

SF SERIES®

Submersible, Solids-Handling Pumps

GORMAN-RUPP PUMPS

The Pump People®


GORMAN-RUPP
PUMPS
MANSFIELD, OHIO U.S.A.

A History Of Innovation

Gorman-Rupp has been revolutionizing the pumping industry since 1933. Many of the innovations introduced by Gorman-Rupp over the years have become industry standards.

More than ever, we continue to update our factories, processes, research and development, and engineering to ensure that our pumps and systems are among the most reliable and efficient in the world.

While much of Gorman-Rupp's reputation has been built on the success of our self-priming pumps, we have been producing high-quality, long-lasting submersible pumps since 1960.

The SF Series® line of submersible pumps continues the tradition of excellence. SF Series submersible solids-handling pumps optimize pumping efficiencies and include multiple features to help ease the maintenance process. Built to last, these pumps offer the versatility to be used in most applications that require a submersible pump with solids-handling capabilities.

Gorman-Rupp's commitment to our original philosophy of innovation, continuous improvement, unparalleled quality and customer service continues to set us apart from others.



Providing Decades of Submersible Pump Performance

In 1961, Gorman-Rupp was the first American manufacturer to offer a complete line of submersible dewatering pumps for the construction and mining markets.

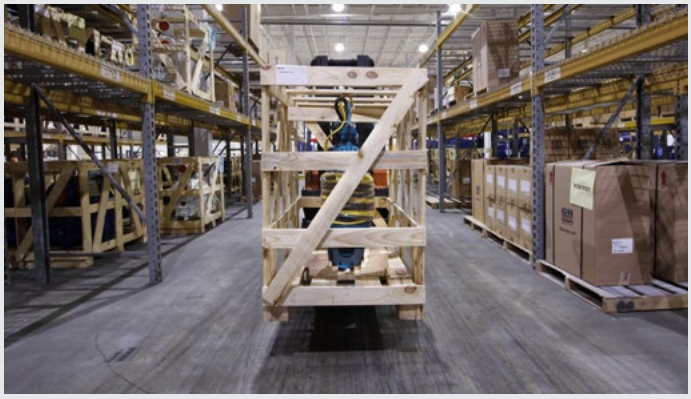
Delivering Decades Of Performance And Value

SF Series® pumps are designed to minimize your energy utilization. Additionally, with the quality manufacturing and testing that goes into every Gorman-Rupp product, you benefit from minimal service interruptions and some of the lowest maintenance in the industry. Gorman-Rupp delivers the best ROI by ensuring low operating costs for decades.

When you need a replacement part for your SF Series pump, you'll have it fast. With tens of thousands of genuine Gorman-Rupp parts on hand, we fill and ship most part orders within 24 hours. Should your SF Series pump or ReliaSource® pump package require service, our worldwide network of factory-trained distributors is ready to quickly respond to your needs. With just one number to call for parts and service, it's easy and convenient to keep your equipment performing as it should.

At Gorman-Rupp, we don't just say our pumps are reliable. Unlike standard warranties, we guarantee every part and working component of an SF Series pump, when part of a ReliaSource packaged system or a municipal installation, for five years. With Gorman-Rupp, reliable performance is always guaranteed.

With just one number to call for parts and service, it's easy and convenient to keep your equipment performing as it should.





Gorman-Rupp SF Series®

Submersible Solids-Handling Pumps



SF6B

SF4A, SF4B, SF4C, SF4D, SF4E, SF4F, SF6B, SF6C, SF6D, SF6E, SF6F, SF6G, SF8B, SF8C



SFS4A

SFS4A, SFS4B, SFS4C



SFSC3A

SFSC3A, SFSC4A, SFSC4B, SFSC6A

Optimal Performance

Gorman-Rupp SF Series® pumps are designed and built using the latest technologies, resulting in a product that provides optimal performance.

All SF Series pump models feature NEMA premium efficiency motors and wet end designs that minimize your energy utilization. Additionally, SF Series vortex pumps provide industry-leading pumping efficiencies.

While energy consumption and pumping efficiency are critical in evaluating performance, these are not the only factors considered in the design of the SF Series. A pump needs to consistently provide the required liquid movement in a variety of applications, so we also focused on designing a product that will provide long-lasting, reliable operation. While some competitors use gimmicks to "handle" solids, all SF Series pumps either pass a 3" spherical solid or are equipped with solids-reduction technology. The motors are press-fit into our patented finned motor housing, to provide superior cooling, and combined with standard Class H insulation, result in increased motor life.

Easy To Maintain

Eventually, all mechanical equipment requires maintenance, whether it is preventative or repair. Gorman-Rupp has designed the SF Series with this in mind.

Many SF Series pumps incorporate externally-adjustable face clearances to quickly maintain optimal pumping efficiency.

All models include moisture and temperature sensors on each motor phase to minimize the risk of costly motor damage.



SFV4E

SFV3A, SFV3B, SFV4A, SFV4B, SFV4C, SFV4D SFV4E



SFDV4B

SFDV3A, SFDV3B, SFDV4A, SFDV4B, SFDV4D



SFEV3A

SFEV3A, SFEV3B, SFEV3C, SFEV4A, SFEV4C, SFEV4D, SFEV4E



SFDEV4A

SFDEV3A, SFDEV3B, SFDEV3C, SFDEV4A, SFDEV4D

Agency Approvals

Many SF Series pump models are available with CSA C-US approval for standard and hazardous locations. All models are available with FM (Factory Mutual) approvals for hazardous (Class I, Division 1, Groups C & D) locations.

FM APPROVED

C SP US



Each SF Series pump is built-to-order. You select the impeller trim to meet your specific condition point. Then the motor is sized to match the impeller trim.

Optional Accessories

Impeller Options


1a

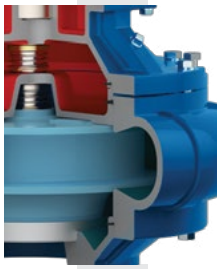

1b


1c


1d


1e

Solids-handling vortex and extreme-duty vortex impellers **(1a, 1b)** enable higher pump efficiency and handle up to 3" (76 mm) diameter solids. Enclosed impellers **(1c)** handle up to 3" (76 mm) diameter solids. Two-vane, ductile iron, semi-open solids-handling impellers **(1d)** handle up to 3" (76 mm) diameter solids and are only available on SFS pump models. Pump out vanes on the impeller shroud reduce foreign material buildup behind the impeller and reduce pressure on seal and bearings. Continuous, single-vane impellers **(1e)** come standard in Eradicator® Plus (SFSC) pump models. These impellers are designed for the most difficult pumping applications and are capable of handling solids up to 2¼" (57 mm). Optional materials are available based on your specific pumping requirements.



