Series SS, SSM, SSD, SSDM Stainless Steel Body Air Cylinders

Catalog AC0960-2 April, 2002



From Atlas Cylinders... The Series SS Stainless Steel Body Air Cylinder.

Industry's most available stainless steel body air cylinder.

Designed and built for maximum performance and reliability to meet your particular application requirements. Our advanced manufacturing know-how results in a lower initial cost that lets you stretch those tight design budgets without sacrificing quality.

The Atlas Cylinders Series SS air cylinder — with the new unitized stainless steel body — totally integrates over 60 years of proven engineering capability and experience, high volume manufacturing capabilities, a broad distribution network plus the **only** computer linked nationwide regional warehouse system to provide you with what you need, when you need it.

Atlas Cylinders Series SS cylinders are available from strategically located regional stocking warehouses and over 70 distributor locations for quick delivery. The Atlas Cylinders System is unequalled for saving you downtime, delivery time and freight costs.

For your cylinder requirements specify Atlas Cylinders — The One Source you can depend on for Total Cylinder Response-Ability. Worldwide.



!Warning

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The product described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

Offer of Sale

The items described in this document are hereby offered for sale by The Company, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by provisions stated on a separate page of this catalog in the document entitled 'Offer of Sale'.

- 909/280-3800 ■ Enfield, CT
- 860/749-2215
 Atlanta, GA
 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-450
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000





Series SSM with Piston Sensing Capability

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The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by the Company and its related companies at any time without notice.

In line with our continuing product improvement, the specifications in this catalog are subject to change without notice.

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

■ Enfield, CT 860/749-2215

■ Atlanta, GA 770/819-3400

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■ Plymouth, MI

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■ Akron, OH 330/253-4500

■ Portland, OR 503/285-0884

■ Owen Sound, Ont. Can 519/376-2691

■ Toronto, Ont. Can. 416/255-4567

■ Dorval, Quebec, Can. 514/684-3000



Standard Specifications

- 304 stainless steel cylinder body.
- · Aluminum heads and caps.
- Stainless steel piston rods are standard up to 1.50" bore.
- Nominal pressure rating 250 psi.
- Standard temperature -10°F to +165°F.
- Twelve bore sizes 5/16" through 3".

- 28 standard mounting styles.
- · Single and double acting.
- Bumpers.
- · Adjustable cushions.
- · Rod wipers

For additional mounting styles please consult factory.

In line with our policy of continuing product improvement, the specifications in this catalog are subject to change without notice.

Series SS Available Mounting Styles

	Description			Recommended										
Vlodel		5/16" _H	7/16"	9/16"	3/4"	7/8"	1-1/16"	1-1/4"	1-1/2"	1-3/4"	2"▲	2-1/2"	3"	Max. Stroke (in.)
ı	Nose mount, spring return	•	•	•	•	•	•	•	•	•	•	_	_	6"
NR .	Nose mount, spring return, hex rod (non-rotating)	_	•	•	•	•	•	•	•	•	_	_		6"
IRP	Pivot and nose mount, spring return, hex rod (non-rotating)	_	•	•	•	•	•	•	•	•	-	_	_	6"
)	Pivot mount, spring return	•	•	•	•	•	•	•	•	•	•		_	6"
}	Nose mount, spring extended	•	•	•	•	•	•	•	•	•	•	_	_	6"
₽	Pivot and nose mount, spring extend	•	•	•	•	•	•	•	•	_	•	_	_	6"
)	Nose mount, double acting	•	•	•	•	•	•	•	•	•	•	•	•	12"
P	Pivot and nose mount, double acting, pivot pin	_	•	_	•	_	•	_	•	_	_	_	_	12" (under ³ / ₄ " bore) 32" (³ / ₄ " & up)
XP	Pivot and nose mount, double acting, no pivot pin	•	•	•	•	•	•	•	•	•	•	•	•	12" (under ³ / ₄ " bore) 32" (³ / ₄ " & up)
X	Threaded both ends, double acting	_	See DXP	See DXP	See DXP	See DXF	See DXP	See DXP	•	_	See DXP	_	_	32"
DX	Threaded both ends, double acting, double rod	_	•	•	•	•	•	•	•	•	•	•	•	6" (under 3/4" bore) 12" (3/4" & up)
DXH	Threaded both ends, double rod, hollow rod	_	_	_	_	_	•	•	•	•	•	_	_	12"
1	Nose mount, spring return, head adjustable stroke	_	_	_	•	_	•	_	•	_	_	_	_	6"
RA	Nose mount, spring extend, cap adjustable stroke	_	_	_	•	_	•	_	•	_	_	_	_	6"
AP	Pivot mount, spring return, head adjustable stroke	_	_	_	•	_	•	_	•	_	_	_	_	6"
\R	Air reservoirs	_	_	_	•	_	•	_	•	-	•		_	12"
BRN	Rear block mount, single acting, spring return	_	•	_	•	_	•	_	•	_	_	_	_	6"
BRR	Rear block mount, single acting spring extend	_	_	_	•	_	•	_	•	_	_	_	_	6"
BFD	Front block mount, double acting	•	•	_	•	_	•		•	_	_	_	_	12"
RD	Rear block mount, double acting	_	•	_	•	_	•	_	•	-	_	_	_	12"
BFN	Front block mount, single acting spring return	_	•	_	•	_	•	_	•	_	_	_	_	6"
BFR	Front block mount, single acting spring extend	_	_	_	•	_	•	_	•	_	_	_	_	6"
RN	Rear trunnion mount, single acting, spring return	_	•	_	•	_	•	_	•	_	_	_	_	6"
RR	Rear trunnion mount, single acting spring extend	_	_	_	•		•		•			_	_	6"
FD	Front trunnion mount, double acting	_	•	_	•	_	•	_	•	_	_	_	_	12"
RD	Rear trunnion mount, double acting	_	•	_	•	_	•		•		_	_	_	12"
FN	Front trunnion mount, single acting spring return	_	•	_	•	_	•		•			_		6"
FR	Front trunnion mount, single acting spring extend	_		_	•	_	•		•					6"

Recommended maximum stroke is 4" in models N, P, R & RP.

^{519/376-2691} ■ Toronto, Ont. Can. 416/255-4567



■ Owen Sound, Ont. Can



^{††} Recommended maximum stroke is 4".

[■] Enfield, CT

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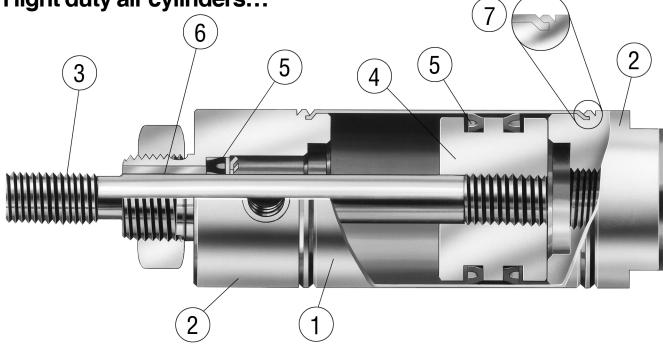
[■]Goodland, IN 219/297-3182

[■] Plymouth, MI

[■] Akron, OH 330/253-4500 ■ Portland, OR

[■] Hillsborough, NC 919/732-9371

The inside story on why Series SS is your best choice in light duty air cylinders...



Quality cost saving features include:

- 1 Cylinder Tube Type 304 stainless steel, polished to a micro-inch finish on the I.D. provides low friction and long life. A matte finish on the O.D. provides smudge resistance.
- **2** Heads and Caps Aluminum construction with precision machining to provide a smooth break away. The tube-to-head connection is a strong double rolled construction.
- 3 Stainless Steel Piston Rods Corrosion resistant stainless steel is now the standard piston rod material for all bore sizes up to and including 1.50 inch bore at no additional cost. The only exception to the stainless steel standard is when a hollow rod or non-rotating hexagonal rod option is specified. Stainless steel is also the standard material on block, trunnion and KDX mounts

Pre-Lubrication — All Series SS cylinders are factory prelubricated for use with or without added lubrication.

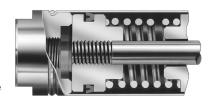
Bumpers — are standard on select bore sizes. See bumper information for details.



- **4 Piston Body** Pistons are precision machined aluminum construction. Piston rod connections are threaded and loctited to provide for leakproof and durable service.
- **5** Seals All piston and rod seals are of a lipseal construction. Buna-N is standard on all models Fluorocarbon seals are available as an option.
- **6 Rod Bushings** Oil impregnated bronze reamed to a close tolerance provides for smooth operation and long life.
- **7 Unitized Construction** Precision double-rolled unitized construction provides durable, leak-proof service and long life.

Twelve Bore Sizes — 5/16" thru 3". Series SS cylinders are designed to be dimensionally interchangeable with other major stainless steel cylinders.

Springs — shot peened music wire for high cycle life. Spring spacers are provided for every one inch of stroke (1/2" for 5/16" and 7/16" bore) to insure uniform spring rate and prevent spring failure.



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- Owen Sound, Ont. Can 519/376-2691
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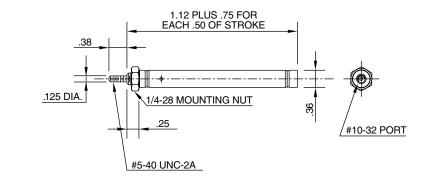
Mounting Style N

Single Acting

Spring Return Front Nose Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4"

Maximum Stroke 4"

Optional Accessory: L0 7379 0016 Foot Bracket



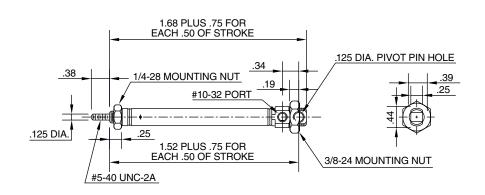
Mounting Style P

Single Acting

Spring Return Double End or Rear Pivot Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4" Maximum Stroke 4"

Optional Accessories:

L0 7379 0016 Foot Bracket L0 7132 0025 Pivot Bracket L0 7130 0025 Rod Clevis



Mounting Style R

Single Acting

Spring Extend

Front Nose Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2",

21/2". 3"

Maximum Stroke 4"

1.49 PLUS 1.25 FOR EACH .50 OF STROKE .31 PLUS STROKE .47 .50 SQ. .31 .36 .125 DIA. #10-32 PORT #10-32 PORT 3/8-24 MOUNTING NUT #5-40 UNC-2A

Optional Accessory: L0 7379 0023 Foot Bracket

Mounting Style RP

Single Acting

Spring Extend Rear Pivot Mounting Stainless Steel Rod Standard

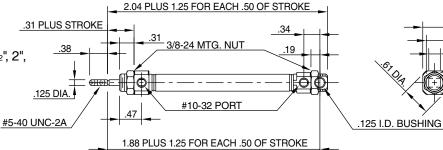
Standard Stroke Lengths: 1/2", 1", 11/2", 2",

21/2", 3"

Maximum Stroke 4"

Optional Accessories:

L0 7379 0023 Foot Bracket L0 7132 0025 Pivot Bracket L0 7130 0025 Rod Clevis



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

■ Corona, CA 909/280-3800

- **Regional Plants**
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- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



.50 SQ.

Mounting Style D

Double Acting

Front Nose Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4"

Maximum Stroke 4"

1.64 PLUS STROKE

.47

.38

.39

.50 SQ.

.50 SQ.

.125 DIA.

.50 SQ.

.50 SQ.

.50 SQ.

.50 SQ.

.50 SQ.

.50 SQ.

Optional Accessory:

L0 7379 0023 Foot Bracket

Mounting Style DXP

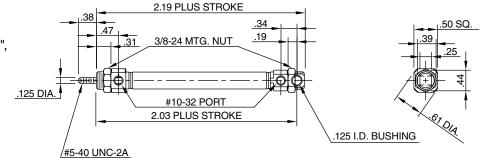
Double Acting

Double End or Rear Pivot Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4"

Maximum Stroke 4"

Optional Accessories:

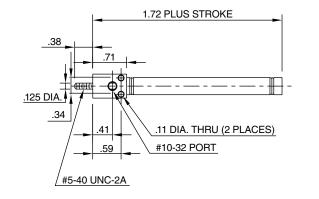
L0 7379 0023 Foot Bracket L0 7132 0025 Pivot Bracket L0 7130 0025 Rod Clevis

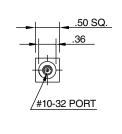


Mounting Style BFD

Double Acting

Front Block Mounting
Stainless Steel Rod Standard
Standard Stroke Lengths: 1/2", 1", 11/2", 2",
21/2", 3", 4"
Maximum Stroke 4"





Regional Plants ■ Corona, CA 909/280-3800

■ Enfield, CT 860/749-2215

860/749-2215 ■ Atlanta, GA 770/819-3400

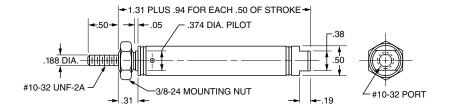
- Goodland, IN 219/297-3182
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Mounting Style N

Single Acting

Spring Return Front Nose Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4" Maximum Stroke 6"

Optional Accessory: L0 7379 0024 Foot Bracket



Mounting Style NR

Single Acting

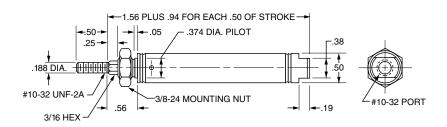
Spring Return Non-Rotating Hex Rod Front Nose Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory:

LO 7379 0024



Mounting Style NRP

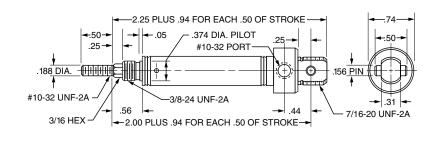
Single Acting

Spring Return Non-Rotating Hex Rod Rear Pivot Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7131 0100 Pivot Brackets L0 7130 0100 Rod Clevis



Mounting Style P

Single Acting

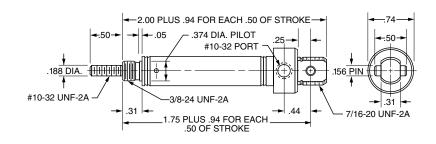
Spring Return Rear Pivot Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7131 0100 Pivot Brackets L0 7130 0100 Rod Clevis



Mounting Style R

Single Acting

Spring Extend Front Nose Mounting

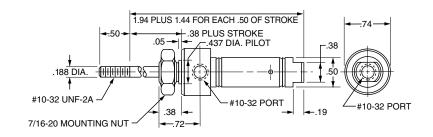
Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3"

Maximum Stroke 6"

Optional Accessories:

L0 7379 0028 Foot Bracket



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Mounting Style RP

Single Acting

Spring Extend Rear Pivot Mounting

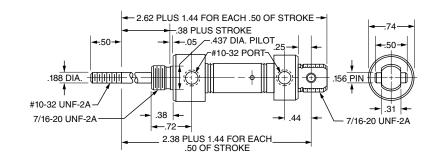
Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3"

Maximum Stroke 6"

Optional Accessories: L0 7131 0100 Pivot Brackets

L0 7130 0100 Rod Clevis



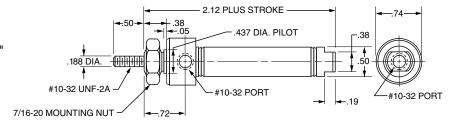
Mounting Style D

Double Acting

Front Nose Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 12"



Optional Accessory:

LO 7379 0028

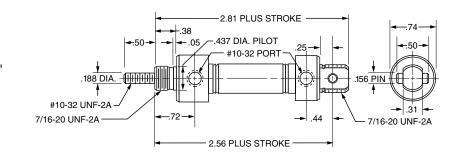
Mounting Style DP

Double Acting

Rear Pivot Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 12"



Optional Accessories: L0 7131 0100 Pivot Brackets L0 7130 0100 Rod Clevis

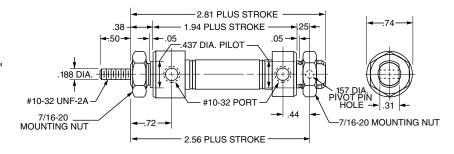
Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 12"

Optional Accessories: L0 7379 0028 Foot Bracket L0 7130 0100 Rod Clevis L0 7132 0100 Pivot Bracket with Pin



2 81 PLUS 2 TIMES STROKE

2.06 PLUS STROKE

437 DIA. PILOT

#10-32 PORT

7/16-20 MOUNTING NUT

Mounting Style KDX

Double Acting

Double Rod

Double End Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory: L0 7379 0028 Foot Bracket

- Regional Plants ■ Corona, CA 909/280-3800
- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- Goodland, IN 219/297-3182
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- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500

.38

-50-

.188 DIA

#10-32 UNF-2A

7/16-20 MOUNTING NUT

- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
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.38 PLUS STROKE

#10-32 UNF-2A

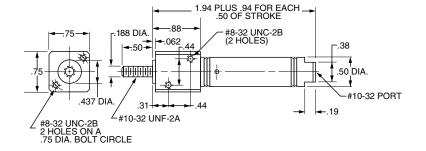
.38

Series SS Block Mounted Stainless Steel Body Air Cylinders

Mounting Style BFN

Single Acting

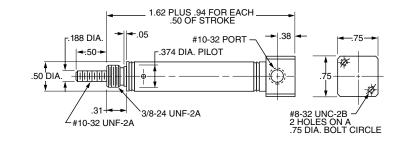
Spring Return
Front Block Mounting
Stainless Steel Rod Standard
Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3"
Maximum Stroke 6"



Mounting Style BRN

Single Acting

Spring Return
Rear Block Mounting
Stainless Steel Rod Standard
Standard Stroke Lengths: 1/2", 1", 2", 3", 4"
Maximum Stroke 6"

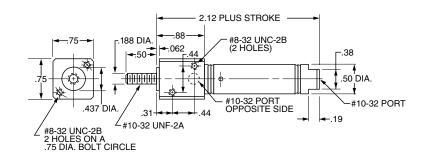


Mounting Style BFD

Double Acting

Front Block Mounting
Stainless Steel Rod Standard
Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

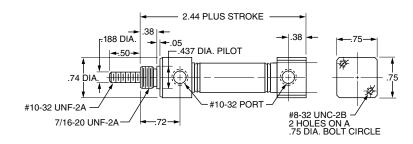
Maximum Stroke 12"



Mounting Style BRD

Double Acting

Rear Block Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1/2", 1", 2", 3", 4" Maximum Stroke 12"



Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT
- 860/749-2215

 Atlanta, GA
 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-450
- 330/253-4500 ■ Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Series SS Trunnion Mounted Stainless Steel Body Air Cylinders

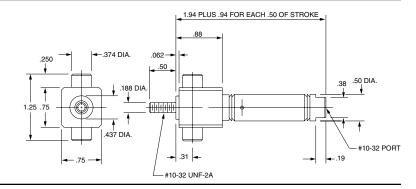
7/16" Bore Size Single and Double Acting

Mounting Style TFN

Single Acting

Spring Return
Front Trunnion Mounting
Stainless Steel Rod Standard
Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3"

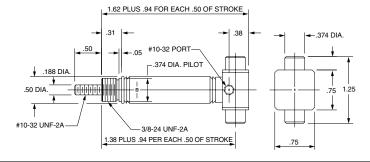
Maximum Stroke 6"



Mounting Style TRN

Single Acting

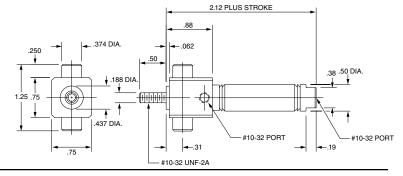
Spring Return
Rear Trunnion Mounting
Stainless Steel Rod Standard
Standard Stroke Lengths: 1/2", 1", 2", 3", 4"
Maximum Stroke 6"



Mounting Style TFD

Double Acting

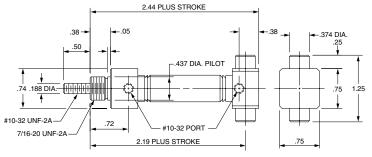
Front Trunnion Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4" Maximum Stroke 12"



Mounting Style TRD

Double Acting

Rear Trunnion Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4" Maximum Stroke 12"



Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT 860/749-2215
- 860/749-2215 • Atlanta, GA 770/819-3400
- Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style N

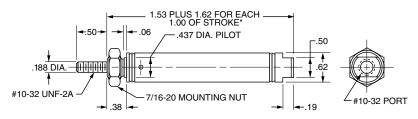
Single Acting

Spring Return Front Nose Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory: L0 7379 0028 Foot Bracket



*To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one half inch.

Mounting Style NR

Single Acting

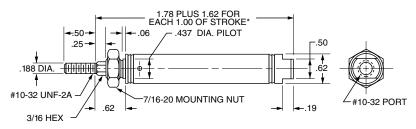
Spring Return Non-Rotating Hex Rod Front Nose Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory:

L0 7379 0028 Foot Bracket



*To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one half inch.

Mounting Style NRP

Single Acting

Spring Return

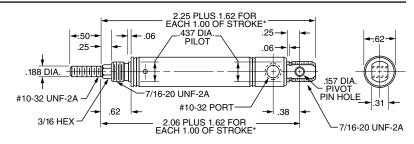
Non-Rotating Hex Rod Rear Pivot Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0100 Rod Clevis L0 7132 0100 Pivot Brackets with Pin



* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one half inch.

Mounting Style P

Single Acting

Spring Return

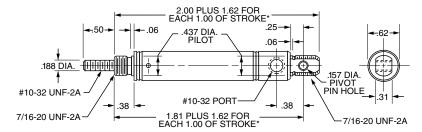
Rear Pivot Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0100 Rod Clevis L0 7132 0100 Pivot Bracket with Pin



* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one half inch.

Mounting Style R

Single Acting

Spring Extend

Front Nose Mounting

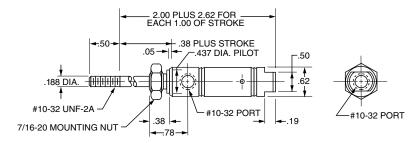
Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3"

Maximum Stroke 6"

Optional Accessory:

L0 7379 0028 Foot Bracket



* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

■ Corona. CA

- **Regional Plants** 909/280-3800
- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont, Can
- 519/376-2691 ■ Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



* To determine lengths for half inch stroke increments, determine length

for next highest whole number stroke and subtract one inch.

Mounting Style RP

Single Acting

Spring Extend Rear Pivot Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3"

Maximum Stroke 6"

Optional Accessories: L0 7130 0100 Rod Clevis

Lo 7132 0100 Pivot Bracket with Pin

2.47 PLUS 2.62 FOR EACH 1.00 OF STROKE .38 PLUS STROKE **-**.50 .06 PII OT .188 DIA. (|||||||| 157 DIA #10-32 UNF-2A -/ 7/16-20 UNF-2A PIN HOLF .38 2.28 PLUS 2.62 FOR EACH 1.00 OF STROKE 7/16-20 UNF-2A

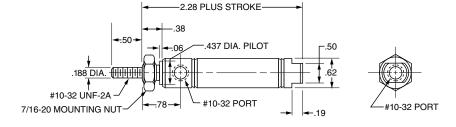
Mounting Style D

Double Acting

Front Nose Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 12"



Optional Accessory:

L0 7379 0028 Foot Bracket

Mounting Style DXP

Double Acting

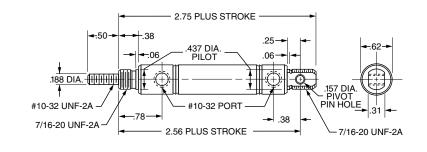
Double End or Rear Pivot Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 12"

Optional Accessories: L0 7130 0100 Rod Clevis

L0 7379 0028 Foot Bracket L0 7380 0500 Hex Nuts



Mounting Style KDX

Double Acting

Double Rod

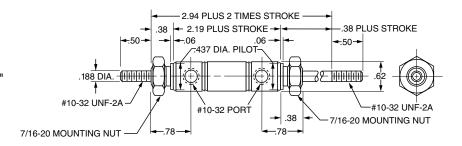
Double End Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory: L0 7379 0028 Foot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT
- Atlanta, GA 770/819-3400
- Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



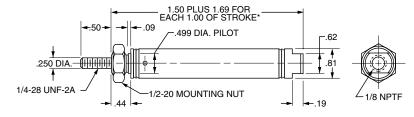
Mounting Style N

Single Acting

Spring Return Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"



Optional Accessory: L0 7379 0032 Foot Bracket

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one half inch.

Mounting Style NR

Single Acting

Spring Return Non-Rotating Hex Rod Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

1.75 PLUS 1.69 FOR EACH 1.00 OF STROKE 499 DIA. PILOT .250 DIA 1/4-28 UNF-2A 1/2-20 MOUNTING NUT 1/4HEX

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one half inch.

Optional Accessory:

L0 7379 0032 Foot Bracket

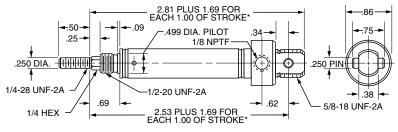
Mounting Style NRP

Single Acting

Spring Return

Non-Rotating Hex Rod — Rear Pivot Mounting Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one half inch.

Optional Accessories: L0 7130 0200 Rod Clevis L0 7131 0200 Pivot Bracket

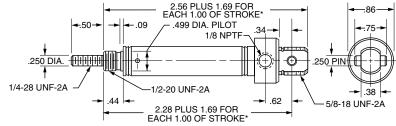
Mounting Style P

Single Acting

Spring Return

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"



* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one half inch.

