



Self-Priming PETROLEUM PUMPS

Pumps for Every Petroleum Handling Application



Gorman-Rupp manufactures a full line of self-priming centrifugal pumps especially designed for pumping clean, non-abrasive petroleum products.

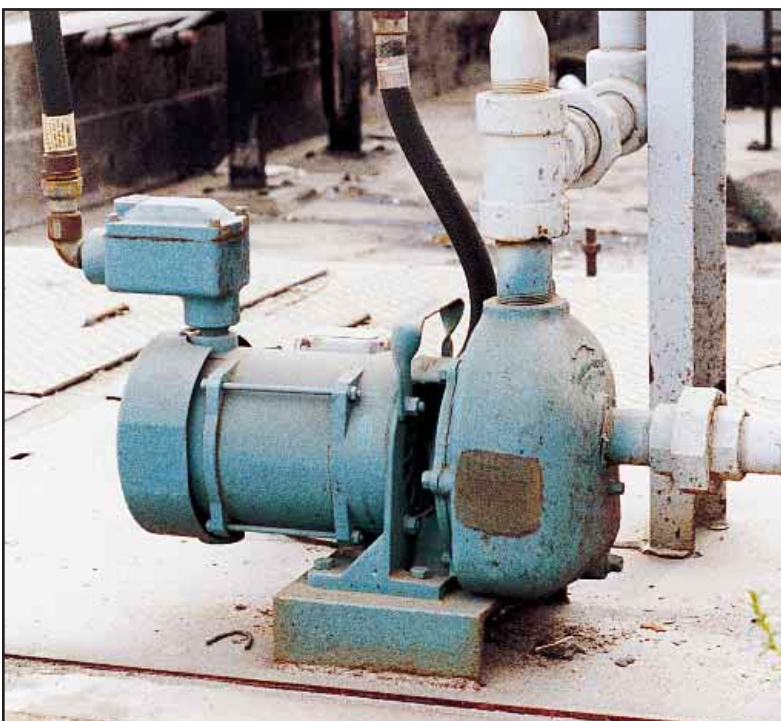
Bulk plants, tank farms, barges, tank cars or trucks, aircraft fuels, gasoline, fuel oil, petrochemicals and hundreds of other petroleum-based products can be handled safely and efficiently with a Gorman-Rupp pump.

Gorman-Rupp O Series and 80 Series self-priming centrifugal pumps have a straight-in suction design which minimizes entrance restrictions and provides better suction performance. Or choose the Gorman-Rupp exclusive Roto-Prime design. These pumps incorporate a variable capacity vane pump which automatically evacuates air and vapor.

Gorman-Rupp Shield-A-Spark pumps are engine-driven pumps specifically designed for safely handling flammable liquids. Self-priming centrifugal power take-off pumps are ideal for handling aircraft fuels, fuel oil, gasoline and other petroleum derivatives.

The Gorman-Rupp Unit 608 Tankleenor provides quick, efficient, economical cleaning of below-ground storage tanks.

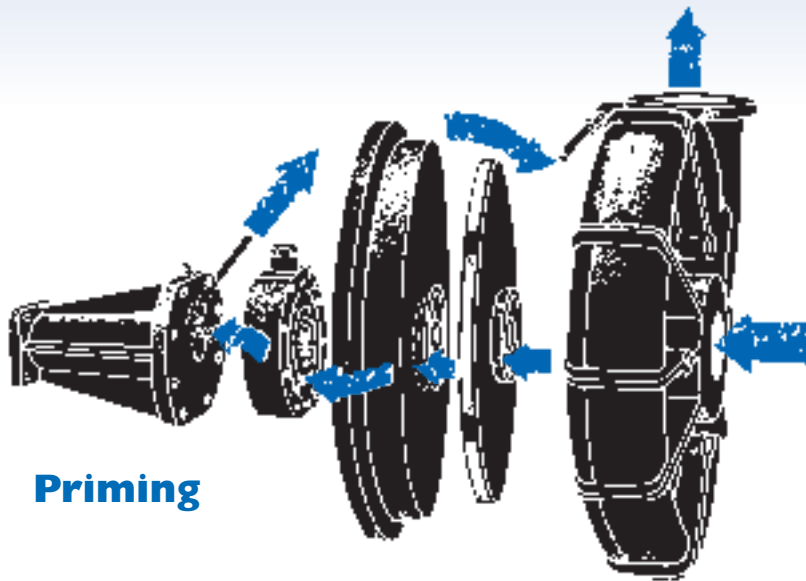
The finest in self-priming centrifugal pumps for petroleum service can be specified in a single word, Gorman-Rupp.



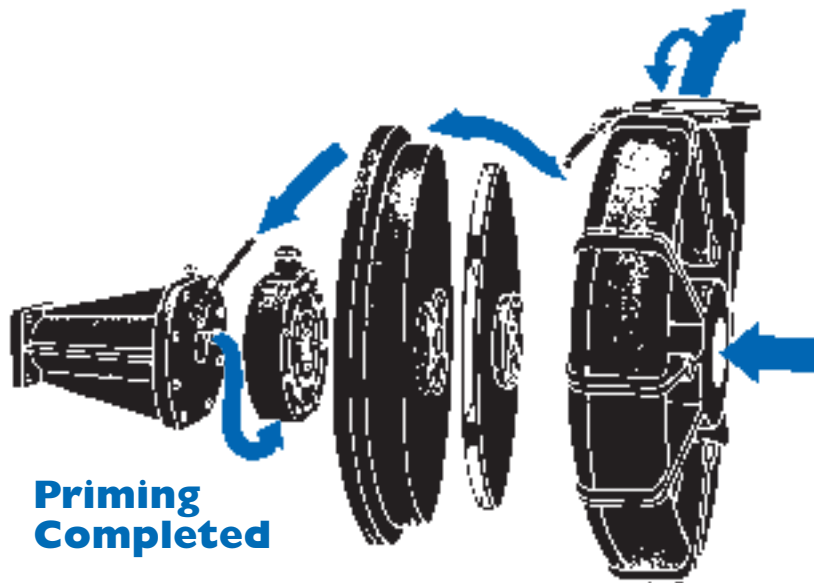
ROTO-PRIME Self-Priming Centrifugal Pumps