Externally Adjustable Wearplate

Face clearances can be easily adjusted with bolts positioned on the outside of the pump. Available on the enclosed, semi-open and continuous vane impeller models only, the externally adjustable wearplate improves pumping efficiency without time-consuming wear ring replacement.

ERADICATOR® PLUS

For those extreme-duty applications where trash bags, wipes, hair, industrial by-products and agricultural wastes are present, SFSC models are equipped with Gorman-Rupp's new Eradicator® Plus solids-reduction technology. These models are ideal when cutting and tearing of organic solids entering pump is required.



Aggressive Self-Cleaning Wearplate

The wearplate incorporated into SFSC models is constructed of extra-thick G-R Hard Iron. It utilizes notches, grooves and an oversized lacerating tooth that is designed to cut and shred debris before entering the interior of the pump.

Heavy Duty Impeller

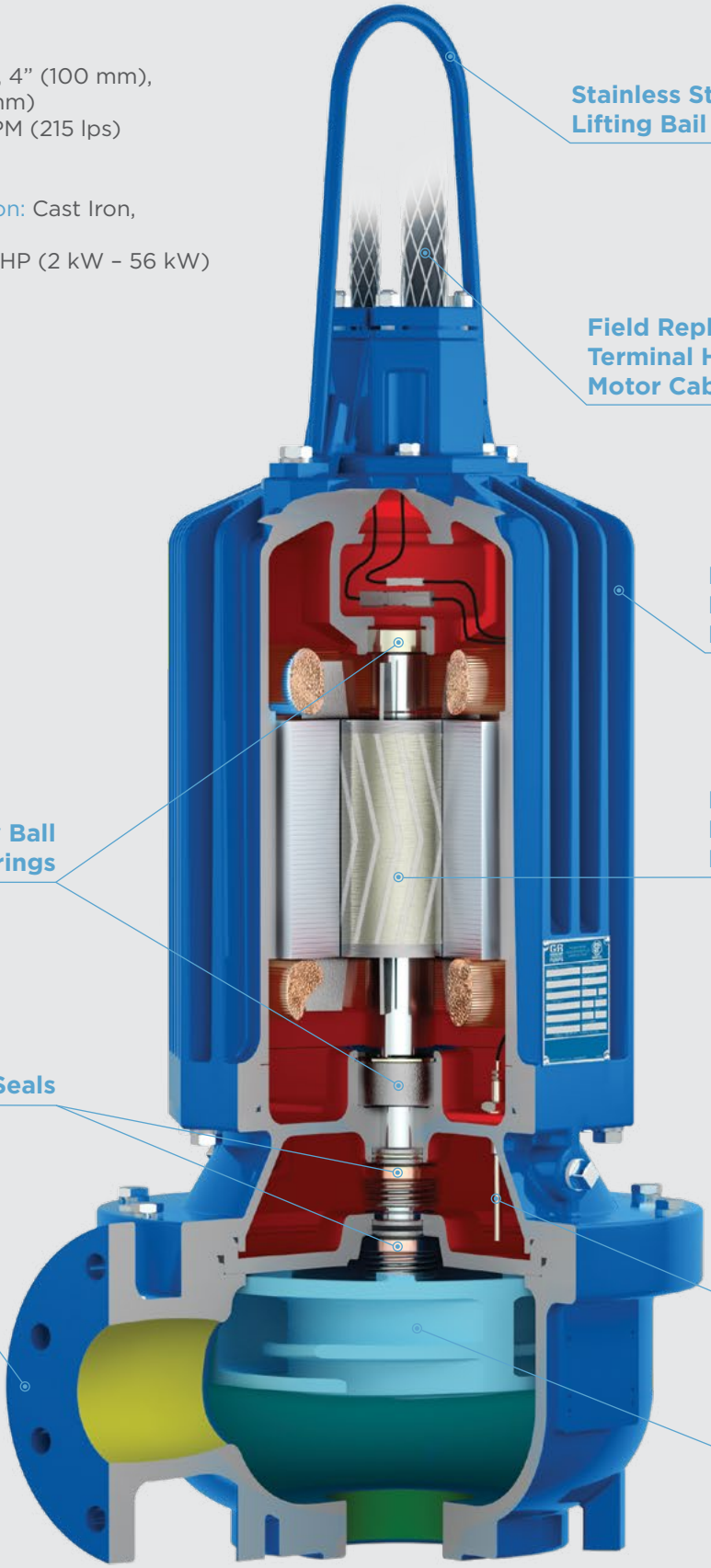
Eradicator Plus models come standard with a rugged, heavy-duty continuous vane impeller for the most aggressive waste-handling applications.

SF Series® Product Features

Specifications

Pump Size: 3” (75 mm), 4” (100 mm), 6” (150 mm), 8” (200 mm)
Max Capacity: 3400 GPM (215 lps)
Max Head: 172’ (52 m)
Max Solids: 3” (76 mm)
Materials of Construction: Cast Iron, Ductile Iron, ADI
Horsepower: 3 HP – 75 HP (2 kW – 56 kW)

All SF Series pumps come standard with a one-year manufacturer’s warranty.



Stainless Steel Lifting Bail

Field Replaceable Terminal Housing & Motor Cable

Patented Heat-Extracting Motor Housing

NEMA Premium Efficiency (IEC IE3) Motor

Heavy-Duty Ball Bearings

Mechanical Seals

Dual Chamber Moisture Detection

ANSI 125# Flange
Metric is Available

Impeller

Configured To Your Performance Requirements



SF Series®
Base Elbow



SF Series®
Guide Shoe



SF Series®
Dry Pit

Installed Where You Need It

Whether your pump installation requires permanent, semi-permanent, or portable placement, SF Series® pumps will fit the bill. All SF Series pumps come standard with either ANSI 125# or DIN flanges on both the suction and discharge sides, ready to fit up to your permanent pipe configuration or to match up to most manufacturers' guide shoes for replacement installation.

For semi-permanent slide rail installations, Gorman-Rupp offers an easy-to-install base elbow. Guide shoes include a rubber seal that directs all flow into the discharge piping without relying on a flush metal-to-metal fit-up that can wear and allow leaks. All SF Series guide rail systems use 2" rail as standard, maintaining consistency when used in multiple stations.

When portability is required, SF Series pumps can be attached to a rugged stand that maintains clearances for solids passage. In addition, we offer an optional tight-radius flanged elbow for easy connection to discharge hose or piping.

