot = 231 cubic inches = 4 quarts = 8 pints.
1 quart = 2 pints = 8 gills.
1 pint = 4 gills.
1 British Imperial gallon = 1.2003 U.S. gallon = 277.27 cubic inches.
1 cubic foot = 7.48 U.S. gallons.

Circular and Angular Measure

60 seconds (")	=1 minute (')
60 minutes	=1 degree (-)
360 degrees	=1 circumference (C)
57.3 degrees	=1 radian
2 π radians	=1 circumference (C)

Specific Gravity

The specific gravity of a substance is its weight as compared with the weight of an equal bulk of pure water.

For making specific gravity determinations the temperature of the water is usually taken at 62° F. when 1 cubic foot of water weighs 62.355 lbs. Water is at its greatest density at 39.20° F. or 4° Centigrade.

Temperature

The following equation will be found convenient for transforming temperature from one system to another:

Let F = degrees Fahrenheit; C = degrees Centigrade; R = degrees Reamur.

$$\frac{F-32}{180} = \frac{C}{100} = \frac{R}{80}$$

Avoirdupois or Commercial Weight

1 gross or long ton = 2240 pounds.
1 net or short ton = 2000 pounds.
1 pound = 16 ounces = 7000 grains.
1 ounce = 16 drams = 437.5 grains.

Measures of Pressure

1 pound per square inch = 144 pounds per square foot = 0.068 atmosphere = 2.042 inches of mercury at 62 degrees F. = 27.7 inches of water at 62 degrees F. = 2.31 feet of water at 62 degrees F.

1 atmosphere = 30 inches of mercury at 62 degrees F. = 14.7 pounds per square inch = 2116.3 pounds per square foot = 33.95 feet of water at 62 degrees F.

1 foot of water at 62 degrees F. = 62.355 pounds per square foot = 0.433 pound per square inch.

1 inch of mercury at 62 degrees F. = 1.132 foot of water = 13.58 inches of water = 0.491 pound per square inch.

Column of water 12 in. high, 1 in. dia. = .341 lbs.

Cubic Measure

1 cubic yard = 27 cubic feet.
1 cubic foot = 1728 cubic inches.
The following measures are also used for wood and masonry:
1 cord of wood = 4 X 4 X 8 feet = 128 cubic feet.
1 perch of masonry = 16-1/2 X 1-1/2 X 1 foot = 24-3/4 cubic feet.

Shipping Measure

For measuring entire internal capacity of a vessel: 1 register ton = 100 cubic feet.
For measurement of cargo:
1 U.S. shipping ton = 40 cubic feet = 32.143 U.S. bushels = 31.16 Imperial bushels.
British shipping ton = 42 cubic feet = 33.75 U.S. bushels = 32.72 Imperial bushels.

Troy Weight, Used for Weighing Gold and Silver

1 pound = 12 ounces = 5760 grains.
1 ounce = 20 pennyweights = 480 grains.
1 pennyweight = 24 grains.
1 carat (used in weighing diamonds) = 3.086 grains.
1 grain Troy = 1 grain avoirdupois = 1 grain apothecaries' weight.

Measure Used for Diameters and Areas of Electric Wires

1 circular inch = area of circle 1 inch in diameter = 0.7854 square inch.
1 circular inch = 1,000,000 circular mils.
1 square inch = 1.2732 circular inch = 1,273,239 circular mils.
A circular mil is the area of a circle 0.001 inch in diameter.

Board Measure

One foot board measure is a piece of wood 12 inches square by 1 inch thick, or 144 cubic inches. 1 cubic foot therefore equals 12 feet board measure

TABLE 28: Decimal and Millimeter Equivalents of Fractions

Inches Fractions	Decimals	Milli-meters	Inches Fractions	Decimals	Milli-meters	Inches Fractions	Decimals	Milli-meters
1/64	.015625	.397	11/32	.34375	8.7319	11/16	.6875	17.463
1/32	.03125	.794	23/64	.359375	9.128	45/64	.703125	17.859
3/64	.046875	1.191	3/8	.375	9.525	23/32	.71875	18.256
1/16	.0625	1.588	25/64	.390625	9.922	47/64	.734375	18.653
5/64	.078125	1.984	13/32	.40625	10.319	3/4	.750	19.050
3/32	.09375	2.381	27/64	4.21875	10.716	49/64	.765625	19.447
7/64	.109375	2.778	7/16	4.375	11.113	25/32	.78125	19.844
1/8	.125	3.175	29/64	4.53125	11.509	51/64	.796875	20.241
9/64	.140625	3.582	15/32	.46875	11.906	13/16	.8125	20.638
5/32	.15625	3.969	31/64	.48376	12.303	53/64	.828125	21.034
11/64	.171875	4.366	1/2	.500	12.700	27/32	.84375	21.431
3/16	.1875	4.763	33/64	.515625	13.097	55/64	.859375	21.828
13/64	.203125	5.159	17/32	.53125	13.494	7/8	.875	22.225
7/32	.21875	5.556	35/64	.546875	13.891	57/64	.890625	22.622
15/64	.234375	5.953	9/16	.5625	14.288	29/32	.90524	23.019
1/41	.250	6.350	37/64	.578125	14.684	59/64	.921875	23.416
7/64	.265625	6.747	19/32	.59375	14.081	15/16	.9375	23.813
9/32	.28125	7.144	39/64	.609375	15.478	61/64	.953125	24.209
19/64	.296875	7.541	5/8	.625	15.875	31/32	.96875	24.606
5/16	.3125	7.938	41/64	.60625	16.272	63/64	.984375	25.003
21/64	.328125	8.334	21/32	.65625	16.669	1	1.000	25.400
			43/64	.671875	17.066			

Table 29: Millimeter-Inch Equivalents: 1” = 25.4mm (.03937” = 1mm)

Millimeter	Decimal	Millimeter	Decimal	Millimeter	Decimal	Millimeter	Decimal	Millimeter	Decimal
1	.03937	52	2.04724	103	4.05511	154	6.06299	205	8.07086
2	.07874	53	2.08661	104	4.09448	155	6.10236	206	8.11023
3	.11811	54	2.12598	105	4.13385	156	6.14173	207	8.14960
4	.15748	55	2.16535	106	4.17322	157	6.18110	208	8.18897
5	.19685	56	2.20472	107	4.21259	158	6.22047	209	8.22834
6	.23622	57	2.24409	108	4.25196	159	6.25984	210	8.26771
7	.27559	58	2.28346	109	4.29133	160	6.29921	211	8.30708
8	.31496	59	2.32283	110	4.33070	161	6.33858	212	8.34645
9	.35433	60	2.36220	111	4.37007	162	6.37795	213	8.38582
10	.39370	61	2.40157	112	4.40944	163	6.41732	214	8.42519
11	.43307	62	2.44094	113	4.44881	164	6.45669	215	8.46456
12	.47244	63	2.48031	114	4.48818	165	6.49606	216	8.50393
13	.51181	64	2.51968	115	4.52755	166	6.53543	217	8.54330
14	.55118	65	2.55905	116	4.56692	167	6.57480	218	8.58267
15	.59055	66	2.59842	117	4.60629	168	6.61417	219	8.62204
16	.62992	67	2.63779	118	4.64566	169	6.65354	220	8.66141
17	.66929	68	2.67716	119	4.68503	170	6.69291	221	8.70078
18	.70866	69	2.71653	120	4.72440	171	6.73228	222	8.74015
19	.74803	70	2.75590	121	4.76378	172	6.77165	223	8.77952
20	.78740	71	2.79527	122	4.80315	173	6.81102	224	8.81889
21	.82677	72	2.83464	123	4.84252	174	.685039	225	8.85826
22	.86614	73	2.87401	124	4.88189	175	6.88976	226	8.897.63
23	.90551	74	2.91338	125	4.92126	176	6.92913	227	8.93700
24	.94488	75	2.95275	126	4.96063	177	.696850	228	8.97637
25	.98425	76	2.99212	127	5.00000	178	7.00787	229	9.01574
26	1.02362	77	3.03149	128	5.03937	179	7.04724	230	9.05511
27	1.06299	78	3.07086	129	5.07875	180	7.08661	231	9.09448
28	1.10236	79	3.11023	130	5.11811	181	7.12598	232	9.13385
29	1.14173	80	3.14960	131	5.15749	182	7.16535	233	9.17322
30	1.18110	81	3.18897	132	5.19685	183	7.20472	234	9.21259
31	1.22047	82	3.22834	133	5.23622	184	7.24409	235	9.25196
32	1.25984	83	3.26771	134	5.27559	185	7.28346	236	9.29133
33	1.29921	84	.303708	135	5.31496	186	7.32283	237	9.33070
34	1.33858	85	3.34645	136	5.35433	187	7.36220	238	9.37007
35	1.37795	86	3.38582	137	5.39370	188	7.40157	239	9.40944
36	1.41732	87	.342519	138	.543307	189	7.44094	240	9.44881
37	1.45669	88	3.46456	139	.547244	190	7.48031	241	9.48818
38	1.49606	89	3.50393	140	5.51181	191	7.51968	242	9.52755
39	1.53543	90	3.54330	141	5.55118	192	7.55905	243	9.56692
40	1.57480	91	.358267	142	5.59055	193	7.59842	244	9.60629
41	1.61417	92	3.62204	143	5.62992	194	7.63779	245	9.64566
42	1.65354	93	3.66141	144	5.66929	195	7.67716	246	9.68503
43	1.69291	94	3.70078	145	5.70866	196	7.71653	247	9.72440
44	1.73228	95	3.74015	146	5.748.4	197	7.75590	248	9.76378
45	1.77165	96	3.77952	147	5.78740	198	7.79527	249	9.80315
46	1.81102	97	3.81899	148	5.82677	199	7.83464	250	9.84252
47	1.85039	98	3.85826	149	5.86614	200	7.87401	251	9.88189
48	1.88976	99	3.89763	150	5.90551	201	7.91338	252	9.92126
49	1.92913	100	3.93710	151	5.94488	202	795275	253	9.96063
50	1.96850	101	3.97637	152	5.98425	203	799221	254	10.00000
51	2.00787	102	4.01574	153	6.02362	204	8.03149	-	-

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DODGE®

ENGINEERING

Metric System of Measurements

Measures of Length

10	millimeters (mm.)	=	1 centimeter (cm.)
10	centimeters	=	1 decimeter (dm.)
10	decimeters	=	1 meter (m.)
1000	meter	=	1 kilometer (km.)

Measure of Weight

10	milligrams (mg.)	=	1 centigram (cg.)
10	centigrams	=	1 decigram (dg.)
10	decigrams	=	1 gram (g.)
10	grams	=	1 decagram (Dg.)
10	decagrams	=	1 hectogram (Hg.)
10	hectograms	=	1 Kilogram (Kg.)
1000	kilograms	=	1 (metric) ton (T.)