Roto-Prime self-priming centrifugal pumps are specifically designed for pumping petroleum products, related derivatives, petrochemicals and solvents. They are available as straight centrifugals or with the exclusive Roto-Prime design. The Roto-Prime design incorporates a variable capacity vane pump which quickly and automatically evacuates air and vapor, making them ideal for off loading transports and stripping hoses.

Pumps have rugged ductile iron or cast steel housings, heavy-duty 1045 steel or 416 stainless steel shafts, Viton®/Fluoroelastomer-fitted or Type 9 Teflon-fitted mechanical shaft seals and balanced aluminum impellers. Bronze impeller optional.



Priming



Priming Completed

ROTO-PRIME provides automatic, positive pumping.

Whenver air or vapor is present at the start of the pumping operation — or when there is loss of suction because of air or vapor during pumping — the priming pump automatically moves air and vapor from the suction line to discharge line. Once the flowing liquid from the centrifugal portion of the pump builds up sufficient pressure in the discharge system, this pressure backs up through a tube to act on the bottom of the priming pump's movable slide block, placing it in a neutral position. Under these conditions the priming pump no longer evacuates air but merely circulates a small amount of liquid.



ROTO-PRIME Self-Priming Centrifugal Pumps



Full Priming — With air or vapor in the lines, pressure of the spring on top of the movable slide holds the priming pump in full pumping position.



Partial Priming — As the pump evacuates air and vapor from the lines, liquid pressure builds up on the underside of this slide, moving it upward toward neutral.



Neutral — When all air and vapor are removed, liquid pressure equalizes spring pressure and the pump automatically slides into neutral...where it remains until air and vapor again appear in the system.

Roto-Prime pumps are actually two pumps in one. The small powerful vane-type pump within the main centrifugal housing can prime an absolutely dry 4-inch (102 mm) line with zero back pressure in approximately two seconds per foot without initial manual priming. And, this priming pump will evacuate suction lines against back pressures up to 8 pounds per square inch.



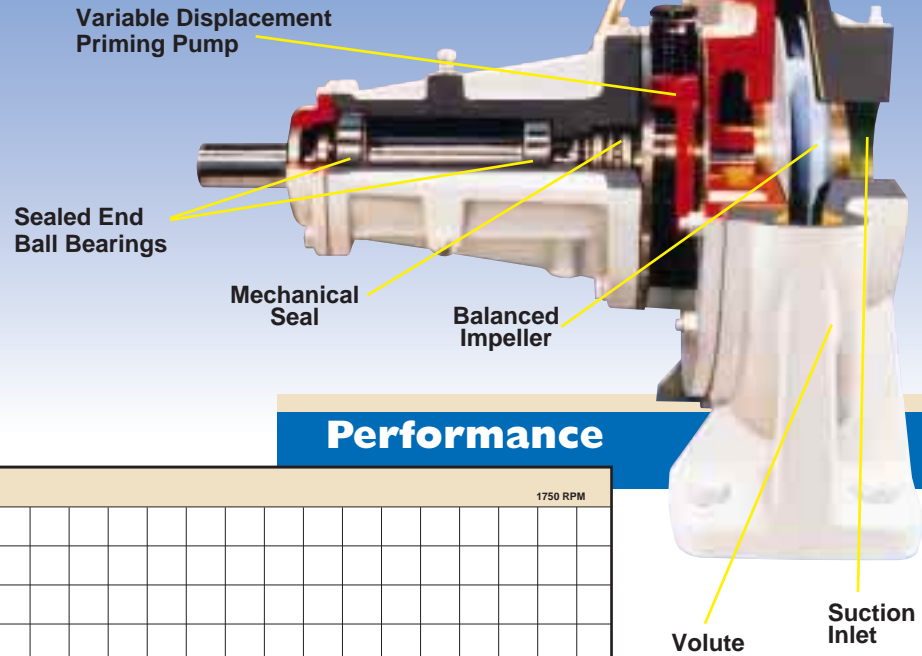
Optional Air Release

The GRP33-06 air release evacuates air in the discharge line to ensure positive self priming even when pumping against moderate to high static heads.

