



# SF SERIES®

*Submersible,  
Solids-Handling Pumps*



*The Pump People®*



# A HISTORY OF INNOVATION

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.

## 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.

## Parts and Service

When you need a replacement part for your SF Series, you'll have it fast. With tens of thousands of genuine Gorman-Rupp parts on hand, we fill and ship 99% of parts 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.

## Peace of Mind

At Gorman-Rupp, we don't just say our pumps are reliable. Unlike standard 90-day or one-year warranties, we guarantee every part and working component of an SF Series pump for five years. With Gorman-Rupp, reliable performance is always guaranteed.

# SF SERIES®

## Submersible Solids-Handling Pumps

*Built to the same exacting standards you've come to expect from Gorman-Rupp, SF Series® pumps are designed for easy maintenance and constructed for long life.*

### Agency Approvals

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



### 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 pass a 3” spherical solid. 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.

Channel 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.

Most models' terminal housing and cable assemblies are designed with color-coded, snap-together connections for easy in-the-field cable changes.

Most models' terminal housing and cable connections are specifically designed for easy in-the-field cable replacements.





# CONFIGURED TO YOUR PERFORMANCE REQUIREMENTS

*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.*

## 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.



Wet Pit Installations

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.



Portable/  
Construction  
Configuration

## Agency Approvals



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

## Packaged System



**SF Series®**  
ReliaSource® Above-Ground Submersible Valve  
Package (ASVP)

## Optional Accessories

- Industrial & Municipal ReliaSource® Packages With Integrinex™ Controls
- Control Panels & Complete Stations