Optional Accessories: L07130 0200 Rod Clevis L0 7131 0200 Pivot Bracket

Mounting Style R

Single Acting

Spring Extend

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory:

2.31 PLUS 2.69 FOR EACH 1.00 OF STROKE .50 PLUS STROKE 624 DIA. PILOT .250 DIA. ||||||||| 1/4-28 UNF-2A 1/8 NPTF 50 5/8-18 MOUNTING NUT

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

L0 7379 0040 Foot Bracket

- Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400
- **Regional Plants** ■ Corona. CA
 - 909/280-3800
- Enfield, CT
- 860/749-2215 Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



3/4" Bore Size Single and Double Acting

Mounting Style RP

Single Acting

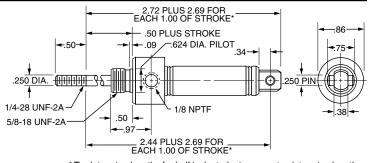
Spring Extend Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0200 Rod Clevis

L0 7131 0200 Pivot Bracket



*To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

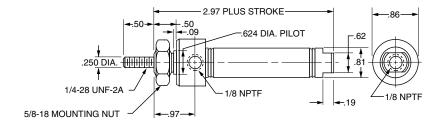
Mounting Style D

Double Acting

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 2", 21/2",

3", 4", 5", 6", 8", 10" Maximum Stroke 12"



Optional Accessory:

L0 7379 0040 Foot Bracket

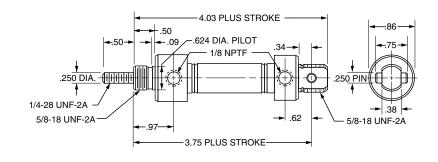
Mounting Style DP

Double Acting

Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 2", 21/2",

3", 4", 5", 6", 8", 10" Maximum Stroke 12"



Optional Accessories: L07131 0200 Pivot Bracket L0 7130 0200 Rod Clevis

Mounting Style DXP

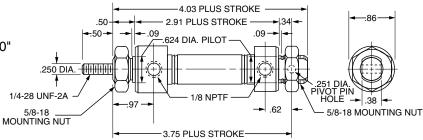
Double Acting

Double End or Rear Pivot Mounting Standard Stroke Lengths: 1", 2", 3", 4", 5", 6", 8", 10" Strokes over 12" must be supported at both ends

Maximum Stroke 32"

Optional Accessories:

L0 7131 0200 Pivot Bracket with Pin L0 7130 0200 Rod Clevis L0 7379 0040 Foot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

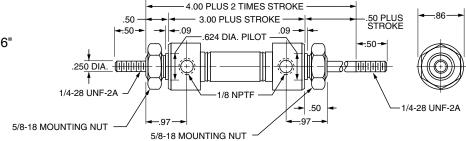
- Enfield, CT
- 860/749-2215 Atlanta, GA 770/819-3400
- Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style KDX

Double Acting

Double Rod — Double End Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke 12"

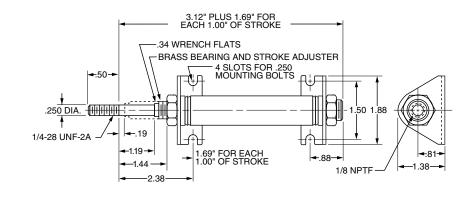


Optional Accessory: L0 7379 0040 Foot Bracket

Mounting Style A

Adjustable Stroke — Single Acting Spring Return — Double End Mounting

Stroke adjustment in 1" increments to 3" 1" Stroke adjusts 0"-1", 2" Stroke 1"-2", and 3" Stroke 2"-3" Mounting Brackets are included Maximum Stroke 6"



Mounting Style RA

Adjustable Stroke — Single Acting

Spring Extend — Nose Mounting Stroke adjustment in 1" increments to 3" 1" Stroke adjusts 0"-1", 2" Stroke 1"-2", and 3" Stroke 2"-3" Maximum Stroke 6"

3.78" PLUS 2.69" FOR EACH 1.00" OF STROKE 1.00 ADJUSTMENT 0.53" PLUS STROKE -86 <.50-.09 624 DIA. PILOT .250 DIA. 1/4-28 UNF-2A 1/8 NPTF 7/16-20 WRENCH FLATS MOUNTING NUT 5/8-18 MOUNTING NUT STROKE ADJUSTER

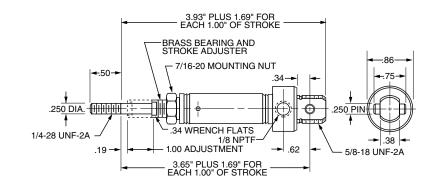
Optional Accessory: L0 7379 0040 Foot Bracket

Mounting Style AP

Adjustable Stroke — Single Acting

Spring Return — Rear Pivot Mounting Stroke adjustment in 1" increments to 3" 1" Stroke adjusts 0"-1", 2" Stroke 1"-2", and 3" Stroke 2"-3" Maximum Stroke 6"

Optional Accessories: L0 7130 0200 Rod Clevis L0 7131 0200 Pivot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants Corona, CA 909/280-3800

- Enfield, CT
- 860/749-2215

 Atlanta, GA
 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Series SS Block Mounted Stainless Steel Body Air Cylinders

3/4" Bore Size Single and Double Acting

Mounting Style BRN

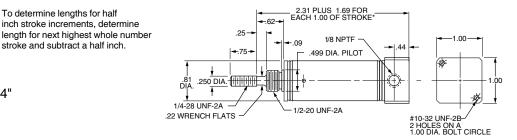
Single Acting

Spring Return Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



Mounting Style BRR

Single Acting

Spring Extend Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

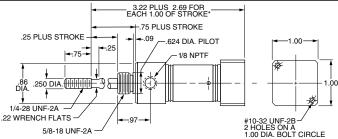
Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

To determine lengths for half

inch stroke increments, determine

stroke and subtract a half inch.



Mounting Style BFD

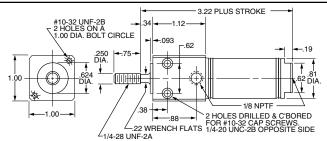
Double Acting

Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style BRD

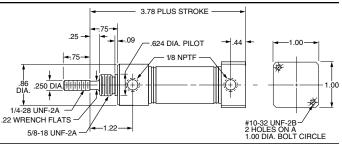
Double Acting

Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style BFN

Single Acting

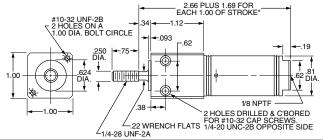
Spring Return Front Block Mounting

Stainless Steel Rod Standard

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"



Mounting Style BFR **Single Acting**

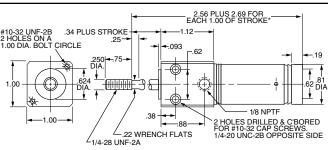
Spring Extend

Front Block Mounting

Stainless Steel Rod Standard Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT
- 860/749-2215 Atlanta, GA 770/819-3400
- Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Series SS Trunnion Mounted Stainless Steel Body Air Cylinders

Mounting Style TRN

Single Acting

Spring Return

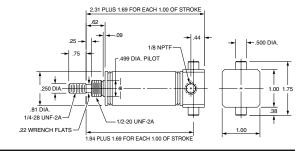
Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Mounting Style TRR

Single Acting

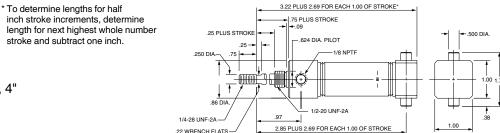
Spring Extend

Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



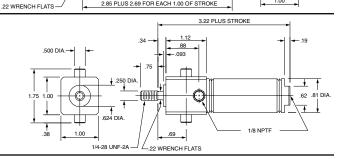
Mounting Style TFD

Double Acting

Front Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



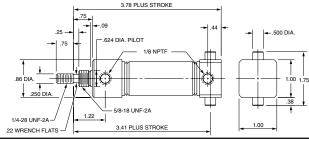
Mounting Style TRD

Double Acting

Rear Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style TFN

Single Acting

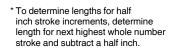
Spring Return

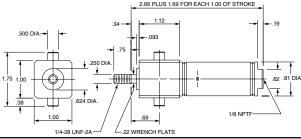
Front Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"





Mounting Style TFR

Single Acting

Spring Extend

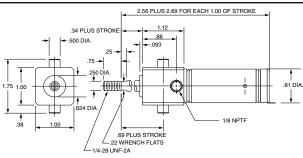
Front Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona. CA 909/280-3800

- Enfield, CT
- 860/749-2215 Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH
- 330/253-4500 ■ Portland, OR
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



To determine lengths for half

* To determine lengths for half

To determine lengths for half

* To determine lengths for half

inch stroke increments, determine

inch stroke increments, determine

inch stroke increments, determine

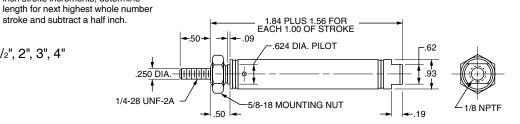
Mounting Style N

Single Acting

Spring Return Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"



Optional Accessory: L0 7379 0040 Foot Bracket

Mounting Style NR **Single Acting**

Spring Return

Non-Rotating Hex Rod Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

length for next highest whole number 2.09 PLUS 1.56 FOR EACH 1.00 OF STROKE* stroke and subtract a half inch. .624 DIA. .25 .250 DIA. -1/4-28 UNF-2A 5/8-18 MOUNTING NUT 1/8 NPTF

Optional Accessory: L0 7379 0040 Foot Bracket

Mounting Style NRP Single Acting

Spring Return

Non-Rotating Hex Rod Rear Pivot Mounting

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine 3.00 PLUS 1.56 FOR EACH 1.00 OF STROKE length for next highest whole number .93 stroke and subtract a half inch. 624 DIA PILOT **-**.50-1/8 NPTF .25 .250 DIA. [|||||||| 1/4-28 UNF-2A 5/8-18 UNF-2A .38 5/8-18 UNF-2A 2.72 PLUS 1.56 FOR EACH 1.00 OF STROKE* 1/4 HEX

Optional Accessories: L0 7130 0200 Rod Clevis L0 7131 0200 Pivot Bracket

Mounting Style P

Single Acting

Spring Return

Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

2.75 PLUS 1.56 FOR EACH 1.00 OF STROKE length for next highest whole number -93 stroke and subtract a half inch. 624 DIA, PILOT 1/8 NPTF .250 DIA. 1/4-28 UNF-2A 5/8-18 UNF-2A .38 .50 .62 5/8-18 UNF-2A . 2.47 PLUS 1.56 FOR EACH 1.00 OF STROKE*

Optional Accessories: L0 7130 0200 Rod Clevis L0 7131 0200 Pivot Bracket

Mounting Style R

Single Acting

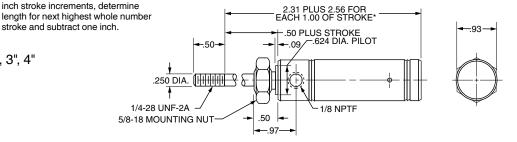
Spring Extend Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

stroke and subtract one inch.

Optional Accessory: L0 7379 0040 Foot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016

847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT
- 860/749-2215
- Atlanta, GA 770/819-3400
- Goodland, IN 219/297-3182
- Plymouth, MI
- 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567



Mounting Style RP

Single Acting

Spring Extend Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

To determine lengths for half

stroke and subtract one inch.

Maximum Stroke 6"

2.91 PLUS 2.56 FOR EACH 1.00 OF STROKE inch stroke increments, determine length for next highest whole number -93**-**.50 PLUS STROKE **-**.09 .624 DIA. PILOT .250 DIA. (||||||||| 1/4-28 UNF-2A 1/8 NPTF 5/8-18 UNF-2A 2 63 PLUS 2 56 FOR EACH 1.00 OF STROKE

Optional Accessories: L0 7130 0200 Rod Clevis

L0 7131 0200 Pivot Bracket

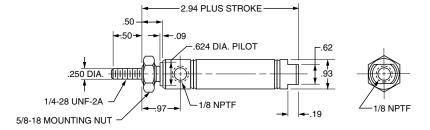
Mounting Style D

Double Acting

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Optional Accessory: L0 7379 0040 Foot Bracket

Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6", 8", 10"

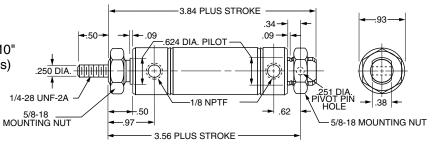
(Strokes over 12" must be supported at both ends)

Maximum Stroke 32"

Optional Accessories: L0 7130 0200 Rod Clevis

L0 7132 0200 Pivot Bracket with Pin

L0 7379 0040 Foot Bracket



Mounting Style KDX

Double Acting

Double End Mounting

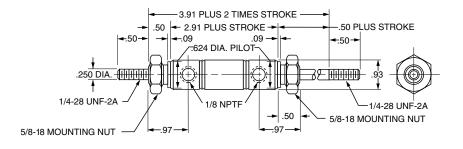
Double Rod

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 6"

Maximum Stroke 12"

Optional Accessory: L0 7379 0040 Foot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

■ Enfield, CT 860/749-2215

770/819-3400

Atlanta, GA

■Goodland, IN 219/297-3182

■ Plymouth, MI 734/455-1700 ■ Hillsborough, NC 919/732-9371

■ Akron, OH

330/253-4500 ■ Portland, OR

■ Owen Sound, Ont. Can 519/376-2691

■ Toronto, Ont. Can. 416/255-4567

■ Dorval, Quebec, Can. 514/684-3000



Mounting Style N Single Acting

Spring Return Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

NOTE: Piston rod is available w/o wrench flat (at no extra charge).

To determine lengths for half

inch stroke increments, determine

stroke and subtract a half inch.

length for next highest whole number

2.06 PLUS - 1.56 FOR EACH 1.00 OF STROKE 62-.12 **₹**.50 .312 DIA. 5/16-24 UNF-2A .624 DIA, PILOT .25 WRENCH FLATS 5/8-18 MOUNTING NUT

- 09

Optional Accessory: L0 7379 0040 Foot Bracket

Specify when ordering.

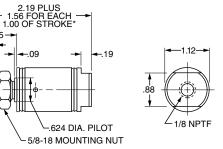
Mounting Style NR **Single Acting**

Spring Return Front Nose Mounting Non-Rotating Hex Rod

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Optional Accessory: L0 7379 0040 Foot Bracket

Mounting Style NRP

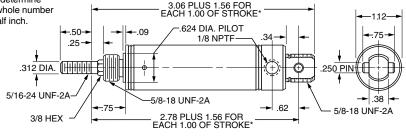
Single Acting

Spring Return Rear Pivot Mounting Non-Rotating Hex Rod

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



.75

-.50⋅

.312 DIA.

3/8 HEX

5/16-24 UNF-2A

Optional Accessories: L0 7130 0300 Rod Clevis L0 7131 0200 Pivot Bracket

Mounting Style P

Single Acting

Spring Return

Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

2.94 PLUS 1.56 FOR EACH 1.00 OF STROKE* -.62-624 DIA. PILOT .12-1/8 NPTF -.50 .312 DIA. ||||||||| 5/16-24 UNF-2A 5/8-18 UNF-2A .38 .25 WRENCH FLATS 5/8-18 UNF-2A 2.66 PLUS 1.56 FOR EACH 1.00 OF STROKE*

Optional Accessories: L0 7130 0300 Rod Clevis

L0 7131 0200 Pivot Bracket

Mounting Style R

Single Acting Spring Extend

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

* To determine lengths for half

2.62 PLUS 2.81 FOR EACH 1.00 OF STROKE **-**1.12− .62 PLUS STROKE - 00 ∕-.624 DIA. PILOT -.09 -.50 .312 DIA. ||||||||| 5/16-24 UNF-2A -1/8 NPTF .25 WRENCH FLATS .50 5/8-18 MOUNTING NUT-**-**1.06-

Optional Accessory: L0 7379 0040 Foot Bracket

NOTE: Piston rod is available w/o wrench flat (at no extra charge). Specify when ordering.

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

- Corona, CA 909/280-3800
- Enfield, CT
- 860/749-2215 Atlanta, GA 770/819-3400
- Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can
- 519/376-2691 ■ Toronto, Ont. Can.
- 416/255-4567 ■ Dorval, Quebec, Can. 514/684-3000



Mounting Style RP Single Acting

Spring Extend Standard Stroke Lengths: ¹/₂", 1", 1¹/₂", 2", 3", 4" Maximum Stroke 6"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

3.06 PLUS 2.81 FOR EACH 1.00 OF STROKE -112-.62 PLUS STROKE -.624 DIA. PILOT -.34-**-** 50 250 PIN 5/16-24 UNF-2A 1/8 NPTF .25 WRENCH FLATS .50 5/8-18 UNF-2A 1.06 2.78 PLUS 2.81 FOR EACH 1.00 OF STROKE

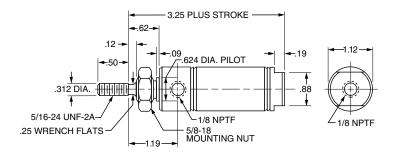
Optional Accessories: L0 7130 0300 Rod Clevis L0 7131 0200 Pivot Bracket

NOTE: Piston rod is available w/o wrench flat (at no extra charge). Specify when ordering.

Mounting Style D **Double Acting**

Front Nose Mounting Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4", 5", 6", 8", 10", 12" Maximum Stroke 12"

Optional Accessory: L0 7379 0040 Foot Bracket NOTE: Piston rod is available w/o wrench flat (at no extra charge). Specify when ordering.



Mounting Style DP

Double Acting

Rear Pivot Mounting Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4", 5", 6", 8", 10", 12" Maximum Stroke 32"

Optional Accessories: L0 7130 0300 Rod Clevis L0 7131 0200 Pivot Bracket

4.12 PLUS STROKE 112 .12 624 DIA. PILOT -50 1/8 NPTF .312 DIA. ∰∰ 5/16-24 UNF-2A 38 .25 WRENCH FLATS 5/8-18 UNF-2A 3.84 PLUS STROKE 5/8-18 UNF-2A

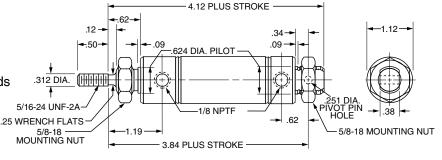
Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4", 5", 6", 8", 10", 12"

Strokes over 12" must be supported at both ends Maximum Stroke 32"

Optional Accessories: L0 7379 0040 Foot Bracket L0 7130 0300 Rod Clevis L0 7132 0200 Pivot Bracket

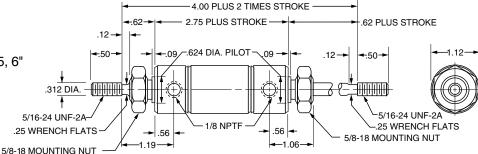


Mounting Style KDX

Double Acting

Double End Mounting — Double Rod Stainless Steel Rod Standard Standard Stroke Lengths: 1", 2", 3", 4", 5, 6" Maximum Stroke 12"

Optional Accessory: L0 7379 0040 Foot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016

- Corona, CA 909/280-3800
- Enfield, CT
- Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style KDXH

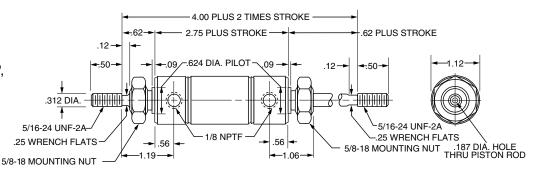
Double Acting

Double End Mounting Double Hollow Rod

Standard Stroke Lengths: 1", 2",

3", 4", 5", 6"

Maximum Stroke 12"



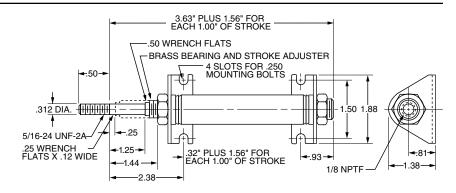
Optional Accessory: L0 7379 0040 Foot Bracket

Mounting Style A

Adjustable Stroke — Single Acting

Spring Return — Double End Mounting Stroke Adjustment in 1" Increments to 3" 1" Stroke Adjusts 0"-1", 2" Stroke 1"-2", and 3" Stroke 2"-3"

Maximum Stroke 6" Includes Mtg. Brackets



NOTE: Piston rod is available w/o wrench flat (at no extra charge). Specify when ordering.

Mounting Style RA

Adjustable Stroke — Single Acting

Spring Extend — Nose Mounting Stroke Adjustment in 1" Increments to 3"

1" Stroke Adjusts 0"-1", 2"

Stroke 1"-2", and 3" Stroke 2"-3"

Maximum Stroke 6"

Spring Load Normal 3 lbs.

Spring Load Retracted 6 lbs.

Optional Accessory:

L07379 0040 Foot Bracket

NOTE: Piston rod is available

w/o wrench flat (at no extra charge). Specify when ordering.

4.03" PLUS 2.56" FOR EACH 1.00" OF STROKE .50" PLUS STROKE 1.00 ADJUSTMENT .12-50 -50-.09 624 DIA. PILOT .31<u>2 DIA. {||||||||||</u> 5/16-24 UNF-2A-- 1/8 NPTF .25 WRENCH FLATS 5/8-18 ——/ MOUNTING NUT WRENCH FLATS 5/8-18 MOUNTING NUT STROKE ADJUSTER

Mounting Style AP

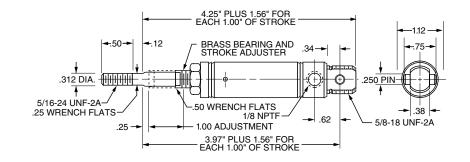
Adjustable Stroke — Single Acting

Spring Return — Rear Pivot Mounting Stroke Adjustment in 1" Increments to 3" 1" Stroke Adjusts 0"-1", 2" Stroke 1"-2", and 3" Stroke 2"-3"

Maximum Stroke 6"

Optional Accessories: L0 7130 0300 Rod Clevis L0 7131 0200 Pivot Bracket

NOTE: Piston rod is available w/o wrench flat (at no extra charge). Specify when ordering.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

- Corona, CA 909/280-3800
- Enfield, CT
- 860/749-2215 Atlanta, GA 770/819-3400
- Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Series SS Block Mounted Stainless Steel Body Air Cylinders

Mounting Style BRN

Single Acting

Spring Return

Rear Block Mounting

Stainless Steel Rod Standard Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

2.81 PLUS 1.81 FOR EACH 1.00 OF STROKE To determine lengths for half _88inch stroke increments, determine length for next highest whole number .38 1 1/8 NPTF stroke and subtract a half inch. .624 DIA. PILOT .312 DIA. 5/16-24 UNF-2A 5/8-18 UNF-2A .25 WRENCH FLATS #10-32 UNF-2B

Mounting Style BRR

Single Acting

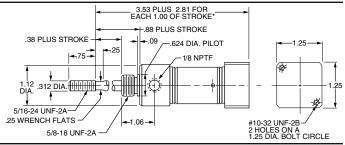
Spring Extend

Rear Block Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



2 HOLES ON A 1.25 DIA. BOLT CIRCLE

Mounting Style BFD

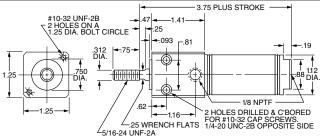
Double Acting

Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style BRD

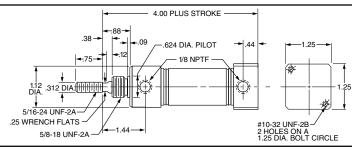
Double Acting

Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 12"



Mounting Style BFN

Single Acting

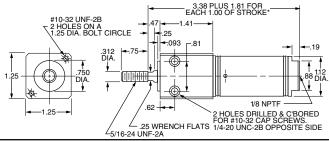
Spring Return

Front Block Mounting

Stainless Steel Rod Standard

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

Standard Stroke Lengths: 1", 2", 3", 4" Maximum Stroke 6"



Mounting Style BFR

Single Acting

Spring Extend

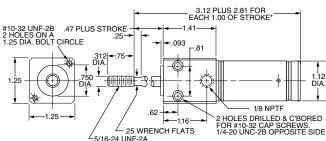
Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona. CA 909/280-3800

- Enfield, CT
- 860/749-2215 Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Series SS Trunnion Mounted Stainless Steel Body Air Cylinders

1-1/16" Bore Size Single and Double Acting

Mounting Style TRN

Single Acting

Spring Return

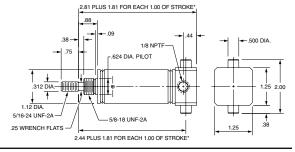
Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Mounting Style TRR

Single Acting

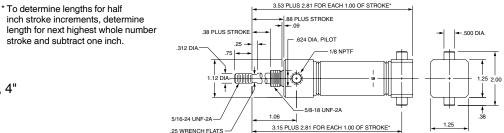
Spring Extend

Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



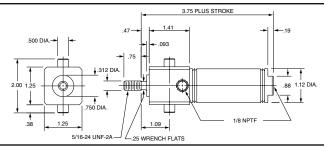
Mounting Style TFD

Double Acting

Front Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"

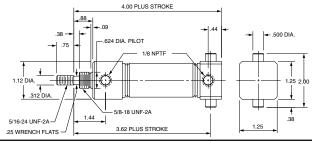


Mounting Style TRD

Double Acting

Rear Trunnion Mounting Stainless Steel Rod Standard Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 12"



3.38 PLUS 1.81 FOR EACH 1.00 OF STROKE*

Mounting Style TFN

Single Acting

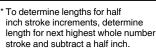
Spring Return

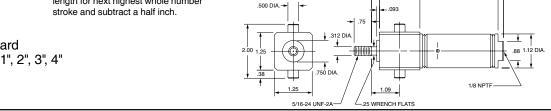
Front Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"





Single Acting

Mounting Style TFR

Spring Extend

Front Trunnion Mounting

Standard Stroke Lengths: 1", 2", 3", 4"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

Stainless Steel Rod Standard

Maximum Stroke 6"

3.12 PLUS 2.81 FOR EACH 1.00 OF STROKE .500 DIA 1.12 DIA 312 DIA 1/8 NPTF 1.09 PLUS STROKE - 5/16-24 UNF-2A

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT
- 860/749-2215 Atlanta, GA 770/819-3400
- Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style N Single Acting