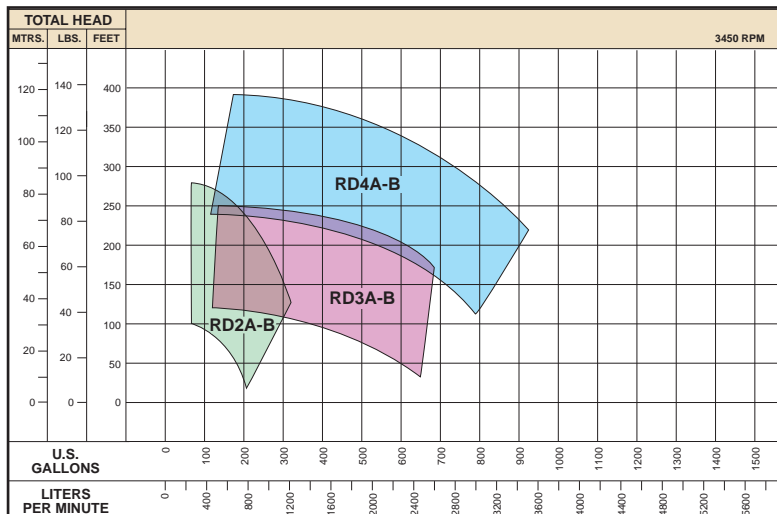
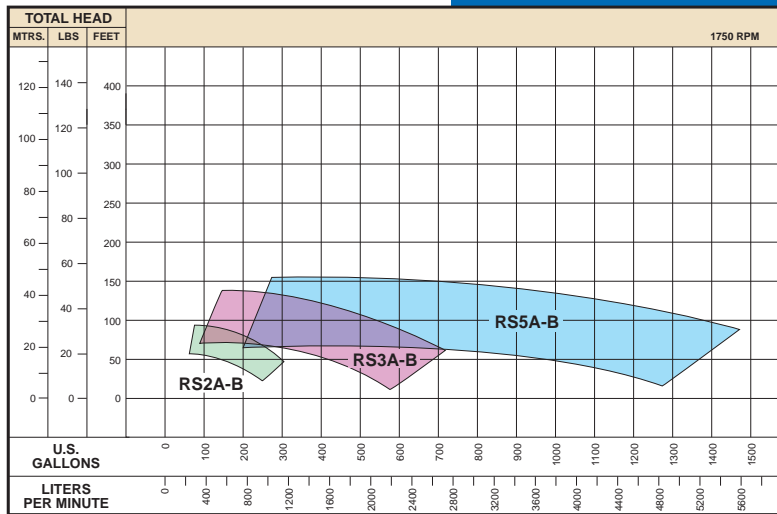
Optional Accessories

Stainless steel pump shafts, bronze impellers, companion flanges and swing check valves.

ROTO-PRIME Self-Priming Centrifugal Pumps



Performance



Specifications

Roto-Prime Model	Straight Centrifugal Model	Size	Seal Elastomer	Materials of Construction		RPM
				Volute	Impeller	
RD2A-B	62F-B	3" x 2" (75 mm x 50 mm)	Viton®	Ductile Iron/Cast Steel	Aluminum	3450
RS2A-B	62E-B	3" x 2" (75 mm x 50 mm)	Viton®	Ductile Iron/Cast Steel	Aluminum	1750
RD3A-B	63E-B	4" x 3" (100 mm x 75 mm)	Viton®	Ductile Iron/Cast Steel	Aluminum	3450
RS3A-B	63D-B	4" x 3" (100 mm x 75 mm)	Viton®	Ductile Iron/Cast Steel	Aluminum	1750
RD4A-B	64K-B	6" x 4" (150 mm x 100 mm)	Viton®	Ductile Iron/Cast Steel	Aluminum	3450
RS5A-B	65A-B	6" x 5" (150 mm x 125 mm)	Viton®	Ductile Iron/Cast Steel	Aluminum	1750

Self-Priming Centrifugal O SERIES Pumps



Gorman-Rupp O Series Self-Priming Centrifugal Pumps have a straight-in suction design which eliminates entrance restrictions and provides better performance when handling petroleum products, solvents and similar liquids.

A high-efficiency, balanced, enclosed multi-vane impeller provides peak performance to handle a wide range of petroleum products. Because these pumps have few moving parts, maintenance and service requirements are minimal.

O Series pumps are available pedestal mounted for flexible coupling to a power source or close-coupled to electric motors. Power take-off models are also available.

Pumps range in size from 2" to 6" (50 mm to 150 mm), capacities to 1350 gpm (85 lps), heads to 400 feet (122 m).



Adaptability

O Series pumps are available pedestal mounted for flexible coupling to a power source. Sturdy pedestal has heavy-duty shaft and ball bearings. Some models available close-coupled to electric motors. Power take-off models incorporate pump gear increaser with helical gears.

Long-Life Seals

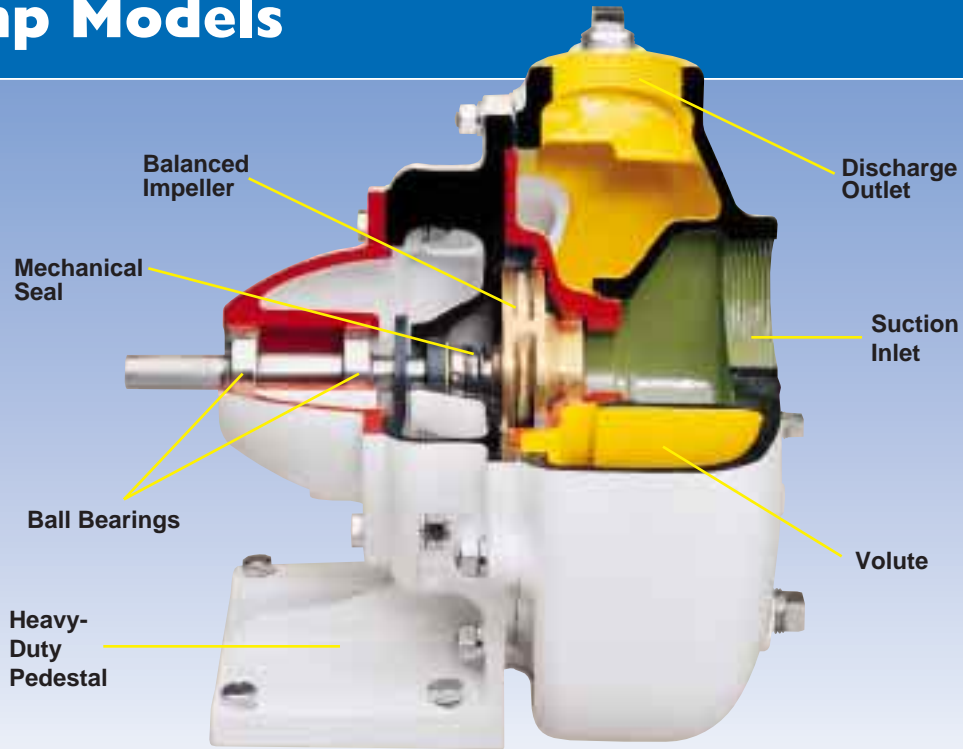
O Series pumps are available with self-lubricated mechanical shaft seals for dependability and long life. Viton®/Fluoroelastomers are standard. Teflon and double seals available on some models. Consult factory for special applications.