# GORMAN-RUPP SF SERIES®

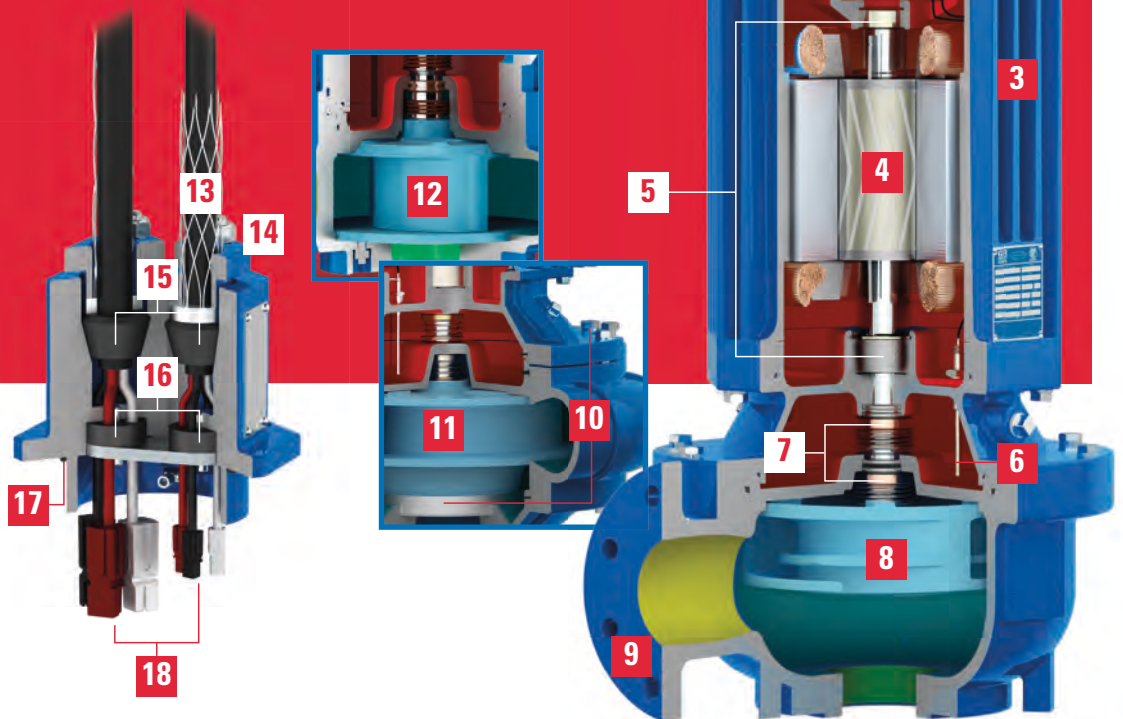
*The Right Pump For The Job*

## Specifications

Pump Size: 3" (75 mm),  
4" (100 mm), 6" (150 mm), 8"  
(200 mm)  
Max. Capacity: 3400 GPM  
(214.5 lps)  
Max. Solids: 3" (76.2 mm)  
Max. Head: 170' (51.8 m)  
Materials of Construction:  
Cast Iron, Ductile Iron  
Horsepower: 2.5 HP to 75 HP



All SF Series® pumps feature a standard five-year warranty.



## SF Series® Vortex Pumps

- 01 | Stainless Steel Lifting Bail
- 02 | Field Replaceable Terminal Housing & Motor Cable
- 03 | Patented Heat-Extracting Motor Housing
- 04 | NEMA Premium Efficiency (IEC IE3) Motor
- 05 | Heavy-Duty Ball Bearings
- 06 | Dual Chamber Moisture Detection
- 07 | Mechanical Seals
- 08 | 3" Solids-Handling Vortex Impeller
- 09 | ANSI 125# Flange *Metric Is Available*

## SF Series® Channel Pumps\*

- 10 | Externally Adjustable Wearplate
- 11 | 3" Solids-Handling Enclosed Impeller
- 12 | 3" Solids-Handling Semi-Open, Two Vane Impeller *SFS Models Only*

## Field Replaceable Terminal Housing & Motor Cable

- 13 | Strain-Relieving Cord Grip
- 14 | Terminal Gland *To Compress Cable Bushing*
- 15 | Cable Bushing Seals *For Leaks External To The Cable*
- 16 | Lead Bushing Seals *Each Lead Individually, Preventing Wicking*
- 17 | O-Ring *To Seal Terminal To Motor Housing*
- 18 | Snap-Together Cable Connectors

\*All noted vortex pump features are also included in the channel pump

# GORMAN-RUPP SF SERIES®

Submersible Solids-Handling Pumps

## SF Series® Channel Pumps

### Specifications

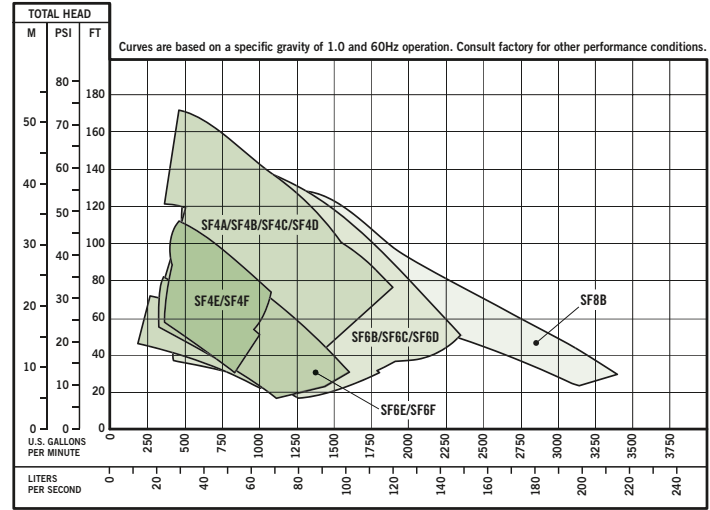
Pump Size: 4" (100 mm),  
6" (150 mm), 8" (200 mm)  
Max. Capacity: 3400 GPM  
(214.5 lps)  
Max. Solids: 3" (76.2 mm)  
Max. Head: 168' (51.2 m)  
Materials of Construction:  
Cast Iron, Ductile Iron  
Horsepower: 10 HP to 75 HP