Take Control Of Your Equipment

SF Series pumps are available with a complete control package from Gorman-Rupp. Featuring across the line motor starters, NEMA 3R ratings and adjustable seal fail relays and can be equipped with optional high-water alarms and floats for liquid level controls. SF Series control panels are available in simplex or duplex configurations along with optional intrinsically safe panels on some horsepower sizes. Custom Integrinex® control panels are also available for a variety of SF Series pump installations.



SF Series®
Portable/Construction Stand



ReliaSource®
Packaged Pumping Station

Packaged Lift Station

The unique, NFPA 820-compliant ReliaSource® Above-Ground Submersible Valve Package (ASVP) revolutionizes submersible pump applications. By placing controls and valves above ground in a compact and durable fiberglass enclosure, the ASVP station eliminates the need for a separate valve pit. As a result, space requirements are reduced, installation time and associated costs are lower and worker safety is improved by eliminating the need for service personnel to enter hazardous, confined spaces. The ASVP system can be customized to accommodate your pumping requirements. And you can count on it to deliver reliable, trouble-free solids-handling performance year after year. See the following page for more information on ASVP packaged lift stations.



ReliaSource® Above-Ground Submersible Valve Package (ASVP)

Customized Lift Station Solutions

Gorman-Rupp has been manufacturing dependable lift stations for over 50 years. Our line of ASVP packaged stations are 100% custom designed, assembled and tested by the experts at Gorman-Rupp. All our ReliaSource® lift stations offer an extensive selection of pumps, motors, controls, valves and accessories and are housed in durable fiberglass enclosures. These stations are shipped assembled and are ready for immediate hookup to power and piping.

Fitting Where You Need Them

An efficient and reliable pumping system is dependent on the precise matching of the pumps, motors and controls. Gorman-Rupp will design, engineer, manufacture and test your entire pumping system to ensure it meets your requirements and performs reliably year after year. When you buy Gorman-Rupp, you are buying more than just a pump. If there is a problem with the station, you only have to make one call. From pumps and controls, to the lights and the ventilation blowers in our enclosures, we have an experienced staff of engineers dedicated to the design and construction of our products. Their extensive knowledge of electronics, mechanics and hydraulics is at your disposal. And, our 60-month limited station warranty covers the entire ReliaSource® packaged system.





Bypass Connection Options

Discharge bypass connection allows for emergency portable bypass pumping access to the station force main after pump isolation. Suction bypass connection incorporates opening to allow emergency access to station wet well. Gorman-Rupp also offers a complete line of portable engine-driven automatic and manual start bypass pumps.

Precise Matching Of Pumps And Motors With Integrinex® Controls

The Gorman-Rupp team of electrical, mechanical and hydraulic engineers works closely throughout the development of each pumping system to ensure the entire system works in harmony to meet your system requirements – accurately and reliably.

Integrinex® Liquid Level Controls

Integrinex® Standard

Integrinex Standard is the heart of every Gorman-Rupp station packed with the features you need most, including duplex and triplex alternation, level sensors, pump delay and alarms.

Integrinex® Advanced

Advanced control systems include Soft Starters and VFD's (variable frequency drives) to manage electric inrush, hydraulic shock and matching starting and stopping torque required by the pump. Integrinex Advanced controls are custom engineered to match your unique system requirements for the additional control you need. And now, when equipped with new FloSmart® technology, the Integrinex Advanced control system can detect a pump obstruction and run a cleaning cycle until the debris is cleared.

Integrinex® Remote View

All the functionality of our advanced system with the added convenience of remote tablet-based management and monitoring.

INTEGRINEX® ADVANCED with FloSmart® TECHNOLOGY

Integrinex® Advanced with FloSmart® technology is available in new ReliaSource® stations.



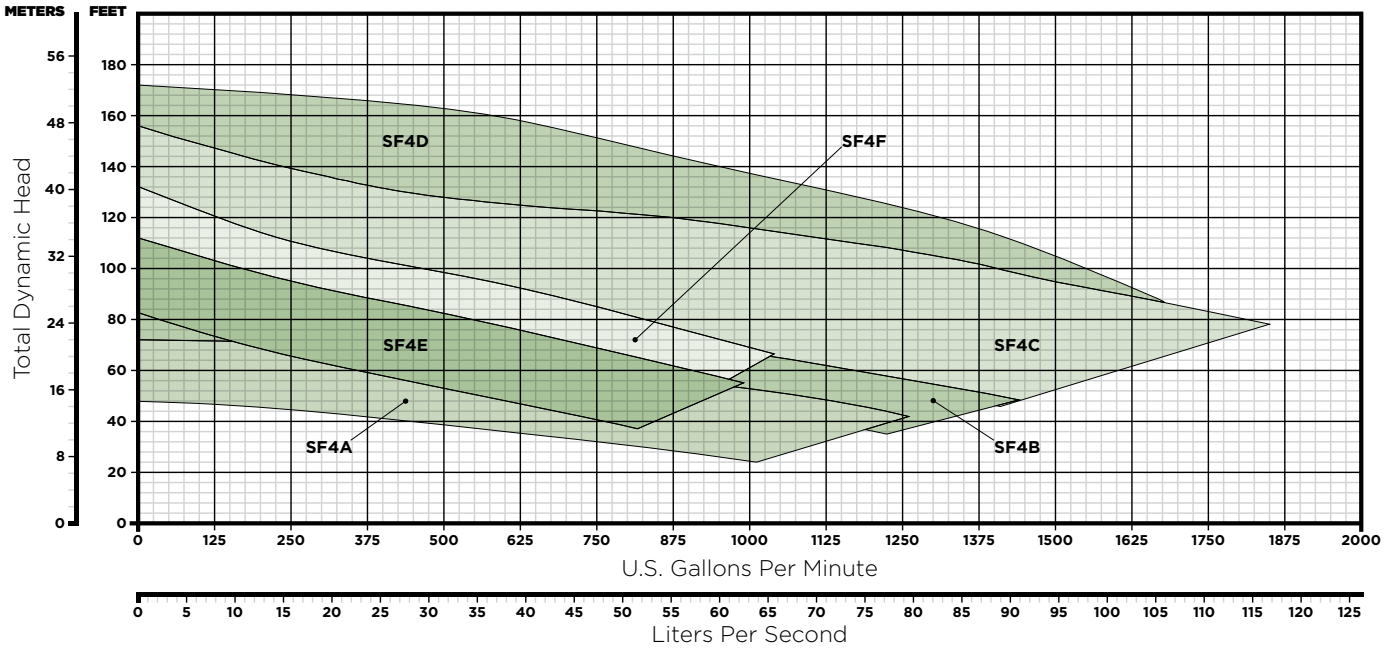


To keep maintenance crews and equipment protected from harsh environments, custom stations can be designed to house the piping header as well as the control panel.