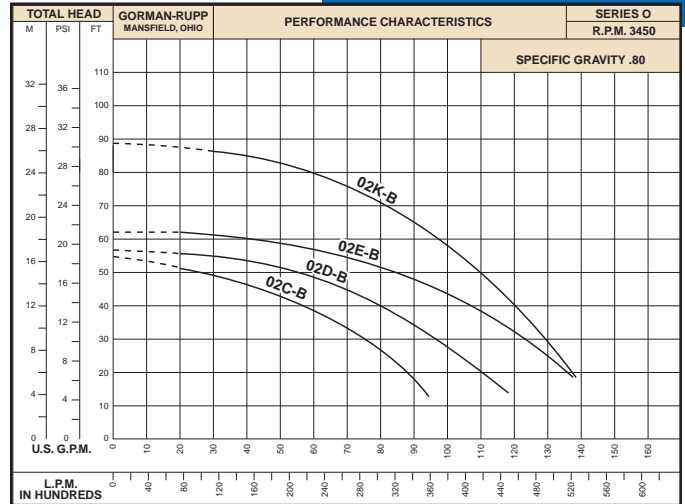
High-Efficiency Impeller

High-efficiency closed impeller. Brass or aluminum construction standard. Other metals available for special applications.

O SERIES 2" Pump Models



Performance



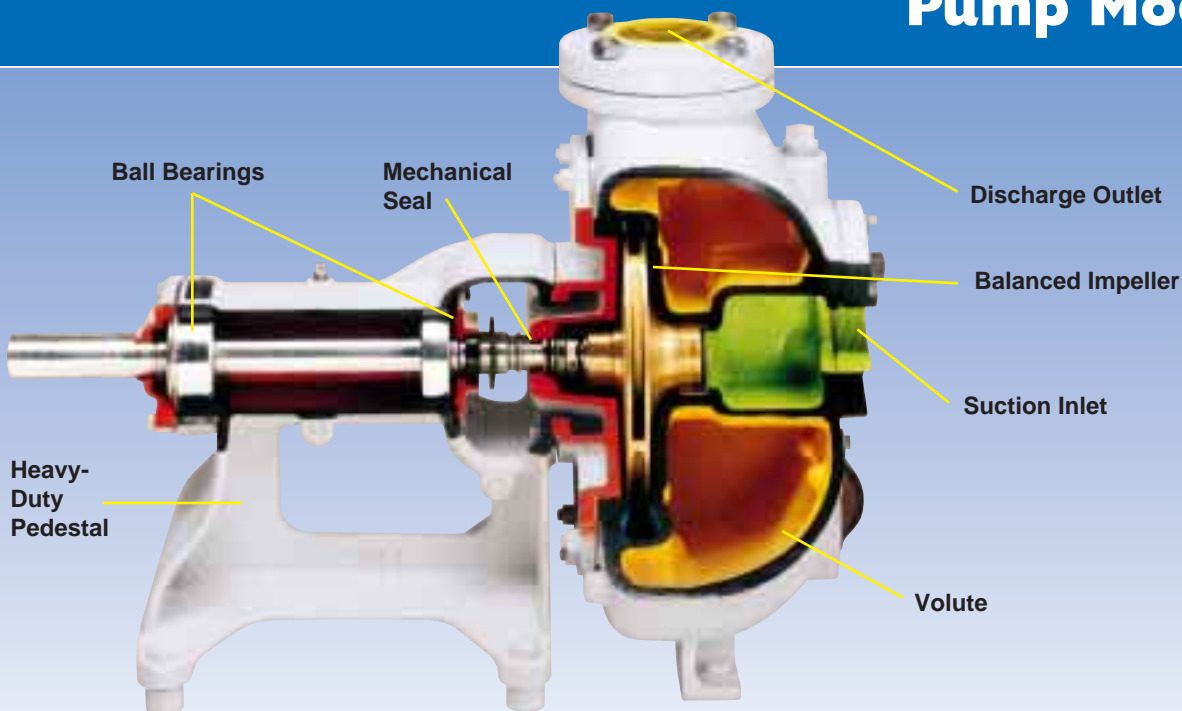
Specifications

Model	Size	Seal Elastomer	Materials of Construction			Max. RPM
			Volute	Impeller	Vane Plate	
02C3-B	2" (50 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450
02D3-B	2" (50 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450
02E3-B	2" (50 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450
02K3-B	2" (50 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450