Surveyor's Square Measure

100	square meters (m.2)	=	1 are (ar.)
100	acres	=	1 hectare (har.)
100	hectares	=	1 sq. kilometer (Km.2)

Square Measure

100	sq. millimeters (mm.2)	=	1 sq. centimeter (cm.2)
100	sq. centimeters	=	1 sq. decimeter (dm.2)
100	sq. decimeters	=	1 sq. meter (m.2)

Cubic Measure

1000	cu. millimeters (mm.3)	=	1 cu. centimeter (cm.3)
1000	cu. centimeters	=	1 cu. decimeter (dm.3)
1000	cu. decimeters	=	1 cu. meter (m.3)

Dry and Liquid Measure

10	milliliters (ml.)	=	1 centiliter (cl.)
10	centiliters	=	1 deciliter (dl.)
10	deciliters	=	1 liter (l.)
100	liters	=	1 hectoliter (Hl.)

1 liter = 1 cubic decimeter = the volume of 1 kilogram of pure water at a temperature of 39.2 degrees F.

Length Conversion Constants for Metric and U.S. Units

Millimeters X.039370 = inches.
Meters x 39.370 = inches.
Meters X 3.2808 = feet.
Meters X 1.09361 = yards.
Kilometers X 3,280.8 = feet.
Kilometers X.62137 = Statute Miles.
Kilometers x.53959 = Nautical Miles.

Inches X 25.4001 = millimeters.
Inches X.0254 = meters.
Feet x.30480 = meters.
Yards X.91440 = meters.
Feet x.0003048 = kilometers.
Statute Miles X 1.60935 = kilometers.
Nautical Miles x 1.85325 = kilometers.

Weight Conversion Constants for Metric and U.S. Units

Grams X 981 = dynes.
Grams X 15.432 = grains.
Grams X.03527 = ounces (Avd.).
Grams x.033818 = fluid ounces (water).
Kilograms X 35.27 = ounces (Avd.).
Kilograms X 2.20462 = pounds (Avd.).
Metric Tons (1000 Kg.) X 1.10231 = Net Ton (2000 lbs.).
Metric Tons (1000 Kg.) X.98421 = Gross Ton (2240 lbs.).

Dynes X.0010193 = grams.
Grains X.0648 = grams.
Ounces (Avd.) X 28.35 = grams.
Fluid Ounces (Water) X 29.57 = grams.
Ounces (Avd.) X.02835 = kilograms.
Pounds (Avd.) X.45359 = kilograms.
Net Ton (2000 lbs.) X.90719 = Metric Tons (1000 Kg.).
Gross Ton (2240 lbs.) X 1.01605 = Metric Tons (1000 Kg.).

Area Conversion Constants for Metric and U.S. Units

Square Millimeters X.00155 = square inches.
Square centimeters X.155 = square inches.
Square Meters X 10.76387 = square feet.
Square Meters X 1.19599 = square yards.
Hectares X 2.47104 = acres.
Square Kilometers X 247.104 = acres.
Square Kilometers X.3861 = square miles.

Square Inches X 645.163 = square millimeters.
Square Inches x 6.45163 = square centimeters.
Square Feet x.0929 = square meters.
Square Yards X.83613 = square meters.
Acres X.40469 = hectares.
Acres X.0040469 = square kilometers.
Square Miles X 2.5899 = square kilometers.

Volume Conversion Constants for Metric and U.S. Units

Cubic centimeters X.033818 = fluid ounces.
Cubic centimeters X.061023 = cubic inches.
Cubic centimeters X.271 = fluid drams.
Liters X 61.023 = cubic inches.
Liters X 1.05668 = quarts.
Liters X .26417 = gallons.
Liters X.035317 = cubic feet.
Hectoliters X 26.417 = gallons.
Hectoliters X 3.5317 = cubic feet.
Hectoliters X 2.83794 = bushel (2150.42 cu. in.).
Hectoliters X.1308 = cubic yards.
Cubic Meters x 264.17 = gallons.
Cubic Meters x 35.317 = cubic feet.
Cubic Meters X 1.308 = cubic yards.

Fluid Ounces X 29.57 = cubic centimeters.
Cubic Inches X 16.387 = cubic centimeters.
Fluid Drams x 3.69 = cubic centimeters.
Cubic Inches X.016387 = liters.
Quarts x.94636 = liters.
Gallons x 3.78543 = liters.
Cubic Feet x 28.316 = liters.
Gallons x.0378543 = hectoliters.
Cubic Feet x.28316 = hectoliters.
Bushels (2150.42 cu. in.) X.352379 = hectoliters.
Cubic Yards x 7.645 = hectoliters.
Gallons x.00378543 = cubic meters.
Cubic Feet x.028316 = cubic meters.
Cubic Yards x.7645 = cubic meters.

Power and Heat Conversion Constants for Metric and U.S. Units

Calorie x 0.003968 = B.T.U.
Joules X.7373 = pound-feet.
Newton-Meters X 8.851 = pound-inches
Cheval Vapeur X.9863 = Horsepower.
Kilowatts X 1.34 = Horsepower.
Kilowatt Hours X 3415 = B.T.U.
(Degrees Cent. X 1.8) +32 = degrees Fahr.
(Degrees Reamur X 2.25) + 32 = degrees Fahr.

B.T.U. X 252 = calories.
Pound-Feet X 1.3563 = joules.
Pound-inches X.11298 = Newton-meters.
Horsepower X 1.014 = Cheval Vapeur.
Horsepower X.746 = kilowatts.
B.T.U. X.00029282 = kilowatt hours.
(Degrees Fahr. - 32) x.555 = degrees Cent.
(Degrees Fahr. - 32) x.444 = degrees Reamur.

COMMON CONVERSION FACTORS USEFUL IN MECHANICAL POWER TRANSMISSION

Symbols and Abbreviations Used in Conversion Factors

Symbols and abbreviations found in this section are those currently used in many texts and product publications. Considerable effort is underway to standardize on abbreviations for metric and English units of measurement. Recently, ASTM (American Society for Testing and Materials) and IEEE (Institute of Electrical and Electronic Engineers) published a standard practice on the metric system. † This publication consolidates a great deal of the current thinking and provides a system of abbreviations and symbols that differ somewhat from those used here.

This Handbook has retained use of familiar abbreviations consistent with existing product and trade literature rather than the abbreviations found in current publications of technical and scientific societies.

Prefixes Used in the Metric System

Common prefixes and symbols used in the metric system are listed below. An example of use is 1000 meters is equivalent to 1 kilometer, and 1/1000 of one meter is equivalent to 1 millimeter.

Prefix	Symbol	Multiplication Factor-Decimal and Power of 10
giga	G	1,000,000,000 or 109 or one billion
mega	M	1,000,000 or 106 or one million
kilo	k	1,000 or 103 or one thousand
*hecto	h	100 or 102 or one hundred
*deka	da	10 or 101 or ten
**deci	d	0.1 or 10-1 or one tenth
**centi	c	0.01 or 10-2 or one hundredth
mill	m	0.001 or 10-3 or one thousandth
micro	µ	0.000,001 or 10-6 or one millionth
nano	n	0.000,000,001 or 10-9 or one billionth

* Not commonly used.

** Not commonly used except for special situations.
The centimeter as a unit of length is in common use.
The decibel is a unit in both electrical and acoustical work.

† ASTM/IEEE Standard Metric Practice, ASTM E 380-75, IEEE Std. 268-1976.

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ENGINEERING

Symbol or Abbreviation	Term
atm	atmosphere
avdp	avoirdupois
bbl	barrels
bu	bushels
C	degrees Centigrade or Celsius
cc	cubic centimeters
cfm	cubic feet per minute
cfs	cubic feet per second
cm	centimeter
cu	cubic
deg	degrees
F	degrees Fahrenheit
fps	feet per second
ft	feet
ft-lb	foot-pounds (work or energy)
ft per sec	feet per second (alternate)
ft per sec^2	feet per second per second
g	acceleration due to gravity
g	grams
gal	gallons
gpm	gallons per minute
hp	horsepower
hr	hour
in	inches
in-lb	inch-pounds (work or energy)
K	degrees Kelvin
kg	kilograms
km	kilometers
kn	knots
kW	kilowatts
l	liters
lb	pounds
lb-ft	pound-feet (torque)
m	meters
m per sec^2	meters per second per second
mi	miles
mm	millimeters
mph	miles per hour
MGD	millions of gallons per day
N	Newtons
oz	ounces
oz-in	ounce-inches (torque)
Pa	Pascals
psi	pounds per square inch
psia or psig	pounds per square inch “absolute” or gauge
pt	pint
qt	quart
R	degrees Rankine (Fahrenheit, absolute)
rad	radians
rev	revolutions
rpm	revolutions per minute
sec	seconds
sq	square
std	standard
temp	temperature
wt	weight
yd	yard
yr	year

Rounding of Numbers

A minimum of four significant figures are used in conversion factors presented here. Where the conversion factor is exact (for example, 1 foot contains 12 inches), decimal fractions are not necessary. Also, where large whole numbers are used (for example, 1 square kilometer contains 1195990 square yards), decimal fractions are not used unless justified by the accuracy of ordinary computations.

1195990	(sq yd in a sq km)
4389.12	(cc in a cu ft)
448.86	(gpm in a liter per sec)
14.70	(psi in an atmosphere)
0.4331	(psi in a ft of water)
0.0625	(lb-in in an oz-in)

VELOCITY

centimeters per second (cm per sec)	feet per second (fps or ft per sec)	0.3281
feet per second (fps)	centimeters per second (cm per sec)	30.48
	meters per second (m per sec)	0.3048
	kilometers per hour (km per hr)	1.097
	miles per hour (mph)	0.6818
kilometers per hour (km per hr)	knots (kn)	0.5396
	feet per second (fps)	1.467
	kilometers per hour (km per hr)	1.609
	feet per minute (ft per min.)	88
knots (kn)	miles per hour (mph)	1.152
	kilometers per hour (km per hr)	1.853
radians per second (rad per sec)	revolutions per minute (rpm)	9.55
	degrees per minute (deg per min.)	3437.7
revolutions per minute (rpm)	radians per second (rad per sec)	0.1047
	degrees per minute (deg per min.)	360

ACCELERATION

COLUMN A

To Convert From...	To...	Multiply Col. A by
feet per second per second (ft per sec^2)	meters per second per second (m per sec^2)	0.3048
m per sec^2	ft per sec^2	3.281
revolutions per minute per second (rpm per sec)	radians per second per second (rad per sec^2)	0.1047
rad per sec^2	rpm per sec	9.55

VOLUMETRIC FLOW RATES

gallons per minute, US (gpm)	liters per second (l per sec)	0.008434
	cubic feet per minute (cfm)	0.1337
	cubic feet per hour (cu ft per hr)	8.022
gallons per minute, UK or Canadian (gpm)	liters per second (l per sec)	0.0101
	cubic feet per minute (cfm)	0.1606
	cubic feet per hour (cu ft per hr)	9.634
cubic feet per second (cfs)	gpm (UK or Canadian)	373.77
	gpm (US)	448.86
	liters per second (l per sec)	1699.2
liters per second (l per sec)	cubic feet per minute (cfm)	2.119
	gpm (UK or Canadian)	13.20
	gpm (US)	15.85
millions of gallons per day, US (MGD)	liters per second (l per sec)	43.81
	cubic feet per minute (cfm)	92.85
	gallons per minute, US (gpm)	694.44