Gorman-Rupp SF Series Channel Pumps

Setting The Standard In Performance

4” Enclosed Impeller Models

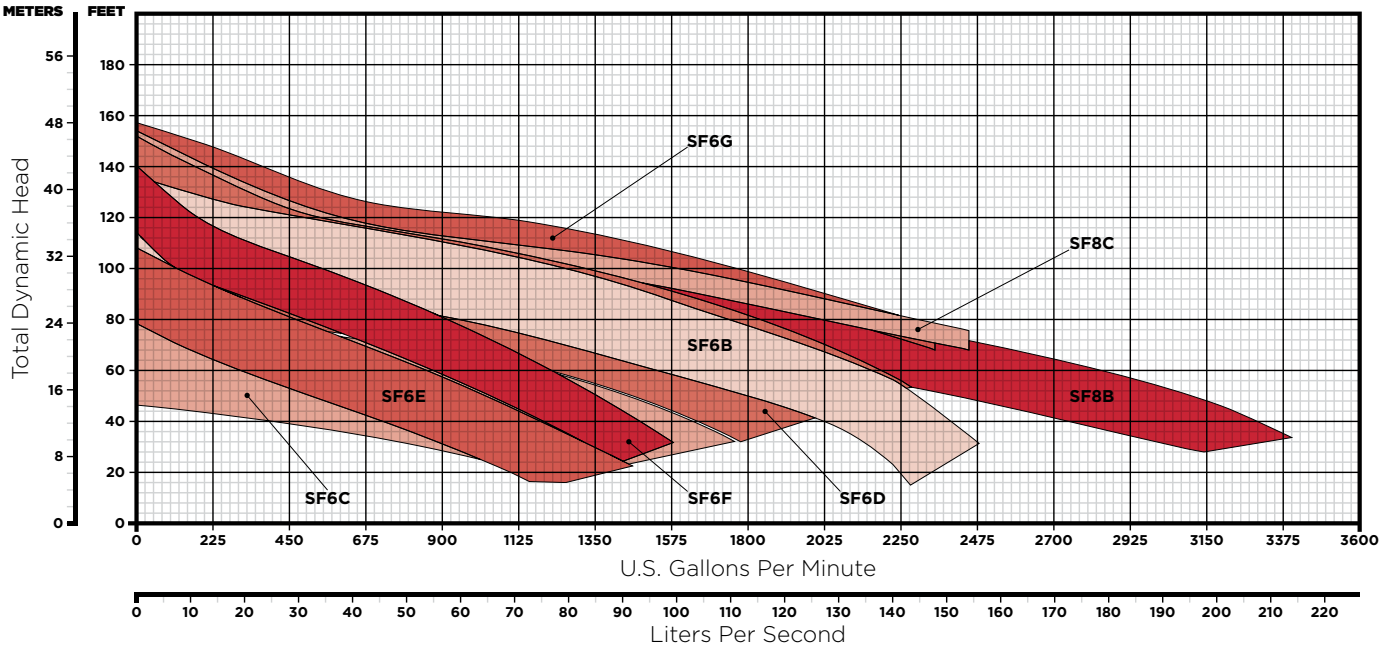


Operating Ranges

Model	Size	Max. Capacity	Max. Head	Max. Solids	HP (kW)	Construction
SF4A	4” (100 mm)	1260 GPM (80 lps)	71’ (22 m)	3” (76 mm)	15 (11), 20 (15), 24 (18)	Cast Iron, Ductile Iron
SF4B	4” (100 mm)	1440 GPM (91 lps)	85’ (26 m)	3” (76 mm)	30 (22)	Cast Iron, Ductile Iron
SF4C	4” (100 mm)	1850 GPM (117 lps)	142’ (43 m)	3” (76 mm)	50 (37)	Cast Iron, Ductile Iron
SF4D	4” (100 mm)	1680 GPM (106 lps)	172’ (52 m)	3” (76 mm)	75 (56)	Cast Iron, Ductile Iron
SF4E	4” (100 mm)	990 GPM (63 lps)	88’ (27 m)	3” (76 mm)	15 (11), 20 (15), 24 (18)	Cast Iron, Ductile Iron
SF4F	4” (100 mm)	1040 GPM (66 lps)	104’ (32 m)	3” (76 mm)	30 (22)	Cast Iron, Ductile Iron