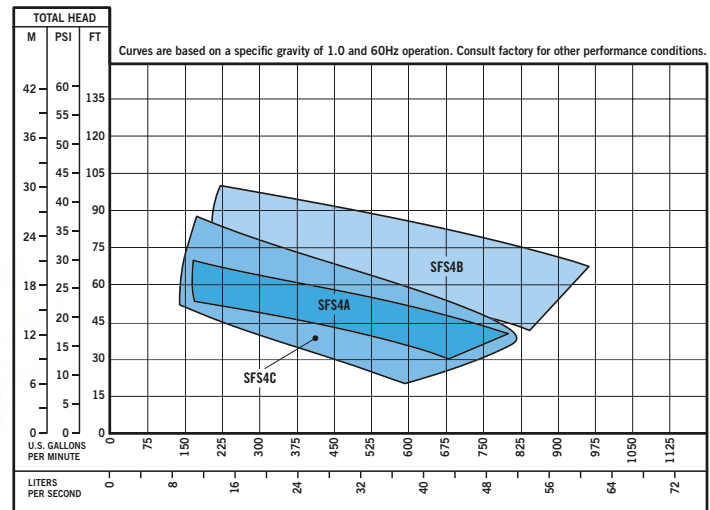
Model SF8B pictured

## Pump Performance Data

### SF Series® Channel and Single Vane



### SF Series® Semi-Open, Two Vane



### OPERATING RANGES

MODEL	PUMP SIZE (SUC. X DIS.)	MAX. CAPACITY	MAX. HEAD	MAX. SOLIDS	CONSTRUCTION
<b>CHANNEL AND SINGLE VANE</b>					
SF4A	4" (100 mm)	1240 GPM (78.2 lps)	70' (21.3 m)	3" (76.2 mm)	Ductile and Cast Iron
SF4B	4" (100 mm)	1440 GPM (90.9 lps)	82' (25.0 m)	3" (76.2 mm)	Ductile and Cast Iron
SF4C	4" (100 mm)	1800 GPM (113.6 lps)	132' (40.2 m)	3" (76.2 mm)	Ductile and Cast Iron
SF4D	4" (100 mm)	1640 GPM (103.5 lps)	168' (51.2 m)	3" (76.2 mm)	Ductile and Cast Iron
SF4E	4" (100 mm)	1000 GPM (63.1 lps)	88' (26.8 m)	3" (76.2 mm)	Ductile and Cast Iron
SF4F	4" (100 mm)	1050 GPM (66.2 lps)	108' (32.9 m)	3" (76.2 mm)	Ductile and Cast Iron
SF6B	6" (150 mm)	2350 GPM (148.3 lps)	152' (46.3 m)	3" (76.2 mm)	Ductile and Cast Iron
SF6C	6" (150 mm)	1760 GPM (111.0 lps)	76' (23.2 m)	3" (76.2 mm)	Ductile and Cast Iron
SF6D	6" (150 mm)	2250 GPM (142.0 lps)	128' (39.0 m)	3" (76.2 mm)	Ductile and Cast Iron
SF6E	6" (150 mm)	1440 GPM (90.9 lps)	82' (25.0 m)	3" (76.2 mm)	Ductile and Cast Iron
SF6F	6" (150 mm)	1580 GPM (99.7 lps)	104' (31.7 m)	3" (76.2 mm)	Ductile and Cast Iron
SF8B	8" (200 mm)	3400 GPM (214.5 lps)	136' (41.5 m)	3" (76.2 mm)	Ductile and Cast Iron
<b>SEMI-OPEN, TWO VANE</b>					
SFS4A	4" (100 mm)	820 GPM (51.7 lps)	68' (20.7 m)	3" (76.2 mm)	Ductile and Cast Iron
SFS4B	4" (100 mm)	1020 GPM (64.4 lps)	100' (30.5 m)	3" (76.2 mm)	Ductile and Cast Iron
SFS4C	4" (100 mm)	820 GPM (51.7 lps)	88' (26.8 m)	3" (76.2 mm)	Ductile and Cast Iron