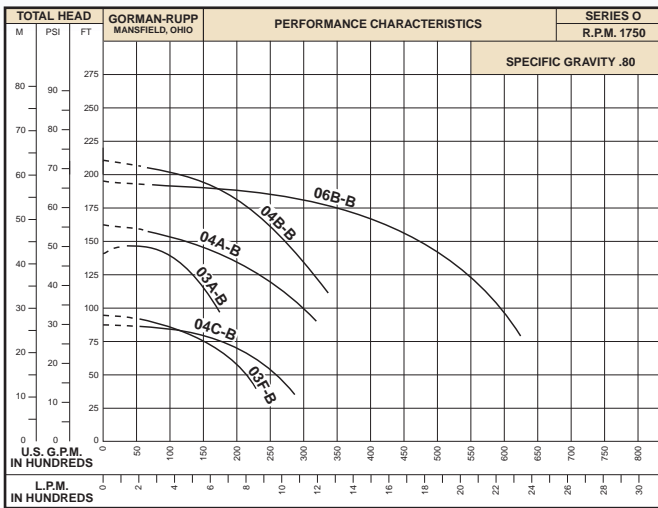
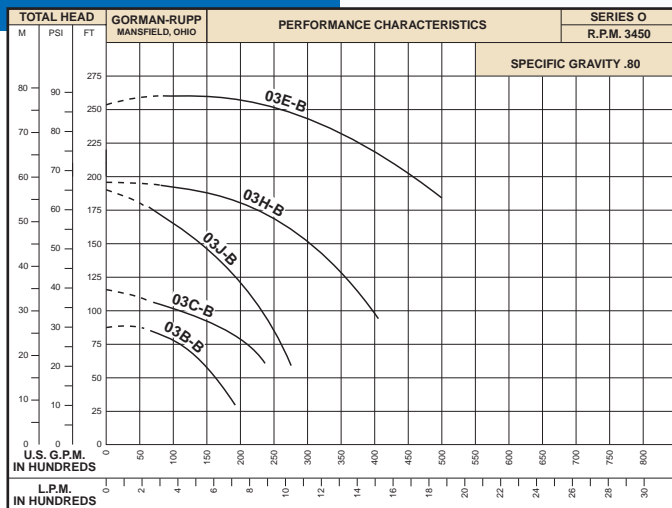
Available - Gray iron, brass fitted; ductile iron, brass fitted; all iron.



O SERIES 3", 4" and 6" Pump Models



Performance



Specifications



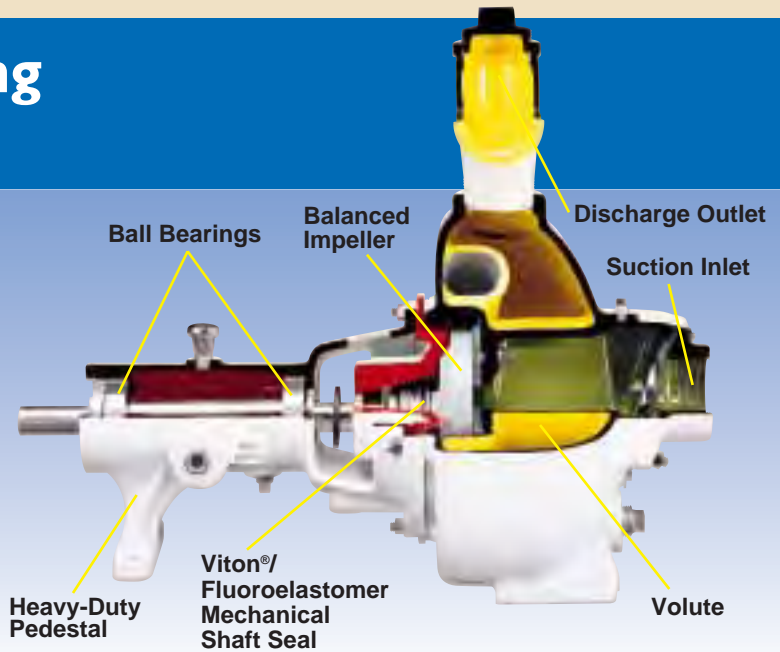
Model	Size	Seal Elastomer	Materials of Construction			RPM
			Volute	Impeller	Wear Ring	
O3A3-B	3" (75 mm)	Viton®	Gray Iron	Brass	Brass	1750
O3B31-B	3" (75 mm)	Viton®	Ductile Iron	Brass	—	3450
O3C31-B	3" (75 mm)	Viton®	Ductile Iron	Brass	—	3450
O3E1-B	3" (75 mm)	Viton®	Aluminum	Aluminum	Gray Iron	3450
O3F3-B	3" (75 mm)	Viton®	Gray Iron	Brass	Gray Iron	1750
O3H1-B	3" (75 mm)	Viton®	Aluminum	Aluminum	Brass	3450
O3J1-B	3" (75 mm)	Viton®	Aluminum	Aluminum	Brass	3450
O4A3-B	4" (100 mm)	Viton®	Gray Iron	Brass	Gray Iron	1750
O4B3-B	4" (100 mm)	Viton®	Gray Iron	Brass	Gray Iron	1750
O4C3-B	4" (100 mm)	Viton®	Gray Iron	Brass	Gray Iron	1750
O6B3-B	6" (150 mm)	Viton®	Gray Iron	Brass	Gray Iron	1750