PRESSURE

pascals (Pa)	pounds per square inch (psi)	0.0001450
	pounds per square foot (lb per ft^2)	0.02089
	newtons per square meter	1
pounds per square inch (psi)	atmospheres, std. (atm)	0.0680
	pounds per square foot (lb per ft^2)	144
	pascals (Pa)	6894.8
	foot of water (ft of H20) 60F	2.301
atmospheres (atm), standard	psi	14.70
	lb per ft^2	2116.8
	Pa	101325
inch of water, 60F (in of H20)	psi	0.03609
	lb per ft^2	5.197
	Pa	248.84
foot of water, 60F (ft of H20)	psi	0.4331
	lb per ft^2	62.36
	Pa	2985.9

WEIGHT, MASS, INERTIA

pounds (lb)*	kilograms (kg)	0.4536
	ounces (oz)	16
kilograms (kg)	pounds (lb)	2.205
	ounces (oz)	35.27

WEIGHT, MASS, INERTIA, continued

COLUMN A

Convert From	To	Multiply Col A By This Factor
tons (short)	metric tons	0.9072
	kilograms (kg)	907.2
	pounds (lb)	2000
metric tons	tons (short)	1.102
	kilograms	1000
	pounds	2205
pounds, weight (lb)	slugs, mass (lb-sec2 per ft)	0.03106
pound-foot2 (lb-ft2)	kilogram-meters2 (kg-m2)	0.04214

*pounds and ounces are avoirdupois

FORCE AND TORQUE

pounds (lb)	newtons(N)	4.448
newtons (N)	pounds (lb)	0.2248
newton-meters (N-m)	pound-feet (lb-ft)	0.7376
	pound-inches (lb-in)	8.851
	ounce-inches (oz-in)	141.60
ounce-inches (oz-in)	lb-ft.	0.005208
	N-m	0.007062
	lb-in	0.0625
pound-inches (lb-in)	lb-ft.	0.0833
	N-m	0.1298
	oz-In	16
pound-feet (lb-ft)	N-m	1.356
	lb -in	12
	oz-In	192

POWER

horsepower (hp)	kilowatts (kW)	0.7457
	foot-pounds per second (ft-lb per sec)	550
	foot-pounds per minute (ft-lb per min.)	33000
kilowatts (kW)	horsepower (hp)	1.341

TEMPERATURE

		Use This Relationship
degrees Fahrenheit (F)	degrees Celsius (C)	C =5/9 (F-32)
degrees Celsius (C)	degrees Fahrenheit (F)	F=9/5C+32
degrees Fahrenheit (F)	degrees Rankine (R)	R =F+459.69
degrees Celsius (C)	degrees Kelvin (K)	K=C+273.16

Examples:

1. Convert 12F to C. C = 5/9 (F-32) = 5/9 (12-32) = 5/9 (-20)
   Answer = -11.1C
2. Convert 40C to F. F = 9/5C + 32 = 9/5 (40) + 32 = 72 + 32
   Answer = 104F

GRAVITATIONAL CONSTANT

g = 32.174 feet per second per second (ft per sec2)
= 9.8067 meters per second per second (m per sec2)

APPROXIMATE DENSITIES OF COMMON MATERIALS

	REPRESENTATIVE DENSITIES Grams per cc	lb per cu ft
GASES @ 68F, std atm		
Air	1.30 grams per liter	0.07528
Oxygen	1.45 grams per liter	0.08305
Hydrogen	0.09 grams per liter	0.005234
Nitrogen	1.25 grams per liter	0.07274
	All Other Materials grams per cc	
LIQUIDS		
Water @ 4C	1.000 grams per cc	62.43
20C	0.998	62.32
40C	0.992	61.94
SeaWater	1.02-1.03	64.00
Ethyl alcohol 100%	0.789	49.2
Kerosene	0.78-0.82	50
Gasoline	0.70-0.75	45
METALS		
Aluminum (95% Al)	2.70	169
Bronze (90% Cu, 10% Zn)	8.80	549
Copper (Annealed, ACS)	8.89	555
Gold	19.32	1206
Iron, gray cast	7.10	443
Lead	11.36	709
Magnesium	1.74	109
Steel (0.4-0.5% Carbon)	7.80	487
Steel, 410 stainless	7.70	480
ENGINEERING PLASTICS		
ABS, general purpose	1.01-1.05	64
Acrylics, cast sheet	1.19	74
Nylon 6/6	1.13-1.15	71
Phenolic, general purpose	1.35-1.46	87
Polycarbonates, general purpose	1.2	75
Polyesters, thermoplastic, unreinforced	1.31 - 1.43	86
Polyehtylene, medium density	0.926-0.940	58
Polyvinyl Chloride	1.30-1.58	89

APPROXIMATE DENSITIES OF COMMON MATERIALS

	REPRESENTATIVE DENSITIES	
	Grams per cc	lb per cu ft
OTHER MATERIALS		
Concrete (stone and sand)	2.2-2.4	144
Limestone	1.5	94
Anthracite coal, not piled	1.4-1.8	100
Bituminous coal, not piled.	1.2-1.5	83
Lignite coal, not piled	1.1-1.4	78
Wood, air dried:		
Douglas fir.	0.48-0.55	32
White oak	0.77	48
White maple	0.53	33
Oregon pine.	0.51	32
Hickory	0.74-0.80	48
Mahogany	0.56-0.85	44
African teak.	0.99	62
Indian teak	0.66-0.88	48

Formulas and Constants

1 HP = 33,000 Foot-pounds of work per minute.

1 HP =.746 K.W. = K.W.P 1.341.

1 HP = 2547 B.T.U. per hour.

1 B.T.U. = Heat required to raise 1 lb. water 1-F.

1 B.T.U. = 777.6 Foot-pounds work.

1 Kilowatt Hour = 3415 B.T.U.

Heat Value of Carbon = 14,600 B.T.U. per pound.

Latent Heat of Fusion of Ice = 143.15 B.T.U. per pound.

Latent Heat of Evaporation of Water at 212° F. = 970.4 B.T.U. per pound.

Total Heat of Saturated Steam at atmospheric pressure = 1,150.4 B.T.U. per pound.

1 Ton of Refrigeration = 288,000 B.T.U. per 24 hours.

g = Acceleration of Gravity (commonly taken as 32.16 feet per second per second).

1 Radian = 57.296 degrees.

1 Meter = 100 cm. = 39.37 inches.

1 Kilometer =.62137 miles.

1 Gallon = 231 cubic inches.

1 Barrel = 31.5 gallons.

Atmospheric Pressure = 14.7 pounds per sq. in. = 29.92 inches mercury at 32º F.

1 Lb. per Sq. In. Pressure = 2.3095 feet fresh water at 62º F. = 2.0355 inches mercury at 32º F. = 2.0416 inches mercury at 62º F.

Water Pressure (pounds per sq. in.) =.433 X height of water in feet (Fresh water at 62ºF.).

Weight of 1 cu. ft. fresh Water = 62.355 lbs. at 62ºF. = 59.76 lbs. at 212º F.

Weight of 1 cu. ft. Air at 14.7 lbs. per sq. in. Pressure = .07608 lbs. at 62º F. =.08073 lbs. at 32º F.

† Also look in the General Index under Weights, Measures, or the subject material required.

Flywheel Formulas

Flywheels are used on some machines, for example air compressors, to even out load pulsations. The following formulas are useful in designing entire flywheels and flywheel rims. A V-belt sheave may also be used as a flywheel eliminating the need for a separate flywheel in the system.

Formulas for Entire Flywheel

Kinetic energy of rotation of a flywheel (foot pounds)
$=.0001705\ N^2(WR^2)$*.

Torque to uniformly accelerate or decelerate a flywheel

$$= \frac{.03908\ (N_2 - N_1)\ \ (WR^2),\ *\ \text{pound-inches}}{t}$$

where N_2 = final R.P.M. and N_1 = initial R.P.M.
Velocity at outside diameter (feet per minute) = 0.2618 ND.

W = weight (pounds).

R = radius of gyration (feet).

N = speed (R.P.M.)

t = time to change from N_1 to N_2 (seconds).

F = face of rim (inches).

D = outside diameter of rim (inches).

d = inside diameter of rim (inches).

K = weight per cubic inch of material (pounds).

*WR^2 = flywheel effect (pounds X feet^2). See table to the right for WR^2 of rims. Ordinarily the WR^2 of the rim only is considered. In unusual instances the relatively small WR^2 values of the hub and arms or web can be added directly to the WR^2 of the rim if desired. To find the WR^2 of a hub or web use the WR^2 formula for rims, substituting the hub or web outside diameter, inside diameter, and width for D, d and F respectively. When arms are used instead of a web an approximate WR^2 value of the arms is the total weight of the arms in pounds times the square of the radius in feet from the shaft center line to the mid point of the arms between hub and rim.

Table 30: Formulas for Flywheel Rims

Property	Cast Iron Rim (Based on.26 lbs. per cu. in.)	Steel Rim (Based on .283 lbs. per cu. in.)	Rim of any material weighing K pounds per cubic inch
Volume (Cubic Inches)	$.7854F(D^2-d^2)$	$.7854F(D^2-d^2)$	$.7854F(D^2-d^2)$
W Weight (Pounds)	$.2042F(D^2-d^2)$	$.2223F(D^2-d^2)$	$.7854FK(D^2-d^2)$
R Radius of Gyration (Feet)	$\sqrt{\frac{.8681\ (D^2-d^2)}{1000}}$	$\sqrt{\frac{0.8681\ (D^2-d^2)}{1000}}$	$\sqrt{\frac{.8681\ (D^2-d^2)}{1000}}$
WR^2 Wt X Sq. of Radius of Gyration (Lbs. X Ft.^{2})	$\frac{.1773F(D^4-d^4)}{1000}$	$\frac{.1929F(D^4-d^4)}{1000}$	$\frac{.6818FK(D^4-d^4)}{1000}$
T ▲ Tensile Load in rim (Lbs.)	$\frac{.3078FN2(D^3-d^3)}{1000000}$	$\frac{.3350FN2(D^3-d^3)}{1000000}$	$\frac{1,184FKN2(D^3-d^3)}{1000000}$

▲ Centrifugal force causes this tensile load at each and every section of the rim. Hence, on rims split into two or more sections the fastening at each joint should be designed to take the full load as calculated from the formula here given.

Centrifugal Force

R = Distance from the axis of rotation to the center of gravity of the body (feet).

N = Revolutions per minute.

v = Velocity of the center of gravity of the body (feet per second).

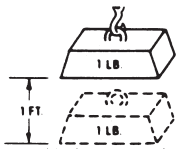
g = Acceleration due to gravity (32.16 commonly).

$$F = \frac{Wv^2}{gR} = \frac{WRN^2}{2933} = .000341\ WRN^2$$

F = Centrifugal force tending to move the body outward from the axis of rotation (pounds).

