

SF Series[®]
VARIOUS PATENTS APPLY

Solids Handling Electric Motor Driven
Submersible Pump
Models
SF6F & SF6F-X
Size 6"



APPROVED
X-PROOF MOTORS FOR CLASS I,
DIV. 1, GROUPS C&D LOCATIONS
(X-Proof Version Only)

The Gorman-Rupp SF Series[®] channel pumps provide superior pumping efficiency while maintaining a 3-inch (76,2 mm) spherical solids passage.

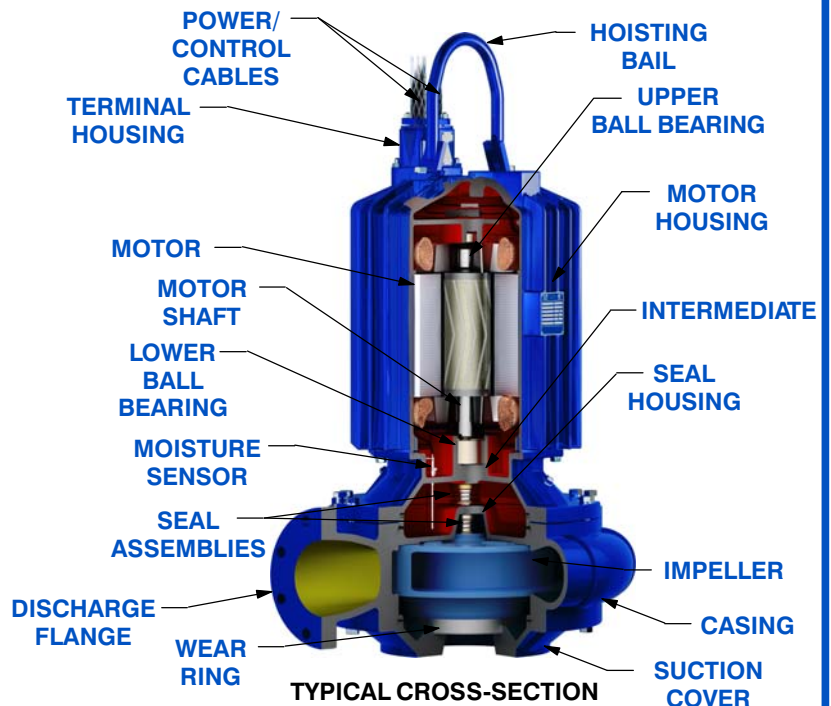
Key Features:

- NEMA premium efficiency motors
- Externally adjustable face clearance
- Press-fit motor with finned motor housing provides superior motor cooling, even in a submersed state, resulting in increased motor life
- NEMA Class H motor insulation
- Direct wired power cable leads
- Standard moisture detection in both the seal and motor chambers
- Factory Mutual (FM) Approved for Class I, Division I, Group C and D Haz Loc Applications (X-Proof Model)



Optional Accessories:

- G-R Hard Iron Impeller
- Control Panel (Consult [SF Series Motor Data Reference](#) for Customer-Supplied Control Panel)
- Submersible Transducer or Ball Type Float Switches
- Slide Rail Installation Components
 - Guide shoe ^W/Rubber Seal
 - Base Elbow and Rail Brackets
- Trash Stand Installation Components
 - Trash Stand
 - Discharge Elbow



GORMAN-RUPP PUMPS

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Specifications Subject to Change Without Notice

Printed in U.S.A.