Spring Return Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

2.66 PLUS - 1.81 FOR EACH 1.00 OF STROKE -88-.25 7/16-20 UNF-2A .749 DIA. PILOT .38 WRENCH FLATS 3/4-16 MOUNTING NUT



Optional Accessory: L0 7379 0048 Foot Bracket

Mounting Style NR **Single Acting**

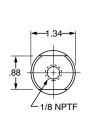
Spring Return Front Nose Mounting Non-Rotating Hex Rod

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

2.66 PLUS - 1.81 FOR EACH 1.00 OF STROKE* -88 25 -09 **-**.88⋅ .437 DIA. 7/16-20 UNF-2A 49 DIA PILOT 7/16 HFX 3/4-16 MOUNTING NUT



Optional Accessory: L0 7379 0048 Foot Bracket

Mounting Style NRP

Single Acting

Spring Return

Double End or Rear Pivot Mounting

Non-Rotating Hex Rod

Standard Stroke Lengths: 1", 2", 3", 4"

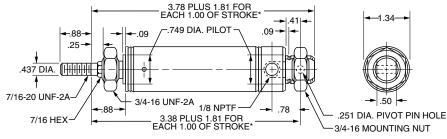
Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7132 0300 Pivot Bracket with Pin

L0 7379 0048 Foot Bracket

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Mounting Style P

Single Acting Spring Return

Double End or Rear Pivot Mounting

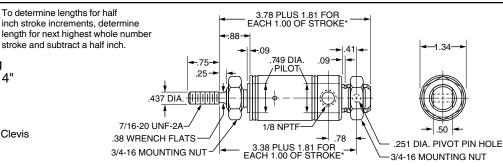
Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7132 0300 Pivot Bracket with Pin

L0 7379 0048 Foot Bracket



Mounting Style R

Single Acting

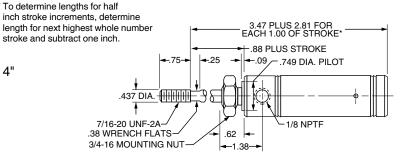
Spring Extend

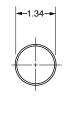
Front Nose Mounting

L0 7379 0048 Foot Bracket

Standard Stroke Lengths: 1", 2", 3", 4" Maximum Stroke 6"

Optional Accessory:





Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

- Corona, CA 909/280-3800
- Enfield, CT 860/749-2215
- Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



1-1/4" Bore Size Single and Double Acting

Mounting Style RP

Single Acting

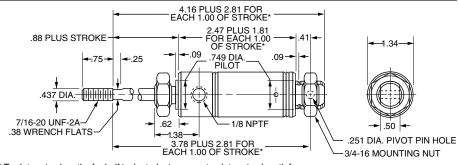
Spring Extend Rear Pivot Mounting

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis L0 7132 0300 Pivot Bracket with Pin

L0 7379 0048 Foot Bracket



* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

Mounting Style D Double Acting

Front Nose Mounting Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke 12"

Optional Accessory: L0 7379 0048 Foot Bracket

Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting Standard Stroke Lengths: 1", 2", 3", 4",

5", 6", 7", 8", 10", 12"

Strokes over 12" must be supported at both ends

Maximum Stroke 32"

Optional Accessories:

L0 7130 0400 Rod Clevis L0 7132 0300 Pivot Bracket with Pin

L0 7379 0048 Foot Bracket

251 DIA. 7/16-20 UNF-2A-.38 WRENCH FLATS 3/4-16 MOUNTING NUT 4.72 PLUS STROKE 1.34 1

Mounting Style KDX

Double Acting

Double End Mounting

Double Rod

Stainless Steel Rod Standard

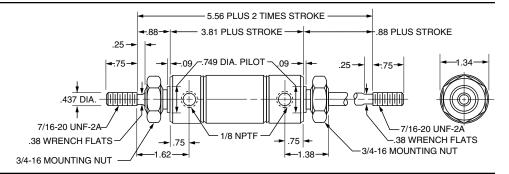
Standard Stroke Lengths: 1", 2",

3", 4", 5", 6"

Maximum Stroke 12"

Optional Accessory:

L0 7379 0048 Foot Bracket



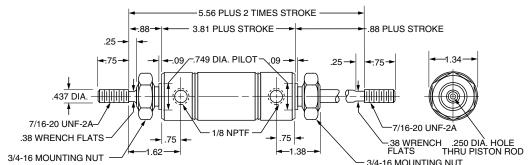
Mounting Style KDXH

Double Acting

Double End Mounting Double Hollow Rod Standard Stroke Lengths: 1", 2",

3", 4", 5", 6" Maximum Stroke 12"

Optional Accessory: L0 7379 0048 Foot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants Corona, CA 909/280-3800

- Enfield, CT 860/749-2215
- 860/749-2215 • Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style N

Single Acting

Spring Return

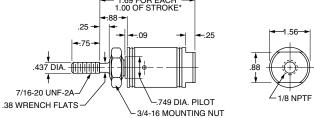
Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory: L0 7379 0048 Foot Bracket To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

2.44 PLUS 1.69 FOR EACH 1.00 OF STROKE* .88→ .25 7/16-20 UNF-2A 749 DIA. PILOT .38 WRENCH FLATS 3/4-16 MOUNTING NUT



Mounting Style NR

Single Acting

Spring Return

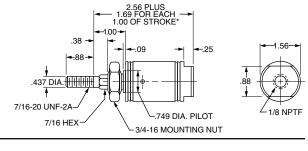
Front Nose Mounting

Non-Rotating Hex Rod

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6" Optional Accessory: L0 7379 0048 Foot Bracket inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

* To determine lengths for half



3.50 PLUS 1.69 FOR EACH 1.00 OF STROKE

-1.56-

--1.00-

-1.56-

-1.00−

-1.56

-1.56

Mounting Style NRP

Single Acting

Spring Return

Rear Pivot Mounting

Non-Rotating Hex Rod

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7131 0300 Pivot Bracket

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

3.62 PLUS 1.69 FOR EACH 1.00 OF STROKE .50 749 DIA. PILOT **-**.88-- 09 38 .437 DIA.

7/16-20 UNF-1/8 NPTF 7/16 HEX 3.25 PLUS 1.69 FOR EACH 1.00 OF STROKE * To determine lengths for half

Mounting Style P

Single Acting

Spring Return

Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

> .437 DIA. |||||||| 7/16-20 UNF-2A 3/4-16 UNF-2A 1/8 NPTF .38 WRENCH FLATS - 3.12 PLUS 1.69 FOR EACH 1.00 OF STROKE*

Optional Accessories: L0 7130 0400 Rod Clevis L0 7131 0300 Pivot Bracket

Mounting Style R

Single Acting

Spring Extend

Front Nose Mounting

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory: L0 7379 0048 Foot Bracket To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

.88 PLUS STROKE - 25 -.09 /-.749 DIA. PILOT 7/16-20 UNF-2A 1/8 NPTF 1/8 NPTF .25 -.38 WRENCH FLATS .62 3/4-16 MOUNTING NUT -1.25-

3.19 PLUS 3.00 FOR EACH 1.00 OF STROKE

Mounting Style RP

Single Acting

Spring Extend Rear Pivot Mounting

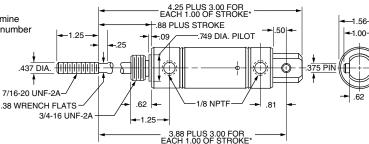
Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.





L0 7131 0300 Pivot Bracket

- **Cylinder Division**
- **Regional Plants** ■ Corona, CA 909/280-3800
- Enfield, CT 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371

503/285-0884

- Akron, OH 330/253-4500 ■ Portland, OR
- Owen Sound, Ont. Can 519/376-2691
 - Toronto, Ont. Can. 416/255-4567
 - Dorval, Quebec, Can. 514/684-3000



Mounting Style D

Double Acting

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3",

4", 5", 6", 8", 10", 12" Maximum Stroke 12'

Optional Accessory:

L0 7379 0048 Foot Bracket

3.69 PLUS STROKE **-**.88-749 DIA. PILOT .437 DIA. 7/16-20 UNF-2A -1/8 NPTF .38 WRENCH FLATS 3/4-16 MOUNTING NUT

Mounting Style DP

Double Acting

Rear Pivot Mounting

Standard Stroke Lengths: 1", 2", 3", 4",

5", 6", 8", 10", 12" Maximum Stroke 12"

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7131 0300 Pivot Bracket

4.75 PLUS STROKE -1.56749 DIA. PILOT **-**1.00⊣ .25-.437 DIA. 7/16-20 UNF-2A .38 WRENCH FLATS 3/4-16 UNF-2A 4.38 PLUS STROKE

Mounting Style DX

Double Acting

Double End Mounting

Standard Stroke Lengths: 1", 2", 3", 4",

5", 6", 8", 10", 12"

Strokes over 12" must be supported at both ends

Maximum Stroke 32" **Optional Accessories:** L0 7379 0048 Foot Bracket

4.50 PLUS STROKE 3.00 PLUS STROKE .437 DIA. 7/16-20 UNF-2A 3/4-16 MOUNTING NUT .38 WRENCH FLATS 3/4-16 MOUNTING NUT -

Mounting Style DXP

Double Acting

Double End Mounting

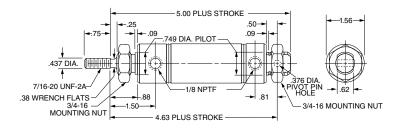
Strokes over 12" must be supported at both ends

Maximum Stroke 32"

Optional Accessories: L0 7379 0048 Foot Bracket

L0 7132 0400 Pivot Bracket with pin

L0 7130 0400 Rod Clevis



Mounting Style KDX

Double Acting

Double End Mounting

Double Rod

Stainless Steel Rod Standard

Maximum Stroke 12" Optional Accessory: L0 7379 0048 Foot Bracket

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

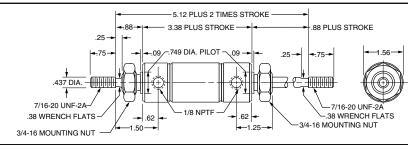
Mounting Style KDXH

Double Acting

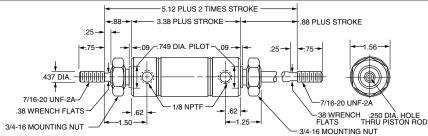
Double End Mounting Double Hollow Rod

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Optional Accessory: L0 7379 0048 Foot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants Corona, CA 909/280-3800

- Enfield, CT 860/749-2215
- Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style A

Adjustable Stroke — Single Acting

Spring Return

Double End Mounting

Stroke Adjustment in 1" Increments to 3"

1" Stroke Adjusts 0"-1"

2" Stroke 1"-2"

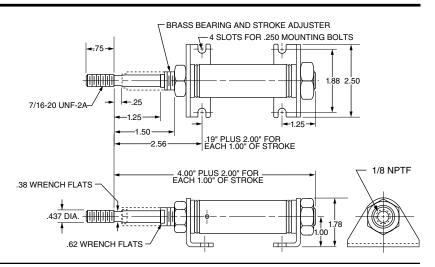
3" Stroke 2"-3"

Maximum Stroke 6"

Includes Mtg. Brackets

Spring Load Normal 9 lbs.

Spring Load Extended 18 lbs.



Mounting Style RA

Adjustable Stroke — Single Acting

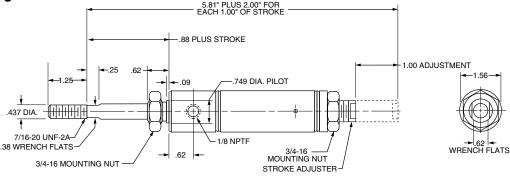
Spring Extend Nose Mounting Stroke Adjustment in 1" Increments to 3"

1" Stroke Adjusts 0"-1"

2" Stroke 1"-2"

3" Stroke 2"-3"

Maximum Stroke 6"



Optional Accessory: L0 7379 0048 Foot Bracket

Mounting Style AP

Adjustable Stroke — Single Acting

Spring Return

Rear Pivot Mounting

Stroke Adjustment in 1" Increments to 3"

1" Stroke Adjusts 0"-1"

2" Stroke 1"-2"

3" Stroke 2"-3"

Maximum Stroke 6"

Spring Load Normal 9 lbs.

Spring Load Extended 18 lbs.

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7131 0300 Pivot Bracket

4.69" PLUS 2.00" FOR EACH 1.00" OF STROKE -1.56-**←**.75 **BRASS BEARING AND** -100+ 50→ STROKE ADJUSTER .375 PIN-7/16-20 UNF-2A .62 WRENCH FLATS 38 WRENCH FLATS 1/8 NPTF 3/4-16 MOUNTING NUT **->** 81 1.00 ADJUSTMENT 4.31" PLUS 2.00" FOR EACH 1.00" OF STROKE

Notes:

770/819-3400

- Enfield, CT 860/749-2215 ■ Atlanta, GA
- Plymouth, MI 734/455-1700

■Goodland, IN 219/297-3182

- Hillsborough, NC 919/732-9371
 - Akron, OH 330/253-4500 ■ Portland, OR

503/285-0884

- Owen Sound, Ont. Can 519/376-2691
 - Toronto, Ont. Can. 416/255-4567
 - Dorval, Quebec, Can. 514/684-3000



Series SS Block Mounted Stainless Steel Body Air Cylinders

To determine lengths for half

inch stroke increments, determine

stroke and subtract a half inch.

* To determine lengths for half

stroke and subtract one inch.

inch stroke increments, determine

length for next highest whole number

1-1/2" Bore Size Single and Double Acting

Mounting Style BRN

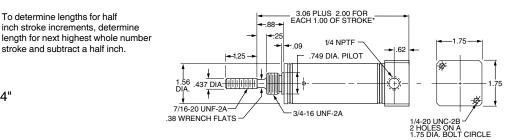
Single Acting

Spring Return Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



Mounting Style BRR

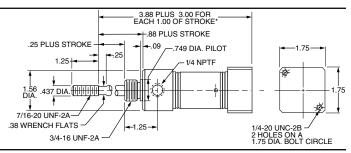
Single Acting

Spring Extend

Rear Block Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



Mounting Style BFD

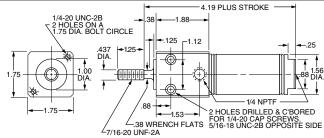
Double Acting

Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style BRD

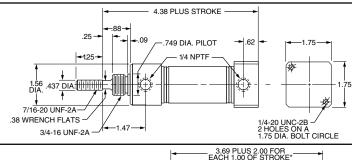
Double Acting

Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



125 -1.12

Mounting Style BFN

Single Acting

Spring Return

Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

2 HOLES DRILLED & C'BORED FOR 1/4-20 CAP SCREWS. 7/16-20 UNF-2A

/4 UNC-2B HOLES ON A .75 DIA. BOLT CIRCLE

Mounting Style BFR

Single Acting

Spring Extend

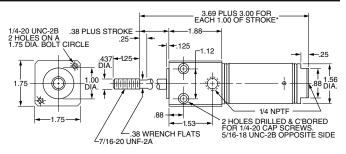
Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

770/819-3400

- Enfield, CT 860/749-2215 ■ Atlanta, GA
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



1/4 NPTF

1-1/2" Bore Size Single and Double Acting

Series SSTrunnion Mounted Stainless Steel Body Air Cylinders

Mounting Style TRN

Single Acting

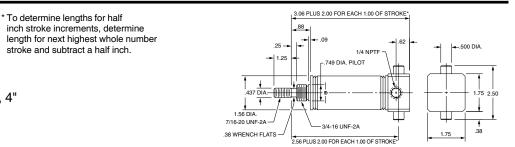
Spring Return

Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



Mounting Style TRR

Single Acting

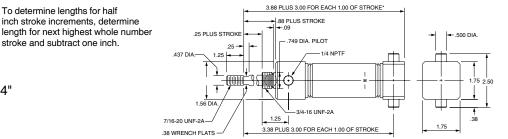
Spring Extend

Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



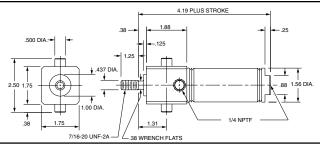
Mounting Style TFD

Double Acting

Front Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



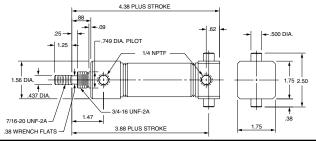
Mounting Style TRD

Double Acting

Rear Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style TFN

Single Acting

Spring Return

Front Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

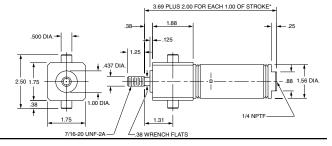
Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

* To determine lengths for half

stroke and subtract one inch.

inch stroke increments, determine



Mounting Style TFR Single Acting

Spring Extend

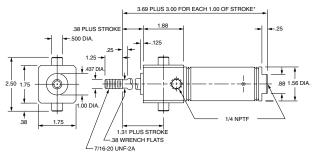
Front Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

- **Regional Plants** ■ Corona, CA 909/280-3800

770/819-3400

■ Plymouth, MI 734/455-1700

■Goodland, IN 219/297-3182

- Hillsborough, NC 919/732-9371
 - Akron, OH 330/253-4500 ■ Portland, OR

503/285-0884

- Owen Sound, Ont. Can 519/376-2691
 - Toronto, Ont. Can. 416/255-4567
 - Dorval, Quebec, Can. 514/684-3000



Mounting Style N

Single Acting

Spring Return

Front Nose Mounting

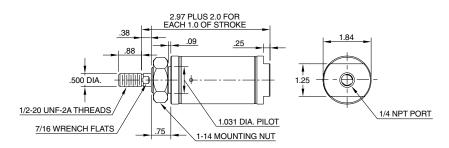
Standard Stroke Lengths: 1/2", 1", 11/2", 2",

21/2", 3", 4"

Maximum Stroke 6"

Optional Accessory:

L0 7379 0102 Foot Bracket



Mounting Style NR

Single Acting

Spring Return

Front Nose Mounting

Non-Rotating Hex Rod

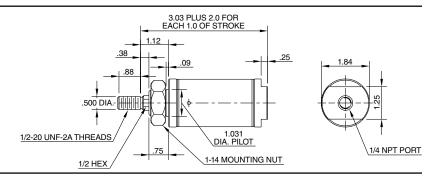
Standard Stroke Lengths: 1/2", 1", 11/2", 2",

21/2", 3", 4"

Maximum Stroke 6"

Optional Accessory:

L0 7379 0102 Foot Bracket



Mounting Style NRP

Single Acting

Spring Return

Rear Pivot or Double End Mounting

Non-Rotating Hex Rod

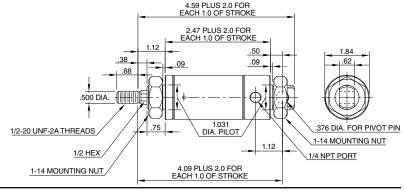
Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4"

Maximum Stroke 6"

Optional Accessories:

L0 7130 0500 Rod Clevis L0 7132 0400 Pivot Brackets

L0 7379 0102 Foot Bracket



Mounting Style P

Single Acting

Spring Return

Double End or Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2",

21/2", 3", 4"

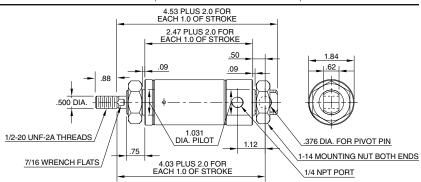
Maximum Stroke 6"

Optional Accessories:

L0 7130 0500 Rod Clevis

L0 7132 0400 Pivot Brackets

L0 7379 0102 Foot Bracket



Mounting Style R

Single Acting

Spring Extend

Front Nose Mounting

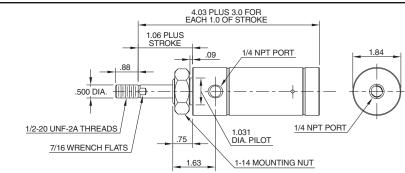
Standard Stroke Lengths: 1/2", 1", 11/2", 2",

2¹/₂", 3", 4"

Maximum Stroke 6"

Optional Accessory:

L0 7379 0102 Foot Bracket

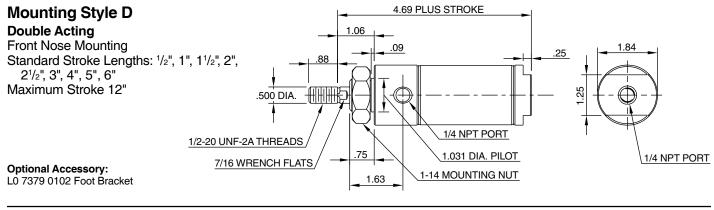


Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants Corona, CA 909/280-3800

- Enfield, CT 860/749-2215
- 860/749-2215
 Atlanta, GA
 770/819-3400
- ■Goodland, IN 219/297-3182 Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
 - Akron, OH 330/253-4500
 - Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000





Mounting Style DXP 6.25 PLUS STROKE 4.19 PLUS STROKE **Double Acting** 1.06 **Double End Mounting** .50 Standard Stroke Lengths: 1", 2", 3", 4", 5", 6", .09 8", 10", 12" Maximum Stroke 32" Strokes oves 12" must be supported at .500 DIA. both ends 1/4 NPT PORTS 1/2-20 UNF-2A THREADS **Optional Accessories:** .376 DIA. FOR PIVOT PIN 7/16 WRENCH FLATS 1.031 DIA, PILOT L0 7130 0500 Piston Rod Clevis 1-14 MOUNTING NUT L0 7132 0400 Pivot Brackets 1-14 MOUNTING NUT L0 7379 0102 Foot Bracket 5.75 PLUS STROKE

6.56 PLUS 2 TIMES STROKE Mounting Style KDX **Double Acting** 4.44 PLUS STROKE **Double End Mounting** 1.06 1.06 PLUS STROKE Double Rod .09 .88 Stainless Steel Rod Standard Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke 12" .500 DIA. 1/4 NPT PORT 1/2-20 UNF-2A THREADS 1/2-20 UNF-2A THREADS 1.031 DIA. PILOT 7/16 WRENCH FLATS 1.63 7/16 WRENCH FLATS Optional Accessory: 1-14 MOUNTING NUT

1.63

L0 7379 0102 Foot Bracket

6.56 PLUS 2 TIMES STROKE **Mounting Style KDXH** 1.06 PLUS STROKE **Double Acting Double End Mounting** 4.44 PLUS STROKE 1.06 Double Hollow Rod .09 .09 .88 Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke 12" .500 DIA. .328 DIA HOLE THRU PISTON ROD 1/4 NPT PORTS 1/2-20 UNF-2A THREADS .88 1/2-20 UNF-2A THREADS 7/16 WRENCH FLATS 1.031 DIA. PILOT

1.63

Optional Accessory: L0 7379 0102 Foot Bracket

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

■ Enfield, CT 860/749-2215

■ Atlanta. GA 770/819-3400 ■Goodland, IN 219/297-3182

■ Plymouth, MI 734/455-1700

■ Hillsborough, NC 919/732-9371

1-14 MOUNTING NUT

■ Akron, OH 330/253-4500 ■ Portland, OR

503/285-0884

■ Owen Sound, Ont. Can 519/376-2691

■ Toronto, Ont. Can. 416/255-4567

■ Dorval, Quebec, Can. 514/684-3000



7/16 WRENCH FLATS

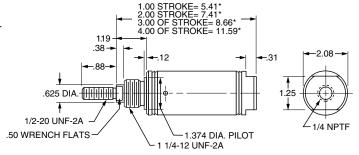
1-14 MOUNTING NUT

1-14 MOUNTING NUT

Mounting Style N Single Acting

Spring Return Front Nose Mounting Maximum Stroke 4"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Optional Accessories: L0 7379 0124 Foot Bracket

L0 7380 1200 Mounting Nut

Mounting Style P **Single Acting**

Spring Return

Double End or Rear Pivot Mounting

Maximum Stroke 4"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

1.00 STROKE= 6.78* 2.00 STROKE= 8.78* 3.00 OF STROKE= 10.03* 4.00 OF STROKE= 12.97* 1.19 -2.08*—* .38 -75 1/4 NPTF .625 DIA. 1/2-20 UNF-2A 1.374 DIA. PILOT .50 WRENCH FLATS 1/4-12 UNF-2A THD. (BOTH ENDS) 1.00 STROKE= 6.34* 2.00 STROKE= 8.34* 3.00 OF STROKE= 9.59* 4.00 OF STROKE= 12.53*

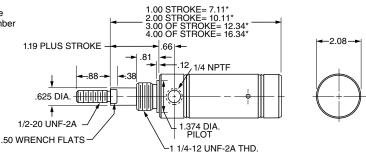
Optional Accessories: L0 7130 0500 Rod Clevis

L0 7132 0500 Pivot Bracket L0 7379 0124 Foot Bracket L0 7380 1200 Mounting Nut

Mounting Style R **Single Acting**

Spring Extend Front Nose Mounting Maximum Stroke 4"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Optional Accessories: L0 7379 0124 Foot Bracket

L0 7380 1200 Mounting Nut

Mounting Style RP Single Acting

Spring Extend Rear Pivot Mounting Maximum Stroke 4"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

1.19 PLUS STROKE -2.08-.81 .75 1/4 NPTF -38 .625 DIA. 1/2-20 UNF-2A 1.374 DIA PILOT .50 WRENCH FLATS 1 1/4-12 UNF-2A THD. 1.00 STROKE= 8.05* 2.00 STROKE= 11.05* 3.00 OF STROKE= 13.28* 4.00 OF STROKE= 17.28*

Optional Accessories: L0 7130 0500 Rod Clevis

L0 7132 0500 Pivot Bracket L0 7379 0124 Foot Bracket L0 7379 1200 Mounting Nut



Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT 860/749-2215
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- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371

503/285-0884

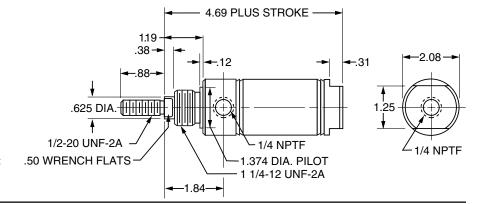
- Akron, OH 330/253-4500 ■ Portland, OR
- Owen Sound, Ont. Can 519/376-2691
 - Toronto, Ont. Can. 416/255-4567
 - Dorval, Quebec, Can. 514/684-3000