6” & 8” Enclosed Impeller Models

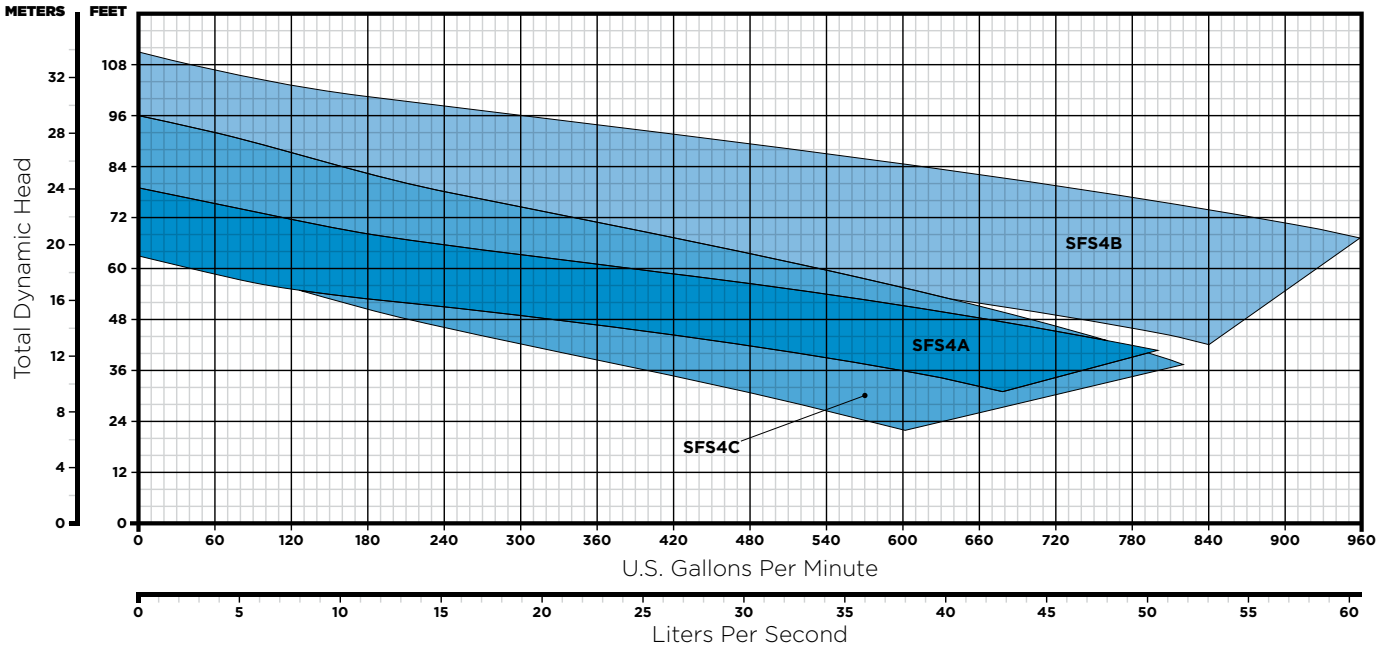


Operating Ranges

Model	Size	Max. Capacity	Max. Head	Max. Solids	HP (kW)	Construction
SF6B	6” (150 mm)	2480 GPM (157 lps)	120’ (37 m)	3” (76 mm)	75 (56)	Cast Iron, Ductile Iron
SF6C	6” (150 mm)	1760 GPM (111 lps)	80’ (24 m)	3” (76 mm)	30 (22)	Cast Iron, Ductile Iron
SF6D	6” (150 mm)	2280 GPM (144 lps)	124’ (38 m)	3” (76 mm)	50 (37)	Cast Iron, Ductile Iron
SF6E	6” (150 mm)	1460 GPM (92 lps)	83’ (25 m)	3” (76 mm)	15 (11), 20 (15), 24 (18)	Cast Iron, Ductile Iron
SF6F	6” (150 mm)	1580 GPM (100 lps)	104’ (32 m)	3” (76 mm)	30 (22)	Cast Iron, Ductile Iron
SF6G	6” (150 mm)	2350 GPM (148 lps)	136’ (42 m)	3” (76 mm)	75 (56)	Cast Iron, Ductile Iron
SF8B	8” (200 mm)	3400 GPM (215 lps)	112’ (34 m)	3” (76 mm)	75 (56)	Cast Iron, Ductile Iron
SF8C	8” (200 mm)	2450 GPM (155 lps)	125’ (38 m)	3” (76 mm)	75 (56)	Cast Iron, Ductile Iron

SF Series® Channel Pumps – Designed & Constructed For Long Life

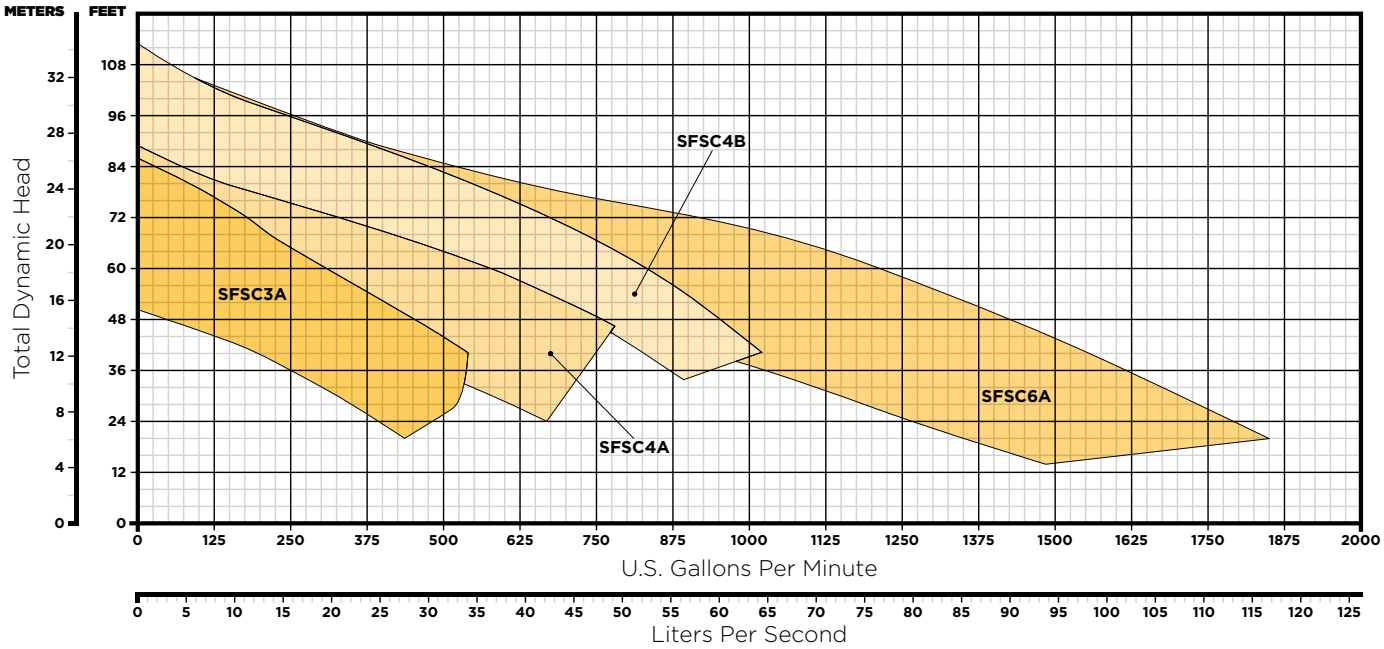
4” Semi-Open, Two-Vane Impeller Models



Operating Ranges

Model	Size	Max. Capacity	Max. Head	Max. Solids	HP (kW)	Construction
SFS4A	4” (100 mm)	800 GPM (51 lps)	72’ (22 m)	3” (76 mm)	10 (8), 14 (10)	Cast Iron, Ductile Iron
SFS4B	4” (100 mm)	980 GPM (62 lps)	101’ (31 m)	3” (76 mm)	15 (11), 20 (15), 24 (18)	Cast Iron, Ductile Iron
SFS4C	4” (100 mm)	820 GPM (52 lps)	84’ (26 m)	3” (76 mm)	10 (8), 14 (10)	Cast Iron, Ductile Iron