PUMP DETAILS

Pump Model	SF6F & SF6F-X	
Agency Approvals	Consult Factory	
Discharge Flange	6" ANSI w/ Flat Face	
Impeller Type / Material	Single Vane Enclosed / Ductile Iron	
Wear Ring Material	Ductile Iron	
Spherical Solids Handling	3" (76 mm) Non-Deformable Diameter	
Motor Housing (Including Seal Plate and Intermediate)	Gray Iron 30	
Pump Casing	Ductile Iron	
Motor Shaft	17-4 PH Stainless Steel	
O-Rings	Buna-N and Fluorocarbon (DuPont Viton® or Equivalent)	
Bearings: Type/Lubrication	Upper	Single Row Ball/Permanent Lubrication
	Lower	Double Row Ball/Permanent Lubrication
External Hardware	303/304 Stainless Steel	
External Surface Protection	Epoxy Paint	
Seal Type	Tandem, Mechanical, Oil Lubricated Upper, Self-Lubricated Lower	
Sealing Faces: Rotating/Stationary	Upper	Carbon/Ni-Resist
	Lower	Silicon Carbide/Silicon Carbide
Seal Elastomers	Buna-N Upper, Fluorocarbon (DuPont Viton® or Equivalent) Lower	
Max. Liquid Temperature	104°F (40°C)	

MOTOR DETAILS

Speed	60 Hz, 1750 RPM	
Motor Design	Inverter-Duty Rated, Air-Filled Enclosure, Squirrel Cage, Induction Start	
Motor Efficiency Rating	NEMA Premium Efficiency (IEC IE3)	
Insulation	Class H, Rated 356°F (180°C)	
Max. Submergence	65 Feet (20 Meters)	
Min. Submergence	1/2 Motor Covered	
Max. Starts per Hour	10	
Max. Rated Output Power	30.0 HP (22,4 kW)	
Amp Draw @ Max. Rated Power: Full Load/ Locked Rotor	230V/3P	73.2/492
	460V/3P	36.6/246
	575V/3P	29.3/197
NEMA Motor Code	H	
Service Factor	1.15	
Efficiency: 100%/75%/50% Load	90%/91%/90%	
Power Factor: 100%/75%/50% Load	0.83/0.78/0.67	
Field Connection	Across-the-Line	
Moisture Sensor	Single Probe Monitoring Both Seal and Motor Chambers	
Thermal Overload	One Thermostat per Phase, Self-Resetting	

CABLE DETAILS

Power Cable	Voltage	230/460V	575V
	No. Cables/Conductors per Gauge	1/6	1/6
	Type/Material	(3) 6 AWG PWR & (3) 10 AWG GND/GC	(3) 8 AWG PWR & (3) 10 AWG GND/GC
	Nominal Cable O.D.	1.19" (30,2 mm)	0.97" (24,6 mm)
Control Cable	No. Cables/Conductors per Gauge	1/4	
	Type/Material	14 AWG	
	Nominal Cable O.D.	SOOW/CPE	
	Length	0.61" (15,5 mm)	
		32 Feet (10 Meters) Standard, 164 Feet (50 Meters) Maximum	