Heavy-Duty Self-Priming 80 SERIES Pumps

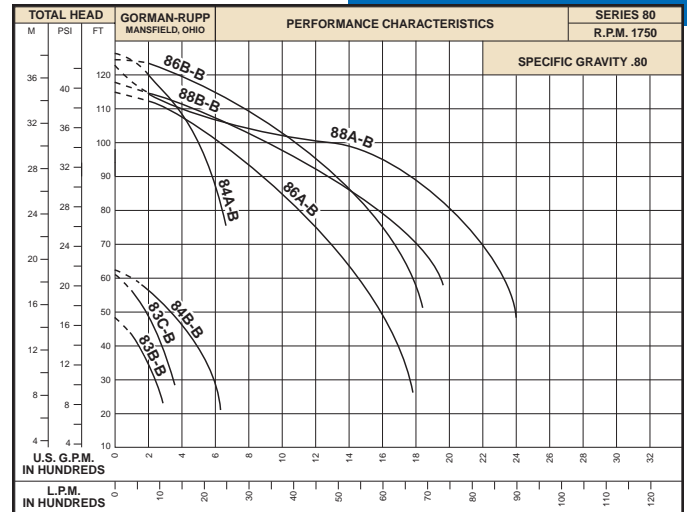
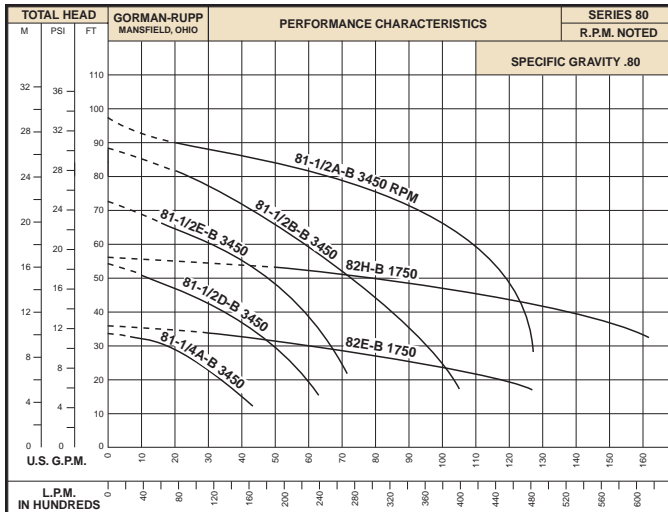
Gorman-Rupp 80 Series pumps are designed for non-stop workloads. The straight-in suction design of these high-efficiency pumps guarantees quick, positive self-priming and allows them to operate at higher suction levels than most other self-priming centrifugal pumps.

Liquid enters directly into the impeller eye. A suction check valve prevents in-line return flow when the pump is shut off. And, because 80 Series pumps have few moving parts, maintenance is minimal. 80 Series pumps are available with self-lubricated mechanical shaft seals.

Pumps are available in gray iron and other special metals. Sizes from 1-1/4" to 8" (30 mm to 200 mm), capacities to 2100 gpm (133 lps), heads to 210 feet (64 m).



Performance

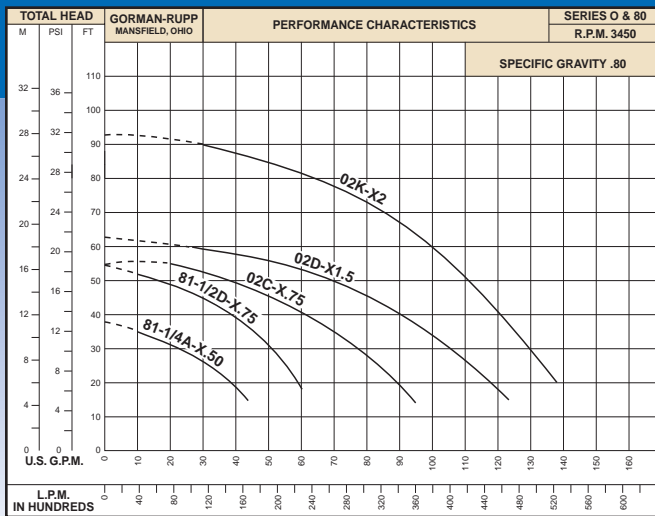


Specifications

Model	Size	Seal Elastomer	Materials of Construction			Max. RPM
			Volute	Impeller	Wearplate	
81-1/4A3-B	1-1/4" (30 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3600
81-1/2A3-B	1-1/2" (40 mm)	Viton®	Gray Iron	Gray Iron	Steel	3450
81-1/2B3-B	1-1/2" (40 mm)	Viton®	Gray Iron	Gray Iron	Steel	3450
81-1/2E3-B	1-1/2" (40 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450
81-1/2D3-B	1-1/2" (40 mm)	Viton®	Gray Iron	Bronze	Steel	3600
82E3-B	2" (50 mm)	Viton®	Gray Iron	Gray Iron	Steel	3450
82H3-B	2" (50 mm)	Viton®	Gray Iron	Gray Iron	Steel	3450
83A3-B	3" (75 mm)	Viton®	Gray Iron	Gray Iron	Steel	3450
83B3-B	3" (75 mm)	Viton®	Gray Iron	Gray Iron	Steel	3450
83C3-B	3" (75 mm)	Viton®	Gray Iron	Gray Iron	Steel	1750
84A3-B	4" (100 mm)	Viton®	Gray Iron	Gray Iron	Steel	1750
84B3-B	4" (100 mm)	Viton®	Gray Iron	Gray Iron	Steel	1750
86A3-B	6" (150 mm)	Viton®	Gray Iron	Gray Iron	Gray Iron	1750
86B3-B	6" (150 mm)	Viton®	Gray Iron	Gray Iron	Gray Iron	1750
88A3-B	8" (200 mm)	Viton®	Gray Iron	Gray Iron	Gray Iron	1750
88B3-B	8" (200 mm)	Viton®	Gray Iron	Gray Iron	Gray Iron	1750