W = Weight of body (pounds).

Torque and Horsepower Equivalents

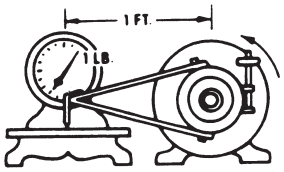


A foot-pound is the amount of energy expended in lifting a one-pound mass a distance of one foot against the pull of gravity

FOOT-POUNDS INDICATE ENERGY

TORQUE

It is: a turning moment or twisting effort.
Is it expressed in foot-pounds? or pound-feet?



A pound-foot is the moment created by a force of one pound applied to the end of a lever arm one

POUND-FEET INDICATE TORQUE

Torque (in Pound-Inches) = $\frac{63025 \times HP}{RPM}$ = Force X Lever Arm (In Inches)

Torque (in Pound-Feet) = $\frac{5252 \times HP}{RPM}$ = Force X Lever Arm (In Feet)

Force = Working Load in Pounds.
FPM = Feet Per Minute.
RPM = Revolutions Per Minute.
Lever Arm = Distance from the Force to the center of rotation in Inches or Feet.

HORSEPOWER

Common Unit of Mechanical power - (HP)
One HP is the rate of work required to raise 33,000 pounds one foot in one minute

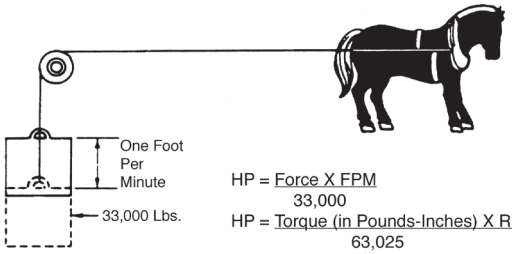
Example:

25 HP at 150 RPM = 10504 Pound-Inches Torque
2.5 HP at 150 RPM = 1050.4 Pound-Inches Torque

For other values of RPM move decimal point in RPM values to the left or right as desired, and in Torque values move to the right or left (opposite way) the same number of places.

Example:

25 HP at 150 RPM = 10504 Pound-Inches Torque
25 HP at 1.50 RPM = 1050400 Pound-Inches Torque
2.5 HP at 1.50 RPM = 105040 Pound-Inches Torque



HP = $\frac{\text{Force X FPM}}{33{,}000}$

HP = $\frac{\text{Torque (in Pounds-Inches) X RPM}}{63{,}025}$

HP = $\frac{\text{Torque (in Pounds-Feet) X RPM}}{5{,}252}$

Overhung Loads

An overhung load is a bending force imposed on a shaft due to the torque transmitted by V-drives, chain drives and other power transmission devices, other than flexible couplings.

Most motor and reducer manufacturers list the maximum values allowable for overhung loads. It is desirable that these figures be compared with the load actually imposed by the connected drive.

Overhung loads may be calculated as follows:

O.H.L. = $\frac{63{,}000 \times HP \times F}{N \times R}$

Where HP = Transmitted hp X service factor
N = RPM of shaft
R = Radius of sprocket, pulley. etc. (inches)
F = Factor (See chart to right)

Weights of the drive components are usually negligible. The formula is based on the assumption that the load is applied at a point equal to one shaft diameter from the bearing face. Factor F depends on the type of drive used:

F= 1.00 for single chain drives.
1.3 for TIMING Belt Drives and HTD belt Drives.
1.25 for spur or helical gear or double chain drives.
1.50 for V-belt drives. 2.50 for flat belt drives.
2.50 for flat belt drives.

Example: Find the overhung load imposed on a reducer by a double chain drive transmitting 7 hp @ 30 RPM. The pitch diameter of the sprocket is 10"; service factor is 1.3.
Solution:

$$\text{O.H.L.} = \frac{(63{,}000)\ (7 \times 1.3)\ (1.25)}{(30)\ (5)} = 4{,}780 \text{ lbs.}$$

Mathematical Equations

To find circumference of a circle, multiply diameter by 3.1416.
To find diameter of a circle, multiply circumference by .31831.
To find area of a circle, multiply square of diameter by .7854.
To find area of a rectangle, multiply length by breadth.
To find area of a triangle, multiply base by 1/2 perpendicular height.
To find area of ellipse, multiply product of both diameters by .7854.
To find area of parallelogram, multiply base by altitude.
To find side of an inscribed square, multiply diameter by 0.7071 or multiply circumference by 0.2251 or divide circumference by 4.4428.
To find side of inscribed cube, multiply radius of sphere by 1.1547.
To find side of an equal square, multiply diameter by .8862.
To find the surface of a sphere, square the diameter and multiply by 3.1416.
To find the volume of a sphere, cube the diameter and multiply by .5236.
A side of a square multiplied by 1.4142 equals diameter of its circumscribing circle.
A side of a square multiplied by 4.443 equals circumference of its circumscribing circle.

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ENGINEERING

Table 31: Strength and Physical Properties of Various Metals

Metals and Alloys	Stress in Thousands of Pounds per Sq. Inch				Modulus of Elasticity Millions	Elongation%
	Tension Ultimate	Tension Yield Point	Compression Ultimate	Shear Ultimate		
Aluminum, Type 1100.0, Annealed	13	5	.....	9	10	45
Aluminum, Type 1100-H18, Hard	24	22	.....	13	10	15
Aluminum. Type 3003-0, Annealed	16	6	.....	11	10	40
Aluminum, Type 3003-H18, Hard	29	27	.....	16	10	10
Aluminum, Type 5052-0, Annealed	28	13	.....	18	10.20	30
Aluminum, Type 5052-H38, Hard	42	37	.....	24	10.20	8
Aluminum, Type 5056-0, Annealed	42	22	.....	26	10.30	35
Aluminum, Type 2014-0, Annealed	27	14	.....	18	10.60	18
Aluminum, Type 2014-T4, Heat Treated	62	42	.....	38	10.60	20
Aluminum, Type C4A, Casting. Solution Heat Treat	32	16	16▲	24	.....	8.50
Aluminum, Type S5C, As Die Cast	30	16	16▲	19	.....	9
Brass, Admiralty, Annealed	53	22	.....	.....	16	65
Brass, Aluminum, Annealed	60	27	.....	.....	16	55
Brass, Cartridge, 30% Zn, Annealed	44	11	.....	32	16	66
Brass, Cartridge, 30% Zn, Hard	76	63	.....	44	16	8
Brass, Naval, Annealed	57†	25†	.....	40 †	15	47†
Brass, Naval, Leaded, Annealed	57†	25†	.....	36 †	15	40†
Brass, Red, 15% Zn, Annealed	39	10	.....	31	17	48
Brass, Red, 15% Zn, Hard	70	57	.....	42	17	5
Brass, Red, Leaded, Cast, Grade 4A	33-46	17-24	10-12▲	.....	9.1-14.8	20-35
Brass, Red, Leaded, Cast, Grade 4B	30-38	12-17	11-12▲	.....	.....	15-27
Brass, Semi-Red, Leaded, Cast, Grade 5A	29-39	13-17	.....	.....	7.7-14.3	18-30
Brass, Semi-Red, Leaded, Cast, Grade 5B	30-40	12-16	8-10▲	.....	10-14	20-35
Brass, Yellow, 35% Zn, Annealed	46	14	.....	32	15	65
Brass, Yellow, 35% Zn, Hard	74	60	.....	43	15	8
Bronze, Aluminum, As Cast	67-95	27-45	.....	.....	15-18	5-35
Bronze, Commercial, 10% Zn, Annealed	37†	10†	.....	28 †	17	45=
Bronze, Manganese, Annealed	65†	30†	.....	42 v	15	33=
Bronze, Phosphor, Annealed	40-66	14-24	.....	.....	16-17	48-70
Bronze, Tin, High Leaded, Cast	23-38	11-22	12-16▲	.....	8.5-13	7-20
Bronze, Tin, Leaded, Cast	33-48	16-26	9-15▲	.....	10.6-16	15-40
Copper, Beryllium, Annealed	60-80	25-35v	.....	50-60 †	19	35-50†
Copper, Electrolytic, Tough Pitch, Annealed	32†	10†	.....	22 †	17	45†
Inconel, Cast	65-90	.....	.....	.....	23	10-20
Inconel, S, Cast	90-120	80-100	.....	.....	25	1-3
Inconel, Shapes, Plate, Etc., Annealed	80-100†	30-45†	.....	.....	31	35-55†
Inconel, X, Shapes, Plate, Etc., Annealed	110-130†	45-65†	.....	.....	31	40-55†
Iron, Cast, Class 30	30-34	.....	115	44	15	.....
Iron, Cast, Class 35	35-40	.....	125	43	16	.....
Iron, Ingot, Hot Rolled	44	23	.....	.....	29.80	47
Iron, Malleable, Class 32510	50	33	90	46	25	10-18
Iron, Malleable, Class 35018	55	37	90	51	25	18-25
Iron, Nodular (Ductile) Class 60-45-10	60	45	120	.....	22-25	10-25
Iron, Nodular (Ductile) Class 80-60-3	80	60	160	.....	22-25	3-10
Iron, Pearlitic, Malleable	60-90	40-70	.....	.....	28	3-12
Iron, Wrought, Hot Rolled	34-47	23-24	.....	.....	29	7-35
Lead, Hard, Rolled	4.0-4.6	.....	.....	.....	.....	31-48
Magnesium Alloy, Extruded, ASTM MIA	26-28	23-28	10-13	16	6.50	8-11
Magnesium Alloy, Extruded, ASTM AZ6IA-F	40-45	22-32	15-21	21	6.50	15-16
Magnesium Alloy, Cast, ASTM MIB	14	4.50	.....	11	6.50	5
Magnesium Alloy, Cast, ASTM AZ92A	24	14	.....	19	6.50	2
Magnesium Alloy, Cast, ASTM AZ9IA	36	23	.....	20	6.50	4

Table 31: Strength and Physical Properties of Various Metals

Metals and Alloys	Stress in Thousands of Pounds per Sq. Inch				Modulus of Elasticity Millions	Elongation%
	Tension Ultimate	Tension Yield Point	Compression Ultimate	Shear Ultimate		
Monel, Cast	65-90	32-45	.....	.....	23	20-50
Monel, S, Cast	120-145	80-130	.....	.....	24.20	1-4
Monel, Shapes, Plate, Etc., Annealed	70-85†	25-45†	.....	.....	26	35-50†
Monel, K, Shapes, Plate, Etc., Annealed	90-105†	40-65†	.....	26	25-45	35-55†
Muntz Metal, Cu 59.63%, Zn balance	54	21	.....	40	15	45
Nickel, Cast .	50-65	15-30	.....	.....	21.50	15-30
Nickel, Silver, Annealed	49-63†	18-30†	.....	.....	17-18	35-60†
Steel, Cast Carbon, Class 70,000 Normalized	70	38	.....	.....	30	28
Steel, Cast Low Alloy, Class 100,000, Normalized and Tempered	100	68	.....	.....	29-30	20
Steel, Cast Low Alloy, Class 120,000, Quenched and Tempered	120	95	.....	.....	29-30	16
Steel, Cast Low Alloy, Class 200,000, Quenched and Tempered	200	170	.....	.....	29-30	5
Steel, Sheets	48	25	.....	.....	29-30	18-27
Steel, Stainless, Austenitic, Types 304, 316	85	35	.....	.....	28	55-60
Steel, Stainless, Martensitic, Type 416	75	40	.....	.....	29	30
Steel, Structural, Bridge and Building, ASTM A7	60-72	33	33▲	45-54	29-30	21
Steel, Structural, High Strength, Low Alloy, ASTM A242	63-70	42-50	42-50▲	47-53	29-30	18-24
Zinc, Die Cast Alloy XXIII	41	.....	60▲	31	.....	10