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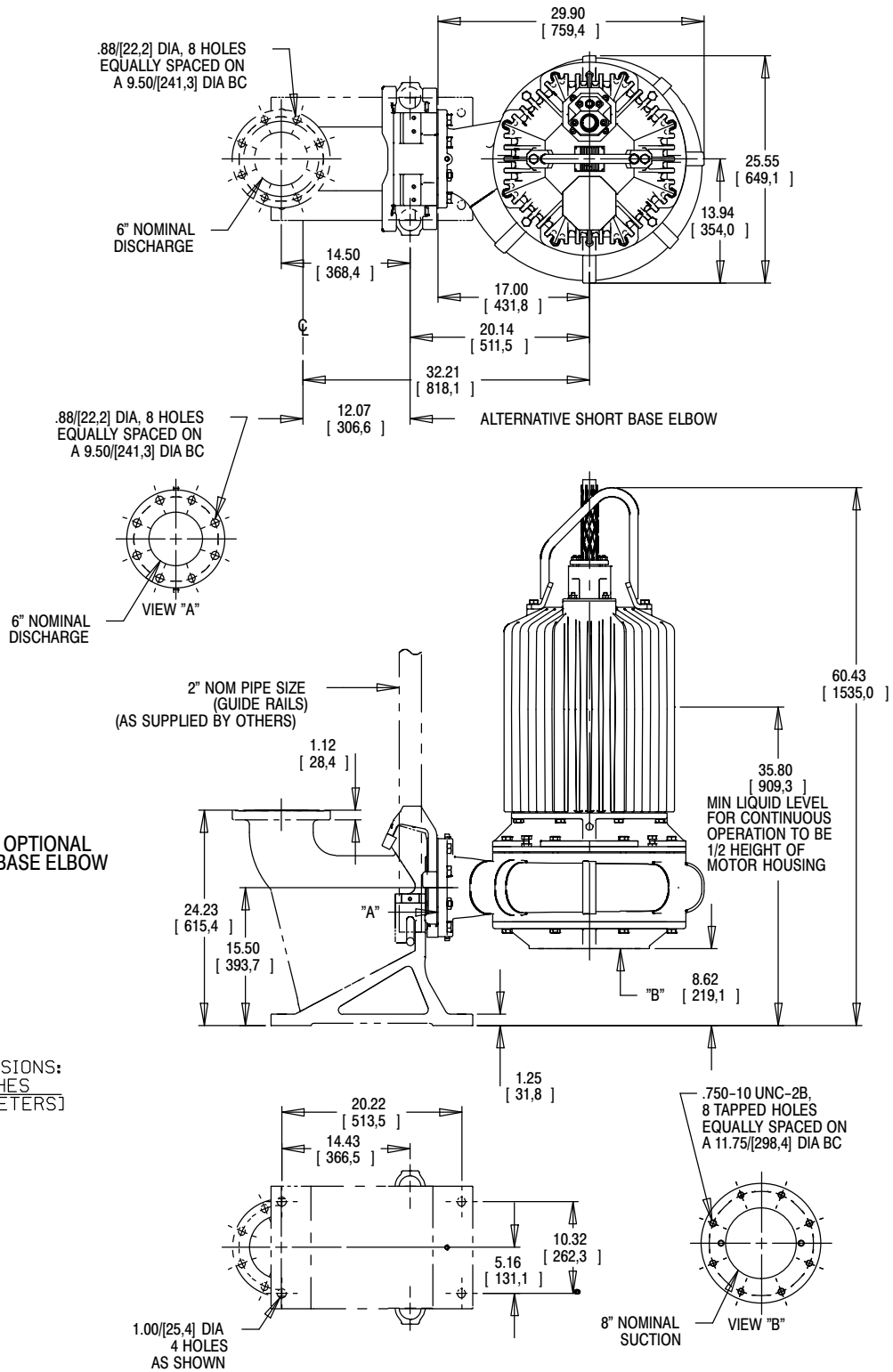
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Specification Data

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**MODEL SF6F & SF6F-X
SLIDE RAIL VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

NET WT: (pump only) **1294 LBS.** [586,9 KG.]
(comb. cable wt. per meter [3.2 ft.]) **3.4 LBS.** [1,54 KG.]
SHIPPING WT: (pump only) **1444 LBS.** [655 KG.]
CRATE SIZE: **23.2 CU. FT.** [0,66 CU. M.]



DIMENSIONS:
INCHES
(MILLIMETERS)



