

Pre-Packaged Fiberglass Systems

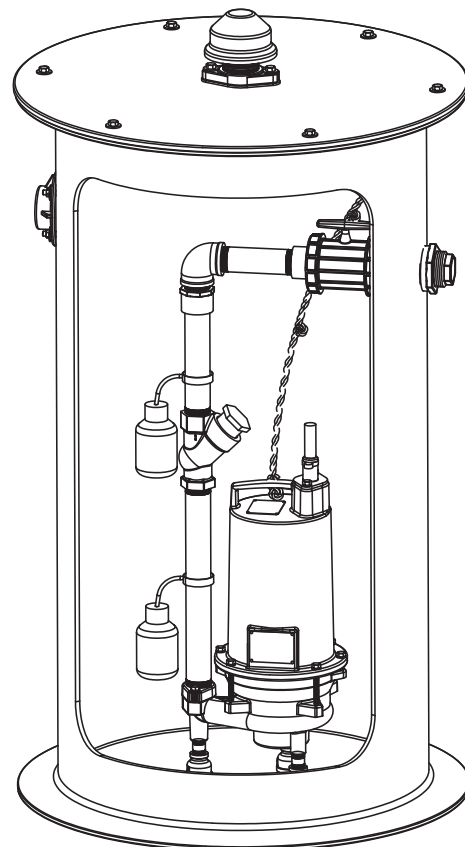
Specifications:

inches
(mm)

BASIN	Fiberglass w/ 3" (76) Ballast Support Flange
DISCHARGE CONNECTION:	
.....	SCH80 PVC/PP
Size	1¼", 2", or 3" NPT, Female
INLET	4" (102) (For Field Installation)
COVER: Fiberglass	24" (609) thru 30" (762)
	One piece, Grass Green with 2" (51)
	Bug-Free Vent.
Aluminum	¾ Hatch, w/2" (51) Bug-Free Vent (Frogmouth)
ELECTRICAL COUPLING ...	Qty. of 1, 2" NPT, PVC
ISOLATION VALVE:	
Design	Full Port True Union
Material	PVC
Size	1¼" NPT, 2" NPT, or 3" NPT
LIFTING DEVICE	1/2" Dia. (13) Polypropylene Rope with
	Knots in 12" (305) increments. Breaking
	Strength of 3750 lbs. (1701kg)
HARDWARE	300 Series Stainless Steel
DISCHARGE PIPING	SCH80 PVC/PP
LEVEL CONTROLS:	
Floats	Two field installed floats provided, one wide
	angle piggy back for on/off operation and one
	alarm float
Cord	15' SJOW
Float Material ..	Polypropylene
3" BALL CHECK VALVE:	
Housing	Cast Iron, with PVC cleanout
Ball	Buna-N
1¼" AND 2" BALL CHECK VALVE:	
Housing	PVC
Ball	Buna-N
REMOTE ALARM	NEMA 3R Enclosure, 120V, 50/60Hz,
	Alarm Light, 85 db Audible Horn,
	Barnes P/N 126307

NOTE: Pump NOT included with part numbers shown in catalog.
See online ePump configurator to build a station with a pump.

NOTE: Designed for use with single phase pumps having a power
cord with attachment plug end for use with piggyback floats.