3”, 4” & 6” Continuous Vane, Eradicator® Plus Impeller Models



Operating Ranges

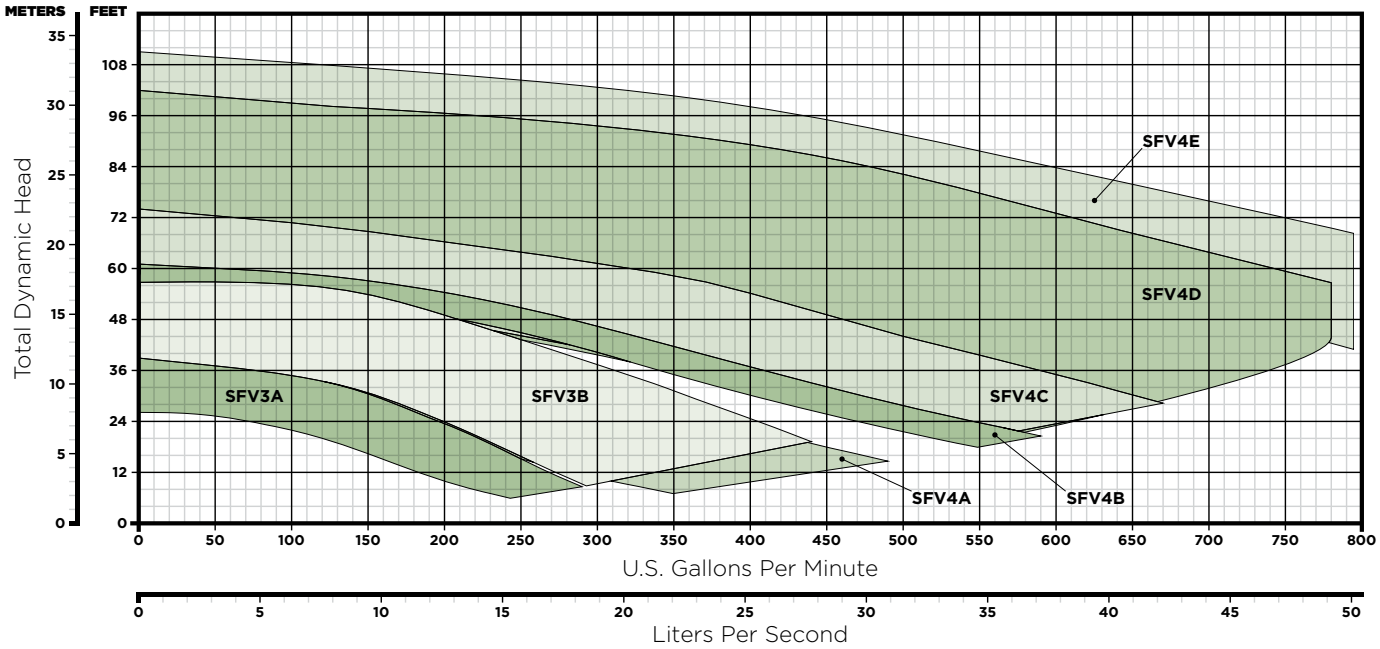
Model	Size	Max. Capacity	Max. Head	Max. Solids	HP (kW)	Construction
SFSC3A	3” (75 mm)	540 GPM (34 lps)	78’ (24 m)	1.75” (45 mm)	7.5 (6), 10 (8)	Ductile Iron, ADI
SFSC4A	4” (100 mm)	820 GPM (52 lps)	78’ (24 m)	2.25” (57 mm)	10 (8), 14 (10)	Ductile Iron, ADI
SFSC4B	4” (100 mm)	1020 GPM (64 lps)	100’ (31 m)	2.25” (57 mm)	15 (11), 20 (15), 24 (18)	Ductile Iron, ADI
SFSC6A	6” (150 mm)	1850 GPM (117 lps)	108’ (33 m)	2.25” (57 mm)	30 (22)	Ductile Iron, ADI



Gorman-Rupp SF Series® Vortex Pumps

Higher Efficiency Submersible Pumps

Standard-Duty Vortex Impeller Models



Operating Ranges

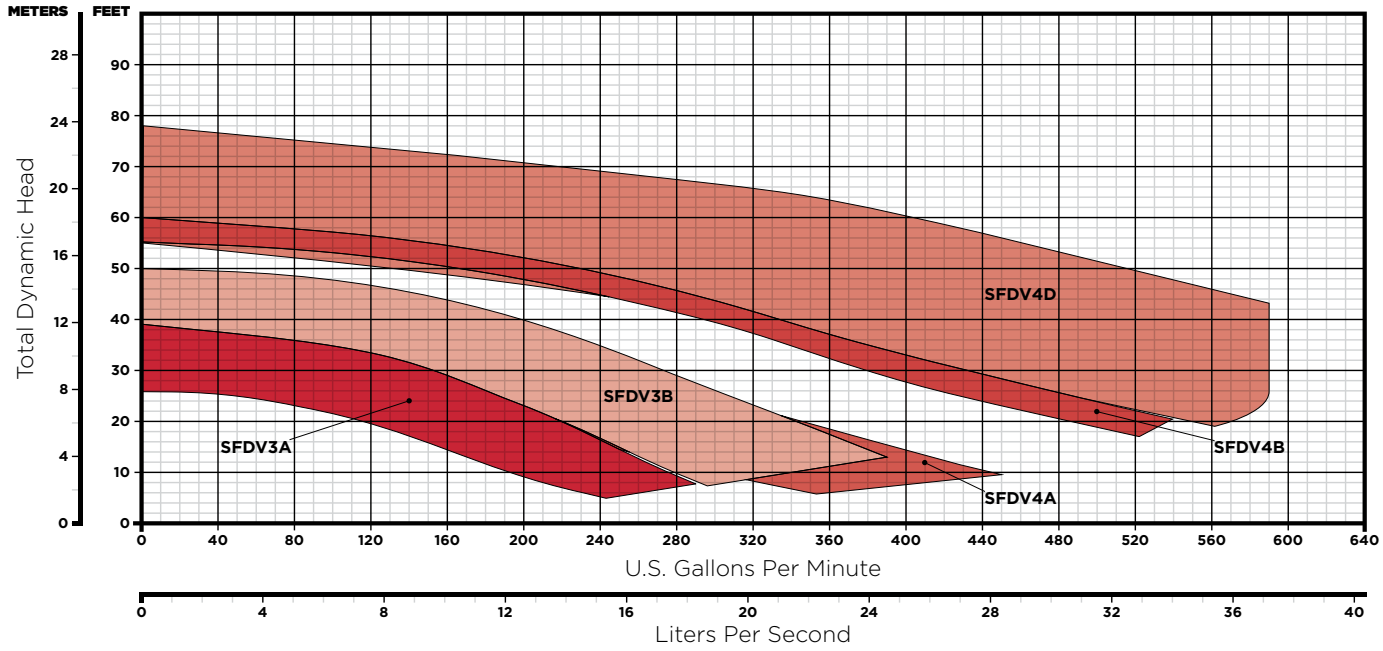
Model	Size	Max. Capacity	Max. Head	Max. Solids	HP (kW)	Construction
SFV3A	3" (75 mm)	290 GPM (18 lps)	39' (12 m)	3" (76 mm)	3 (2)	Cast Iron, Ductile Iron
SFV3B	3" (75 mm)	440 GPM (28 lps)	57' (17 m)	3" (76 mm)	4 (3), 7 (5)	Cast Iron, Ductile Iron
SFV4A	4" (100 mm)	490 GPM (31 lps)	52' (16 m)	3" (76 mm)	4 (3), 7 (5)	Cast Iron, Ductile Iron
SFV4B	4" (100 mm)	590 GPM (37 lps)	65' (20 m)	3" (76 mm)	7.5 (6), 10 (8)	Cast Iron, Ductile Iron
SFV4C	4" (100 mm)	670 GPM (42 lps)	74' (23 m)	3" (76 mm)	10 (8), 14 (10)	Cast Iron, Ductile Iron
SFV4D	4" (100 mm)	780 GPM (49 lps)	102' (31 m)	3" (76 mm)	24 (18)	Cast Iron, Ductile Iron
SFV4E	4" (100 mm)	860 GPM (54 lps)	111' (34 m)	3" (76 mm)	30 (22)	Cast Iron, Ductile Iron