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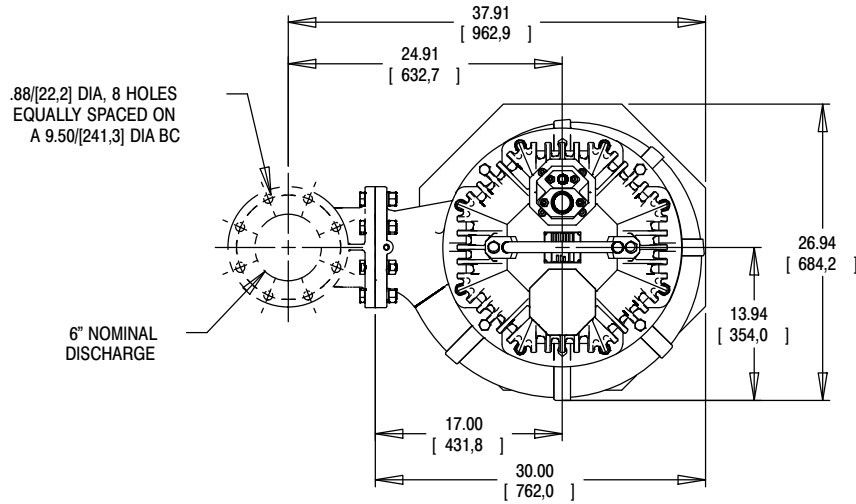
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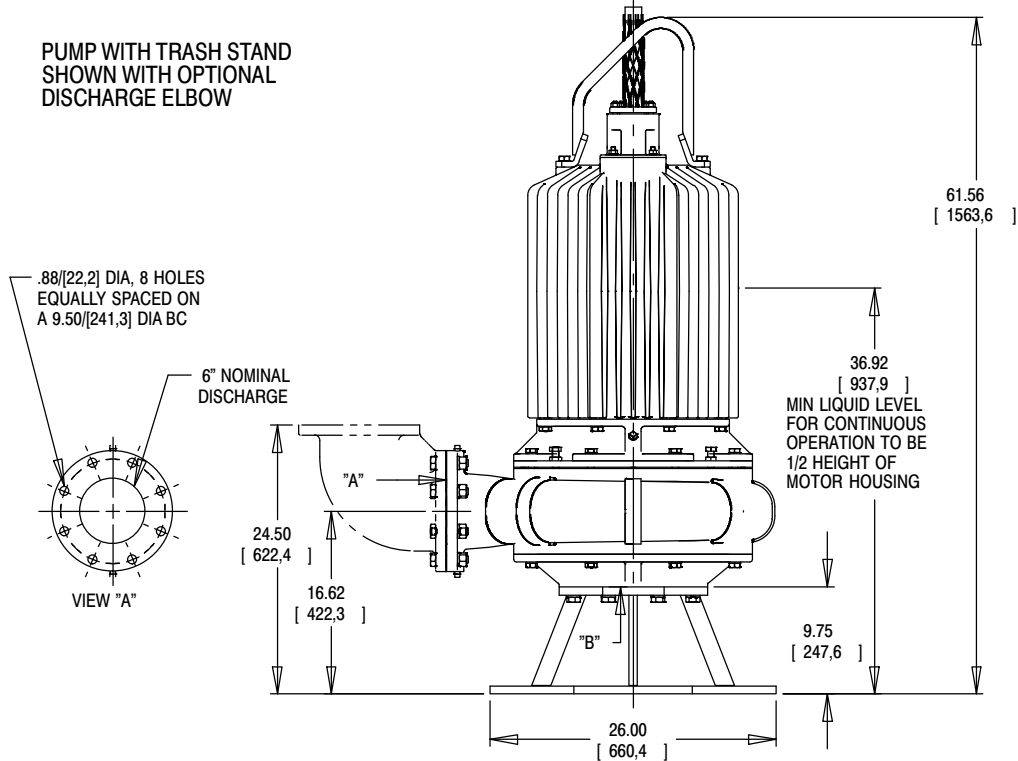
**MODEL SF6F & SF6F-X
TRASH VERSION
APPROXIMATE
DIMENSIONS and WEIGHTS**

NET WT: (pump only) **1354 LBS.** [614,2 KG.]
 (comb. cable wt. per meter [3.2 ft.]) **3.4 LBS.** [1,54 KG.]
SHIPPING WT: (pump only) **1499 LBS.** [680 KG.]
CRATE SIZE: **26.5CU. FT.** [0,75 CU. M.]