Simplex Fiberglass Lift Station: Hard Piped

1¼" NPT Discharge, or
2" NPT Discharge, or
3" NPT Discharge



Pre-Packaged Fiberglass Systems

SIMPLEX HARD PIPED PART NUMBERS

PGP SERIES GRINDER PUMPS 1.25" X 1.25" REF: DRAWING CD137095			2" SEWAGE EJECTORS & EFFLUENT PUMPS 2" X 2" REF: DRAWING CD137096			3" DEWAGE EJECTOR PUMPS 3" X 3" REF: DRAWING CD137097		
ASSEMBLY PART NUMBER	PUMP VOLT	DESCRIPTION	ASSEMBLY PART NUMBER	PUMP VOLT	DESCRIPTION	ASSEMBLY PART NUMBER	PUMP VOLT	DESCRIPTION
137572	240V	24 X 48 SOLID FIBERGLASS COVER	137580	120V	30 X 48 SOLID FIBERGLASS COVER	137592	120V	36 X 48 SOLID FIBERGLASS COVER
137573	240V	24 X 60 SOLID FIBERGLASS COVER	137581	120V	30 X 60 SOLID FIBERGLASS COVER	137593	120V	36 X 48 ALUMINUM HATCH
137574	240V	30 X 48 SOLID FIBERGLASS COVER	137582	120V	36 X 48 SOLID FIBERGLASS COVER	137594	120V	36 X 60 SOLID FIBERGLASS COVER
137575	240V	30 X 60 SOLID FIBERGLASS COVER	137583	120V	36 X 48 ALUMINUM HATCH	137595	120V	36 X 60 ALUMINUM HATCH
137576	240V	36 X 48 SOLID FIBERGLASS COVER	137584	120V	36 X 60 SOLID FIBERGLASS COVER	137596	240V	36 X 48 SOLID FIBERGLASS COVER
137577	240V	36 X 48 ALUMINUM HATCH	137585	120V	36 X 60 ALUMINUM HATCH	137597	240V	36 X 48 ALUMINUM HATCH
137578	240V	36 X 60 SOLID FIBERGLASS COVER	137586	240V	30 X 48 SOLID FIBERGLASS COVER	137598	240V	36 X 60 SOLID FIBERGLASS COVER
137579	240V	36 X 60 ALUMINUM HATCH	137587	240V	30 X 60 SOLID FIBERGLASS COVER	137599	240V	36 X 60 ALUMINUM HATCH
			137588	240V	36 X 48 SOLID FIBERGLASS COVER			
			137589	240V	36 X 48 ALUMINUM HATCH			
			137590	240V	36 X 60 SOLID FIBERGLASS COVER			
			137591	240V	36 X 60 ALUMINUM HATCH			

IMPORTANT!

- Pump NOT included with part numbers shown above. See online ePump configurator to build a station with a pump.
- Designed for use with single phase pumps having a power cord with attachment plug end for use with piggyback floats.
- Vertical PVC pipe to be field cut on one end and glued at top to accomodate varying pump heights.

FILE: SPEC40A

Pre-Packaged Fiberglass Systems

DESCRIPTION: The manufacturer shall furnish a complete Pump Station(s). The pump station shall consist of a basin package, high level alarm and pump.

- The Basin Package shall include the following: fiberglass basin with anti-floatation collar, BAF lift out system with stainless steel guide rails, isolation valve, mechanical floats, basin cover, check valve, stainless lifting chain, field locatable conduit fitting, and bug free station vent. All equipment in the wet well shall be capable of constant submerge in sewage to a minimum depth of 30 feet without electrical power being energized.
- The High Level Alarm Panel shall include a water-tight panel with a top mounted Alarm light, a test/silence switch, a power on light and an 85db (A) alarm horn with a mechanical float. The liquid level alarm system is designed specifically for lift pump chambers and sump pump basins. The float switch is lowered into the tank and secured at the desired alarm level. When the liquid rises (high level alarm) or lowers (low level alarm), the float tips and activates the horn and light on the alarm panel.
- The Pump (optional) shall include a Barnes Grinder, Effluent, or Sewage Ejector, and shall be selected based on the hydraulic requirements of the system.

SHOP DRAWINGS AND MANUALS: After receipt of notice to proceed, the manufacturer shall furnish the engineer a minimum of eight (8) sets of shop drawings detailing the equipment to be furnished including dimensional data and materials of construction. The engineer shall promptly review this data, and return two (2) copies to the manufacturer as approved, or approved as noted. Upon receipt of accepted shop drawings, the manufacturer shall proceed with order entry and fabrication of the equipment. Prior to completion of equipment delivery, the manufacturer shall supply four (4) copies of Operation and Maintenance Manuals to the owner, and one (1) copy of the same to the engineer.

PRE-APPROVAL OF MANUFACTURER: The system design is detailed in the drawings. Any pump manufacturer not specified, but wishing to be pre-approved as an acceptable supplier shall submit a complete hydraulic analysis based on the design detailed in the drawings at least fifteen days prior to bid date. All manufacturers must have been in the business of manufacturing complete pump stations for a minimum of ten years. Manufacturer Representatives, Distributors, or Packagers will not be considered to be manufacturers. Manufacturer must demonstrate to the satisfaction of engineer that the proposed pump equipment will meet system flows and heads required. In addition, pre-submittal must also demonstrate to the satisfaction of the engineer that the equipment being proposed meets or exceeds all performance and safety requirements, materials of construction, and user benefits of the specified equipment. Only pre-approved pump station manufacturers will be considered. All bids utilizing manufacturers not pre-approved will be considered non-responsive.

