



## COMPLETE PRODUCT LINE

Manufacturer of Pumps, Tanks, Heat Exchangers & Accessories



#### **HISTORY**

Flo Fab was established in 1981 by Denis Gauvreau who created and developed the product line, which is constantly being perfected by Marc Gauvreau and a team of professional engineers and designers. It is a combination of existing designs from several renowned products and the innovative ideas of a new generation professionals.

Founder 1981



Through the years, Flo Fab has acquired several companies and service entities including: AQUA-PROFAB (ASME Tanks manufacturer), MÉNARD, LÉONARD ÉLECTRIQUE, PMA. Moreover, Flo Fab also purchased equipment, fabrication designs and patterns from IDEALCO, a manufacturer of shell and tube type heat exchangers.

The after-sales services, sales, engineering, R&D, production, quality control, accounting and administration departments of all the above companies share the same location.

In December 2014, Marc Gauvreau, son of the founder, acquired all of the company's shares. Flo Fab and is constantly investing in new state-of-the-art innovations, new products like the XRI series and Prefab Skid for Hydronic Hearing 8 cooling system and pumping systems. This has allowed Flo Fab to retain our competent and qualified staff of professionals with a variety of specialized skills that continually work on improving our existing products and adding new engineered solutions that exceed customers' expectations .

Flo Fab has grown quite rapidly and now proudly offers of a wide range of products available directly from one manufacturer. This includes pumps and pump packages, tanks, heat exchangers and hydronic accessories. This allows each project's stakeholders to enjoy economical savings, peace of mind, best value for their investment and optimized total cost of ownership.

# MG

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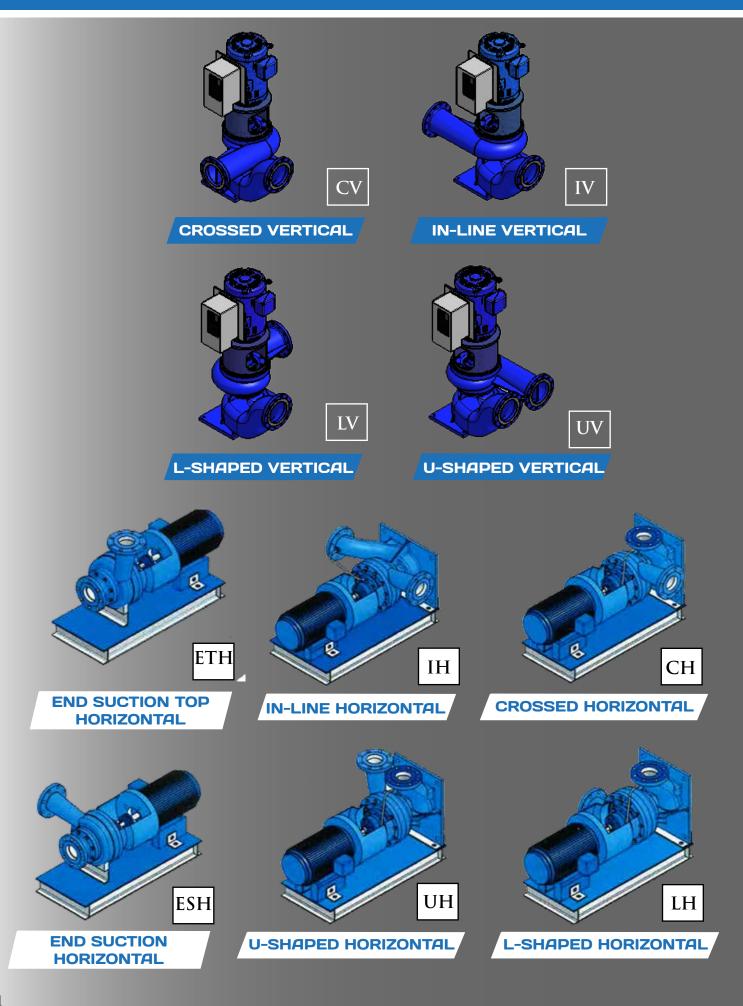
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SERIES	500	600	840SC	880RI
SIMILAR TO	Magna / Astro / UP / PL / 00	2400 / 1900 / 1600 / S / H / 90 /60		4300 / 80SC / VLI / KS
TYPE	Circulating Pump	In-Line Circulator	Vertical In-Line Centrifugal Split Coupling	Vertical In-Line Centrifugal Split Coupling
CAPACITIES	up to 234 USGPM (54 m³/hr)	up to 290 USGPM (61 m³/hr)	454 to 8000 USGPM (1816 m³/hr)	Up to 3000 USGPM (680 m³/hr)
HEAD	up to 43 ft. (14 m)	up to 120 ft. (37 m)	up to 410 ft. (125 m)	up to 650 ft. (198 m)
PRESSURE	up to 145 PSI (999 kPa)	up to 250 PSI (1724 kPa)	up to 600 PSI (4136 kPa)	up to 250 PSI (1724 kPa)
HORSEPOWER	up to 2/5 HP (280 kW)	up to 10 HP (7.5 kW)	up to 400 HP (298 kW)	up to 200 HP (149kW)
DRIVES	ECM Motor ERP Ready	56C Electric Motors	TC Electric Motors	TC Electric Motors
APPLICATIONS	Water / Glycol	Water / Glycol	Water / Glycol	Water / Glycol
TEMPERATURE	up to 220°F (104°C)	up to 250°F (121°C)	up to 300°F (149°C)	up to 300°F (149 °C)
CONSTRUCTION MATERIAL	Cast Iron, Stainless, Bronze	Cast Iron, Bronze Fitted or All Bronze	Cast Iron, Bronze Fitted as Standard. Other materials also available	Cast Iron, Bronze Fitted as Standard. Other materials also available