# SF Series® Vortex Pumps

## Specifications

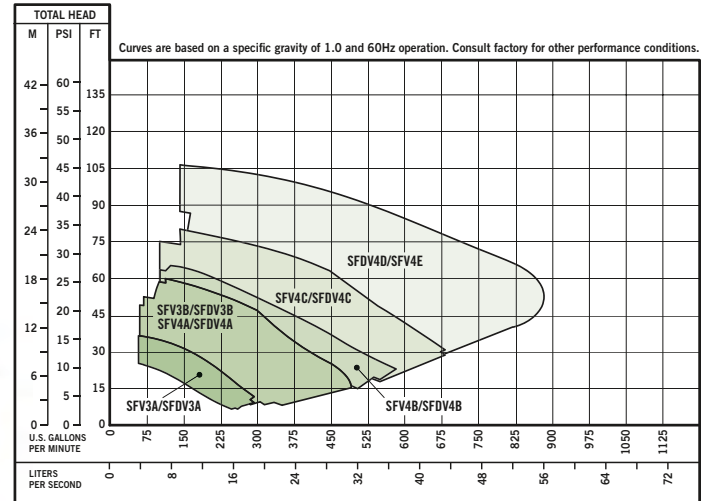
Pump Size: 3" (75 mm), 4" (100 mm)  
 Max. Capacity: 940 GPM (59.3 lps)  
 Max. Solids: 3" (76.2 mm)  
 Max. Head: 108' (32.9 m)  
 Materials of Construction:  
 Cast Iron, Ductile Iron  
 Horsepower: 2.5 HP to 30 HP