Mounting Style D

Double Acting

Front Nose Mounting Maximum Stroke 12"



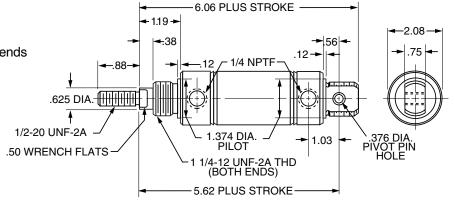
Optional Accessories: L0 7379 0124 Foot Bracket L0 7380 1200 Mounting Nut

Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting Strokes over 12" must be supported at both ends Maximum Stroke 32"

Optional Accessories: L0 7130 0500 Rod Clevis L0 7132 0500 Pivot Bracket L0 7379 0124 Foot Bracket L0 7380 1200 Mounting Nut

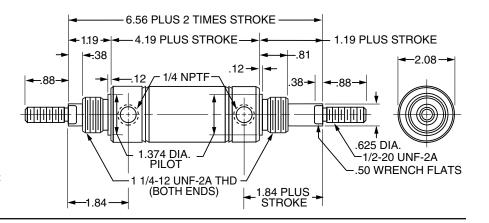


Mounting Style KDX

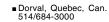
Double Acting

Double End Mounting Double Rod Stainless Steel Rod Standard Maximum Stroke 12"

Optional Accessories: L0 7379 0124 Foot Bracket L0 7380 1200 Mounting Nut



[■] Toronto, Ont. Can. 416/255-4567

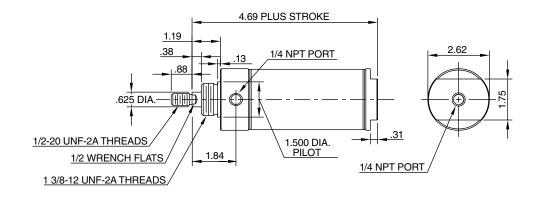




Mounting Style D

Double Acting

Front Nose Mounting Maximum Stroke 12"



Optional Accessories:

L0 7139 0132 Foot Bracket L0 7380 1400 Mounting Nut

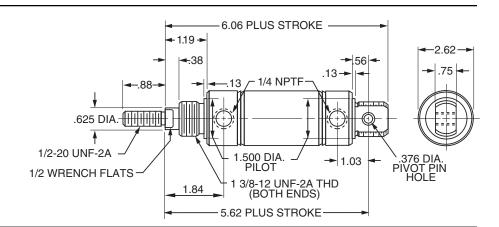
Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting Strokes over 12" must be supported at both ends Maximum Stroke 32"

Optional Accessories:

L0 7130 0500 Rod Clevis L0 7379 0132 Foot Bracket L0 7132 0500 Pivot Brackets L0 7380 1400 Mounting Nut



Mounting Style KDX

Double Acting

Double End Mounting Double Rod Stainless Steel Rod Standard Maximum Stroke 12"

4.19 PLUS STROKE 1.19 1.19 PLUS STROKE .81 .38 .88 88 .625 DIA.-1/2-20 UNF-2A THREADS 1.500 DIA. 1.84 **PILOT** 1/2-20 UNF-2A THREADS 1/2 WRENCH FLATS 1/2 WRENCH FLATS 1-3/8-12 UNF-2A MOUNTING THREADS 1.84 PLUS STROKE 1-3/8-12 UNF-2A MOUNTING THREADS

6.56 PLUS 2 TIMES STROKE

Optional Accessories:

L0 7379 0132 Foot Bracket L0 7380 1400 Mounting Nut

- Enfield, CT 860/749-2215
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- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000

Mounting Style D Double Acting Front Nose Mounting

Maximum Stroke 12"

Optional Accessories:

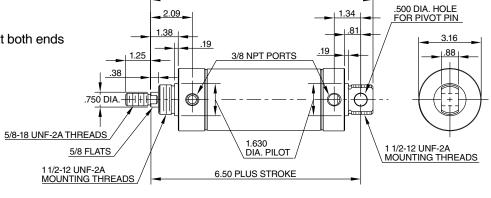
L0 7379 0140 Foot Mount L0 7380 1500 Mounting Nut

Mounting Style DXP

Double Acting
Double End or Rear Pivot Mounting
Strokes over 12" must be supported at both ends
Maximum Stroke 32"

Optional Accessories:

L0 7132 0600 Pivot Bracket L0 7379 0140 Foot Mount L0 7130 0600 Rod Clevis L0 7380 1500 Mounting Nut



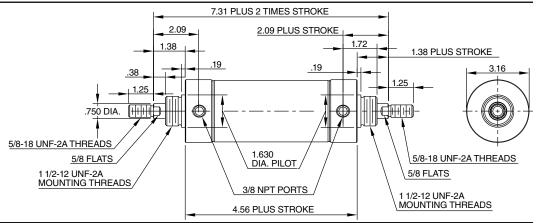
7.12 PLUS STROKE

Mounting Style KDX

Double Acting

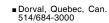
Double End Mounting Double Rod Stainless Steel Rod Standard Maximum Stroke 12"

Optional Accessories: L0 7379 0140 Foot Bracket L0 7380 1500 Mounting Nut



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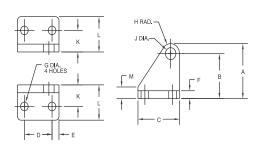


Standard Accessories with Dimensions

	Part	Bore	ore Dimensional Data												
Standard Accessories	Number	Used On	Α	В	С	D	Е	F	G	Н	J	K	L	М	N
Piston Rod Clevis A THD.	L07130 0025	5/16	#5-40	.31	.44	.56	.38	.11	#5-40	.12	.13	.31	.50	_	_
Assembly includes pin and (2)	L07130 0100	⁷ / ₁₆ , ⁹ / ₁₆	#10-32	.38	.75	.94	.56	.12	#10-32	.19	.19	.38	.56		_
Retainer Rings	L07130 0200	3/4, 7/8	1/4-28	.50	.94	1.19	.68	.16	1/4-28	.25	.25	.50	.69		
<u> </u>	L07130 0300	11/16	5/16-24	.50	.94	1.19	.68	.19	5/16-24	.25	.25	.50	.69		_
	L07130 0400	11/4, 11/2	⁷ / ₁₆ -20	.75	1.31	1.69	.94	.25	⁷ / ₁₆ -20	.38	.38	.75	1.03		
	L07130 0500	13/4, 2, 21/2	1/2-20	.75	1.31	1.69	.94	.31	1/2-20	.38	.38	.75	1.03		<u> </u>
Z _{G NUT} Z _{H DIA. PIN}	L07130 0600	3	5/8-18	1.00	2.25	2.75	1.50	.38	5/8-18	.50	.50	1.00	1.38		
Pivot Brackets M RAD.	L07131 0100	7/16	.76	.56	.75	.50	.12	.06	.19	.20	.160	.28	.50	.12	
J DIA.	2071010100	710	.,,	.00	.,,	.00	.12	.00	.10	.20	.100	.20	.00	.12	
M N N N N N N N N N N N N N N N N N N N	L07131 0200	³ / ₄ , ⁷ / ₈ , 1 ¹ / ₁₆	1.19	.88	1.12	.75	.19	.12	.27	.31	.255	.44	.81	.25	_
G -D-I+E -C-IF	L07131 0300	11/2	1.75	1.38	1.50	1.00	.25	.12	.27	.38	.380	.62	1.00	.25	-
Pivot Brackets	L07132 0025	5/16	.53	.40	.62	.38	.12	.04	.16	.12	.12	.26	-	.36	.18
Assembly includes F	L07132 0100	⁷ / ₁₆ , ⁹ / ₁₆	.76	.56	.75	.50	.12	.06	.19	.19	.156	.34	.91	1.34	.22
pin and (2) Retainer	L07132 0200	³ / ₄ , ⁷ / ₈ , 1 ¹ / ₁₆	1.18	.88	1.12	.75	.19	.12	.27	.30	.250	.38	1.25	2.00	.38
Rings.	L07132 0300	11/4	1.18	.88	1.12	.75	.19	.12	.27	.30	.250	.50	1.38	2.14	.38
	L07132 0400	1 ¹ / ₂ , 1 ³ / ₄	1.75	1.38	1.50	1.00	.25	.25	.27	.37	.375	.62	2.00	2.88	.44
-M- M → F E C →	L07132 0500	2, 21/2	1.75	1.38	1.50	1.00	.25	.25	.27	.37	.375	.75	2.12	3.00	.44
5/16" Bore Only	L07132 0600	3	2.25	1.75	1.75	1.25	.25	.25	.27	.50	.50	.88	2.62	3.88	.62
Foot Brackets	L07379 0016	5/16	1.00	.37	.25	.13	.37	.31	.25	.75	.06	.44	.12		
A	L07379 0023	5/16	1.00	.37	.25	.13	.37	.31	.38	.75	.06	.44	.12	_	_
<u> </u>	L07379 0024	⁷ / ₁₆	1.38	.62	.31	.19	.50	.31	.38	.88	.07	.56	.12	-	_
 	L07379 0028	⁷ / ₁₆ , ⁹ / ₁₆	1.38	.62	.38	.19	.50	.38	.44	.94	.09	.56	.12	_	_
E 	L07379 0032	3/4	1.62	.75	.44	.19	.62	.41	.50	1.09	.10	.69	.19	_	_
F RAD — G DIA	L07379 0040 L07379 0048	³ / ₄ , ⁷ / ₈ , 1 ¹ / ₁₆ 1 ¹ / ₄ , 1 ¹ / ₂	1.88 2.50	1.00	.56 .75	.27 .27	.75 .94	.56 .75	.63 .75	1.38	.12 .12	.81 1.00	.25	_	_
	L07379 0102	13/4	3.00	1.50	.87	.35	1.12	.73	1.03	2.16	.12	1.25	.50	_	$\vdash \equiv$
ķ , / , · , · , · , · , · , · , · , · , ·	L07379 0124	2	3.12	1.62	1.00	.34	1.12	1.00	1.38	2.50	.25	1.50	.62		_
<u> </u>	L07379 0132	21/2	3.75	1.62	1.00	.35	1.44	1.25	1.51	3.00	.25	1.75	.75	_	_
JI I	L07379 0140	3	4.37	1.62	1.00	.35	1.75	1.25	1.64	3.14	.25	1.89	.89	_	_
Mounting Nut	L07380 0200	5/16	.44	.16	1/4-28	_	_	_	_	_	_	_	_	_	_
← A → B ←	L07380 0400	⁵ / ₁₆ , ⁷ / ₁₆	.56	.22	3/8-24	_	_	-	_	_	_	_	_	_	_
	L07380 0500	⁷ / ₁₆ , ⁹ / ₁₆	.69	.25	⁷ / ₁₆ -20		_	_	_	_	_	_	_	_	_
	L07380 0600	3/4	.75	.31	1/2-20		_	_	_	_	_	_	_	_	_
	L07380 0800	³ / ₄ , ⁷ / ₈ , 1 ¹ / ₁₆	.94	.38	⁵ /8-18		_	_	_					_	_
	L07380 0900	11/4, 11/2	1.12	.42	³ / ₄ -16	_	_	_	_	_	_	_	_	_	_
	L07380 1100	13/4	1.50	.55	1-14	_	_	_	_	_	_	_		_	_
C UNF-2B	L07380 1200	2	1.88	.50	1 ¹ / ₄ -12	_	1	_	_	_	-	_	_	_	_
0 0141 25	L07380 1400	21/2	2.06	.78	1 ³ / ₈ -12	_		_	_	_	_	_	_	_	_
	L07380 1500	3	2.25	.84	1 ¹ / ₂ -12	_	_	_	_	_	_		_	_	_

Series SS Trunnion Brackets

Select brackets for Series SS Trunnion Mount Cylinders from the table below. (Note: Trunnion Brackets are ordered as a separate item from the cylinder.)



	Assembly No.	Bore Sizes	Α	В	С	D	Е	F	G	Н	J	K	L	М
	L076600100	7/16"	1.75	1.38	1.50	1	.25	.25	.27	.38	.375	.69	1.12	.37
ſ	L076600200	³ / ₄ ", 1 ¹ / ₁₆ ", 1 ¹ / ₂ "	1.75	1.38	1.50	1	.25	.25	.27	.38	.500	.69	1.12	.37

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

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- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691



Port Size — Rod Diameter — Spring Force Data

Bore Size	Port Size	Rod Diameter (Or Hex)	Force Push	Factor Pull	Spring Return (lbs.) Normal Extended		Spring I Normal	Extend (lbs.) Retracted	
.31 (5/16")	#10-32	1/8"	.08	.06	.5	1	.5	1	
.44 (7/16")	#10-32	3/16"	.15	.12	1	2	1	2	
.56 (9/16")	#10-32	3/16"	.25	.22	2	4	2	4	
.75 (3/4")	1/8 NPTF	1/4"	.44	.39	3	6	3	6	
.88 (7/8")	1/8 NPTF	1/4"	.60	.55	3	6	3	6	
1.06 (11/16")	1/8 NPTF	5/16"*	.89	.81	3†	6†	7.5	15	
1.25 (11/4")	1/8 NPTF	⁷ / ₁₆ "	1.23	1.08	7.5	15	7.5	15	
1.50 (11/2")	1/8 NPTF	⁷ / ₁₆ "	1.77	1.62	6†	12†	9	18	
1.75 (13/4")	1/4 NPTF	1/2"	2.40	2.21	11	24	11	24	
2.00 (2")	1/4 NPTF	5/8"	3.14	2.84	15	30	15	30	
2.50 (21/2")	1/4 NPTF	5/8"	4.91	4.60	N/A	N/A	N/A	N/A	
3.00 (3")	3/8 NPTF	3/4"	7.07	6.63	N/A	N/A	N/A	N/A	

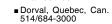
^{*}Non-rotating version uses 3/8" hex.

[†]Block mount and trunnion mount spring return lbs. equals spring extend lbs.

Mounting Style	Standard Head Port Location	Standard Cap Port Location	Standard Vent Location	End View of Mountings For Port Locations						
AR	Face	Face	None	Mounting Styles CAP VIEW	V Stan	Standard location for cushion adjustment needle when cushions				
BFR	2	None	2	IN, NO, D, N, AN	FACE cush					
BFN	None	Face	2	2	-4 are	specified on D				
BRD	2	2	None		mou	nts.				
BFD	2	Face	None	Mounting Styles CAP VII	-\A/					
BRR	2	None	2	P, RP, DXP, NRP,	Stari	dard location for ion adjustment				
BRN	None	2	2	DP, AP	need	dle when cushions				
TFR	1	None	1		# are s mou	specified on DXP nts.				
TFN	None	Face	1	3	T					
TRD	1	1	None	Mounting Style A CAP VIEW	Mounting Style RA	CAP VIEW 1				
TFD	1	Face	None	FACE						
TRR	1	None	1	2/0/4		2				
TRN	None	1	1	3						
AP	None	2	2	Mounting HEAD VIEW	Mounting	CAP VIEW				
RA	2	None	2	Styles BFD, 1 BFN, BFR	Styles BRN, BRR, BRD	1				
Α	None	Face	2	Driv, Bri	BRN, BRD					
KDXH	2	2	None	4 2		2 4				
KDX	2	2	None			3				
DX	2	2	None	Mounting HEAD VIEW	Mounting	CAP VIEW				
DXP	2	2	None	Styles 1 KDXH, KDX	Style DX					
DP	2	2	None	4 2		2 4				
D	2	Face	None							
RP	2	None	2	3		З				
R	2	None	2	Mounting HEAD VIEW Styles TFD, 1	Mounting Styles TRN,	CAP VIEW 1				
Р	None	2	2	TFN, TFR	TRR, TRD					
NRP	None	2	2	4 4 2	2-	1 14				
NR	None	Face	2							
N	None	Face	2	3		3				

Cylinders will be with ports at these locations unless otherwise specified.

[■] Toronto, Ont. Can. 416/255-4567





[■] Enfield, CT 860/749-2215 ■ Atlanta, GA 770/819-3400

[■]Goodland, IN 219/297-3182

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[■] Hillsborough, NC 919/732-9371

[■] Akron, OH 330/253-4500

[■] Portland, OR 503/285-0884

[■] Owen Sound, Ont. Can 519/376-2691

Bumpers

Bumpers are available at extra cost, add the following dimensions to the overall cylinder length by bore

Bore Size	5/ ₁₆ "	7/ ₁₆ "	9/16"	3/4"	⁷ /8"	1 1/ ₁₆ "	1 1/4"	1 ¹ / ₂ "	1 3/4"	2"	2 ¹ / ₂ "	3"
Туре												
Spring Return	*	.062"	.062"	.125"	*	.125"	*	**	*	.125"	N/A	N/A
Spring Extend	*	.125"	.062"	.125"	*	.125"	*	**	*	.125"	N/A	N/A
Double Acting	*	.188"	.125"	**	*	.125"	*	.125"	*	.250"	.250"	N/A
K-type	N/A	.250"	.125"	**	*	.500"	*	.125"	*	.250"	.250"	N/A

^{*}Bumpers are furnished as standard and do not affect overall length.

Fluorocarbon Seals

Available on all bore sizes at extra cost.

Stainless Steel Piston Rods

Corrosion resistant stainless steel is the standard piston rod material for all bore sizes up to and including 1.50 inch bore at no additional cost. The only exception to the stainless steel standard is when a hollow rod, KDXH option is specified. Stainless steel is also the standard material on block, trunnion, hex/non-rotating and KDX mounts. Stainless steel is available on other sizes for an additional charge.

Rod Wiper

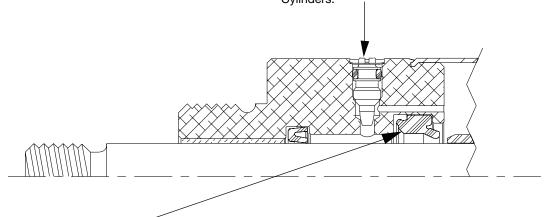
Series SS/SSM cylinders can be fitted with a rod wiper that is specially designed to prevent contaminants from clinging to the piston rod and damaging the piston rod seal. Available in 3/4", 1-1/16", and 1-1/2" bores, the piston rod wiper can be added to the SS/SSM and SSD/SSDM series.

Adjustable Cushion Option

Cushions can be selected on seven bore sizes, ranging from .75" bore to 3.0" bore with mounting styles D, front nose mount, and DXP, rear pivot mount. Adjustable cushions are optional at either end or both ends of Series SS/SSM cylinders.

Cushion Adjusting Needle Valves

The fine-thread cushion needle valves make precise adjustment quick and easy. The needle valve is fully captured to allow for safe cushion adjustment while cylinder is pressurized. The brass needle valves are corrosion resistant. The standard position for needle valve adjustments is position 1, 90° from the port. See port location table for Series SS Cylinders.



Check Seal Cushion

The "Check Seal" system offers excellent cushioning efficiency and long cushion seal life. This seal is specifically designed for cushion applications and has a long proven history in our products. Extensive side by side testing of the check seal in Series SS cylinders significantly outlasted and outperformed competitors' o-ring shaped seals.

The Check Seal's unique geometry exhibits the dynamic sealing capabilities of a lipseal. As the cushion sleeve enters the Check Seal at the end of stroke, the Check Seal blocks the air from exhausting directly through the port and forces

the air through the adjustable needle valve orifice. The exhaust airflow is precisely metered to control the desired rate of deceleration of the cylinder piston.

During stroke reversal, the check valve action of the Check Seal induces a fast out-of-cushion response. The Check Seal floats forward in the retainer groove as the cushion sleeve exits the Cushion Seal, thereby creating a path for maximum air flow around the Check Seal to access the piston face. The quick response of the Check Seal design yields faster cycle times and increased productivity.

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400 **Regional Plants** Corona, CA 909/280-3800

■ Enfield, CT 860/749-2215 ■ Atlanta, GA

770/819-3400

■Goodland, IN 219/297-3182

■ Plymouth, MI 734/455-1700 ■ Hillsborough, NC 919/732-9371

■ Akron, OH 330/253-4500

■ Portland, OR 503/285-0884 ■ Owen Sound, Ont. Can 519/376-2691

■ Toronto, Ont. Can. 416/255-4567

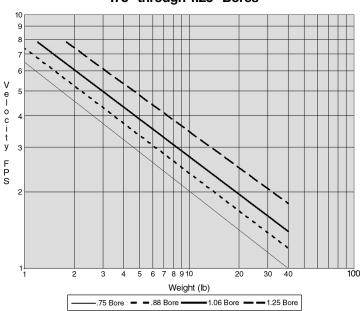


^{**}Bumpers do not affect overall length.

Cushioning Capacity

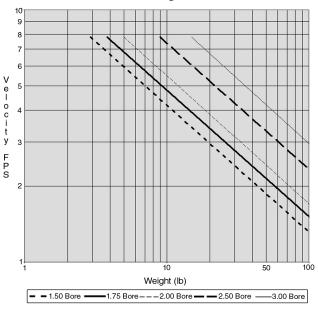
Use the graphs below to determine whether a cylinder will adequately decelerate a load without damage to the cylinder. Find the point on the graph where the piston

.75" through 1.25" Bores

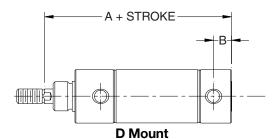


rod speed intersects the weight of the load. Any cylinder bore size above the intersect point will adequately decelerate the load at that speed.

1.50" through 3.00" Bores



Critical Mounting Dimensions for Series SS and SSM Cylinders with Adjustable Cushions



In most cases, cylinder mounting dimensions are not affected when cushions are specified. Standard catalog dimensions apply when cushions are specified at either end of a DXP mount and when specified at the head end only of a D mount. The only exception to standard catalog dimensions is when a cushion is specified on the cap end or both ends of a D mount. Please consult Table A for the critical mounting dimensions on D mount SS and SSM cylinders with cushions both ends or cushions cap end only.

Table B shows the cushion lengths for SS and SSM cylinders.

Table A: Critical Mounting Dimensions for D Mount SS and SSM Cylinders with Cushions Both Ends or Cushions Cap End Only.

	SS Dimen	sions	SSM Dimer	nsions
Bore Size	A + Stroke	В	A + Stroke	В
.75	3.40	0.28	3.40	.28
.88	3.25	0.28	N/A	N/A
1.06	3.49	0.28	3.65	.28
1.25	4.31	0.38	4.34	.38
1.50	4.12	0.31	4.37	.31
1.75	5.25	0.42	5.25	.42
2.00	5.06	0.47	5.34	.47
2.50	5.06	0.47	5.06	.47
3.00	5.69	0.53	N/A	N/A

Table B: Cushion Lengths for SS and SSM Cylinders.

Bore Size	head	сар
.75	0.750	0.625
.88	0.750	0.625
1.06	0.750	0.625
1.25	0.750	0.625
1.50	0.750	0.625
1.75	0.875	0.625
2.00	0.875	0.750
2.50	0.875	0.750
3.00	0.875	1.000

■ Atlanta, GA

770/819-3400



^{909/280-3800} ■ Enfield, CT 860/749-2215

[■]Goodland, IN 219/297-3182 ■ Plymouth, MI 734/455-1700

[■] Hillsborough, NC 919/732-9371

[■] Akron, OH 330/253-4500

[■] Portland, OR 503/285-0884

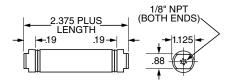
[■] Owen Sound, Ont. Can 519/376-2691

[■] Toronto, Ont. Can. 416/255-4567

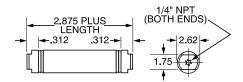
How To Order Series SS Air Reservoirs

3/4" Bore Model #.75 ARSS (length) Length Vol. - Cu. In. Standard Length in inches .39 in³ plus 1" increments to 4" .44 in³ per Maximum Length 32" inch of length 1/8" NPT (BOTH ENDS) .938 PLUS LENGTH **--**.19 .19→ .813

11/16" Bore Standard Length 1" increments to 8" Maximum Length 32" Model #1.06 ARSS (length) Length Vol. - Cu. In. in inches .99 in³ plus .89 in³ per inch of length



21/2" Bore Standard Length 1" increments to 16" Maximum Length 32" Model #2.50 ARSS (length) Vol. - Cu. In. Length 7.04 in³ plus in inches 4.91 in³ per



inch of stroke

11/2" Bore Model #1.50 ARSS (length) Length Vol. - Cu. In. Standard Length in inches 1.91 in³ plus 1" increments to 16" 1.77 in³ per Maximum Length 32" inch of stroke 1/8" NPT (BOTH ENDS) 2.250 PLUS **←**.250 .250-**→**|1.56 .88 -₩

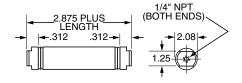
2" Bore Standard Length 1" increments to 16" Maximum Length 32"

Vol. - Cu. In. 4.22 in³ plus 3.14 in³ per inch of stroke

Length in inches

(length)

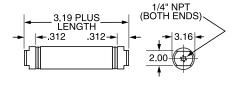
(length)



Model #2.00 ARSS

3" Bore Standard Length 1" increments to 16" Maximum Length 32" Model #3.00 ARSS Vol. - Cu. In. 9.90 in³ plus 7.07 in³ per inch of stroke

Length in inches



Option Availability Chart

	Bumpers	Fluorocarbon Seals	Rod Wipers	Cushions	Delrin® End Caps
Bumpers		•	•	X	•
Fluorocarbon Seals			Х	S	•
Rod Wiper				•	•
Cushions					S

= Available Options S = Available as Special X = Not Available

Delrin® is a registered trademark of Dupont.