Performance



O & 80 SERIES Close-Coupled

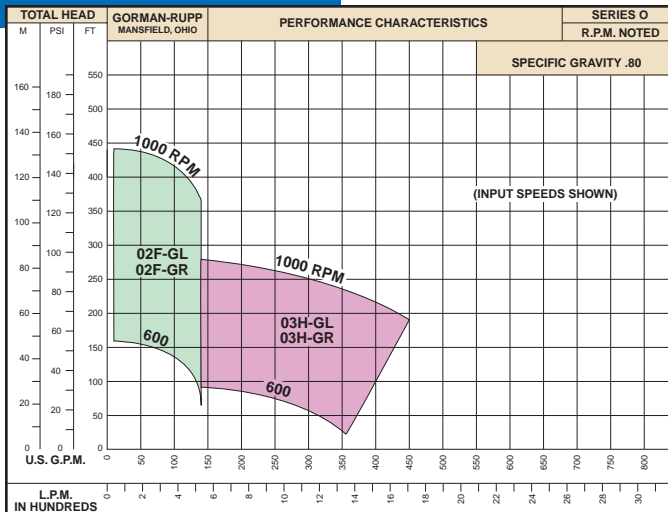


Close-coupled electric motor driven pumps are available for installations where space is limited. Motors are explosion-proof.

Specifications

Model	Size	Seal Elastomer	Materials of Construction			RPM
			Volute	Impeller	Vane Plate	
81-1/4A3-X.50	1-1/4" (30 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450
81-1/2D3-X.75	1-1/2" (40 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450
02C3-X.75	2" (50 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450
02D3-X1.5	2" (50 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450
02K3-X2	2" (50 mm)	Viton®	Gray Iron	Bronze	Gray Iron	3450

Performance



Power Take-Off Pumps



Gorman-Rupp self-priming centrifugal PTO pumps are ideal for handling aircraft fuels, fuel oil, gasoline and other petroleum derivatives. These pumps have no check valve and provide better suction performance when handling solvents, petroleum products and similar liquids.

Pump volute and impeller are lightweight aluminum. Replaceable wear ring is bronze. Helical gears provide quiet operation. Available with left or right hand rotation. Designed for truck mounting.

Pumps range in size from 2" to 3" (50 mm to 75 mm), capacities to 400 gpm (25 lps), heads to 450 feet (137 m). Larger sizes for aircraft refueling applications are available. Please consult factory for specific applications.

Specifications

Model	Size	Rotation Facing Pump Input Shaft	Materials of Construction		
			Volute	Impeller	Wear Ring
O2F1-GL	2" (50 mm)	CCW	Alum.	Alum.	Brass
O2F1-GR	2" (50 mm)	CW	Alum.	Alum.	Brass
O3H1-GL	3" (75 mm)	CCW	Alum.	Alum.	Brass
O3H1-GR	3" (75 mm)	CW	Alum.	Alum.	Brass

SHIELD-A-SPARK Flammable Liquids Pumps



**Gasoline
Engine
Driven
Pump**

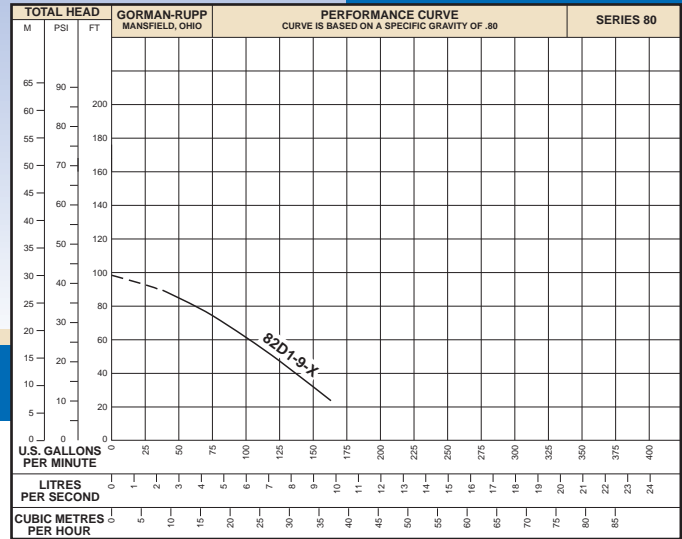
Gorman-Rupp Shield-A-Spark self-priming centrifugal pumps are the safest approach to handling flammable liquids with an engine driven pump.

Pump volute and intermediate are constructed of lightweight aluminum. Steel wear plates are replaceable. Mechanical shaft seals have carbon and Ni-resist wearing surfaces. Elastomers are Viton®.

Gasoline engine unit features dependable, rugged military or aircraft type spark plug which is radio suppressed and prevents spark gap jumping. Shielded ignition wire provides enclosed path for high tension spark. Sealed toggle ignition switch is safe, spark free. Spark-arresting muffler is designed to retard both spark and flame.

Pump features 2" (50 mm) discharge size, capacity to 160 gpm (10 lps), heads to 90 feet (27 m).