Standard-Duty Dry Pit Vortex Impeller Models

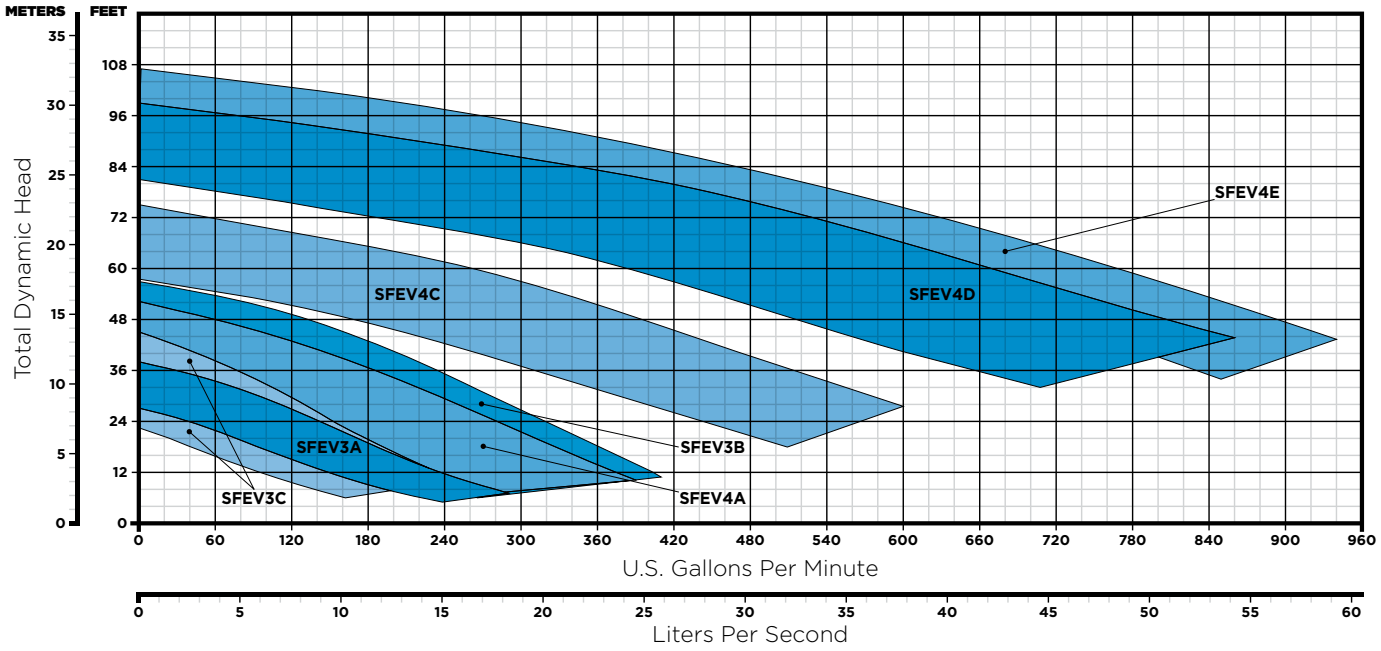


Operating Ranges

Model	Size	Max. Capacity	Max. Head	Max. Solids	HP (kW)	Construction
SFDV3A	3” (75 mm)	290 GPM (18 lps)	39’ (12 m)	3” (76 mm)	3 (2)	Cast Iron, Ductile Iron
SFDV3B	3” (75 mm)	390 GPM (25 lps)	50’ (15 m)	3” (76 mm)	5 (4)	Cast Iron, Ductile Iron
SFDV4A	4” (100 mm)	450 GPM (28 lps)	45’ (14 m)	3” (76 mm)	5 (4)	Cast Iron, Ductile Iron
SFDV4B	4” (100 mm)	540 GPM (34 lps)	60’ (18 m)	3” (76 mm)	7.5 (6)	Cast Iron, Ductile Iron
SFDV4D	4” (100 mm)	660 GPM (42 lps)	78’ (24 m)	3” (76 mm)	10 (8), 14 (10)	Cast Iron, Ductile Iron