#### XRI **SERIES** 4300 / 80SC / VSX / VLI / VSM / VSMS **SIMILAR TO** Universal 10 positions Vertical / Horizontal **TYPE** Centrifugal Pump with removable Impeller up to 15850 USGPM **CAPACITIES** 3600 m<sup>3</sup>/hr up to 655ft **HEAD** (200m) up to 600 PSI **PRESSURE** (4136 kPa) up to 1000 HP **HORSEPOWER** (746 kW) **DRIVES** TC Electric Motors **APPLICATIONS** Water / Glycol **TEMPERATURE** up to 300°F (149°C) Cast Iron, CONSTRUCTION Bronze Fitted as MATERIAL Standard. Other materials also available

#### - FEATURE PRODUCT-





SERIES	880	<b>1000/1004</b> 1530 / 1532 / CM / C	<b>2000</b> LF / F / 4030 / 1510	2300 / 2600
SIMILAR TO	80 / VL / 4380	LCS / 4280	/ FM	LF / F / 4030 / 1510 / FM
ТҮРЕ	Compact In-Line Centrifugal	End Suction, Close Coupled	Radially Split Bearing Frame Pump Mounted With Flexible Coupling Back PULL-OUT Design	Radially Split Bearing Frame Pump Mounted With Flexible Coupling Back PULL-OUT Design
CAPACITIES	up to 3000 USGPM (680 m³/hr)	up to 1900 USGPM (431 m³/hr)	up to 1900 USGPM (431 m³/hr)	from 1900 to 6500 USGPM (432 to 1476 m³/hr)
HEAD	up to 650 ft. (198 m)	up to 43 ft. (14 m)	up to 120 ft. (37 m)	up to 410 ft. (125 m)
PRESSURE	up to 250 PSI (1724 kPa)	up to 175 PSI (1206 kPa)	up to 175 PSI (1206 kPa) with 125# flanges	up to 400 PSI (1206 kPa) with 400# flanges
HORSEPOWER	up to 200 HP (149 kW)	up to 200 HP (149 kW)	up to 200 HP (149 kW)	up to 500 HP (373 kW)
DRIVES	JM Electric Motors	JM Electric Motors	T Frame Electric Mo- tors or Diesel Engines	T Frame Electric Motors or Diesel Engines
APPLICATIONS	Water / Glycol	Water / Glycol	Water / Glycol	Water / Glycol
TEMPERATURE	up to 300°F (149 °C)	up to 300°F (149 °C)	up to 300°F (149 °C)	up to 300°F (149 °C)
CONSTRUCTION MATERIAL	Cast Iron, Bronze Fitted as Standard. Other mate- rials also available	Cast Iron, Bronze Fitted as Standard. Other mate- rials also available	Cast Iron, Bronze Fitted as Standard. Other ma- terials also available	Cast Iron, Bronze Fitted as Standard. Other mate- rials also available
				***
SERIES	4800L	4800U	4800/4800H/4900	4800V
SERIES SIMILAR TO	4800L VSX / TS	<b>4800U</b> VSX	HSC / 4600 / KPGT / HS	KPV
	VSX / TS Single Stage, Double Suction Split Case	VSX Single Stage, Double Suction Split Case	HSC / 4600 / KPGT / HS Horizontally Mounted, Single Stage, Double Suction Split Case	KPV  Vertically Mounted, Single Stage, Double Suction Split Case
SIMILAR TO	VSX / TS Single Stage, Double	VSX Single Stage, Double	HSC / 4600 / KPGT / HS Horizontally Mounted, Single Stage, Double	KPV  Vertically Mounted, Single Stage, Double
SIMILAR TO	VSX / TS  Single Stage, Double Suction Split Case  up to 12000 USGPM	VSX Single Stage, Double Suction Split Case up to 12000 USGPM	HSC / 4600 / KPGT / HS Horizontally Mounted, Single Stage, Double Suction Split Case up to 12700 USGPM	KPV  Vertically Mounted, Single Stage, Double Suction Split Case up to 12700 USGPM
SIMILAR TO  TYPE  CAPACITIES	VSX / TS  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)	VSX  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)	HSC / 4600 / KPGT / HS  Horizontally Mounted, Single Stage, Double Suction Split Case up to 12700 USGPM (2884 m³/hr) up to 625 ft. (190 m) up to 600 PSI (4136 kPa)	KPV  Vertically Mounted, Single Stage, Double Suction Split Case  up to 12700 USGPM (2884 m³/hr)  up to 625 ft. (190 m)  up to 600 PSI (4136 kPa)