Performance



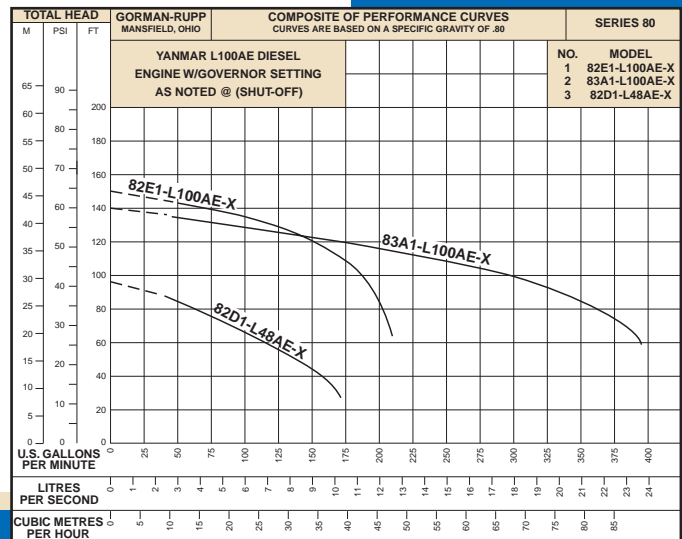
Specifications

Model	Size	Seal Elastomer	Materials of Construction			RPM
			Volute	Impeller	Wear Ring	
82D1-9-X	2" (50 mm)	Viton®	Aluminum	Aluminum	Steel	3600

**Diesel
Engine
Driven
Pumps**



Performance



Specifications

Model	Size	Mechanical Seal	Materials of Construction			RPM
			Volute	Impeller	Wear Ring	
82E1-L100AE-X	2" (50 mm)	Viton®	Aluminum	Aluminum	Steel	3400
83A1-L100AE-X	3" (75 mm)	Viton®	Aluminum	Aluminum	Steel	3000
82D1-L48AE-X	2" (50 mm)	Viton®	Aluminum	Aluminum	Steel	3600

Model 82D1-9-X is listed by Underwriters Laboratories Inc., under U.L. listing number 66G3. It has also been evaluated and approved in accordance with requirements of Subchapter 12, Title 19, Public Safety, California Administrative Code. Diesel engine models 82D1-L48AE-X, 82E1-L100AE-X and 83A1-L100AE-X are not U.L. listed.

TANKLEENOR™

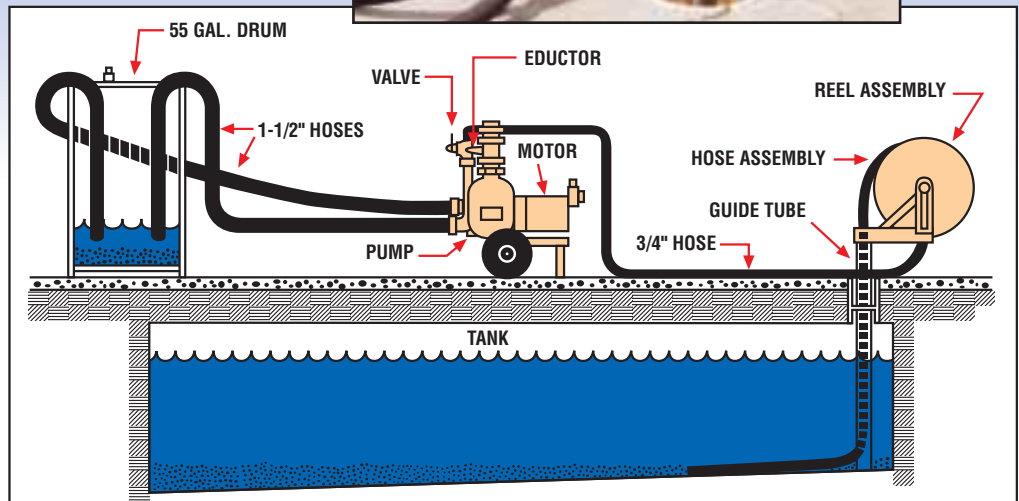
Efficient, economical petroleum tank cleaner

Gorman-Rupp's Unit 608 Tankleenor™ provides quick, efficient, economical cleaning of below-ground petroleum storage tanks.

The Tankleenor will remove contaminants like gel precipitates, microbial growth, rust and water without disturbing the product or taking the tank out of service.

This lightweight, wheel-mounted pumping unit is designed for one-man operation and is easily moved from job to job.

The Tankleenor unit consists of a self-priming centrifugal O Series pump with explosion-proof motor, reel assembly, hose assembly, connector hose, suction and discharge hose, guide tube and ground wire. Optional 50Hz motor available.



The Gorman-Rupp Unit 608 Tankleenor™ comes complete with ...

Pump. O Series 2" x 2" (50 mm x 50 mm) self-priming centrifugal pump, close-coupled to a 1 horsepower Class 1, Group D, 60Hz, 115/230V, single phase explosion-proof electric motor with 50 feet (15 m) of 14 gauge, 3 conductor, grounded-type power cord.

The pump is equipped with a venturi-type eductor permitting recirculation of operating fluid without contaminating the tank, and a hand-operated valve for backflushing. The discharge and suction ports are fitted with male quick-connect couplers.

Reel Assembly. Detachable reel assembly for storing hose and controlling direction and travel rate. The reel assembly is fitted with a built-in sight tube which enables the operator to locate pockets of contamination and observe them until they've been cleaned up.

Hose Assembly. Hydrocarbon-resistant hose, 5/8-inch (16 mm) diameter by 42 feet (13 m) long, with a spring steel integral strap insert and a specially designed nozzle.

Connector hose. 6 feet by 3/4-inch (2 m x 19 mm), to connect pump eductor and valve to reel assembly.

Suction and discharge hoses. In 15 foot (4.6 m) lengths, fitted with quick-connect couplers to match pump suction and discharge couplers.

Stainless steel adjustable guide tube. 12-feet (3.7 m) long, with spring-loaded foot.

Ground wire. 10-feet (3 m) long, with clip, for grounding pump.

Optional 50Hz Motor. For 50Hz operation, Unit 608 Tankleenor is available with 1½ horsepower, class 1, group D, explosion-proof, 50Hz, 115/220V, single phase electric motor.

The Pump People™



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