† When hardened, strength values are higher, elongation less

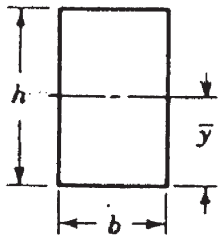
▲ Compression yield point

ENGINEERING

Table 32: Properties of Sections

A = area
I = moment of inertia
J = polar moment of inertia
Z = section modulus π
k = radius of gyration
y = centroidal distance

Rectangle



$A = bh$

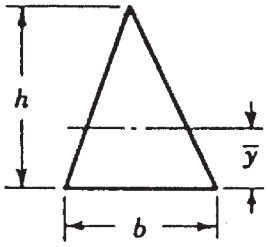
$I = \frac{bh^3}{12}$

$Z = \frac{bh^2}{6}$

$k = 0.289h$

$\bar{y} = \frac{h}{2}$

Triangle



$A = \frac{bh}{2}$

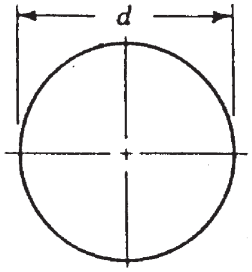
$I = \frac{bh^3}{36}$

$Z = \frac{bh^2}{24}$

$k = 0.236h$

$\bar{y} = \frac{h}{3}$

Circle



$A = \frac{\pi d^2}{4}$

$I = \frac{\pi d^4}{64}$

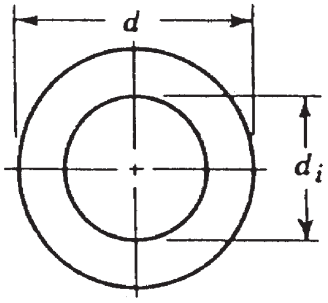
$Z = \frac{\pi d^3}{32}$

$J = \frac{\pi d^4}{32}$

$k = \frac{d}{4}$

$\bar{y} = \frac{d}{2}$

Hollow Circle



$A = \frac{\pi d}{4}(d^2 - d_i^2)$

$I = \frac{\pi}{64}(d^4 - d_i^4)$

$Z = \frac{\pi}{32d}(d^4 - d_i^4)$

$J = \frac{\pi}{32}(d^4 - d_i^4)$

$k = \sqrt{\frac{d^2 - d_i^2}{16}}$

$\bar{y} = \frac{d}{2}$

Table 33: Coefficients of Friction "f"

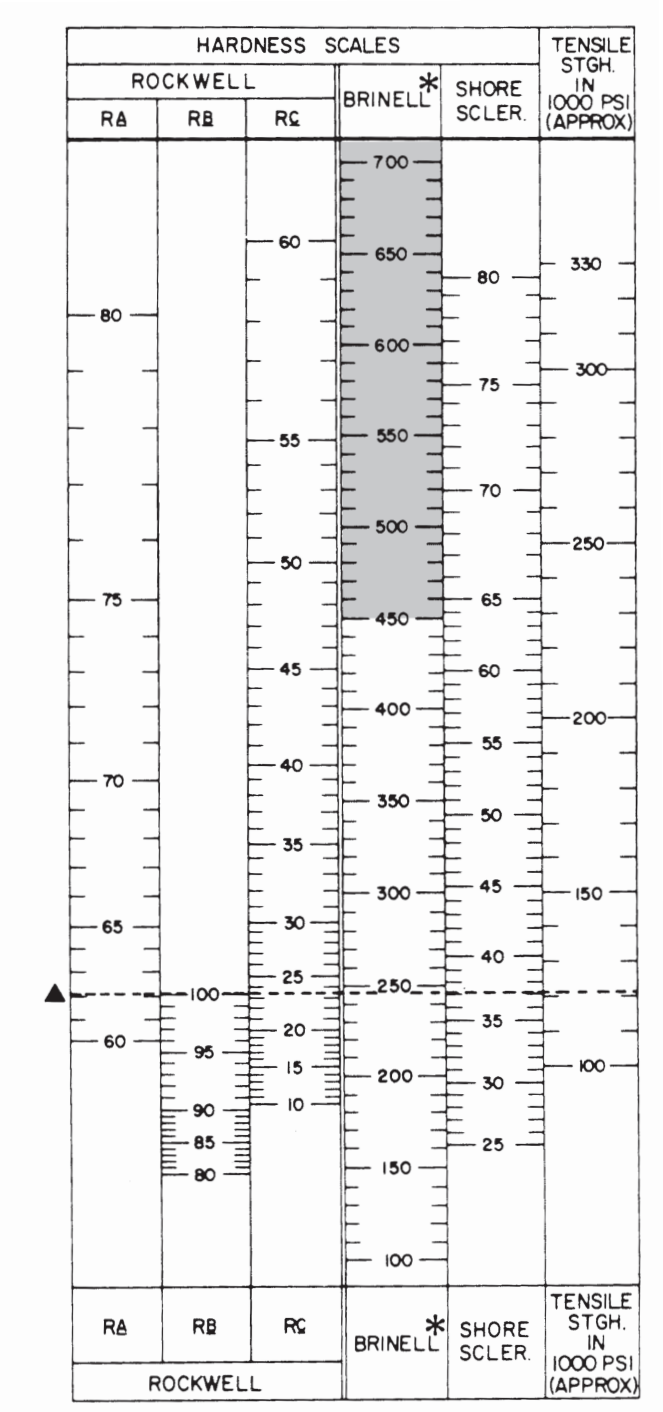
Material	Static		Sliding	
	Dry	Lubricated	Dry	Lubricated
Aluminum on aluminum	1.35	....	....	....
Canvas belt on rubber lagging	0.30	....	....	....
Canvas belt, stitched, on steel	....	....	0.20	0.10
Canvas belt, woven, on steel	....	....	0.22	0.10
Cast iron on asbestos, fabric	....	....	....	....
brake material	....	....	0.35-0.40	....
Cast iron on brass	....	....	0.30	....
Cast iron on bronze	....	....	0.22	0.07-0.08
Cast iron on cast iron	1.10	....	0.15	0.06-0.10
Cast iron on copper	1.05	....	0.29	....
Cast iron on lead	....	....	0.43	....
Cast iron on leather	0.60	....		0.13-0.36
Cast iron on oak (parallel)	....	....	0.30-0.50	0.07-0.20
Cast iron on magnesium	....	....	0.25	....
Cast iron on steel, mild	....	0.18	0.23	1/0/00 3:11
Cast iron on tin	....	....	0.32	....
Cast iron on zinc	0.85	....	0.21	....
Earth on earth	0.25-1.0	....	....	....
Glass on glass	0.94	....	0.40	....
Hemp rope on wood	0.50-0.80	....	0.40-0.70	....
Nickel on nickel	1.10	....	0.53	0.12
Oak on leather (parallel)	0.50-0.60	....	0.30-0.50	....
Oak on oak (parallel)	0.62	....	0.48	0.16
Oak on oak (perpendicular)	0.54	....	0.32	0.07
Rubber tire on pavement	0.8-0.9	0.6-0.7 *	0.75-0.85	0.5-0.7*
Steel on ice	0.03	....	0.01	....
Steel, hard, on babbit	0.42-0.70	0.08-0.25	0.33-0.35	0.05-0.16
Steel, hard. on steel, hard	0.78	0.11-0.23	0.42	0.03-0.12
Steel, mild, on aluminum	0.61	....	0.47	....
Steel, mild, on brass	0.51	....	0.44	....
Steel, mild, on bronze	....	....	0.34	0.17
Steel, mild, on copper	0.53	....	0.36	0.18
Steel, mild, on steel, mild	0.74	....	0.57	0.09-0.19
Stone masonry on concrete	0.76	....	....	....
Stone masonry on ground	0.65	....	....	....
Wrought iron on bronze	0.19	0.07-0.08	0.18	....
Wrought iron on wrought iron	....	0.11	0.44	0.08-0.10

* Wet pavement

Table 34: U.S. Standard Sheet Metal Gages

Gage No.	Thickness in Decimal Parts of an Inch	Gage No.	Thickness in Decimal Parts of an Inch
1	.2813	20	.0359
2	.2656	21	.0329
3	.2391	22	.0299
4	.2242	23	.0269
5	.2092	24	.0239
6	.1943	25	.0209
7	.1793	26	.0179
8	.1644	27	.0164
9	.1495	28	.0149
10	.1345	29	.0135
11	.1196	30	.0120
12	.1046	31	.0109
13	.0897	32	.0102
14	.0747	33	.0094
15	.0673	34	.0086
16	.0598	35	.0078
17	.0538	36	0070
18	.0478	37	.0066
19	.0418	38	.0063

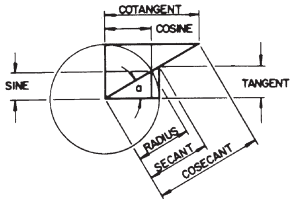
Hardness Comparison Chart

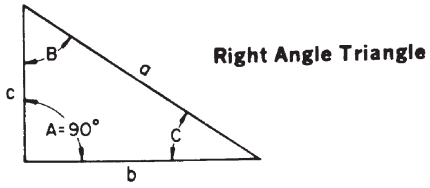


* Shaded area indicates values may vary depending on type of ball used.

▲ Example: A Brinell number of 245 is equal to 62 Rockwell "A", 100 Rockwell "B", 23 Rockwell "C", 37 Shore with a tensile of approximately 120,000 psi.