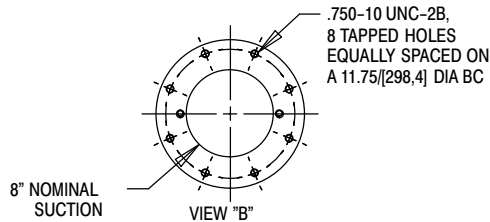
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**PUMP WITH TRASH STAND
SHOWN WITH OPTIONAL
DISCHARGE ELBOW**



**DIMENSIONS:
INCHES
[MILLIMETERS]**



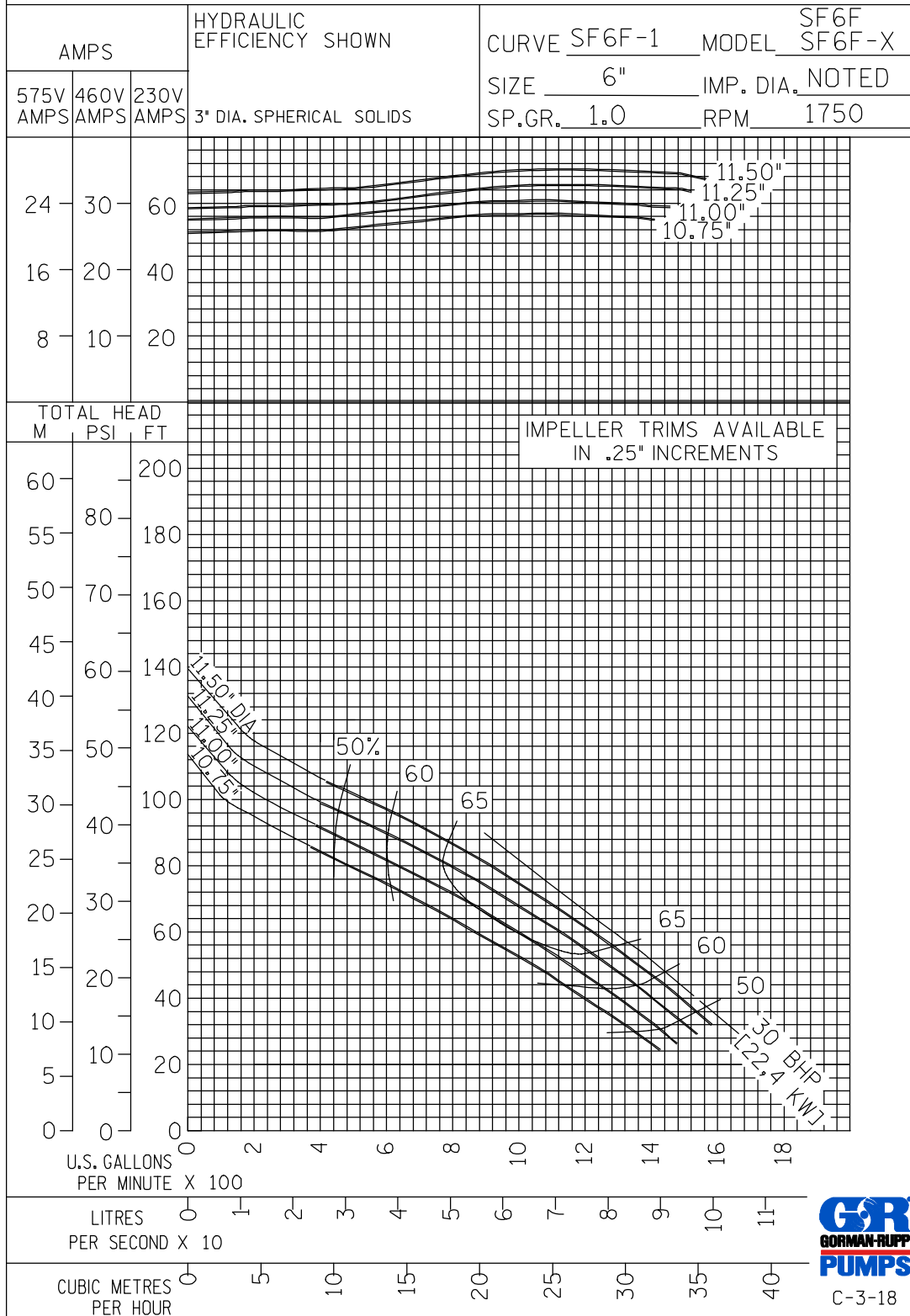
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PERFORMANCE CURVE



C-3-18



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