ACCEPTABLE MANUFACTURER(S): Acceptable pump station manufacturer(s) are Barnes pumps as manufactured by Crane Pumps & Systems., or pre-approved equal.

CORROSION PROTECTION: All materials exposed to wastewater shall have inherent corrosion protection: i.e., painted cast iron, fiberglass, stainless steel, PVC.

STATION CONFIGURATION: Basins shall be supplied in a wet well configuration.

LEVEL DETECTION: Level detection for controlling pump and alarm operation shall be accomplished by use of a detection mechanism specifically designed for use in a sewage using an all stainless steel band clamp. Switches utilized in the system shall be hermetically sealed in a submersible, watertight protective casing. Level detection mechanism

shall be a wide angle, pipe mounted, piggy back mechanical floats. Level detection mechanism shall not require any regular, preventive maintenance. The level detection mechanism shall consist of one piggyback on/off pump control float and one high level mechanical float. The level controls shall be serviceable without the need for a confined space entry as defined by OSHA. Use of mercury floats will not be acceptable.

SHUT-OFF VALVE: The pump discharge shall be equipped with a factory installed, manual gate valve with separate union. Gate valves shall be, constructed of (PVC(1-1/4" and 2") Brass (3")) , with a minimum rated pressure of 150 PSI (10.6 kgs/sq. meter). All valves shall be operable from ground level. Shut off valve must be replaceable without excavating basin exterior. Shut off valves shall be each equal to the size of the station discharge.

BASIN CONSTRUCTION AND ASSEMBLY: The basin shall be fiberglass reinforced polyester resin with a 3" (76.2 mm) ballast support flange. The basin shall be furnished with one flexible inlet flange (shipped loose to facilitate field location) to accept a 4.50" (114 mm) OD DWV pipe. Inlet location can vary to accommodate ease of installation. (See installation instructions or consult factory for details.) Basin capacities and dimensions shall be as shown on the contract drawings or as specified herein. The basin FRP wall laminate thickness shall vary with the wetwell depth to provide the aggregate strength to meet the tensile and flexural physical property requirements. The basin FRP wall laminate must be designed to withstand wall collapse or buckling based on a hydrostatic pressure of pounds per square foot, a saturated soil weight of 120 pounds per cubic foot, a soil modulus of 700 pounds per square foot. Basin must comply with the pipe stiffness values as specified in ASTM D 3753. The basin laminate must be constructed to withstand or exceed 150% of the assumed loading on any depth. The finished FRP laminate will have a Barcol hardness of at least 90% of the resin manufactures specified hardness for the fully cured resin. The Barcol Hardness shall be the same for both interior and exterior surfaces. Manufacture must submit documentation including calculation and production certification that basin (s) on the project are in compliance with the above requirements.

All piping inside the basin silhouette shall be at a level in the station that is lower than the frost depth or depth of bury specified for the low pressure sewer piping, whichever is lowest.

Fiberglass cover shall be grass green color. Steel cover shall be black in color. Aluminum cover shall be natural silver color.

All discharge piping shall be constructed of Schedule 80 PVC and terminate outside the stations with a bulkhead female NPT fitting. The manufacturer shall guarantee all bulkhead penetrations watertight.

PUMP REMOVAL SYSTEM: Each basin shall be equipped with a 300 series stainless steel pipe guide rail assembly to facilitate removal of the pump(s) from ground level. A stainless steel lifting chain with harness shall be supplied for pump removal. Pump removal system must not require the loosening of fasteners to facilitate pump removal, and shall provide for automatic alignment and re-connection of discharge piping for the replacement pump. Pump replacement shall be accomplished while the basin is full of sewage without the need to dewater the basin.

WARRANTY: The manufacturer shall provide a warranty of twenty-four (24) months after date of manufacture. The owner will return any equipment found to be defective to the manufacturer for inspection and validation of the defect. Defective equipment will be repaired or replaced and shipped back to customer at no charge. Consult factory for extended warranty information.

End