Trigonometric Formula





Right Angle Triangle

Table 35: Formulas for Finding Functions of Angles

Side opposite / Hypotenuse	=	SINE
Side adjacent / Hypotenuse	=	COSINE
Side opposite / Side adjacent	=	TANGENT
Side adjacent / Side opposite	=	COTANGENT
Hypotenuse / Side adjacent	=	SECANT
Hypotenuse / Side opposite	=	COSECANT

Table 36: Formulas for Finding Sides of Right Angle Triangles with an Angle and Side Known

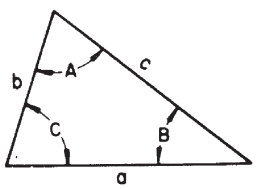
To find: Length of side opposite	Hypotenuse x Sine Hypotenuse ÷ Coscant Side adjacent x Tangent Side adjacent ÷ Cotangent
To find: Length of side adjacent	Hypotenuse X Cosine Hypotenuse ÷ Secant Side opposite X Cotangent Side opposite ÷ Tangent
To find: Length of Hypotenuse	Side opposite X Cosecant Side opposite ÷ Sine Side adjacent X Secant Side adjacent ÷ Cosine

Table 37: To Find Angles and Sides of Right Angle Triangles

To Find Angles				To Find Angles		
To Find:	**Formulas**			**To Find:**	**Formulas**	
C	c/a	=	Sine C	a	$\sqrt{b^2 + c^2}$	- - -
C	b/a	=	Cosine C	a	c x Cosec. C	c / Sine C
C	c/b	=	Tan. C	a	c x Secant B	c / Cosine B
C	b/c	=	Cotan C	a	b x Cosec. B	b / Sine B
C	a/b	=	Secant C	a	b x Secant C	b / Cosine C
C	a/c	=	Cosec. C	b	$\sqrt{a^2 - c^2}$	- - -
B	c/a	=	Sine B	b	a x Sine B	a / Cosecant B
B	c/a	=	Cosine B	b	a x Cos. C	a / Secant C
B	b/c	=	Tan. B	b	c x Tan. B	c / Cotangent B
B	c/d	=	Cotan. B	b	c x Cot. C	c / Tangent C
B	a/c	=	Secant B	c	$\sqrt{a^2 - b^2}$	- - -
B	a/b	=	Cosec. B	c	a x Cos. B	a / Secant B
				c	a x Sine C	a / Cosecant C
				c	b x Cot. B	b / Tangent B
				c	b x Tan. C	b / Cotangent C

Table 38: To Find Angles and Sides of Oblique Angle Triangle

Oblique Angle Triangle

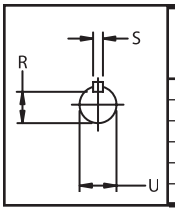


To Find Angles and Sides of Oblique Angle Triangle					
To find:	**Known**	**Formulas**	**To Find:**	**Known**	**Formulas**
C	A, B	180° (A + B)	A	B, C	180° - (B + C)
b	a, B, A	a x Sin. B / Sin A	Cos. A	a, b, c	$\frac{b^2 + c^2 - a^2}{2bc}$
c	a, A, C	a x Sin. C / Sin. A	Sin. C	c, A, a	c x Sin. A / a
Tan. A	a, C, b	a x Sin. C / b - (a x Cos. C)	Cot. B	a, C, b	a x Cosec. C / b
B	A, C	180° - (A + C)	c	b, C, B	b x Sin. C x Cosec. B
Sin. B	b, A, a	b x Sin. A / a	- - -	- - -	- - - - -

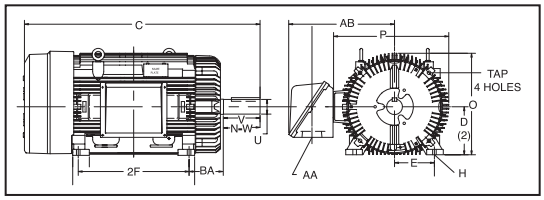
NEMA QUICK REFERENCE CHART

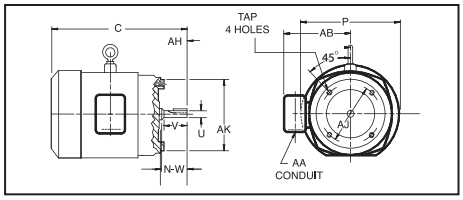
- Dimensions are for reference only
- Drawings represent standard TEFC general purpose motors

Contact your local DODGE/Reliance Sales Office at 1-864-284-5700 for "C" dimensions.



FRAME		NEMA SHAFT	KEYSEAT DIMENSIONS		FRAME		NEMA SHAFT	KEYSEAT DIMENSIONS	
		U	R	S			U	R	S
48	48	1/2	29/64	FLAT	284T	286T	1-7/8	1-19/32	1/2
56	56	5/8	33/64	3/16	324T	326T	2-1/8	1-27/32	1/2
143T	145T	7/8	49/64	3/16	364T	365T	2-3/8	2-1/64	5/8
182T	184T	1-1/8	63/64	1/4	404T	405T	2-7/8	2-29/64	3/4
213T	215T	1-3/8	1-13/64	5/16	444T	445T	3-3/8	2-7/8	7/8
254T	256T	1-5/8	1-13/32	3/8	447T	449T	3-3/8	2-7/8	7/8





NEMA C-FACE	BA Dimensions
143TC - 145TC	2-3/4
182TC - 184 TC	3-1/2
213TC - 215TC	4-1/4
254TC- 256TC	4-3/4

NEMA Frame	D	E	2F	H	N-W	O	P	U	Keyway	V	AA	AB	AH	AJ	AK	BA	Tap Size
48	3	2-1/8	2-3/4	11/32 SLOT	1-1/2	5-13/16	5-5/8	1/2		1-1/2	1/2	-	1-11/16	3-3/4	3	2-1/2	1/4-20
56	3-1/2	2-7/16	3	11/32	1-7/8	8-9/16	7-9/32	5/8	3/16x3/32	1-7/8	1/2	-	2-1/16	5-7/8	4-1/4	2-3/4	3/8-16
56H	3-1/2	2-7/16	5	SLOT	1-7/8	8-9/16	7-9/32	5/8	3/16x3/32	1-7/8	1/2	-	2-1/16	5-7/8	4-1/2	2-3/4	3/8-16
143T	3-1/2	2-7/16	4	11/32	2-1/4	8-9/16	7-9/32	7/8	3/16x3/32	2-1/4	3/4	-	2-1/8	5-7/8	4-1/2	2-1/4	3/8-16
145T	3-1/2	2-3/4	5	11/32	2-1/4	8-9/16	7-9/32	7/8	3/16x3/32	2-1/4	3/4	-	2-1/8	5-7/8	4-1/2	2-1/4	3/8-16
182	4-1/2	3-3/4	4-1/2	13/32	2-1/4	9-7/8	9-1/4	7/8	3/16x3/32	2-1/4	3/4	8-7/16	2-1/8	5-7/8	4-1/2	2-3/4	3/8-16
184	4-1/2	3-3/4	5-1/2	13/32	2-1/4	9-7/8	9-1/4	7/8	3/16x3/32	2-1/4	3/4	8-7/16	2-1/8	5-7/8	4-1/2	2-3/4	3/8-16
182T	4-1/2	3-3/4	4-1/2	13/32	2-3/4	9-7/8	9-1/4	1-1/8	1/4x1/8	2-3/4	3/4	7-13/16	2-5/8	7-1/4	8-1/2	2-3/4	1/2-13
184T	4-1/2	3-3/4	5-1/2	13/32	2-3/4	9-7/8	9-1/4	1-1/8	1/4x1/8	2-3/4	3/4	7-13/16	2-5/8	7-1/4	8-1/2	2-3/4	1/2-13
213	5-1/4	4-1/4	5-1/2	13/32	3	11-1/4	10-1/2	1-1/8	1/4x1/8	3	1	9-5/16	2-3/4	7-1/4	8-1/2	3-1/2	1/2-13
215	5-1/4	4-1/4	7	13/32	3	11-1/4	10-1/2	1-1/8	1/4x1/8	3	1	9-5/16	2-3/4	7-1/4	8-1/2	3-1/2	1/2-13
213T	5-1/4	4-1/4	5-1/2	13/32	3-3/8	11-1/4	10-1/2	1-3/8	5/16x5/32	3-3/8	1	8-11/16	3-1/8	7-1/4	8-1/2	3-1/2	1/2-13
215T	5-1/4	4-1/4	7	13/32	3-3/8	11-1/4	10-1/2	1-3/8	5/16x5/32	3-3/8	1	8-11/16	3-1/8	7-1/4	8-1/2	3-1/2	1/2-13
254U	6-1/4	5	8-1/4	17/32	3-3/4	13-1/4	13-1/4	1-3/8	5/16x5/32	3-3/4	1-1/4	10-13/16	3-1/2	7-1/4	8-1/2	4-1/4	1/2-13
256U	6-1/4	5	10	17/32	3-3/4	13-1/4	13-1/4	1-3/8	5/16x5/32	3-3/4	1-1/4	10-13/16	3-1/2	7-1/4	8-1/2	4-1/4	1/2-13
254T	6-1/4	5	8-1/4	17/32	4	13-1/4	13-1/4	1-5/8	3/8x3/16	4	1-1/4	10-3/4	3-3/4	7-1/4	8-1/2	4-1/4	1/2-13
256T	6-1/4	5	10	17/32	4	13-1/4	13-1/4	1-5/8	3/8x3/16	4	1-1/4	10-3/4	3-3/4	7-1/4	8-1/2	4-1/4	1/2-13
284U	7	5-1/2	9-1/2	17/32	4-7/8	14-3/4	14-7/8	1-5/8	3/8x3/16	4-7/8	1-1/2	12-5/8	4-5/8	9	10-1/2	4-3/4	1/2-13
286U	7	5-1/2	11	17/32	4-7/8	14-3/4	14-7/8	1-5/8	3/8x3/16	4-7/8	1-1/2	12-5/8	4-5/8	9	10-1/2	4-3/4	1/2-13
284T	7	5-1/2	9-1/2	17/32	4-5/8	14-3/4	14-7/8	1-7/8	1/2x1/4	4-5/8	1-1/2	12-3/4	4-3/8	9	10-1/2	4-3/4	1/2-13
286T	7	5-1/2	11	17/32	4-5/8	14-3/4	14-7/8	1-7/8	1/2x1/4	4-5/8	1-1/2	12-3/4	4-3/8	9	10-1/2	4-3/4	1/2-13
284TS	7	5-1/2	9-1/2	17/32	3-1/4	14-3/4	14-7/8	1-5/8	3/8x3/16	3-1/4	1-1/2	12-3/4	3	9	10-1/2	4-3/4	1/2-13
286TS	7	5-1/2	11	17/32	3-1/4	14-3/4	14-7/8	1-5/8	3/8x3/16	3-1/4	1-1/2	12-3/4	3	9	10-1/2	4-3/4	1/2-13
324U	8	6-1/4	10-1/2	21/32	5-5/8	16-11/16	17	1-7/8	1/2x1/4	5-5/8	2	15-7/16	5-3/8	11	12-1/2	5-1/4	5/8-11
326U	8	6-1/4	12	21/32	5-5/8	16-11/16	17	1-7/8	1/2x1/4	5-5/8	2	15-7/16	5-3/8	11	12-1/2	5-1/4	5/8-11
324T	8	6-1/4	10-1/2	21/32	5-1/4	16-11/16	17	2-1/8	1/2x1/4	5-1/4	2	15-3/16	5	11	12-1/2	5-1/4	5/8-11
326T	8	6-1/4	12	21/32	5-1/4	16-11/16	17	2-1/8	1/2x1/4	5-1/4	2	15-3/16	5	11	12-1/2	5-1/4	5/8-11
324TS	8	6-1/4	10-1/2	21/32	3-3/4	16-11/16	17	1-7/8	1/2x1/4	3-3/4	2	15-3/16	3-1/2	11	12-1/2	5-1/4	5/8-11
326TS	8	6-1/4	12	21/32	3-3/4	16-11/16	17	1-7/8	1/2x1/4	3-3/4	2	15-3/16	3-1/2	11	12-1/2	5-1/4	5/8-11
364U	9	7	11-1/4	21/32	6-3/8	18-1/2	19-1/2	2-1/8	1/2x1/4	6-3/8	2-1/2	18	6-1/8	11	12-1/2	5-7/8	5/8-11
365U	9	7	12-1/4	21/32	6-3/8	18-1/2	19-1/2	2-1/8	1/2x1/4	6-3/8	2-1/2	18	6-1/8	11	12-1/2	5-7/8	5/8-11
364T	9	7	11-1/4	21/32	5-7/8	18-1/2	19-1/2	2-3/8	5/8x5/16	5-7/8	2-1/2	18-1/16	5-5/8	11	12-1/2	5-7/8	5/8-11
365T	9	7	12-1/4	21/32	5-7/8	18-1/2	19-1/2	2-3/8	5/8x5/16	5-7/8	2-1/2	18-1/16	5-5/8	11	12-1/2	5-7/8	5/8-11
364TS	9	7	11-1/4	21/32	3-3/4	18-1/2	19-1/2	1-7/8	1/2x1/4	3-3/4	2-1/2	18-1/16	3-1/2	11	12-1/2	5-7/8	5/8-11
365TS	9	7	12-1/4	21/32	3-3/4	18-1/2	19-1/2	1-7/8	1/2x1/4	3-3/4	2-1/2	18-1/16	3-1/2	11	12-1/2	5-7/8	5/8-11
404U	10	8	12-1/4	13/16	7-1/8	21-5/16	22-1/2	2-3/8	5/8x5/16	7-1/8	3	19-1/4	6-7/8	11	12-1/2	6-5/8	5/8-11
405U	10	8	13-3/4	13/16	7-1/8	21-5/16	22-1/2	2-3/8	5/8x5/16	7-1/8	3	19-1/4	6-7/8	11	12-1/2	6-5/8	5/8-11
404T	10	8	12-1/4	13/16	7-1/4	21-5/16	22-1/2	2-7/8	3/4x3/8	7-1/4	3	19-5/16	7	11	12-1/2	6-5/8	5/8-11
405T	10	8	13-3/4	13/16	7-1/4	21-5/16	22-1/2	2-7/8	3/4x3/8	7-1/4	3	19-5/16	7	11	12-1/2	6-5/8	5/8-11
404TS	10	8	12-1/4	13/16	4-1/4	21-5/16	22-1/2	2-1/8	1/2x1/4	4-1/4	3	19-5/16	4	11	12-1/2	6-5/8	5/8-11
405TS	10	8	13-3/4	13/16	4-1/4	21-5/16	22-1/2	2-1/8	1/2x1/4	4-1/4	3	19-5/16	4	11	12-1/2	6-5/8	5/8-11
444U	11	9	14-1/2	13/16	8-5/8	23-3/8	25-1/4	2-7/8	3/4x3/8	8-5/8	3	22-3/16	8-3/8	14	16	7-1/2	5/8-11
445U	11	9	16-1/2	13/16	8-5/8	23-3/8	25-1/4	2-7/8	3/4x3/8	8-5/8	3	22-3/16	8-3/8	14	16	7-1/2	5/8-11
444T	11	9	14-1/2	13/16	8-1/2	23-3/8	25-1/4	3-3/8	7/8x7/16	8-1/2	3	23-3/8	8-1/4	14	16	7-1/2	5/8-11
445T	11	9	16-1/2	13/16	8-1/2	23-3/8	25-1/4	3-3/8	7/8x7/16	8-1/2	3	23-3/8	8-1/4	14	16	7-1/2	5/8-11
447T	11	9	20	13/16	8-1/2	23-5/8	26	3-3/8	7/8x7/16	8-1/2	3	23-7/8	8-1/4	14	16	7-1/2	5/8-11
449T	11	9	25	13/16	8-1/2	23-5/8	26	3-3/8	7/8x7/16	8-1/2	3	23-7/8	8-1/4	14	16	7-1/2	5/8-11
444TS	11	9	14-1/2	13/16	4-3/4	23-3/8	25-1/4	2-3/8	5/8x5/16	4-3/4	3	23-3/8	4-1/2	14	16	7-1/2	5/8-11
445TS	11	9	16-1/2	13/16	4-3/4	23-3/8	25-1/4	2-3/8	5/8x5/16	4-3/4	3	23-3/8	4-1/2	14	16	7-1/2	5/8-11
447TS	11	9	20	13/16	4-3/4	23-5/8	26	2-3/8	5/8x5/16	4-3/4	4 NPT	23-7/8	4-1/2	14	16	7-1/2	5/8-11
449TS	11	9	25	13/16	4-3/4	23-5/8	26	2-3/8	5/8x5/16	4-3/4	4 NPT	23-7/8	4-1/2	14	16	7-1/2	5/8-11