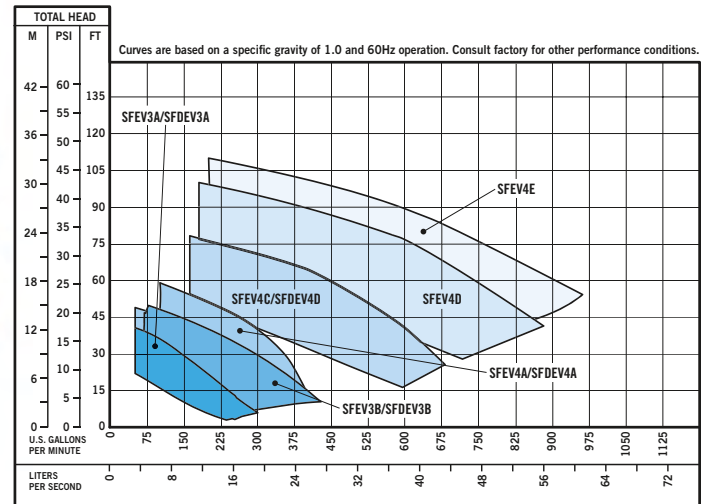
Model SFV4E pictured

## Pump Performance Data

SF Series® Standard-Duty and Standard-Duty Dry Pit Vortex



SF Series® Extreme-Duty and Extreme-Duty Dry Pit Vortex



### OPERATING RANGES

MODEL	PUMP SIZE (SUC. X DIS.)	MAX. CAPACITY	MAX. HEAD	MAX. SOLIDS	CONSTRUCTION
<b>STANDARD-DUTY VORTEX</b>					
SFV3A	3" (75 mm)	295 GPM (18.6 lps)	37' (11.3 m)	3" (76.2 mm)	Ductile and Cast Iron
SFV3B	3" (75 mm)	450 GPM (28.4 lps)	56' (17.1 m)	3" (76.2 mm)	Ductile and Cast Iron
SFV4A	4" (100 mm)	490 GPM (30.9 lps)	60' (18.3 m)	3" (76.2 mm)	Ductile and Cast Iron
SFV4B	4" (100 mm)	600 GPM (37.9 lps)	65' (19.8 m)	3" (76.2 mm)	Ductile and Cast Iron
SFV4C	4" (100 mm)	670 GPM (42.3 lps)	78' (23.8 m)	3" (76.2 mm)	Ductile and Cast Iron
SFV4D	4" (100 mm)	800 GPM (50.5 lps)	98' (29.9 m)	3" (76.2 mm)	Ductile and Cast Iron
SFV4E	4" (100 mm)	860 GPM (54.3 lps)	106' (32.3 m)	3" (76.2 mm)	Ductile and Cast Iron
<b>STANDARD-DUTY DRY PIT VORTEX</b>					
SFDV3A	3" (75 mm)	295 GPM (18.6 lps)	37' (11.3 m)	3" (76.2 mm)	Ductile and Cast Iron
SFDV3B	3" (75 mm)	390 GPM (24.6 lps)	48' (14.6 m)	3" (76.2 mm)	Ductile and Cast Iron
SFDV4A	4" (100 mm)	450 GPM (28.4 lps)	48' (14.6 m)	3" (76.2 mm)	Ductile and Cast Iron
SFDV4B	4" (100 mm)	510 GPM (32.2 lps)	62' (19.0 m)	3" (76.2 mm)	Ductile and Cast Iron
SFDV4D	4" (100 mm)	670 GPM (42.3 lps)	74' (22.6 m)	3" (76.2 mm)	Ductile and Cast Iron
<b>EXTREME-DUTY VORTEX</b>					
SFEV3A	3" (75 mm)	290 GPM (18.3 lps)	40' (12.2 m)	3" (76.2 mm)	Ductile and Cast Iron
SFEV3B	3" (75 mm)	418 GPM (26.4 lps)	53' (16.2 m)	3" (76.2 mm)	Ductile and Cast Iron
SFEV4A	4" (100 mm)	390 GPM (24.6 lps)	59' (18.0 m)	3" (76.2 mm)	Ductile and Cast Iron
SFEV4C	4" (100 mm)	660 GPM (41.6 lps)	78' (23.8 m)	3" (76.2 mm)	Ductile and Cast Iron
SFEV4D	4" (100 mm)	860 GPM (54.3 lps)	100' (30.5 m)	3" (76.2 mm)	Ductile and Cast Iron
SFEV4E	4" (100 mm)	940 GPM (59.3 lps)	108' (32.9 m)	3" (76.2 mm)	Ductile and Cast Iron
<b>EXTREME-DUTY DRY PIT VORTEX</b>					
SFDEV3A	3" (75 mm)	290 GPM (18.3 lps)	40' (12.2 m)	3" (76.2 mm)	Ductile and Cast Iron
SFDEV3B	3" (75 mm)	370 GPM (23.3 lps)	50' (15.2 m)	3" (76.2 mm)	Ductile and Cast Iron
SFDEV4A	4" (100 mm)	340 GPM (21.5 lps)	48' (14.6 m)	3" (76.2 mm)	Ductile and Cast Iron
SFDEV4D	4" (100 mm)	680 GPM (42.9 lps)	78' (23.8 m)	3" (76.2 mm)	Ductile and Cast Iron

# FLUID-HANDLING EQUIPMENT DESIGNED WITH YOUR NEEDS IN MIND



★ Manufacturing Facilities  
● Distribution Centers

Gorman-Rupp USA  
Mansfield, Ohio, USA  
Gorman-Rupp Canada  
St. Thomas, Ontario, Canada

Gorman-Rupp Europe  
Culemborg, Netherlands  
Namur, Belgium  
Gorman-Rupp Africa  
Cape Town, South Africa  
Durban, South Africa  
Johannesburg, South Africa (Headquarters)

**Distribution Centers**  
Dubai, United Arab Emirates  
Grand Prairie, Texas, USA  
Culemborg, Netherlands

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.



## GORMAN-RUPP PUMPS

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

**GRPUMPS.COM**



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