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400 **Regional Plants** ■ Corona, CA 909/280-3800

■ Enfield, CT 860/749-2215

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■ Akron, OH 330/253-4500

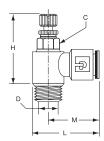
■ Portland, OR 503/285-0884 ■ Owen Sound, Ont. Can 519/376-2691

■ Toronto, Ont. Can. 416/255-4567



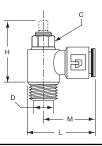
Miniature Exhaust Flow Control

PART NO.	TUBE SIZE	THREAD SIZE	C HEX (MM)	H CLOSED	H OPEN	L	М	FLOW DIA. D
0876300100	5/32	10-32	6	.925	1.023	.846	.669	.080
0876300200	5/32	1/8	7	1.000	1.083	.935	.708	.100
0876300300	1/4	10-32	6	.925	1.023	.885	.708	.080
0876300400	1/4	1/8	7	1.000	1.083	.957	.730	.100
0876300500	1/4	1/4	8	1.083	1.180	1.013	.748	.160



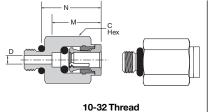
Knobless Miniature Exhaust Flow Control

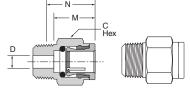
PART NO.	TUBE SIZE	THREAD SIZE	C HEX (MM)	H CLOSED	H OPEN	L	М	FLOW DIA. D
0876310100	5/32	10-32	6	.650	.787	.846	.669	.080
0876310200	1/4	1/8	7	.708	.860	.956	.730	.100
0876310300	1/4	1/4	8	.826	.964	1.013	.748	.160



Microlok male connector

PART NO.	TUBE SIZE	PIPE THREAD	C HEX	ASSM. HT. N	М	FLOW DIA. D
0876280100	1/8	1/8	7/16	.48	.49	.090
0876280200	1/8	10-32	3/8	.57	.49	.080
0876280300	5/32	1/8	7/16	.33	.49	.110
0876280400	5/32	10-32	7/16	.57	.49	.080
0876280500	1/4	1/8	1/2	.57	.52	.160
0876280600	1/4	1/4	5/8	.46	.52	.160
0876280700	1/4	10-32	7/16	.58	.49	.080

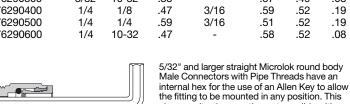




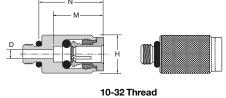
1/8" & 1/4" Pipe Thread

Microlok round body male connector

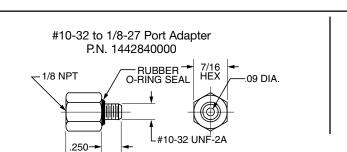
PART NO.	TUBE SIZE	PIPE THREAD	BODY DIA. H	INTERNAL HEX	ASSM. HT. N	М	FLOW DIA. D
0876290100	1/8	10-32	.34	-	.57	.49	.08
0876290200	5/32	1/8	.43	1/8	.56	.49	.13
0876290300	5/32	10-32	.38	-	.57	.49	.08
0876290400	1/4	1/8	.47	3/16	.59	.52	.19
0876290500	1/4	1/4	.59	3/16	.51	.52	.19
0876290600	1/4	10-32	.47	-	.58	.52	.08



standard wrench.



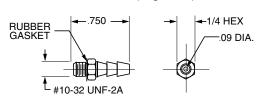
1/8" & 1/4" Pipe Thread



NOTE: Due to insufficient port depth, port adapter fitting cannot be used for head end ports of 9/16" bore cylinders. Use barbed fitting.

also permits close porting not possible with a

1/4" O.D. Hose Barbed Fittings P.N. L06998 0000 (Pkg. of 10)



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

.750-

Regional Plants ■ Corona, CA

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- Atlanta. GA 770/819-3400
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- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



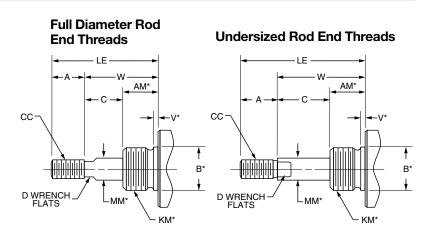
How To Order Series SS Air Cylinders

Each Series "SS" cylinder can be specified by using the symbols in the chart below to develop a model number. Select only those symbols that represent the cylinder features desired, and place them in sequence indicated by the example at the top of the chart.

E X A M	Bore Size	Cushion Head	Double Rod	Mounting Style	Series	Piston	Seals	Special	Non-Standard Rod	Non-Standard Rod Dim.	Cushion Cap	Stroke
Ĺ	1.06	С	K	D	SS	В	V	s	Y	3	С	2.00
	Specify: .31-5/16" .44-7/16" .56-9/16" .75-3/4" .88-7/6" .1.06-11/16" .1.25-11/4" .1.50-11/2" .1.75-13/4" .2.00-2" .2.50-21/2" .3.00-3"	When cushion head is required.	Available on DX and DXH only.	Specify: N, NR, NRP, P, R, RP, D, DP, DXP, DX, DXH, A, RA, AP, AR, BRN, BRR, BFD, BRD, BFN, BFR, TRN, TRR, TFD, TRD, TFN or TFR.	All	Bumper	Specify: V only when flourocarbon seals are required. W only when rod wiper is required.	Use only if special modifica- tions are required, equired, piston rod end.	Specify Y for stainless steel piston rod. Stainless steel is standard on all bore sizes up to and including 1.50" Bore.	Use only for special piston rod end. Specify CC, LE and A Dimensions (See below.)	When cushion cap is required.	Specify in inches.

Non-Standard Rods

For non-standard rod dimensions, or undersized rod end threads, put a "3" in model number and describe the rod using the letters shown in the drawing. Specify CC, LE and A dimensions.



*Requires an S designation in model number.

[■] Plymouth, MI 734/455-1700

[■] Akron, OH 330/253-4500

[■] Portland, OR 503/285-0884

[■] Toronto, Ont. Can. 416/255-4567

This interchange chart is to be used as a reference guide only. Verify customer requirements before ordering. For further information consult factory.

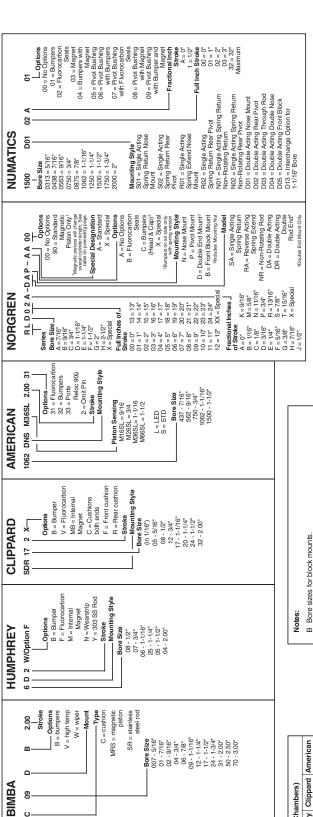
500 South Wolf Road Des Plaines, IL 60016

Mounting Description	Atlas Cylinders	Bimba	Humphrey	Clippard	American	Norgren	Numatics	Mounting Description	Atlas Cylinders	Bimba	Humphrey	Clippard	American	Norgren	Numatics
Nose Mount, Spring Return	Z	(No Letter)	S	SSR	SNS	SAN	S01	Threaded Both Ends Double Bod: Hollow Bod	КДХН	ОХОЕН	(N.A.)	(N.A.)	(N.A.)	ı	ı
Nose Mount, Spring Return Hex Rod (Non-Rotating)	NR	M.	HS.	SSN	SHNS	NRN	NO1	Rear Block Mount	200	a					
Pivot & Nose Mount	NRP	NRP	SHP	NSN	SNHS	NRP	NO2			-	ı	I	I	ı	I
Spring Heturn Hex Rod (Non-Rotating)								Rear Block Mount Single Acting/Spring Extend	BRR	BR R	ı	ı	I	1	I
Pivot Mount, Spring Return	Ы	۵	SP	USR	SAS	SAP	802								
Nose Mount, Spring Extend	æ	Я	SR	SRR	RNS	RAN	R01	Front Block Mount Single Acting/Spring Return	BFN	BF	BFS	FSR	SBFS	SAB	ı
Pivot & Nose Mount Spring Extend	ВР	g.	SRP	URR	RVS	RAP	R02	Front Block Mount Single Acting/Spring Extend	BFR	BFR	ı	ı	ı	1	1
Nose Mount, Spring Return, Head Adjustable Stroke	A	∢	I	1	ı	ı	I		1			1	1	1	1
Nose Mount, Spring Extend Head Adjustable Stroke	RA	RA	ı	1	ı	ı	ı	Front Block Mount Double Acting	BFD	BFD	BFD	FDR	DBFS	DAB	D05
Pivot Mount Spring Return, Head Adjustable Stroke	AP	AP	ı	-	ı	1	ı	Rear Block Mount Double Acting	BRD	BRD	1	1	1	1	ı
Air Reservoirs (See Reverse Side)	AR	See Next Page	See Next Page	See Next Page	See Next Page	AR	ı	Rear Trunnion Mount, Single Acting, Spring Return	TRN	BRT	1	1	ı	1	ı
Nose Mount Double Acting	D	D	Q	SDR	DNS	DAN	D01	Rear Trunnion Mount, Single Acting, Spring Extend	TRR	1	1	1	ı	1	ı
Pivot & Nose Mount Double Acting Pivot Pin	OP	DP (No Pivot Pin on 1-1/4")	d0	UDB	DVS	DAP	D02	Front Trunnion Mount Double Acting	TFD	BFTD	1	1	ı	1	1
Pivot & Nose Mount Double Acting	DXP	DXP DP on 1-1/4	dO	UDR	DVS	DAD	D02, D04	Rear Trunnion Mount, Double Acting	TRD	BRTD	1	1	ı	1	1
NO PIVOT PIII		91/1-1 00 YO						Front Trunnion Mount, Single Acting Spring Beturn	TFN	BFT	1	ı	ı	ı	1
Threaded Both Ends Double Acting	X	ă	М	EDR	DVS	ı	ı	Front Trunnion Mount,	TFR	1	1	1	ı	1	1
Threaded Both Ends Double Acting, Double Rod	KDX	DXDE	D2EY	SDD	DES	DRD	D03	Spring Extend, Single Acting							



- Enfield, CT 860/749-2215 Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000





	Airl	Reservoirs	Air Reservoirs (Volume Chambers)	ambers)		Notes:
	Atlas Cylinders	Bimba	Atlas Bimba Humphrey Clippard American ylinders	Clippard	American	B Bore sizes for block mounts.
1	.75 AR	D-1022-A	75 AR D-1022-A 7-C AVT-12 750 VCS	AVT-12	750 VCS	M Bore sizes for internal magnets.
70	1.06 AR	3" 1.06 AR D-1500-A	0-9	AVT-17	AVT-17 1062 VCS	* Consult factory for SSM dimension
I = .	1.25 AR	" 1.25 AR D-27715-A	2-C	ı	ı	T Bore sizes for trunnion mounts.
= .	1.50 AR	" 1.50 AR D-5096-A	2-C	AVT-24	ı	X Standard mount only.
	2.00 AR	2.00 AR D-2485-A	4-C	AVT-32	ı	

sult factory for SSM dimensional interchange.

Standard on all bore sizes up to 1.50". KDX mounts, all block mounts, optional on all other bore sizes and models.

Stainless Steel Rods

Fluorocarbon Seals

Standard Options

Optional on all bore sizes and models.

Standard on 5/16", 7/8", 1-1/4", and 1-3/4" bore. Optional on other bore sizes and models except 2" bore single acting.†

Atlas Cylinders

Standard on 5/16", 7/16" and 9/16" bore MRS, K-type (DXDE, DXDEH), all block mounts, optional on all other bore sizes and models.

Optional on all bore sizes and models.

Standard on 5/16", 7/8", 1-1/4", and 1-3/4" bore. Optional on other bore sizes and models except 1-1/2" and 2" bore, single acting.1

Bimba

	Bore Code	0313	0438	0563	0220	0875	1062	1250	1500	1750	2000	ı	ı
	Numatics	×	×	×	XBM	Μ×	XBM	Μ×	XBM	Μ×	×	ı	_
	Bore Code	1	∢	В	O	ı	۵	ш	ш	ı	g	I	ı
	Norgren	1	В	Σ	XBM	ı	XBM	Μ×	XBM	ı	×	Μ×	ı
	Bore Code	1	437	295	750	1	1062	1250	1500	ı	ı	ı	ı
fered	American	1	XBM	×	XBM	1	XBM	W×	XBM	ı	ı	ı	ı
Aounts Of	Bore Code	90	ı	ı	12	1	17	20	24	1	32	40	ı
Summary of Options/Mounts Offered	Clippard	×	ı	ı	XBM	1	XBM	W ×	×	1	×	×	ı
ummary	Bore	ı	ı	ı	7	ı	9	25	2	75	4	ဇ	ı
S	Humphrey	ı	ı	ı	XBM	1	XBM	Μ×	XBM	WX	×	M×	1
	Bore Code	200	10	05	90	90	60	12	17	24	31	20	70
	Bimba	ΧB	XBT	⊠ ×	XBTM	×	XBTM	Σ ×	XBTM	Σ×	∑ ×	Σ×	×
	Bore Code	.33	4.	.56	.75	88.	1.06	1.25	1.50	1.75	2.00	2.50	3.00
	Atlas Cylinders	ΧB	XBT	Σ×	XBTM	×	XBTM	Μ×	XBTM	Μ×	××	Μ×	×
	Bore Size	5/16"	1/16"	9/16"	3/4"	8/2	1-1/16"	1-1/4"	1-1/2"	1-3/4"	2"	2-1/2"	3"

Standard on all bore sizes and models.

Optional on all bore sizes and models.

Optional on 9/16" through 2" bore.

Numatics

Norgren

HBumpers may affect OAL. Consult factory for details.

Standard on all bore sizes and models. Standard on all bore sizes and models.

Optional on all bore sizes and models. Optional on all bore sizes and models.

Optional on all bore sizes and models.† Optional on all bore sizes and models.

American

Standard on models D2EY, BFS, BFD. Optional on all other bore sizes and models.

Standard on model D2EY all bore sizes. Optional on all other bore sizes and

Humphrey

Optional on most bore sizes and models.

Optional on all bore sizes and models. Optional on all bore sizes and models.

Standard on most bore sizes and models.†

Clippard

- X = Standard mounting styles only B = Block mounts available T = Trunnion mounts available M = Piston position sensing available

- Hillsborough, NC 919/732-9371

1-1/16" 1.06 AR

3/4"

1-1/4" 1-1/2"

- Akron, OH 330/253-4500
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000

ATLAS CYLINDERS

SS O 1.06

W = wiper
V = high temp
Bumpers

Stainless Rod

cab

SRM = magnetic piston

Series

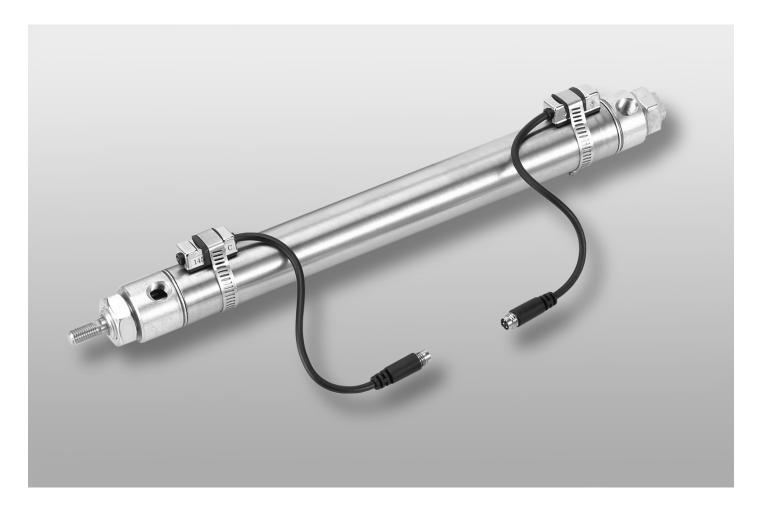
Regional Plants

■Goodland, IN 219/297-3182

Cushion Head Bue Size 31 - 5/16" 44 - 7/16" 45 - 9/16" 75 - 344" 76 - 9/16" 76 - 9/16" 77 - 1-1/16" 75 - 1-1/2" 75 - 1-1/2" 70 - 2.10 200 - 2" 300 - 3

5

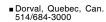
Low Cost Series SSM Air Cylinders with Piston Sensing Capability



Features

- No Special Mounting Rail Required
- Easy Mounting and Adjustment
- Non-Contact Sensing
- **LED Indicator Standard**

[■] Toronto, Ont. Can. 416/255-4567





[■] Enlield, C1 860/749-2215 ■ Atlanta, GA 770/819-3400

[■] Plymouth, MI 734/455-1700

[■] Hillsborough, NC 919/732-9371

[■] Akron, OH 330/253-4500

[■] Portland, OR 503/285-0884

Series SSM Premium Quality, Low Cost Air Cylinder — Complete with Piston Sensing Capability

Designed and built for maximum performance and reliability to meet your particular application requirements. Our advanced manufacturing know-how results in a lower initial cost that lets you stretch those tight design budgets without sacrificing quality.

The Series SSM air cylinder features include a reed switch that is easily adjustable anywhere on the cylinder body and no special mounting rail is required. Switches are compatible with Programmable Controllers. An LED indicator is standard. A 39 inch shielded cable is also standard and can be extended to 30 feet maximum by the user.

The Series SSM air cylinder with the unitized stainless steel body — totally integrates over 60 years of proven engineering capability and



experience. High volume manufacturing capabilities, a broad distribution network plus the **only** computer linked nationwide regional warehouse system to provide you with what you need, when you need it.

Premium quality Series SSM cylinders are available from stock for quick delivery. Our system is unequalled for saving you downtime, delivery time, and costs.

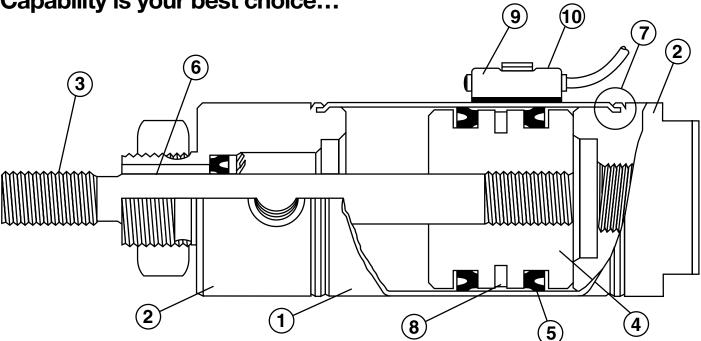
For your low cost cylinder requirements we are — The One Source you can depend on for Total Cylinder Response-Ability. Worldwide.

[■] Portland, OR 503/285-0884

[■] Toronto, Ont. Can. 416/255-4567

[■] Dorval, Quebec, Can. 514/684-3000

Here's why the low cost Series SSM light duty air cylinder with Piston Sensing Capability is your best choice...



Quality cost saving features include:

- (1) Cylinder Tube Type 304 stainless steel, polished to a micro-inch finish on the I.D. To provide for low friction and long life. A matte finish on the O.D. to provide for smudge resistance.
- (2) Heads and Caps Aluminum construction with precision machining to provide a smooth breakaway. The tube-to-head connection is a strong double rolled construction.
- (3) Piston Rods Stainless steel rod material is standard on all sizes up to 1.50" bore. Stainless steel is also standard on block, trunnion, non-rotating hexagonal rods and KDX mounts. Stainless steel piston rods are available on other bores and mounting styles at an additional cost.
- (4) Piston Body Pistons are precision machined aluminum construction. Piston rod connections are threaded and anaerobic adhesive applied to provide for durable leakproof service.

- (5) Seals All piston and rod seals are of a lipseal construction. Buna-N is standard on all models.
- (6) Rod Bushings Oil impregnated bronze reamed to a close tolerance provides for a smooth operation and long life.
- (7) Unitized Construction Precision double-rolled unitized construction provides durable, leak-proof service and long life.
- (8) Piston Magnet Nitrile-Barium particle composite surrounds entire diameter for dependable service and long life.
- (9) Adjustable Reed Switch Capable of either AC or DC operation. Available standard with LED indicator. For easy on, off indication.
- (10) Adjustable Solid State Switch NPN Sinking or PNP Sourcing available standard with LED indicator. For easy on, off indication.

Standard Specifications

- 304 stainless steel cylinder body.
- Aluminum heads and caps.
- Stainless steel piston rods are standard up to 1.50" Bore.
- Stainless steel is also standard on block, trunnion, nonrotating hexagonal rods and KDX mounts. Stainless steel piston rods are available on other bores and mounting styles at an additional cost.
- Nominal pressure rating 250 psi.
- Standard temperature +14°F to +140°F.
- Bore sizes 8 sizes available including 9/16", 3/4", 1-1/16", 1-1/4", 1-1/2", 1-3/4", 2 and 2-1/2" bore.
- Mounting styles 24 standard.
- Adjustable cushions
- Rod Wiper

For additional mounting styles please consult factory.

In line with our policy of continuing product improvement, specifications in this catalog are subject to change.

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona. CA

■ Enfield, CT 860/749-2215

909/280-3800

770/819-3400

■ Atlanta, GA

■Goodland IN 219/297-3182

■ Plymouth, MI

■ Hillsborough, NC 919/732-9371

■ Akron, OH 330/253-4500

■ Portland, OR

■ Owen Sound, Ont. Can 519/376-2691

■ Toronto, Ont. Can. 416/255-4567



Switch Specifications

	Reed Switch Assembly 1459030000	Solid State Switch Assembly 1467140000 NPN Sinking 1467150000 PNP Sourcing
Switching Logic	Normally Open, SPST	NPN or PNP
Supply Voltage Range	5 to 125 V AC/DC	5 TO 30 VDC
Max. Switching Power	10 Watts (Resistive) 5 Watts (Inductive)	6 Watts
Max. Switching Current	300 mA (Resistive) 150 mA (Inductive)	200 mA at 24 VDC
Circuit Current Consumption	_	Max 14 mA at 24 VDC
Short Circuit Interruption Current	_	370 mA
Leakage Current	_	10 μA Maximum
Residual Voltage	Maximum 3 V	1.5 V Maximum
"On" State Voltage Drop	1-7V Maximum	See Below
Response	1000 Hz Maximum	1000 Hz Maximum
Shock Resistance	30G Non-Repeated Shock	30G Non-Repeated Shock
Degree Of Protection	IEC IP 67	IEC IP 67

Reed Switch Assembly Solid State Switch Assembly 1467140000 NPN Sinking 1459030000 1467150000 PNP Sourcing

14° to 158°F (-10° to 70°C) 14° to 140°F (-10° to 60°C) Operating Temperature -4° to 158°F (-20° to 70°C) -4° to 176°F (-20° to 80°C) Storage Temperature LED Indicator Red, Target Present When On Red, Target Present When On Minimum Current To Light LED Lead Wire Lengths 39 Inches, 1 Meter 39 Inches, 1 Meter

¹Polarity is restricted to DC operation: (+) to Brown (-) to Blue

If these connections are reversed the contacts will close, but the LED will not light

PNP Sourcing Output

Note: For switches with connectors and cordset, See page 77.

Circuits

Reed Switch

Blue

Part No. 1459030000 Polarity must be observed for DC operation only.

Load

NPN Sinking Output

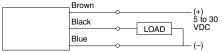
Color of Cable	Black
"On" State Voltage Drop	0.7V Maximum
Brown	

Blue

LOAD



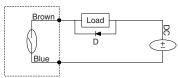
Part No. 1467150000 Color of Cable Gray "On" State Voltage Drop 0.2V Maximum



Circuit for Switching Contact Protection (Inductive Loads)

(Required for proper operation 24V DC)

Put Diode parallel to loads following polarity as shown below.



D: Diode: select a Diode with the breakdown voltage and current rating according to the load.

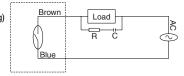
Typical Example - 100 Volt, 1 Amp Diode Load: Relay coil (under 0.5W coil rating) (Recommended for longer life 125 VAC)

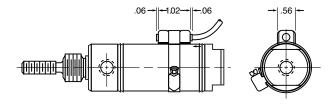
Put a resistor and capacitor in parallel with the load. Select the resistor and capacitor according to the load.

Typical Example:

Load: Relay coil (under 2W coil rating) Resistor 1 K Ω - 5 K Ω , 1/4 W

Capacitor 0.1 µF, 600 V





Stainless steel worm gear type clamps must be ordered separately.

. ,			
Bore Size	Clamp Assembly	Bore Size	Clamp Assembly
9/16"	L073400050	11/2"	L073400200
3/4"	L073400075	13/4", 2"	L073400300
1 1/ ₁₆ "	L073400100	21/2"	L073400600
11/4"	L073400100	_	_

⚠ Caution

- Use an ampmeter to test reed switch current. Testing devices such as incandescent light bulbs may subject the reed switch to high in-rush loads.
- NOTE: When checking an unpowered reed switch for continuity with a digital ohmmeter the resistance reading will change from infinity to a very large resistance (2 M ohm) when the switch is activated. This is due to the presence of a diode in the reed switch.
- Anti-magnetic shielding is recommended for reed switches exposed to high external RF or magnetic fields.
- The magnetic field strength of the piston magnet is designed to operate with our switches. Other manufacturers' switches or sensors may not operate correctly in conjunction with
- Current capabilities are relative to operational temperatures.
- Use relay coils for reed switch contact protection.
- The operation of some 120 VAC PLC's (especially some older Allen-Bradley PLC's) can overload the reed switch. The switch may fail to release after the piston magnet has passed. This problem may be corrected by the placement of a 700 to 1K OHM resistor between the switch and the PLC input terminal. Consult the manufacturer of the PLC for appropriate circuit.
- Switches with long wire leads (greater than 15 feet) can cause capacitance build-up and sticking will result. Attach a resistor in series with the reed switch (the resistor should be installed as close as possible to the switch). The resistor should be selected such that R (ohms) >E/0.3.

- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont, Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style N Single Acting

Spring Return Front Nose Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

length for next highest whole number stroke and subtract a half inch. 1.76 PLUS 1.62 FOR EACH 1.00 OF STROKE 437 DIA PILOT 06 -50 .188 DIA #10-32 UNF-2A 7/16-20 MOUNTING NUT #10-32 PORT

Optional Accessory: L0 7379 0028 Foot Bracket

Mounting Style NR **Single Acting**

Spring Return Front Nose Mounting Non-Rotating Hex Rod Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

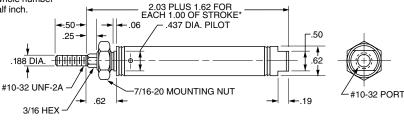
Maximum Stroke 6"

Optional Accessory: L0 7379 0028 Foot Bracket

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

To determine lengths for half

inch stroke increments, determine



Mounting Style NRP

Single Acting

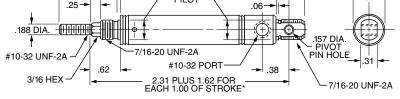
Spring Return Rear Pivot Mounting Non-Rotating Hex Rod Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0100 Rod Clevis L0 7132 0100 Pivot Bracket with Pin

* To determine lengths for half inch stroke increments, determine 2.50 PLUS 1.62 FOR EACH 1.00 OF STROKE length for next highest whole number stroke and subtract a half inch. .437 DIA. PILOT -.50 25 .188 DIA



2.25 PLUS 1.62 FOR EACH 1.00 OF STROKE

.25

.06

Mounting Style P

Single Acting Spring Return

Rear Pivot Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

.188 DIA. #10-32 UNF-2A #10-32 PORT .38 .38 7/16-20 UNF-2A 2.06 PLUS 1.62 FOR EACH 1.00 OF STROKE* 7/16-20 UNF-2A

Optional Accessories: L0 7130 0100 Rod Clevis

L0 7132 0100 Pivot Bracket with Pin

Mounting Style R

Single Acting Spring Extend

Front Nose Mounting

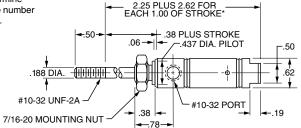
Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3"

Maximum Stroke 6"

Optional Accessory:

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.





L0 7379 0028 Foot Bracket

847/298-2400

- **Cylinder Division** 500 So. Wolf Road **Regional Plants** Corona, CA Des Plaines, IL 60016
 - 909/280-3800 ■ Enfield, CT
 - 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



To determine lengths for half

stroke and subtract one inch.

9/16" Bore Size Single and Double Acting

Mounting Style RP

Single Acting

Spring Extend Rear Pivot Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3"

Maximum Stroke 6"

Optional Accessories: L0 7130 0100 Rod Clevis

L0 7132 0100 Pivot Bracket with Pin

2.72 PLUS 2.62 FOR EACH 1.00 OF STROKE inch stroke increments, determine length for next highest whole number .38 PLUS STROKE **-**.50 137 DIA PILOT .06 188 DIA. (|||||||||| PIN HOLE #10-32 UNF-2A 7/16-20 UNF-2A 7/16-20 UNF-2A

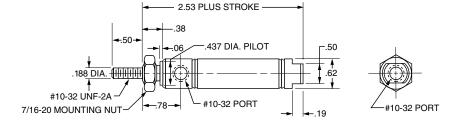
Mounting Style D

Double Acting

Front Nose Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 12"



Optional Accessory:

L0 7379 0028 Foot Bracket

Mounting Style DXP

Double Acting

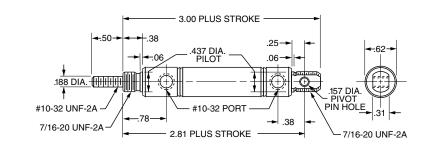
Double End or Rear Pivot Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 12"

Optional Accessories: L0 7130 0100 Rod Clevis

L0 7379 0028 Foot Bracket L0 7380 0500 Hex Nuts



Mounting Style KDX

Double Acting

Double Rod

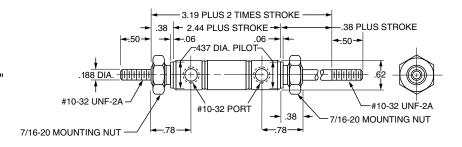
Double End Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory: L0 7379 0028 Foot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona. CA 909/280-3800

- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont, Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000

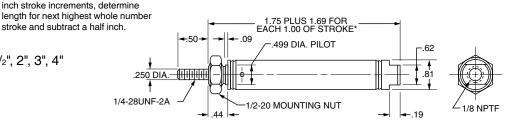


Mounting Style N Single Acting

Spring Return Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"



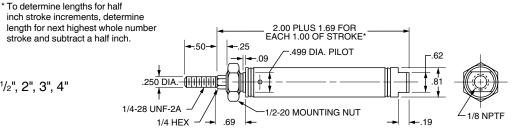
Optional Accessory: L0 7379 0032 Foot Bracket

Mounting Style NR **Single Acting**

Spring Return Front Nose Mounting Non-Rotating Hex Rod

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"



Optional Accessory: L0 7379 0032 Foot Bracket

Mounting Style NRP

Single Acting

Spring Return Rear Pivot Mounting Non-Rotating Hex Rod

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine 3.06 PLUS 1.69 FOR EACH 1.00 OF STROKE* length for next highest whole number stroke and subtract a half inch. -.50-499 DIA PILOT 25 1/8 NPTF 250 DIA 1/4-28 UNF-2A 1/2-20 UNF-2A .38 .69 .62 5/8-18 UNF-2A 2.78 PLUS 1.69 FOR EACH 1.00 OF STROKE 1/4 HEX

Optional Accessories: L0 7130 0200 Rod Clevis L0 7131 0200 Pivot Bracket

Mounting Style P

Single Acting

Spring Return Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

To determine lengths for half

Maximum Stroke 6"

2.81 PLUS 1.69 FOR EACH 1.00 OF STROKE .499 DIA. PILOT 1/8 NPTF .250 DIA (+) 1/4-28 UNF-2A 1/2-20 UNF-2A .38 62 5/8-18 UNF-2A 2.53 PLUS 1.69 FOR EACH 1.00 OF STROKE

Optional Accessories: L0 7130 0200 Rod Clevis L0 7131 0200 Pivot Bracket

Mounting Style R

Single Acting

Spring Extend Front Nose Mounting

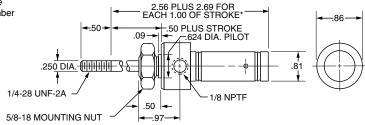
Maximum Stroke 6"

inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

To determine lengths for half

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Optional Accessory:



L0 7379 0040 Foot Bracket

- **Cylinder Division** 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400
- **Regional Plants** Corona, CA
- 909/280-3800 ■ Enfield, CT
- 860/749-2215
- Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



To determine lengths for half

stroke and subtract one inch.

3/4" Bore Size Single and Double Acting

Mounting Style RP

Single Acting

Spring Extend Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

2.97 PLUS 2.69 FOR EACH 1.00 OF STROKE inch stroke increments, determine length for next highest whole number -86-50 PLUS STROKE .09 ∕-.624 DIA. PILOT -50 1/4-28 UNF-2A 5/8-18 UNF-2A 2.69 PLUS 2.69 FOR EACH 1.00 OF STROKE

Optional Accessories: L0 7130 0200 Rod Clevis

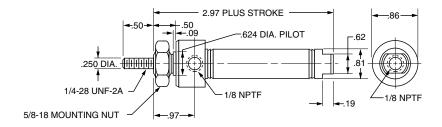
L0 7131 0200 Pivot Bracket

Mounting Style D

Double Acting

Front Nose Mounting Standard Stroke Lengths: 1/2", 1", 2", 21/2", 3", 4", 5", 6", 8", 10"

Maximum Stroke 12"



Optional Accessory:

L0 7379 0040 Foot Bracket

Mounting Style DP

Double Acting

Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 2", 21/2",

3", 4", 5", 6", 8", 10" Maximum Stroke 12"

4.03 PLUS STROKE -86 -.50 624 DIA. PILOT **-**.09 **-**.50 1/8 NPTF .250 DIA. 1/4-28 UNF-2A 38 5/8-18 UNF-2A .62 5/8-18 UNF-2A .97 3.75 PLUS STROKE

Optional Accessories: L0 7131 0200 Pivot Bracket L0 7130 0200 Rod Clevis

Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting Standard Stroke Lengths: 1", 2", 3", 4", 5", 6", 8", 10" Strokes over 12" must be supported at both ends

Maximum Stroke 32"

Optional Accessories:

L0 7131 0200 Pivot Bracket with Pin L0 7130 0200 Rod Clevis L0 7379 0040 Foot Bracket

4.03 PLUS STROKE .50 2.91 PLUS STROKE **-**50− **--**.09 .624 DIA. PILOT -{||||||||| .250 DIA. 1/4-28 UNF-2A 1/8 NPT 38 5/8-18 MOUNTING NUT 5/8-18 MOUNTING NUT 3.75 PLUS STROKE

4.00 PLUS 2 TIMES STROKE

3.00 PLUS STROKE

624 DIA. PILOT

Mounting Style KDX

Double Acting

Double Rod

Double End Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"

Optional Accessory: L0 7379 0040 Foot Bracket

.250 DIA. 1/4-28 UNF-2A 1/8 NPTF 5/8-18 MOUNTING NUT 5/8-18 MOUNTING NUT

--.09

.50

-.50−

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona. CA

- 909/280-3800 ■ Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont, Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



1/4-28 UNF-2A

-50

Series SSM Block Mounted Stainless Steel Body Air Cylinders

Mounting Style BRN

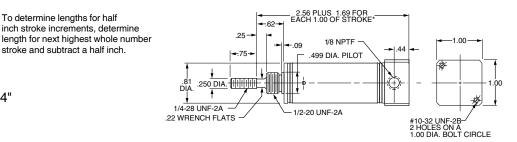
Single Acting

Spring Return Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



Mounting Style BRR

Single Acting

Spring Extend Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

3.47 PLUS 2.69 FOR EACH 1.00 OF STROKE * To determine lengths for half inch stroke increments, determine -.75 PLUS STROKE length for next highest whole number .25 PLUS STROKE -09 -.624 DIA. PILOT 1.00 stroke and subtract one inch. 1/8 NPTF .250 DIA. 1/4-28 UNF-2A .22 WRENCH FLATS 2 HOLES ON A 1.00 DIA. BOLT CIRCLE 5/8-18 UNF-2A

Mounting Style BFD

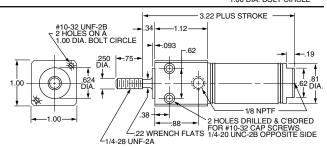
Double Acting

Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style BRD

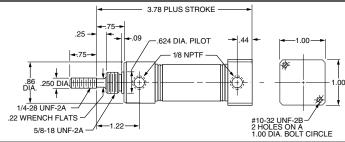
Double Acting

Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style BFN

Single Acting

Spring Return

Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

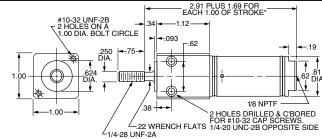
Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

To determine lengths for half

stroke and subtract a half inch.

inch stroke increments, determine



Mounting Style BFR

Single Acting

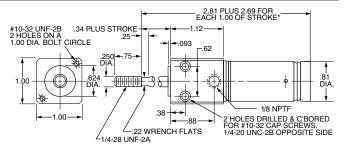
Spring Extend

Front Block Mounting

Stainless Steel Rod Standard Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants

- Corona, CA
- 909/280-3800 ■ Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Series SSM Trunnion Mounted Stainless Steel Body Air Cylinders

To determine lengths for half

stroke and subtract a half inch.

3/4" Bore Size Single and Double Acting

-.500 DIA

Mounting Style TRN

Single Acting

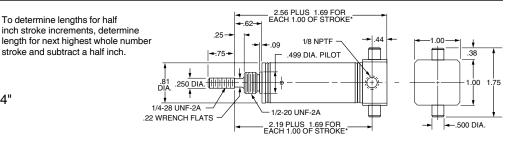
Spring Return

Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



Mounting Style TRR

Single Acting

Spring Extend

Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

3.47 PLUS 2.69 FOR EACH 1.00 OF STROKE * To determine lengths for half inch stroke increments, determine -.75 PLUS STROKE length for next highest whole number .25 PLUS STROKE **-**.09 .624 DIA. PILOT stroke and subtract one inch. ∢.75→ 1/8 NPTF .00 1/4-28 UNF-2A .22 WRENCH FLATS

5/8-18 UNF-2A

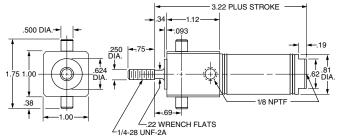
Mounting Style TFD

Double Acting

Front Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



3.10 PLUS 2.69 FOR EACH 1.00 OF STROKE

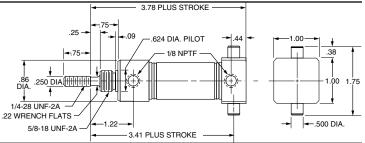
Mounting Style TRD

Double Acting

Rear Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style TFN

Single Acting

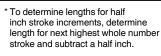
Spring Return

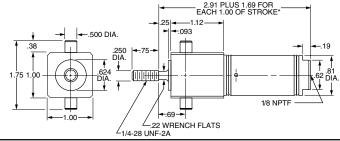
Front Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"





Mounting Style TFR

Single Acting

Spring Extend

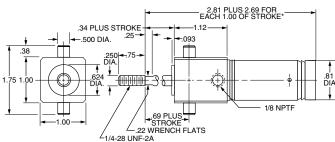
Front Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona. CA 909/280-3800

- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Owen Sound, Ont, Can 519/376-2691
 - Toronto, Ont. Can. 416/255-4567
 - Dorval, Quebec, Can. 514/684-3000



.12

5/16-24 UNF-2A

.25 WRENCH FLATS

2.31 PLUS - 1.56 FOR EACH 1.00 OF STROKE*

Mounting Style N

Single Acting

Spring Return

Single Acting

Spring Return

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory: L0 7379 0040 Foot Bracket

Mounting Style NR

Front Nose Mounting Non-Rotating Hex Rod To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

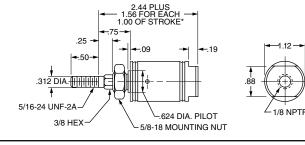
NOTE: Piston rod is available w/o

wrench flat (at no extra charge). Specify when ordering.

* To determine lengths for half inch stroke increments, determine length for next highest whole number

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6" **Optional Accessory:** L0 7379 0040 Foot Bracket stroke and subtract a half inch.



624 DIA. PILOT

5/8-18 MOUNTING NUT

1/8 NPTF

Mounting Style NRP

Single Acting

Spring Return Rear Pivot Mounting

Non-Rotating Hex Rod

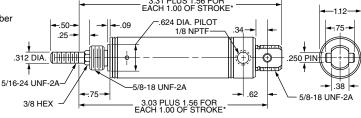
Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0300 Rod Clevis

L0 7131 0200 Pivot Bracket

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



-.62→

.12-

-.50-

.312 DIA. ||||||||||

5/16-24 UNF-2A

.25 WRENCH FLATS

3.19 PLUS 1.56 FOR EACH 1.00 OF STROKE

5/8-18 UNF-2A

2.91 PLUS 1.56 FOR EACH 1.00 OF STROKE

.624 DIA. PILOT

250 PIN

.38

5/8-18 UNF-2A

1/8 NPTF

Mounting Style P

Single Acting

Spring Return

Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0300 Rod Clevis

L0 7131 0200 Pivot Bracket

inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

* To determine lengths for half

Mounting Style R **Single Acting**

Spring Extend

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory: L0 7379 0040 Foot Bracket NOTE: Piston rod is available w/o wrench flat (at no extra charge). Specify when ordering.

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

2.87 PLUS 2.81 FOR EACH 1.00 OF STROKE **-**1.12→ .62 PLUS STROKE -.12 -.09,-.624 DIA. PILOT .312 DIA. ||||||||| 5/16-24 UNF-2A -1/8 NPTF .25 WRENCH FLATS-.50 5/8-18 MOUNTING NUT -1.06

Mounting Style RP

Single Acting

Spring Extend

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 3", 4" Maximum Stroke 6'

Optional Accessories: L0 7130 0300 Rod Clevis L0 7131 0200 Pivot Bracket * To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

NOTE: Piston rod is available w/o wrench flat (at no extra charge). Specify when ordering.

3.31 PLUS 2.81 FOR EACH 1.00 OF STROKE 1.12 --.62 PLUS STROKE -.624 DIA. PILOT -.34--.12 -.09 5/16-24 UNF-2A 1/8 NPTF .25 WRENCH FLATS .50 5/8-18 UNF-2A -1.06-3.03 PLUS 2.81 FOR

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants

- Corona, CA 909/280-3800
- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182 ■ Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
 - Akron, OH 330/253-4500
 - Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style D

Double Acting

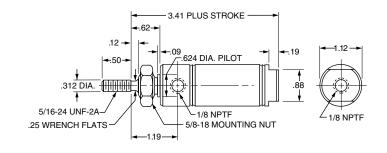
Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2",

21/2", 3", 4", 5", 6", 8", 10", 12"

Maximum Stroke 12"

NOTE: Piston rod is available w/o **Optional Accessory:** wrench flat (at no extra charge). L0 7379 0040 Foot Bracket Specify when ordering.



4.28 PLUS STROKE

Mounting Style DP

Double Acting

Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2",

.624 DIA. PILOT -50 1/8 NPTF 21/2", 3", 4", 5", 6", 7", 8", 10", 12" Maximum Stroke 32" .312 DIA. 5/16-24 UNF-2A .38 .25 WRENCH FLATS 62 5/8-18 UNF-2A Optional Accessories: L0 7130 0300 Rod Clevis 5/8-18 UNF-2A 4.00 PLUS STROKE L0 7131 0200 Pivot Bracket

12

Mounting Style DXP

Double Acting

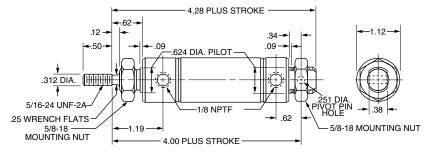
Double End or Rear Pivot Mounting Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4", 5", 6", 7", 8", 10", 12"

Strokes over 12" must be supported at both ends

Maximum Stroke 32"

Optional Accessories: 114317 0040 Foot Bracket

L0 7130 0300 Rod Clevis L0 7132 0200 Pivot Bracket



Mounting Style KDX

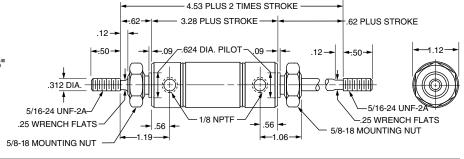
Double Acting

Double End Mounting — Double Rod

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Optional Accessory:

L0 7379 0040 Foot Bracket

Mounting Style KDXH

Double Acting

Double End Mounting

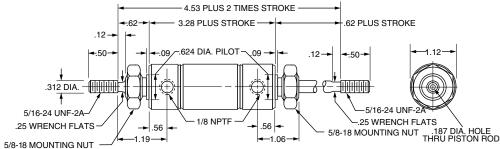
4", 5", 6"

Maximum Stroke 12"

Optional Accessory:







Regional Plants ■ Corona. CA 909/280-3800

- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont, Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Series SSM Block Mounted Stainless Steel Body Air Cylinders

Mounting Style BRN

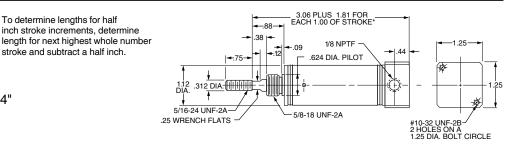
Single Acting

Spring Return Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



Mounting Style BRR

Single Acting

Spring Extend Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

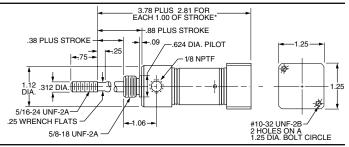
Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

To determine lengths for half

stroke and subtract a half inch.

inch stroke increments, determine



Mounting Style BFD

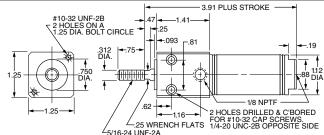
Double Acting

Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style BRD

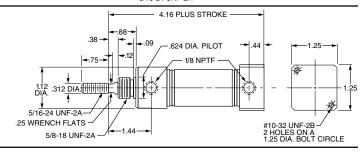
Double Acting

Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 12"



Mounting Style BFN

Single Acting

Spring Return

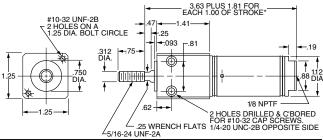
Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Mounting Style BFR

Single Acting

Spring Extend

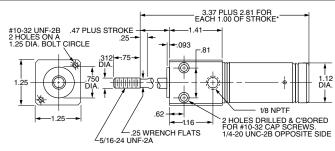
Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants

- Corona, CA
- 909/280-3800 ■ Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Series SSM Trunnion Mounted Stainless Steel Body Air Cylinders

1-1/16" Bore Size Single and Double Acting

Mounting Style TRN

Single Acting

Spring Return

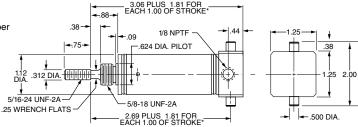
Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Mounting Style TRR

Single Acting

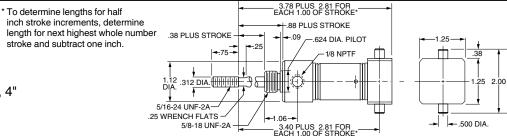
Spring Extend

Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



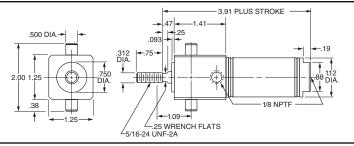
Mounting Style TFD

Double Acting

Front Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



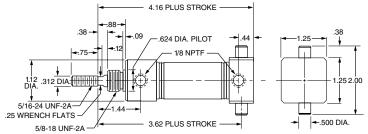
Mounting Style TRD

Double Acting

Rear Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 12"



Mounting Style TFN

Single Acting

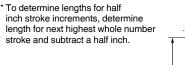
Spring Return

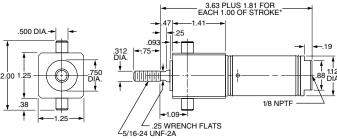
Front Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"





Mounting Style TFR

Single Acting

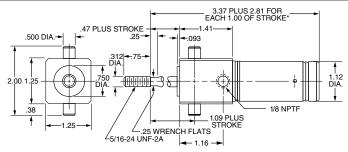
Spring Extend

Front Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT 860/749-2215
- 860/749-2215

 Atlanta, GA
 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style N Single Acting

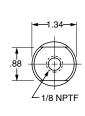
Spring Return

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

2.78 PLUS - 1.81 FOR EACH · 1.00 OF STROKE* **:88**→ 25 .437 DIA. 7/16-20 UNF-2A 49 DIA. PILOT .38 WRENCH FLATS 3/4-16 MOUNTING NUT



Optional Accessory: L0 7379 0048 Foot Bracket

Mounting Style NR **Single Acting**

Spring Return Front Nose Mounting

Non-Rotating Hex Rod

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

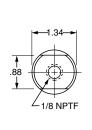
* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

To determine lengths for half

stroke and subtract a half inch.

inch stroke increments, determine length for next highest whole number

> 2.78 PLUS - 1.81 FOR EACH 1.00 OF STROKE* -88 -.09 -88 .437 DIA. 7/16-20 UNF-2/ 749 DIA. PILOT 7/16 HEX 3/4-16 MOUNTING NUT



Optional Accessory: L0 7379 0048 Foot Bracket

Mounting Style NRP

Single Acting

Spring Return

Double End or Rear Pivot Mounting

Non-Rotating Hex Rod

Standard Stroke Lengths: 1", 2", 3", 4"

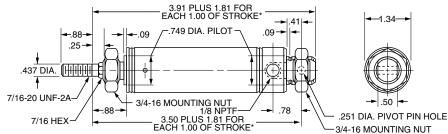
Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7132 0300 Pivot Bracket with Pin

L0 7379 0048 Foot Bracket

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Mounting Style P

Single Acting

Spring Return

Double End or Rear Pivot Mounting

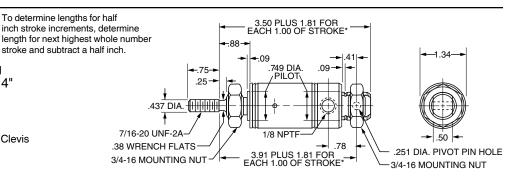
Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7132 0300 Pivot Bracket with Pin

L0 7379 0048 Foot Bracket



Mounting Style R

Single Acting

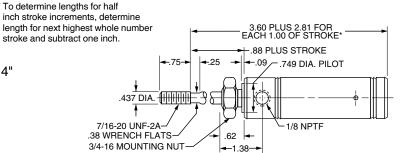
Spring Extend

Front Nose Mounting

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory:





L0 7379 0048 Foot Bracket

- Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400
- **Regional Plants** Corona. CA 909/280-3800
- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000

Mounting Style RP Single Acting

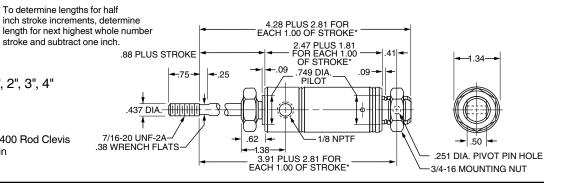
Spring Extend Rear Pivot Mounting

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis L0 7132 0300 Pivot Bracket with Pin

L0 7379 0048 Foot Bracket

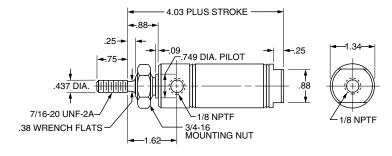


Mounting Style D Double Acting

Front Nose Mounting

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Optional Accessory: L0 7379 0048 Foot Bracket

Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting Standard Stroke Lengths: 1", 2", 3", 4", 5", 6",

7", 8", 10", 12"

Strokes over 12" must be supported at both ends

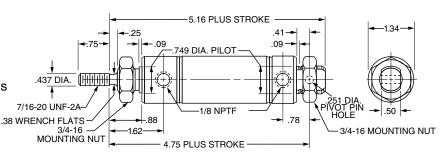
Maximum Stroke 32"

Optional Accessories: 144317 0048 Foot Bracket

L0 7130 0400 Rod Clevis

L0 7132 0300 Pivot Bracket with Pin

L0 7379 0048 Foot Bracket



Mounting Style KDX

Double Acting

Double End Mounting

Double Rod

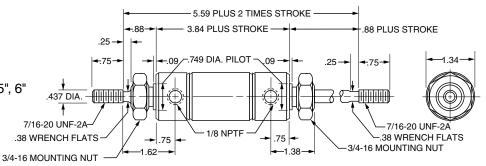
Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"

Optional Accessory:

L0 7379 0048 Foot Bracket



Mounting Style KDXH

Double Acting

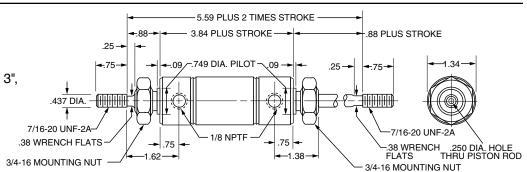
Double End Mounting

Double Hollow Rod Standard Stroke Lengths: 1", 2", 3",

4", 5", 6"

Maximum Stroke 12"

Optional Accessory: L0 7379 0048 Foot Bracket



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT
- 860/749-2215
 Atlanta, GA
 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style N

Single Acting

Spring Return

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessory: L0 7379 0048 Foot Bracket To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

2.69 PLUS 1.69 FOR EACH 1.00 OF STROKE* 437 DIA. 7/16-20 UNF-2/ 749 DIA. PILOT .38 WRENCH FLATS 3/4-16 MOUNTING NUT



Mounting Style NR

Single Acting

Spring Return

Front Nose Mounting Non-Rotating Hex Rod

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6" **Optional Accessory:** L0 7379 0048 Foot Bracket * To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

2.81 PLUS - 1.69 FOR EACH 1.00 OF STROKE .38 .437 DIA.[||||||||| 7/16-20 UNF-2A 749 DIA. PILOT 7/16 HEX 3/4-16 MOUNTING NUT

Mounting Style NRP

Single Acting

Spring Return

Rear Pivot Mounting

Non-Rotating Hex Rod

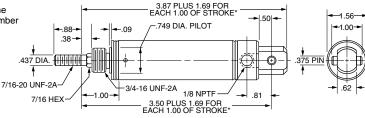
Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7131 0300 Pivot Bracket

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Mounting Style P

Single Acting

Spring Return

Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 2", 3", 4"

Maximum Stroke 6"

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7131 0300 Pivot Bracket

inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

* To determine lengths for half

3.75 PLUS 1.69 FOR EACH 1.00 OF STROKE -1.56 **-**1.00-25 .437 DIA. (7/16-20 UNF-2A 3/4-16 UNF-2A 1/8 NPTF-.38 WRENCH FLATS 3.37 PLUS 1.69 FOR EACH 1.00 OF STROKE*

Mounting Style R

Single Acting

Spring Extend

Front Nose Mounting

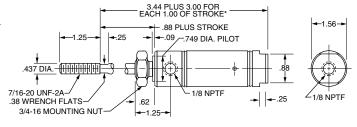
Maximum Stroke 6"

Optional Accessory:

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

Standard Stroke Lengths: 1", 2", 3", 4"

L0 7379 0048 Foot Bracket



Mounting Style RP

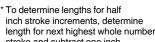
Single Acting

Spring Extend Rear Pivot Mounting

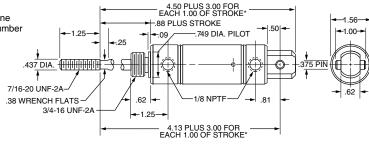
Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6" **Optional Accessories:**

L0 7130 0400 Rod Clevis L0 7131 0300 Pivot Bracket



stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

- **Regional Plants** ■ Corona, CA
- 909/280-3800 ■ Enfield, CT 860/749-2215 ■ Atlanta, GA

770/819-3400

- ■Goodland IN 219/297-3182
- Plymouth. MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont, Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style D

Double Acting

Front Nose Mounting

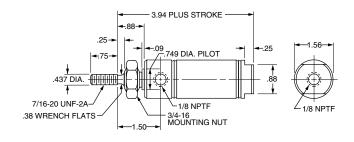
Standard Stroke Lengths: 1/2", 1", 2",

3", 4", 5", 6", 8", 10", 12"

Maximum Stroke 12"

Optional Accessory:

L0 7379 0048 Foot Bracket



Mounting Style DP

Double Acting

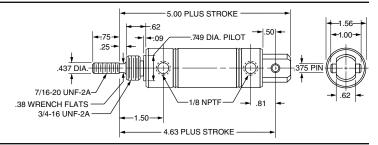
Rear Pivot Mounting

Standard Stroke Lengths: 1", 2", 3",

4", 5", 6", 8", 10", 12" Maximum Stroke 12"

Optional Accessories: L0 7130 0400 Rod Clevis

L0 7131 0300 Pivot Bracket



Mounting Style DX

Double Acting

Double End Mounting

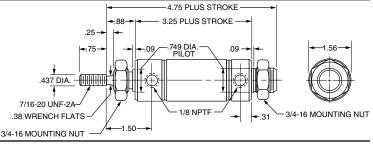
Standard Stroke Lengths: 1", 2", 3",

4", 5", 6", 8", 10", 12"

Strokes over 12" must be supported at both ends

Maximum Stroke 32" **Optional Accessory:**

L0 7379 0048 Foot Bracket



Mounting Style DXP

Double Acting

Double End Mounting

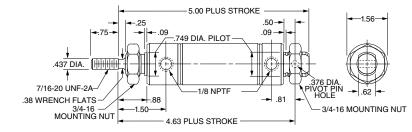
Strokes over 12" must be supported at both ends

Maximum Stroke 32"

Optional Accessories: L0 7379 0048 Foot Bracket

Lo 7132 0400 Pivot Bracket with Pin

L0 7130 0400 Rod Clevis



Mounting Style KDX

Double Acting

Double End Mounting — Double Rod

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"

Optional Accessory:

L0 7379 0048 Foot Bracket

5.38 PLUS 2 TIMES STROKE 3.63 PLUS STROKE -88 .88 PLUS STROKE .25 .437 DIA. -7/16-20 UNF-2A 7/16-20 UNF-2A .38 WRENCH FLATS .38 WRENCH FLATS .62 .62 3/4-16 MOUNTING NUT 1 50-3/4-16 MOUNTING NUT

5.38 PLUS 2 TIMES STROKE

3.63 PLUS STROKE

1/8 NPTF

Mounting Style KDXH

Double Acting

Double End Mounting

Double Hollow Rod

Standard Stroke Lengths: 1", 2", 3",

4", 5", 6"

L0 7379 0048 Foot Bracket

Maximum Stroke 12"

Optional Accessory:

- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371

.62

■ Akron, OH 330/253-4500

.25

<-.75

.437 DIA. -

7/16-20 UNF-2A

.38 WRENCH FLATS

3/4-16 MOUNTING NUT

- 503/285-0884
- Owen Sound, Ont, Can 519/376-2691

25

■ Toronto, Ont. Can. 416/255-4567

.62

-1.25

■ Dorval, Quebec, Can. 514/684-3000



-.38 WRENCH ..250 DIÀ. HOLE FLATS THRU PISTON ROD

88 PLUS STROKE

7/16-20 UNF-2A

3/4-16 MOUNTING NUT

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants

■ Corona, CA 909/280-3800

Series SSM Block Mounted **Stainless Steel Body Air Cylinders**

Mounting Style BRN

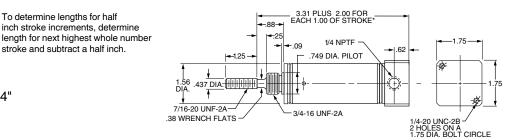
Single Acting

Spring Return Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



Mounting Style BRR

Single Acting

Spring Extend Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

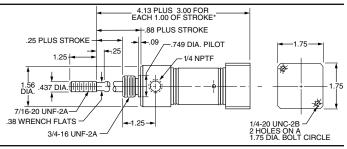
Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

To determine lengths for half

stroke and subtract a half inch.

inch stroke increments, determine



Mounting Style BFD

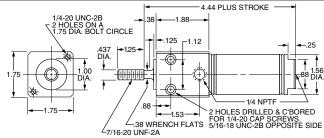
Double Acting

Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style BRD

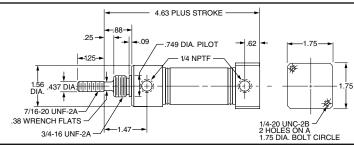
Double Acting

Rear Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style BFN

Single Acting

Spring Return

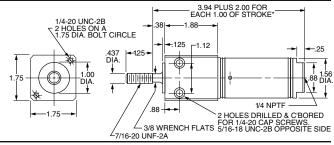
Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Mounting Style BFR

Single Acting

Spring Extend

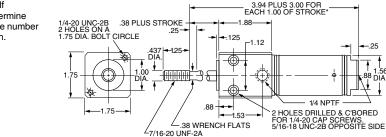
Front Block Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA

- 909/280-3800
- 860/749-2215 770/819-3400
- ■Goodland IN 219/297-3182 ■ Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- 330/253-4500 ■ Portland, OR
- Akron, OH

519/376-2691

■ Toronto, Ont. Can. 416/255-4567

■ Owen Sound, Ont, Can



Series SSM Trunnion Mounted Stainless Steel Body Air Cylinders

1-1/2" Bore Size Single and Double Acting

Mounting Style TRN

Single Acting

Spring Return

Rear Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

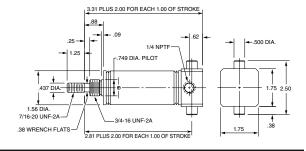
Maximum Stroke 6"

To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

* To determine lengths for half inch stroke increments, determine

stroke and subtract one inch.

length for next highest whole number



Mounting Style TRR

Single Acting

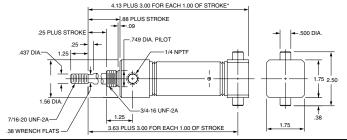
Spring Extend

Rear Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

Maximum Stroke 6"



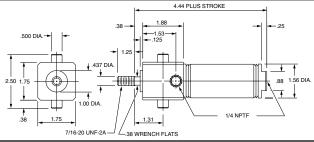
Mounting Style TFD

Double Acting

Front Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



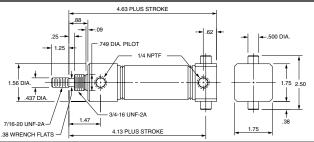
Mounting Style TRD

Double Acting

Rear Trunnion Mounting Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4", 5", 6"

Maximum Stroke 12"



Mounting Style TFN

Single Acting

Spring Return

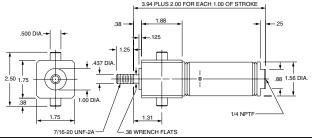
Front Trunnion Mounting

Stainless Steel Rod Standard

Standard Stroke Lengths: 1", 2", 3", 4"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

Maximum Stroke 6"



Single Acting

Stainless Steel Rod Standard

Maximum Stroke 6"

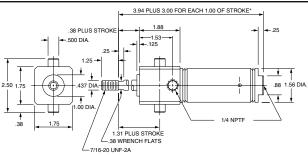
Mounting Style TFR

Spring Extend

Front Trunnion Mounting

Standard Stroke Lengths: 1", 2", 3", 4"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182 ■ Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
 - Akron, OH 330/253-4500
 - Portland, OR 503/285-0884
- Owen Sound, Ont, Can 519/376-2691
 - Toronto, Ont, Can. 416/255-4567
 - Dorval, Quebec, Can. 514/684-3000



Mounting Style N

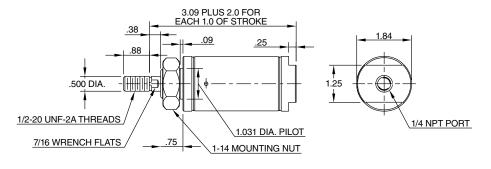
Single Acting

Spring Return Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2",

21/2", 3", 4" Maximum Stroke 6"

Optional Accessory: L0 7379 0102 Foot Bracket



3.15 PLUS 2.0 FOR EACH 1.0 OF STROKE

1.031

DIA PILOT

1-14 MOUNTING NUT

1.12

.38

.500 DIA. -

1/2 HEX

1/2-20 UNF-2A THREADS

.88

Mounting Style NR

Single Acting

Spring Return Front Nose Mounting Non-Rotating Hex Rod

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4"

Maximum Stroke 6"

Optional Accessory:

L0 7379 0102 Foot Bracket

Mounting Style NRP

Single Acting

Spring Return

Rear Pivot or Double End Mounting

Non-Rotating Hex Rod

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4"

Maximum Stroke 6" **Optional Accessories:**

L0 7130 0500 Rod Clevis L0 7132 0400 Pivot Brackets L0 7379 0102 Foot Bracket

.38 .09 .88 .500 DIA. 1.031 DIA. PILOT 376 DIA. FOR PIVOT PIN 1/2-20 UNF-2A THREADS 1-14 MOUNTING NUT 4.21 PLUS 2.0 FOR EACH 1.0 OF STROKE 1/2 HEX 1/4 NPT PORT BOTH ENDS

.25

1/4 NPT PORT

Mounting Style P

Single Acting

Spring Return

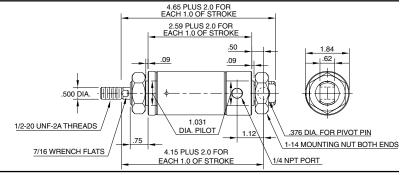
Double End or Rear Pivot Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4"

Maximum Stroke 6"

Optional Accessories:

L0 7130 0500 Rod Clevis L0 7132 0400 Pivot Brackets L0 7379 0102 Foot Bracket



Mounting Style R

Single Acting

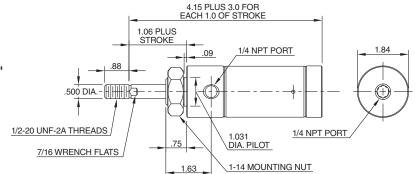
Spring Extend

Front Nose Mounting

Standard Stroke Lengths: 1/2", 1", 11/2", 2", 21/2", 3", 4"

Maximum Stroke 6"

Optional Accessory:



L0 7379 0102 Foot Bracket

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona. CA 909/280-3800

- Enfield, CT
- 860/749-2215 770/819-3400
- Atlanta, GA
- ■Goodland IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR
- Owen Sound, Ont, Can
- 519/376-2691 ■ Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style D 4.69 PLUS STROKE **Double Acting** Front Nose Mounting 1.06 Standard Stroke Lengths: 1/2", 1", 11/2", 2", .09 21/2", 3", 4", 5", 6" Maximum Stroke 12" .500 DIA. 1/4 NPT PORT 1/2-20 UNF-2A THREADS 1.031 DIA. PILOT 1/4 NPT PORT 7/16 WRENCH FLATS **Optional Accessory:** 1-14 MOUNTING NUT L0 7379 0102 Foot Bracket 1.63 Mounting Style DXP 6.25 PLUS STROKE 4.19 PLUS STROKE **Double Acting** 1.06 **Double End Mounting** .50 Standard Stroke Lengths: 1", 2", 3", 4", 5", .09 .88 6", 8", 10", 12" Maximum Stroke 32" Strokes over 12" must be supported at both ends .500 DIA. #### 1/4 NPT PORTS 1/2-20 UNF-2A THREADS **Optional Accessories:** 376 DIA. FOR PIVOT PIN 7/16 WRENCH FLATS 1.031 DIA. PILOT L0 7130 0500 Rod Clevis 1-14 MOUNTING NUT L0 7132 0400 Pivot Brackets 1-14 MOUNTING NUT 1.94 L0 7379 0102 Foot Bracket 5.75 PLUS STROKE **Mounting Style KDX** 6.56 PLUS 2 TIMES STROKE **Double Acting** 4.44 PLUS STROKE **Double End Mounting** 1.06 PLUS STROKE Double Rod .09 Stainless Steel Rod Standard Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke 12" 1/2-20 UNF-2A THREADS 1/4 NPT PORT 1/2-20 UNF-2A THREADS 7/16 WRENCH FLATS 7/16 WRENCH FLATS 1.63 DIA. PILOT Optional Accessory: 1-14 MOUNTING NUT L0 7379 0102 Foot Bracket 1-14 MOUNTING NUT 1.63 6.56 PLUS 2 TIMES STROKE **Mounting Style KDXH** 1.06 PLUS STROKE **Double Acting** 4.44 PLUS STROKE **Double End Mounting** Double Hollow Rod .09 .09 .88 Standard Stroke Lengths: 1", 2", 3", 4", 5", 6" Maximum Stroke 12" .500 DIA. .328 DIA HOLE THRU PISTON ROD 1/4 NPT PORTS 1/2-20 UNF-2A THREADS 7/16 WRENCH FLATS 1.031 DIA. PILOT 1/2-20 UNF-2A THREADS **Optional Accessory:** .88 1-14 MOUNTING NUT 7/16 WRENCH FLATS L0 7379 0102 Foot Bracket 1-14 MOUNTING NUT

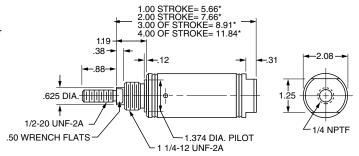
Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT
- 860/749-2215
 Atlanta, GA
 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000

Mounting Style N Single Acting

Spring Return Front Nose Mounting Maximum Stroke 4" * To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.



Optional Accessories: L0 7379 0124 Foot Bracket

L0 7380 1200 Mounting Nut

Mounting Style P

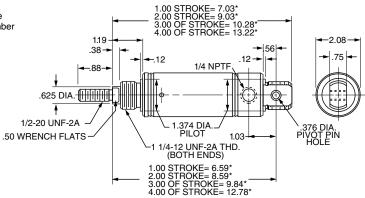
Single Acting

Spring Return

Double End or Rear Pivot Mounting

Maximum Stroke 4"

* To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract a half inch.

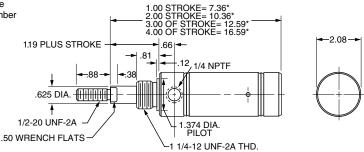


Optional Accessories: L0 7130 0500 Rod Clevis

L0 7132 0500 Pivot Bracket L0 7379 0124 Foot Bracket L0 7380 1200 Mounting Nut

Mounting Style R Single Acting

Spring Extend Front Nose Mounting Maximum Stroke 4" *To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.

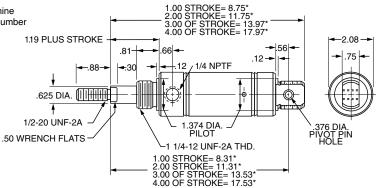


Optional Accessories: L0 7379 0124 Foot Bracket

L0 7380 1200 Mounting Nut

Mounting Style RP Single Acting

Spring Extend Rear Pivot Mounting Maximum Stroke 4" * To determine lengths for half inch stroke increments, determine length for next highest whole number stroke and subtract one inch.



Optional Accessories: L0 7130 0500 Rod Clevis L0 7132 0500 Pivot Bracket

L0 7379 0124 Foot Bracket L0 7379 1200 Mounting Nut

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants Corona. CA

- Corona, CA 909/280-3800
- Enfield, CT 860/749-2215 ■ Atlanta, GA

770/819-3400

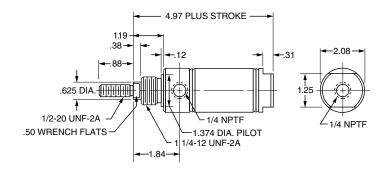
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500 ■ Portland, OR
- Owen Sound, Ont. Can 519/376-2691
 - Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Mounting Style D

Double Acting

Front Nose Mounting Maximum Stroke 12"



Optional Accessories: L0 7379 0124 Foot Bracket

L0 7380 1200 Mounting Nut

Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting Strokes over 12" must be supported at both ends Maximum Stroke 32"

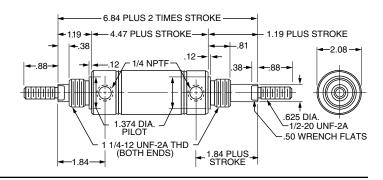
Optional Accessories: L0 7130 0500 Rod Clevis L0 7132 0500 Pivot Bracket L0 7379 0124 Foot Bracket L0 7380 1200 Mounting Nut

Mounting Style KDX

Double Acting

Double End Mounting Double Rod Stainless Steel Rod Standard Maximum Stroke 12"

Optional Accessories: L0 7379 0124 Foot Bracket L0 7380 1200 Mounting Nut



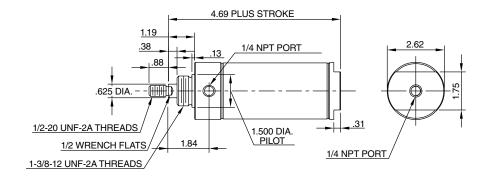
Notes:

- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000

Mounting Style D

Double Acting

Front Nose Mounting Maximum Stroke 12"



Optional Accessories: L0 7139 0132 Foot Bracket L0 7380 1400 Mounting Nut

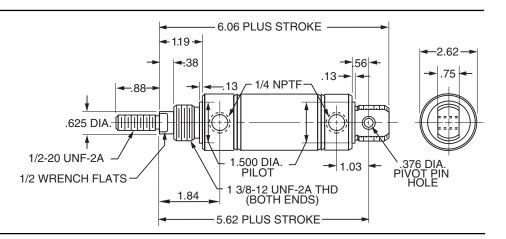
Mounting Style DXP

Double Acting

Double End or Rear Pivot Mounting Strokes over 12" must be supported at both ends Maximum Stroke 32"

Optional Accessories:

L0 7130 0500 Rod Clevis L0 7379 0132 Foot Bracket L0 7132 0500 Pivot Brackets L0 7380 1400 Mounting Nut

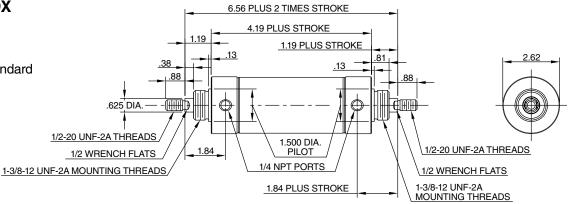


Mounting Style KDX

Double Acting

Double End Mounting Double Rod Stainless Steel Rod Standard Maximum Stroke 12"

Optional Accessories: L0 7379 0132 Foot Bracket L0 7380 1400 Mounting Nut



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT
- 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500 ■ Portland, OR
- Owen Sound, Ont, Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000

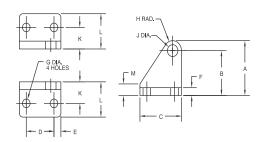


Standard Accessories with Dimensions

	Part	Bore													
Standard Accessories	Number	Used On	Α	В	С	D	Е	F	G	Н	J	K	L	M	N
Piston Rod Clevis A THD.	L07130 0100	9/16	#10-32	.38	.75	.94	.56	.12	#10-32	.19	.19	.38	.56	_	_
Assembly includes pin and (2) Retainer Rings	L07130 0200	3/4	1/4-28	.50	.94	1.19	.68	.16	1/4-28	.25	.25	.50	.69	_	_
and (1) Jam Nut.	L07130 0300	1 ¹ / ₁₆	5/16-24	.50	.94	1.19	.68	.19	5/16-24	.25	.25	.50	.69	_	
	L07130 0400	11/4, 11/2	⁷ / ₁₆ -20	.75	1.31	1.69	.94	.25	⁷ / ₁₆ -20	.38	.38	.75	1.03	_	
ZG NUT ZH DIA. PIN	L07130 0500	13/4, 2, 21/2	1/2-20	.75	1.31	1.69	.94	.31	1/2-20	.38	.38	.75	1.03	_	-
Pivot Brackets MRAD.	L07131 0200	³ /4, 1 ¹ / ₁₆	1.19	.88	1.12	.75	.19	.12	.27	.31	.255	.44	.81	.25	_
G -D-I-E	L07131 0300	11/2	1.75	1.38	1.50	1.00	.25	.12	.27	.38	.380	.62	1.00	.25	_
Pivot Brackets Assembly	L07132 0100	9/16	.76	.56	.75	.50	.12	.06	.19	.19	.156	.34	.91	1.34	.22
includes F DIA.	L07132 0200	³ / ₄ , 1 ¹ / ₁₆	1.18	.88	1.12	.75	.19	.12	.27	.30	.250	.38	1.25	2.00	.38
(2) Retainer GRings.	L07132 0300	1 ¹ / ₄	1.18	.88	1.12	.75	.19	.12	.27	.30	.250	.50	1.38	2.14	.38
NI= L FJ E D C	L07132 0400	11/2, 13/4	1.75	1.38	1.50	1.00	.25	.25	.27	.37	.375	.62	2.00	2.88	.44
5/16" Bore Only	L07132 0500	2, 21/2	1.75	1.38	1.50	1.00	.25	.25	.27	.37	.375	.75	2.12	3.00	.44
Foot Bracket	L07379 0028	9/16	1.38	.62	.38	.19	.50	.38	.44	.94	.09	.56	.12	_	
↓	L07379 0032	3/4	1.62	.75	.44	.19	.62	.41	.50	1.09	.10	.69	.19	_	_
₽ C P	L07379 0040	³ /4, 1 ¹ / ₁₆	1.88	1.00	.56	.27	.75	.56	.63	1.38	.12	.81	.25	_	
E 	L07379 0048	11/4, 11/2	2.50	1.50	.75	.27	.94	.75	.75	1.75	.12	1.00	.38	_	
	L07379 0102	1 ³ / ₄	3.00	1.50	.87	.35	1.12	.91	1.03	2.16	.19	1.25	.50	_	
k + (in the first term) to find the first term to the first term t	L07379 0124	2	3.12	1.62	1.00	.34	1.12	1.00	1.38	2.50	.25	1.50	.62	_	
	L07379 0132	2 ¹ / ₂	3.75	1.62	1.00	.35	1.44	1.25	1.64	3.00	.25	1.75	.75	_	
Mounting Nut	L07380 0500	9/16	.69	.25	⁷ / ₁₆ -20	_	_	_	_	_	_	_	_	_	-
A - B	L07380 0600	3/4	.75	.31	1/2-20	_	_	_	-	_	_	_	_	_	_
	L07380 0800	³ / ₄ , 1 ¹ / ₁₆	.94	.38	5/8-18	_	_	_	1	_		ı		_	
	L07380 0900	11/4, 11/2	1.12	.42	³ / ₄ -16	_	_	_	_	_		_	_	_	
	L07380 1100	1 ³ / ₄	1.50	.55	1-14	_	_	_	_	_	_	_		_	
C UNF-2B	L07380 1200	2	1.88	.50	1 ¹ / ₄ -12	_	_	_	_	_				_	
	L07380 1400	21/2	2.06	.78	1 ³ /8-12	_	_	_	_	_	_	_	_	_	_

Series SSM Trunnion Brackets

Select brackets for Series SSM Trunnion Mount Cylinders from the table below. (Note: Trunnion Brackets are ordered as a separate item from the cylinder.)