SF Series® Vortex Pumps – Built With Energy Consumption In Mind

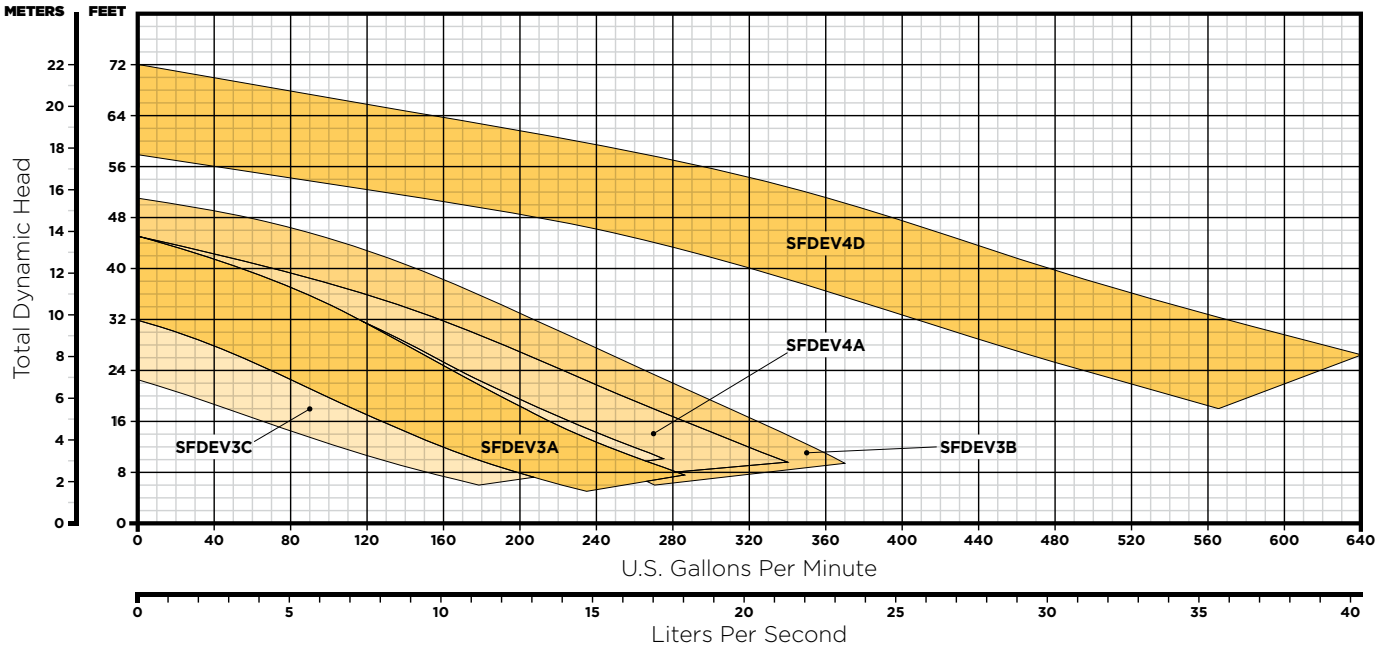
Extreme-Duty Vortex Impeller Models



Operating Ranges

Model	Size	Max. Capacity	Max. Head	Max. Solids	HP (kW)	Construction
SFEV3A	3" (75 mm)	290 GPM (18 lps)	38' (12 m)	3" (76 mm)	3 (2)	Cast Iron, Ductile Iron
SFEV3B	3" (75 mm)	410 GPM (26 lps)	57' (17 m)	3" (76 mm)	4 (3), 7 (5)	Cast Iron, Ductile Iron
SFEV3C	3" (75 mm)	270 GPM (17 lps)	44' (13 m)	3" (76 mm)	3 (2)	Cast Iron, Ductile Iron
SFEV4A	4" (100 mm)	390 GPM (25 lps)	52' (16 m)	3" (76 mm)	4 (3), 7 (5)	Cast Iron, Ductile Iron
SFEV4C	4" (100 mm)	660 GPM (42 lps)	75' (23 m)	3" (76 mm)	10 (8), 14 (10)	Cast Iron, Ductile Iron
SFEV4D	4" (100 mm)	860 GPM (54 lps)	99' (30 m)	3" (76 mm)	15 (11), 20 (15), 24 (18)	Cast Iron, Ductile Iron
SFEV4E	4" (100 mm)	940 GPM (59 lps)	107' (33 m)	3" (76 mm)	30 (22)	Cast Iron, Ductile Iron

Extreme-Duty Dry Pit Vortex Impeller Models



Operating Ranges

Model	Size	Max. Capacity	Max. Head	Max. Solids	HP (kW)	Construction
SFDEV3A	3" (75 mm)	286 GPM (18 lps)	38' (12 m)	3" (76 mm)	3 (2)	Cast Iron, Ductile Iron
SFDEV3B	3" (75 mm)	370 GPM (23 lps)	51' (16 m)	3" (76 mm)	5 (4)	Cast Iron, Ductile Iron
SFDEV3C	3" (75 mm)	275 GPM (17 lps)	45' (13 m)	3" (76 mm)	3 (2)	Cast Iron, Ductile Iron
SFDEV4A	4" (100 mm)	340 GPM (22 lps)	45' (13 m)	3" (76 mm)	5 (4)	Cast Iron, Ductile Iron
SFDEV4D	4" (100 mm)	640 GPM (40 lps)	72' (22 m)	3" (76 mm)	14 (10)	Cast Iron, Ductile Iron





After Sale Support

Gorman-Rupp products stand the test of time due to our quality manufacturing processes, rigorous product testing and extensive after sale support.

Product Support

Every pump manufactured by Gorman-Rupp is supported with reference information. Pump operation and maintenance manuals (including parts lists), specification data sheets, performance curves and outline drawings in PDF and CAD formats are available on our website or through your distributor for every pump.

Warranty

The warranties on Gorman-Rupp products are some of the best in the industry. Gorman-Rupp has you covered with warranties up to 60 months.

Education & Safety

Gorman-Rupp is committed to remaining at the forefront of the industry with technology and safety. Training videos, demos and in-person training sessions created for our distributors and end-users help to keep everyone up to date on the latest safety tips and pump maintenance.

Parts

When you need a replacement part, you'll have it fast. Gorman-Rupp is fully committed to keeping your equipment running long after installation and ensuring your pump or lift station continues to meet your requirements year after year. We sell parts through our network of distributors. Find a distributor in your area for assistance.

Service

Should your pump or lift station require service, our worldwide network of factory-trained distributors are ready to quickly respond. Our distributors have the expertise to support you and your pump or lift station long after installation.

Manufacturing Facilities

Gorman-Rupp USA
Mansfield, Ohio, USA

Gorman-Rupp Canada
St. Thomas, Ontario, Canada

Gorman-Rupp Europe
Waardenburg, Netherlands
Namur, Belgium

Gorman-Rupp Africa
Cape Town, South Africa
Durban, South Africa
Johannesburg, South Africa (Headquarters)

Distribution Center

Grand Prairie, Texas, USA

Engineering and manufacturing superiority has been the hallmark of Gorman-Rupp since our inception in 1933. Today we bring our products to life in some of the most efficient, modern and state-of-the-art manufacturing facilities in the world. Gorman-Rupp has a selection of nearly 3,000 pump models, and our world-class team of distributors has worked closely with thousands of end users around the world. We have the proven expertise and the resources to specify, manufacture, test and service your pump, and to ensure reliable performance for the long haul.

GRPUMPS.COM

GORMAN-RUPP PUMPS
P.O. BOX 1217
MANSFIELD, OHIO 44901-1217 | USA
TEL: 419.755.1011 | FAX: 419.755.1251

GORMAN-RUPP PUMPS
The Pump People®

AV-06386_REV082026

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