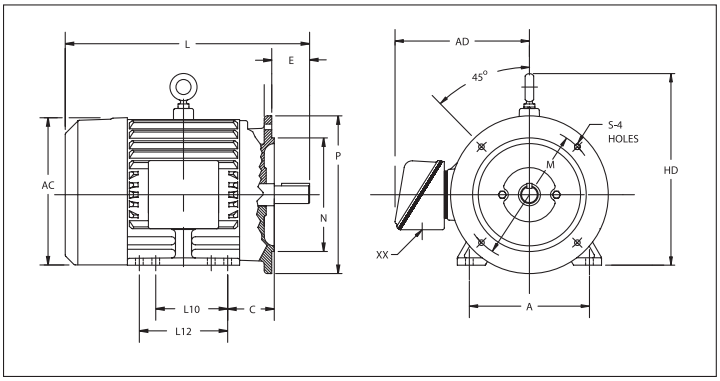
FEATURES/BENEFITS PAGE G2-2	SPECIFICATION PAGE G2-9	MODIFICATION/ACCESSORIES PAGE G2-120	RENEWAL PARTS PAGE G2-166

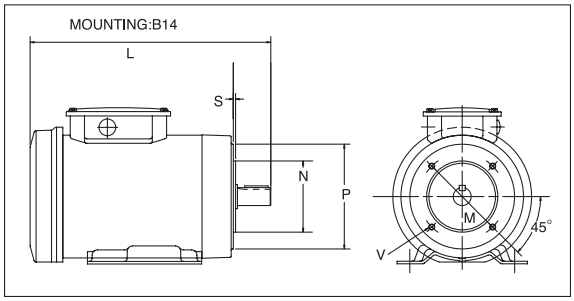
ENGINEERING

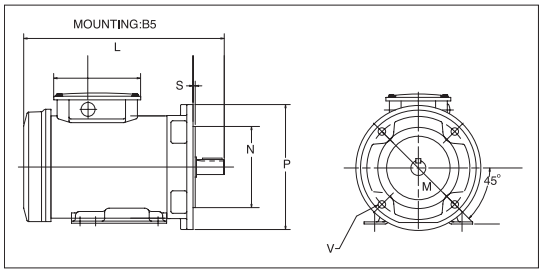
IEC QUICK REFERENCE CHART

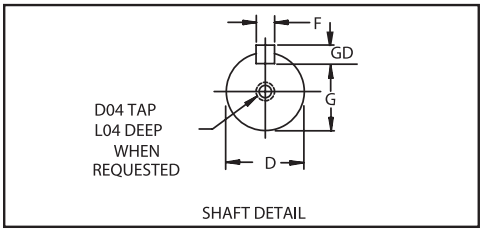
- Dimensions are for reference only
- Drawings represent standard TEFC general purpose motors

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KEY AND KEYSEAT DIMENSIONS

FRAME	D	G	F	GD	FRAME	D	G	F	GD
71	14	11	5	5	160	37	42	12	8
80	19	15.5	6	6	180	48	42.5	14	9
90	24	20	8	7	200	55	49	16	10
100	28	24	8	7	225	60	53	18	11
112	28	24	8	7	250	70	67.5	20	12
132	38	33	10	8	280	80	71	22	14

Frame	B3 RIGID BASE					SHAFT		B5 FLANGE					B14 FACE					GENERAL		
	A	L10	L12	HD	C	E	D	N	M	P	S	V	N	M	P	S	V	AC	AD	XX
71	–	–	–	–	–	–	–	110	130	160	"3,5"	"9,5"	70	85	105	2.5	M6	143	–	13
80	125	100	–	188	50	40	19	130	165	200	"3,5"	"11,5"	80	100	120	3	M6	143	–	13
90	140	100	125	208	56	50	24	130	165	200	"3,5"	"11,5"	95	115	140	3	M8	163	–	13
100	160	112	140	229	63	60	28	180	215	250	4	14	110	130	160	3.5	M8	175	–	19
112S	190	114	–	301.8	71.4	60	28	180	215	250	4	14	110	130	160	3.5	M8	243	210	32
112M	190	–	140	301.8	71.4	60	28	180	215	250	4	14	110	130	160	3.5	M8	243	210	32
132S	216	140	–	336.6	88.9	80	38	230	265	300	4	14	130	165	200	3.5	M8	286	243	32
132M	216	–	178	336.6	88.9	80	38	230	265	300	4	14	130	165	200	3.5	M8	286	243	32
160M	254	210	–	399	108	110	42	250	300	350	5	18	180	215	250	4	M12	324	320	40
160L	254	–	254	399	108	110	42	250	300	350	5	18	180	215	250	4	M12	324	320	40
180M	279	241	–	436	121	110	48	250	300	350	5	18	398	355	40			398	355	40
180L	279	–	279	436	121	110	48	250	300	350	5	18	398	355	40			398	355	40
200M	318	267	–	486	133	110	55	300	350	400	5	18	442	445	50			442	445	50
200L	318	–	305	486	133	110	55	300	350	400	5	18	442	445	50			442	445	50
225S	356	286	–	545	149	140	60	350	400	450	5	18	490	470	50			490	470	50
225M	356	–	311	545	149	140	60	350	400	450	5	18	490	470	50			490	470	50
250S	406	311	–	616	168	140	65											600	510	63
250M	406	–	349	616	168	140	65											600	535	63
280S	457	368	-	677	190	140	75											650	535	63
280M	457	-	419	677	190	140	75											650	535	63
280K	457	500	-	677	190	140	75											650	535	63
280H	457	630	-	677	190	140	75											650	535	63
L280H	457	635	-	677	202	205	75											650	535	63

LEGEND
Metric Dimensions in MM
1 mm = .03937"

SYSTEM-1

ONE SYSTEM ✯ ONE SOURCE ✯ ONE SOLUTION

Performance & Convenience from System-1

Rockwell Automation offers a unique service aimed at providing customized solutions for customers. This service, known as System-1, combines the functions of inside sales, marketing and engineering to provide a single source for the design, selection and procurement of multiple component systems.