Assembly No.	Bore Sizes	Α	В	С	D	E	F	G	н	J	K	L	М
L076600100	7/16"	1.75	1.38	1.50	1	.25	.25	.27	.38	.375	.69	1.12	.37
L076600200	³ / ₄ ", 1 ¹ / ₁₆ ", 1 ¹ / ₂ "	1.75	1.38	1.50	1	.25	.25	.27	.38	.500	.69	1.12	.37

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants

- Corona, CA 909/280-3800
- Enfield, CT 860/749-2215
- Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



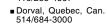
Series SSM Available Mounting Styles

					Bore	Size				Recommended
Model	Description	9/16"	3/4"	1-1/16"	1-1/4"	1-1/2"	1-3/4"	2"▲	2-1/2"	Max. Stroke (in.)
N	Nose mount, spring return	•	•	•	•	•	•	•	_	6"
NR	Nose mount, spring return, hex rod (non-rotating)	•	•	•	•	•	•	_	_	6"
NRP	Pivot and nose mount, spring return, hex rod (non-rotating)	•	•	•	•	•	•	_	_	6"
Р	Pivot mount, spring return	•	•	•	•	•	•	•	_	6"
R	Nose mount, spring extended	•	•	•	•	•	•	•	_	6"
RP	Pivot and nose mount, spring extend	•	•	•	•	•	_	•	_	6"
D	Nose mount, double acting	•	•	•	•	•	•	•	•	12"
DP	Pivot and nose mount, double acting, pivot pin	_	•	•	_	•	_	_	_	12" (under ³ / ₄ " bore) 32" (³ / ₄ " & up)
DXP	Pivot and nose mount, double acting, no pivot pin	•	•	•	•	•	•	•	•	12" (under ³/₄" bore) 32" (³/₄" & up)
DX	Threaded both ends, double acting	See DXP	See DXP	See DXP	See DXP	•	_	See DXP	_	32"
KDX	Threaded both ends, double acting, double rod	•	•	•	•	•	•	•	•	6" (under ³ / ₄ " bore) 12" (³ / ₄ " & up)
KDXH	Threaded both ends, double rod, hollow rod	_	_	•	•	•	•	•	_	12"
BRN	Rear block mount, single acting, spring return	_	•	•	-	•	_	_	_	6"
BRR	Rear block mount, single acting spring extend	_	•	•	_	•	_	_	_	6"
BFD	Front block mount, double acting	_	•	•	_	•	_	_	_	12"
BRD	Rear block mount, double acting	_	•	•	_	•	_	_	_	12"
BFN	Front block mount, single acting spring return	_	•	•	1	•	_	_	-	6"
BFR	Front block mount, single acting spring extend	_	•	•	1	•	_	_	_	6"
TRN	Rear trunnion mount, single acting, spring return	_	•	•	1	•	_	_	-	6"
TRR	Rear trunnion mount, single acting, spring extend	_	•	•	_	•	_	_	_	6"
TFD	Front trunnion mount, double acting	_	•	•	_	•	_	_	_	12"
TRD	Rear trunnion mount, double acting	_	•	•	_	•	_	_	_	12"
TFN	Front trunnion mount, single acting, spring return	_	•	•	_	•	_	_	_	6"
TFR	Front trunnion mount, single acting, spring extend	_	•	•	_	•	_	_	_	6"

[▲] Recommended maximum stroke is 4" in models N, P, R & RP.

For longer stroke lengths - consult factory

[■] Toronto, Ont. Can. 416/255-4567



[■] Atlanta, GA 770/819-3400

[■]Goodland, IN 219/297-3182

[■] Plymouth, MI 734/455-1700

[■] Akron, OH 330/253-4500 ■ Portland, OR 503/285-0884

[■] Owen Sound, Ont. Can 519/376-2691

Bumpers

Bumpers are available at extra cost. Add the following dimensions to the overall cylinder length by bore size.

Bore Size	9/16"	3/4"	11/16"	11/4"	11/2"	13/4"	2"	2 ¹ / ₂ "
Туре								
Spring Return	.062"	.125"	.125"	.125"	.125"	*	.125"	N/A
Spring Extend	.062"	.125"	.125"	.125"	.125"	*	.125"	N/A
Double Acting	.125"	.25"	.25"	.25"	.25"	*	.250"	.250"
K-type	.125"	.312"	.25"	.25"	.25"	*	.250"	.250"

^{*}Bumpers are furnished as standard and do not affect overall length.

Stainless Steel Piston Rods

Corrosion resistant stainless steel is the standard piston rod material for all bore sizes up to and including 1.50 inch bore at no additional cost. The only exception to the stainless steel standard is when a hollow rod, KDXH, option is specified. Stainless steel is also the standard material on block, trunnion, hex/non-rotating and KDX mounts. Stainless steel is available on other sizes for an additional charge.

Rod Wiper

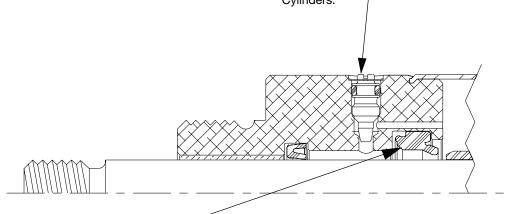
Series SS/SSM cylinders can be fitted with a rod wiper that is specially designed to prevent contaminants from clinging to the piston rod and damaging the piston rod seal. Available in 3/4", 1-1/16", and 1-1/2" bores, the piston rod wiper can be added to the SS/SSM and SSD/SSDM series.

Adjustable Cushion Option

Cushions can be selected on seven bore sizes, ranging from .75" bore to 3.0" bore with mounting styles D, front nose mount, and DXP, rear pivot mount. Adjustable cushions are optional at either end or both ends of Series SS/SSM cylinders.

Cushion Adjusting Needle Valves

The fine-thread cushion needle valves make precise adjustment quick and easy. The needle valve is fully captured to allow for safe cushion adjustment while cylinder is pressurized. The brass needle valves are corrosion resistant. The standard position for needle valve adjustments is position 1, 90° from the port. See port location table for Series SS Cylinders.



Check Seal Cushion

The "Check Seal" system offers excellent cushioning efficiency and long cushion seal life. This seal is specifically designed for cushion applications and has a long proven history in our products. Extensive side by side testing of the check seal in Series SS cylinders significantly outlasted and outperformed competitors' o-ring shaped seals.

The Check Seal's unique geometry exhibits the dynamic sealing capabilities of a lipseal. As the cushion sleeve enters the Check Seal at the end of stroke, the Check Seal blocks the air from exhausting directly through the port and forces

the air through the adjustable needle valve orifice. The exhaust airflow is precisely metered to control the desired rate of deceleration of the cylinder piston.

During stroke reversal, the check valve action of the Check Seal induces a fast out-of-cushion response. The Check Seal floats forward in the retainer groove as the cushion sleeve exits the Cushion Seal, thereby creating a path for maximum air flow around the Check Seal to access the piston face. The quick response of the Check Seal design yields faster cycle times and increased productivity.

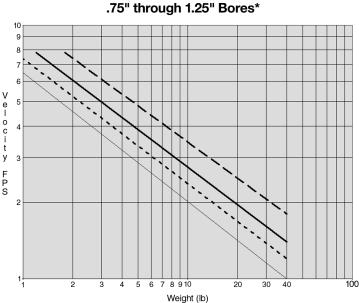
- Enlield, C1 860/749-2215 ■ Atlanta, GA 770/819-3400
- ■Goodland, IN 219/297-3182
- Plymouth, MI 734/455-1700
- Hillsborough, NC 919/732-9371
- Akron, OH 330/253-4500
- Portland, OR 503/285-0884
- Owen Sound, Ont. Can 519/376-2691
- Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



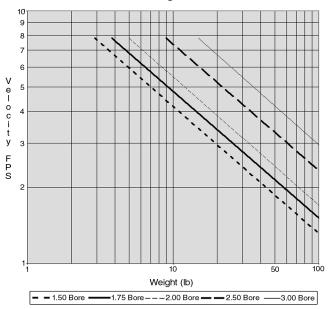
Series SSM Stainless Steel Body Air Cylinders

Use the graphs below to determine whether a cylinder will adequately decelerate a load without damage to the cylinder. Find the point on the graph where the piston

rod speed intersects the weight of the load. Any cylinder bore size above the intersect point will adequately decelerate the load at that speed.



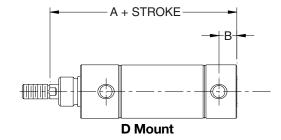
1.50" through 2.50" Bores*



-.75 Bore - -.88 Bore -

Critical Mounting Dimensions for Series SS and SSM Cylinders with Adjustable Cushions

■1.06 Bore ■ ■ 1.25 Bore



In most cases, cylinder mounting dimensions are not affected when cushions are specified. Standard catalog dimensions apply when cushions are specified at either end of a DXP mount and when specified at the head end only of a D mount. The only exception to standard catalog dimensions is when a cushion is specified on the cap end or both ends of a D mount. Please consult Table A for the critical mounting dimensions on D mount SS and SSM cylinders with cushions both ends or cushions cap end only.

Table B shows the cushion lengths for SS and SSM cylinders.

Table A: Critical Mounting Dimensions for D Mount SS and SSM Cylinders with Cushions Both Ends or Cushions Cap End Only.

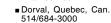
	SS Dimen	sions	SSM Dimer	nsions
Bore Size	A + Stroke	В	A + Stroke	В
.75	3.40	0.28	3.40	.28
1.06	3.49	0.28	3.65	.28
1.25	4.31	0.38	4.34	.38
1.50	4.12	0.31	4.37	.31
1.75	5.25	0.42	5.25	.42
2.00	5.06	0.47	5.34	.47
2.50	5.06	5.06 0.47		.47

Table B: Cushion Lengths for SS and SSM Cylinders.

Bore Size	head	сар
.75	0.750	0.625
1.06	0.750	0.625
1.25	0.750	0.625
1.50	0.750	0.625
1.75	0.875	0.625
2.00	0.875	0.750
2.50	0.875	0.750

Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

[■] Toronto, Ont. Can. 416/255-4567





^{* .88&}quot; & 3.00" Bores not available in SSM Series.

^{909/280-3800} ■ Enfield, CT

^{860/749-2215} ■ Atlanta, GA 770/819-3400

[■]Goodland, IN 219/297-3182

[■] Plymouth, MI 734/455-1700

[■] Hillsborough, NC 919/732-9371

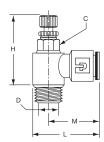
[■] Akron, OH 330/253-4500

[■] Portland, OR

[■] Owen Sound, Ont, Can 519/376-2691

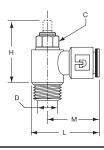
Miniature Exhaust Flow Control

PART NO.	TUBE SIZE	THREAD SIZE	C HEX (MM)	H CLOSED	H OPEN	L	М	FLOW DIA. D
0876300100	5/32	10-32	6	.925	1.023	.846	.669	.080
0876300200	5/32	1/8	7	1.000	1.083	.935	.708	.100
0876300300	1/4	10-32	6	.925	1.023	.885	.708	.080
0876300400	1/4	1/8	7	1.000	1.083	.957	.730	.100
0876300500	1/4	1/4	8	1.083	1.180	1.013	.748	.160



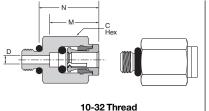
Knobless Miniature Exhaust Flow Control

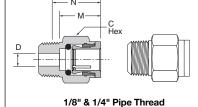
PART NO.	TUBE SIZE	THREAD SIZE	C HEX (MM)	H CLOSED	H OPEN	L	М	FLOW DIA. D
0876310100	5/32	10-32	6	.650	.787	.846	.669	.080
0876310200	1/4	1/8	7	.708	.860	.956	.730	.100
0876310300	1/4	1/4	8	.826	.964	1.013	.748	.160



Microlok male connector

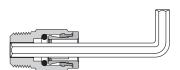
PART NO.	TUBE SIZE	PIPE THREAD	C HEX	ASSM. HT. N	М	FLOW DIA. D
0876280100	1/8	1/8	7/16	.48	.49	.090
0876280200	1/8	10-32	3/8	.57	.49	.080
0876280300	5/32	1/8	7/16	.33	.49	.110
0876280400	5/32	10-32	7/16	.57	.49	.080
0876280500	1/4	1/8	1/2	.57	.52	.160
0876280600	1/4	1/4	5/8	.46	.52	.160
0876280700	1/4	10-32	7/16	.58	.49	.080



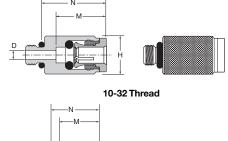


Microlok round body male connector

PART NO.	TUBE SIZE	PIPE THREAD	BODY DIA. H	INTERNAL HEX	ASSM. HT. N	М	FLOW DIA. D
0876290100	1/8	10-32	.34	-	.57	.49	.08
0876290200	5/32	1/8	.43	1/8	.56	.49	.13
0876290300	5/32	10-32	.38	-	.57	.49	.08
0876290400	1/4	1/8	.47	3/16	.59	.52	.19
0876290500	1/4	1/4	.59	3/16	.51	.52	.19
0876290600	1/4	10-32	.47	-	.58	.52	.08



5/32" and larger straight Microlok round body Male Connectors with Pipe Threads have an internal hex for the use of an Allen Key to allow the fitting to be mounted in any position. This also permits close porting not possible with a standard wrench.

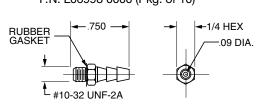


1/8" & 1/4" Pipe Thread

#10-32 to 1/8-27 Port Adapter P.N. 1442840000 — RUBBER → O-RING SEAL 7/16 HEX 1/8 NPT :09 DIA. .250--.750

NOTE: Due to insufficient port depth, port adapter fitting cannot be used for head end ports of 9/16" bore cylinders. Use barbed fitting.

1/4" O.D. Hose Barbed Fittings P.N. L06998 0000 (Pkg. of 10)



Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

Regional Plants ■ Corona, CA 909/280-3800

- Enfield, CT 860/749-2215 ■ Atlanta, GA 770/819-3400
- Plymouth, MI 734/455-1700
- ■Goodland, IN 219/297-3182 ■ Hillsborough, NC 919/732-9371
 - Akron, OH 330/253-4500
 - Portland, OR 503/285-0884
- Owen Sound Ont Can 519/376-2691
- ■Toronto, Ont. Can. 416/255-4567
- Dorval, Quebec, Can. 514/684-3000



Series SSM Stainless Steel Body Air Cylinders

How To Order Series SSM Air Cylinders

Each Series "SSM" cylinder can be specified by using the symbols in the chart below to develop a model number. Select only those symbols that represent the cylinder features desired, and place them in sequence indicated by the example at the top of the chart. Switches and clamps must be ordered separately.

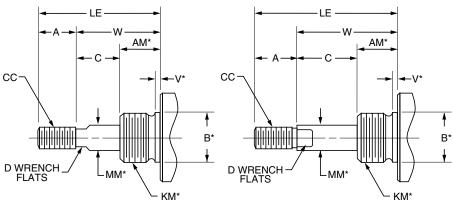
E X A M	Bore Size	Cushion Head	Double Rod	Mounting Style	Series	Piston	Seals	Special	Non-Standard Rod	Non-Standard Rod Dim.	Cushion Cap	Stroke
Ĺ	1.06	С	K	D	SSM	В	w	S	Y	3	С	2.00
	Specify: .56-9/16 .75-3/4" 1.06-11/16" 1.25-11/4" 1.50-11/2" 1.75-13/4" 2.00-2" 2.50-21/2"	When cushion head is required.	Available on DX and DXH only.	Specify: N, NR, NRP, P, R, RP, D, DP, DXP, DX, DXH, A, RA, AP, AR, BRN, BRR, BFD, BRD, BFN, BFR, TRN, TRR, TFD, TRD, TFN or TFR.	All	Bumpers	Specify: W only when rod wiper required.	Use only if special modifica- tions are required, except piston rod end.	Specify Y for stainless steel piston rod. Stainless steel is standard on all bore sizes up to and including 1.50" Bore.	Use only for special piston rod end. Specify CC, LE and A Dimensions (See below).	When cushion cap is required.	Specify in inches.

Non-Standard Rods

For non-standard rod dimensions, or undersized rod end threads, put a "3" in model number and describe the rod using the letters shown in drawing. Specify CC, LE and A dimensions.

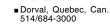
Full Diameter Rod End Threads

d Threads Undersized Rod End Threads



*Requires an S designation in model number.

[■] Toronto, Ont. Can. 416/255-4567





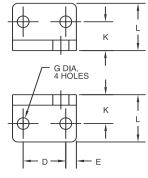
[■] Hillsborough, NC 919/732-9371

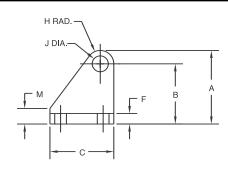
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Series SSM Trunnion Brackets

Select brackets for Series SSM Trunnion Mount Cylinders from the table below. (Note: Trunnion Brackets are ordered as a separate item from the cylinder.)

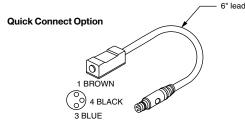




Assembly No.	Bore Sizes	Α	В	С	D	Е	F	G	Н	J	K	L	М
L076600200	³ / ₄ ", 1 ¹ / ₁₆ ", 1 ¹ / ₂ "	1.75	1.38	1.50	1	.25	.25	.27	.38	.500	.69	1.12	.37

Magnet Actuated Switches with Quick Connect

The standard lead wire length for magnet actuated switches is 39" (1 meter). Switches are also offered with a 6 (six) inch lead with a male quick connect option. Shown below is the switch for Series SSM cylinders.



Switches with 6" leads and male "quick-connect" end

Series	Reed	NPN Sinking	PNP Sourcing	
SSM	145903000C*	146714000C*	146715000C*	

* Stainless steel worm gear type clamps must be ordered separately.

Bore Size	Clamp Assembly	Bore Size	Clamp Assembly
9/16"	L073400050	11/2"	L073400200
3/4"	L073400075	13/4", 2"	L073400300
1 1/ ₁₆ "	L073400100	21/2"	L073400600
1 ¹ / ₄ "	L073400100	_	_

Cordset with Female Quick Connect

A female connector is available for all switches with the male quick connect option. The male plug will accept a snap-on or threaded connector. Cordset part numbers and other manufacturer's part numbers are listed below:

Cable Length	Threaded Connector	Snap-On Connector
5 meters	086620T005	086620S005
2 meters	086620T002	086620S002

Cordset Specifications:

Connector: Oil resistant polyurethane body material,

PA 6 (Nylon) contact carrier, spacings to VDE 0110 Group C, (150 VAC / DC)

Contacts: Gold plated beryllium copper, machined

from solid stock

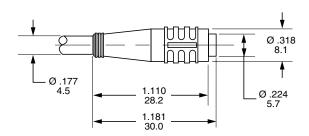
Coupling Method: Snap-Lock or chrome plated brass nut Cord Construction: Oil resistant black PUR jacket, non-wicking,

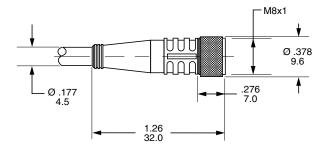
non-hygroscopic, 300V. Cable end is

stripped and tinned.

Conductors: Extra high flex stranding, PVC insulation

Temperature: -40° to 185°F (-40° to 85°C)
Protection: NEMA 1, 3, 4, 6P and IEC IP67
Cable Length: 6.56 ft (2m) or 16.4 ft (5m)





Cylinder Division 500 So. Wolf Road Des Plaines, IL 60016 847/298-2400

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Introducing the NEW

Series SSD/SSDM Cylinders for **Corrosive Environments**

We are pleased to announce two new additions to the SS/SSM product line for use when extra protection from the ambient environment is required.

Series SSD/SSDM

Series SSD/SSDM cylinders are offered in five bore sizes - (9/16", 3/4", 1-1/16", 1-1/2" and 2"), with or without the magnet for piston position sensing. They are designed to withstand a wide range of operating environments. To tolerate moisture and many types of lubricants and solvents*, the Series SSD/SSDM air cylinder has, as standard, a Delrin® (acetal resin) head and cap, an anodized aluminum piston, stainless steel cylinder tube

and stainless steel piston rod. With available stainless steel accessories, the SSD/SSDM cylinder is ideal for special applications where corrosion can be a problem. This product has a 100 PSI pressure rating and is intended for service between 32°F and 160°F. (See reverse for ordering instructions.)

Delrin® is a registered trademark of Dupont. *For detailed information regarding the properties of Delrin® call Dupont (800-441-0573).





Series SSD/SSDM Stainless Steel Body Air Cylinders

How To Order Series SSD/SSDM Air Cylinders

Cylinders can be specified by using the symbols in the chart below to develop a model number. Select only those symbols that represent the cylinder features desired, and place them in sequence indicated by the example at the top of the chart. For complete specifications, dimensions, and ordering information consult catalog.

Note: Stainless steel piston rods are standard on Series SSD/SSDM cylinders. Do not specify in model number.

E X A M P	Bore Size	Double Rod*	Mounting Style	Series	Piston	Seals	Special	Non-Standard Rod Dim.	Stroke
F	1.06	K *	D	SSD	В	v	s	3	2.00
	Specify: .56-9/16" .75-3/4" 1.06-1 1/16" 1.50-1 1/2" 2.00-2"	Available on DX only.	Specify: D, DXP	Specify SSD or SSDM for magnetic version.	Bumper	Specify:V when Fluorocarbon seals are required. Not available on SSDM.Specify: W when rod wiper is required. (Fluorocarbon seals not available with rod wiper option.)	Use only if special modifica- tions are required, except piston rod end.	Use only for special piston rod end. Specify CC, LE and A dimensions	Specify in inches.

^{*}Pistons for all KDX Mounts are brass except for 1.06", 1.50" SSDM without bumpers and all 2.00" bores.

Stainless Steel Accessories

Rod Clevis	Bore Size	Part Number
	9/16	L077130100
1	3/4	L077130200
	1-1/16	L077130300
A F	1-1/2	L077130400
B F	2	L077130500

Pivot Bracket Assy.		Bore Size	Part Number
	4	9/16	L077150100
₩	1921	3/4, 1-1/16	L077150200
حيا اليم	ļ.,	1-1/2	L077150400
	4,	2	L077150500

Foot Mount	Bore Size	Part Number
	9/16	L077160028
	3/4, 1-1/16	L077160040
	1-1/2	L077160048
/ Ψ\	2	L077160124

Mounting Nut	Bore Size	Part Number
A 0	9/16	L077170500
	3/4, 1-1/16	L077170800
	1-1/2	L077170900
	2	L077171200

■ Dorval, Quebec, Can. 514/684-3000

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[■]Goodland, IN 219/297-3182

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[■] Hillsborough, NC 919/732-9371

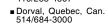
[■] Akron, OH 330/253-4500

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[■] Toronto, Ont. Can. 416/255-4567





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Series SS/SSM Stainless Steel Body Air Cylinders

Offer of Sale

The items described in this document and other documents or descriptions provided by the Company, its subsidiaries and its authorized distributors are hereby offered for sale at prices to be established by the Company, its subsidiaries and its authorized distributors. This offer and its acceptance by any customer ("Buyer") shall be governed by all of the following Terms and Conditions. Buyer's order for any such item, when communicated to the Company, its subsidiary or an authorized distributor ("Seller") verbally or in writing, shall constitute acceptance of this offer.

- 1. Terms and Conditions of Sale: All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein. Buyer's acceptance of any offer to sell is limited to these terms and conditions. Any terms or conditions in addition to, or inconsistent with those stated herein, proposed by Buyer in any acceptance of an offer by Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the contract between Buyer and Seller unless expressly accepted in writing by Seller. Seller's acceptance of any offer to purchase by Buyer is expressly conditional upon Buyer's assent to all the terms and conditions stated herein, including any terms in addition to, or inconsistent with those contained in Buyer's offer. Acceptance of Seller's products shall in all events constitute such assent.
- 2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.
- 3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.
- 4. Warranty: Seller warrants that the items sold hereunder shall be free from defects in material or workmanship for a period of 18 months from date of shipment from the Company. THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED.

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- 6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.
- 7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.
- 8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer, or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.
- 9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.
- 10. Indemnity for Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. patents, U.S. tradedress, copyrights, trade dress and trade secrets (hereinafter "Intellectual Property Rights"). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

- 11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter 'Events of Force Majeure'). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.
- 12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

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