Once the System-1 Group receives the customer's specifications, the criteria are reviewed and the correct products for the application are selected and priced. The group then checks into deliveries and provides a written quote to the customer. Throughout the process, they work to ensure that the order is available when the customer needs it.

One point of contact within the

System-1 Group covers all of the product lines we offer. Whether you need a standard package or are looking for one that is more customized, System-1 is the source for all of your product needs. System-1 also has the capability to ship the total package pre-assembled and on a single pallet. If products are to be assembled on-site, the items are boxed together for ease of identification. All orders are tagged on the outside of the pallet or box with the description number designated for the project.

A centralized source for warranty administration is also a feature of System-1. If one of the products you ordered needs warranty attention, you can call the System-1 Group directly. Our experts will assess the situation and provide a solution to satisfy your warranty needs.

Lowering Total Cost of Ownership for Industry

System-1 has a long history of providing drive and tail conveyor assemblies for the aggregate industry. These systems are designed to provide long lasting, power-matched solutions to meet bulk material conveying requirements. They incorporate high quality, long lasting DODGE and RELIANCE products, including reducers, conveyor pulleys, bearings, take-up frames and motors. A quick selection guide is available for pre-engineered assemblies and simplifies the design of the conveyor process because the selection of components is already done. For users requiring a more customized bulk conveyor solution, System-1 offers a complete package of power-matched DODGE and RELIANCE products, selected for specific applications.

The System-1 Group is also able to provide a standard solution for the food and beverage industry. System-1 offers these users a standard package that includes three products well suited for their applications: a DODGE QUANTIS Unit, a RELIANCE XE Motor and a Reliance SP600 AC Drive. The combination of these products offers users lower maintenance costs and more versatility.

In a typical food plant, converting equipment and conveyors are often powered by a mechanical drive. However, the standard package offered by System-1 presents a more reliable and efficient solution because our drive is easy to control and monitor with an external keypad. Our package also operates at more than 90% efficiency, requires less maintenance and maximizes customer uptime.

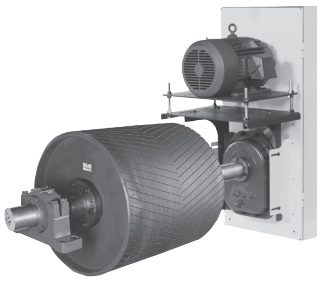
Standard packages offered for this industry can be specified for either in-line or right-angle configurations based on the applications. For users that require washdown capabilities, there is also a modified package containing products specially manufactured for these environments.

The System-1 Group brings performance and convenience to every order they receive. By providing ease of selection, procurement and delivery, the System-1 Group is able to lower your total cost of ownership, while providing the power-matched product solutions you need for all your mechanical and electrical power transmission needs.

For more information on these services, contact a System-1

Product Specialist at 864-284-5767 or access our System-1 Page located at www.dodge-pt.com or www.reliance.com.

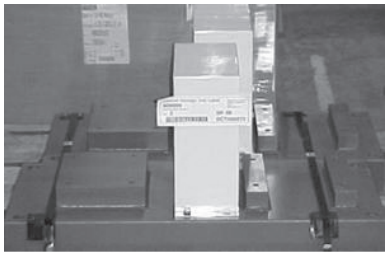
SYSTEM-1



Bulk Conveyor

Use System-1 to quote your Bulk Conveyor Drive Systems. Packages include DODGE and Baldor•Reliance products such as: Mine Duty Extra Conveyor Pulleys, TAF Bearings, Torque-Arm II Shaft Mounted Reducers, V-belt drives, QUANTIS Reducers, baseplates, fluid couplings and Super-E Motors.

System-1 also offers pre-packaged drive and tail conveyor assemblies. These packages were designed for Bulk Conveyor applications offering a variety of common configurations. The drive system utilizes a Baldor•Reliance Motor driving a Torque-Arm II Shaft Mount Reducer through a v-belt drive. System-1 will ship the motor, reducer and v-drive assembled with the belt guard and motor mount. The pulleys, shafts and bearings will be delivered as a single piece, ready to be mounted to the reducer. Contact a System-1 representative to receive the most efficient power transmission solution available.



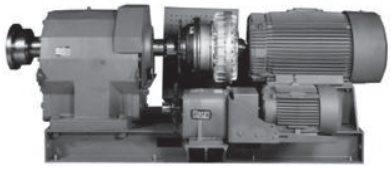
Custom Fabricated Baseplates

System-1 can provide custom fabricated baseplates for mounting various DODGE gear reducers and Baldor•Reliance motors, including made-to-order couplings and v-belt drive guards.



Variable Speed Drives

Packages include DODGE QUANTIS Gear Reducers with Baldor•Reliance Premium Efficient Motors and Baldor Variable Frequency Drives for variable speed applications. These packages provide compact, low maintenance solutions that are easy to install. System-1 also has the capability to interchange mechanical variable speed drives, such as REEVES Motodrives, to an electrical variable speed solution.



Creep Drive

A Baldor•Reliance Motor drives a DODGE MAXUM Reducer through a fluid coupling for a soft start to maximize the life of the system. When the driven equipment needs to be inspected, an over-running clutch disengages the main drive and engages a smaller Baldor•Reliance/ DODGE drive system connected to the main drive input shaft. The equipment now runs at a fraction of the normal operating speed. This complete package is delivered pre-assembled on a heavy duty baseplate for ease of installation.

Large and Specialty Gearing

System-1 provides offset parallel and right angle drive packages, featuring DODGE MagnaGear Reducers, for applications requiring high horsepower, which can include the incorporation of external backstops.

Non-Baldor Products

System-1 can also provide non-Baldor products such as external backstops, moment couplings, and braking systems for decline conveyors.

Why Should You Use System-1?

- Saves you time
- Project coordination
- Optimized system design and product selection
- Products / services bundling
- Pre-assembled Packages
- Freight administration
- Single source warranty
- Reduces the Total Cost of Ownership

SYSTEM-1

CUSTOMIZED CONVEYOR PACKAGE SOLUTIONS

Use this quick fax form to receive your customized solution quotation.

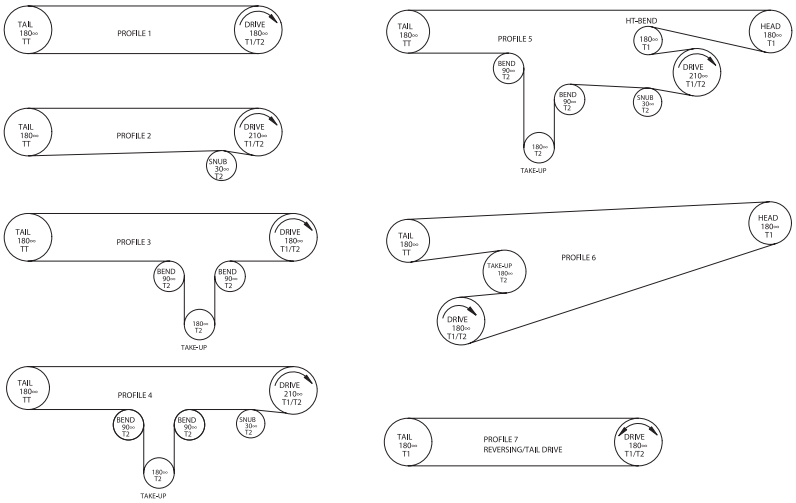
TO: SYSTEM-1 GROUP
FAX: (864) 281-2355
RE: CUSTOMIZED QUOTATION
E-MAIL ADDRESS: pssystem1@baldor.com

FROM: _____
COMPANY / CUSTOMER NUMBER: _____
CITY, STATE: _____
PHONE: _____
FAX: _____

Desired System Capacity (TPH) _____
Material Type _____
Estimated Weight of Material _____
Desired Belt Width _____
Desired Belt Speed _____

Length of Conveyor _____
Change in Elevation _____
Number of Belt Scrapers/Plows _____
Idler Angle _____
Bearing Center Distance _____

Desired Conveyor Profile (Please Circle Your Selection)



Additional Comments

Motor Type:

Premium Efficiency Super-E	❒	Severe Duty	❒
E-Pact	❒	Crusher Duty	❒
Quarry Duty	❒	841-XL	❒

Reducer Type:

QUANTIS	❒	MAXUM	❒
TORQUE-ARM (TXT)	❒	MagnaGear	❒
TORQUE-ARM II (TAII)	❒	TIGEAR 2	❒

Bearing Type:

SCM Ball Bearing	❒	TAF	❒
Type-E	❒	IMPERIAL SAF	❒
S-2000	❒	USAF	❒
IMPERIAL	❒	SPLIT-SPHERE	❒
		ISAF	❒

Conveyor Pulley Type:

Cema Drum	❒	Cema Wing	❒
Mine Duty Drum	❒	Mine Duty Extra Wing	❒
Mine Duty Extra Drum	❒	Quarry Duty Wing	❒
1/2” Herringbone Lagging	❒	Wing Lagging	❒
1/2” Plain Lagging	❒		
1/2” Diamond Lagging	❒		
1/2” Holz Lagging	❒		
Ceramic Lagging	❒		
Chevron Lagging	❒		

DODGE®

SYSTEM-1

CUSTOMIZED CONVEYOR PACKAGE SOLUTIONS

Use this quick fax form to receive your customized solution quotation.

TO: SYSTEM-1 GROUP
FAX: (864) 281-2355
RE: CUSTOMIZED QUOTATION
E-MAIL ADDRESS: pssystem1@baldor.com

FROM: _____
COMPANY / CUST NUMBER: _____
CITY, STATE _____
PHONE: _____
FAX: _____

Motor HP / Voltage:
Reducer Output Speed:
Reducer Configuration:

Right Angle	❒
In-Line	❒
Offset Parallel	❒
Worm Gear	❒
Shaft Mount	❒

Output Connection:

Chain Drive	❒
Synchronous Drive	❒
Coupled	❒
V-Belt	❒

Mounting:

Shaft	❒
Baseplate	❒
Flange	❒

Softstart Device:

Yes	
No	

Motor/Reducer Connection:

Type of coupling: fluid, puraflex, grid, gear _____

Direct Coupled	❒
Belt Driven	❒
C-face	❒

Environment:

Standard	❒
Extra Tough	❒
Washdown	❒

Output Torque Requirements: _____
Is High Starting Torque Required?

Yes	❒
No	❒

Division I

Classes	_____
Groups	_____
Temp Code	_____

Variable Speed

Yes	❒

(Circle One) Constant or Variable Torque
Speed Range _____

No	❒

Division II

Classes	_____
Groups	_____
Temp Code	_____

Application Description / Other Comments:

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For Additional information and DODGE Product Manuals on DODGE Bearing Products, DODGE Gearing Products or DODGE PT Components:

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