SIMILAR TO  TYPE  CAPACITIES  HEAD	VSX / TS  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)  up to 800 HP (597 kW)	VSX  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)  up to 800 HP (597 kW)	HSC / 4600 / KPGT / HS  Horizontally Mounted, Single Stage, Double Suction Split Case up to 12700 USGPM (2884 m³/hr) up to 625 ft. (190 m) up to 600 PSI (4136 kPa) up to 1750 HP (1305 kW)	Vertically Mounted, Single Stage, Double Suction Split Case up to 12700 USGPM (2884 m³/hr) up to 625 ft. (190 m) up to 600 PSI
SIMILAR TO  TYPE  CAPACITIES  HEAD  PRESSURE  HORSEPOWER  DRIVES	VSX / TS  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)  up to 800 HP (597 kW)  Electric Motors, Diesel Engines, Steam Turbines	VSX  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)  up to 800 HP (597 kW)  Electric Motors, Diesel Engines, Steam Turbines	HSC / 4600 / KPGT / HS  Horizontally Mounted, Single Stage, Double Suction Split Case  up to 12700 USGPM (2884 m³/hr)  up to 625 ft. (190 m)  up to 600 PSI (4136 kPa)  up to 1750 HP (1305 kW)  Electric Motors, Diesel Engines, Steam Turbines	KPV  Vertically Mounted, Single Stage, Double Suction Split Case  up to 12700 USGPM (2884 m³/hr)  up to 625 ft. (190 m)  up to 600 PSI (4136 kPa)  up to 1750 HP (1305 kW)  Electric Motors, Diesel Engines, R.A.G.D
SIMILAR TO  TYPE  CAPACITIES  HEAD  PRESSURE  HORSEPOWER	VSX / TS  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)  up to 800 HP (597 kW)  Electric Motors, Diesel Engines, Steam Turbines  Water / Glycol	VSX  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)  up to 800 HP (597 kW)  Electric Motors, Diesel Engines, Steam Turbines  Water / Glycol	HSC / 4600 / KPGT / HS Horizontally Mounted, Single Stage, Double Suction Split Case up to 12700 USGPM (2884 m³/hr) up to 625 ft. (190 m) up to 600 PSI (4136 kPa) up to 1750 HP (1305 kW) Electric Motors, Diesel Engines, Steam Turbines Water / Glycol	KPV  Vertically Mounted, Single Stage, Double Suction Split Case  up to 12700 USGPM (2884 m³/hr)  up to 625 ft. (190 m)  up to 600 PSI (4136 kPa)  up to 1750 HP (1305 kW)  Electric Motors, Diesel Engines, R.A.G.D  Water / Glycol
SIMILAR TO  TYPE  CAPACITIES  HEAD  PRESSURE  HORSEPOWER  DRIVES	VSX / TS  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)  up to 800 HP (597 kW)  Electric Motors, Diesel Engines, Steam Turbines	VSX  Single Stage, Double Suction Split Case  up to 12000 USGPM (2725 m³/hr)  up to 750 ft. (227 m)  up to 600 PSI (4136 kPa)  up to 800 HP (597 kW)  Electric Motors, Diesel Engines, Steam Turbines	HSC / 4600 / KPGT / HS  Horizontally Mounted, Single Stage, Double Suction Split Case  up to 12700 USGPM (2884 m³/hr)  up to 625 ft. (190 m)  up to 600 PSI (4136 kPa)  up to 1750 HP (1305 kW)  Electric Motors, Diesel Engines, Steam Turbines	KPV  Vertically Mounted, Single Stage, Double Suction Split Case  up to 12700 USGPM (2884 m³/hr)  up to 625 ft. (190 m)  up to 600 PSI (4136 kPa)  up to 1750 HP (1305 kW)  Electric Motors, Diesel Engines, R.A.G.D

SERIES	PSMCF		PSM	PSF	PST
SIMILAR TO	PSI	чсг	1535 / 4700 / CR	РЭГ	SCX / 1700
TYPE	Vertical Multistage		Vertical Multistage	Flanged Close Coupled Centrifugal	NPT Close Coupled Centrifugal
CAPACITIES	. (56 n	0 USGPM n³/hr)	up to 792 USGPM (180 m³/hr)	13 to 380 USGPM (3 to 86 m³/hr)	up to 52 USGPM (12m³/hr)
HEAD	(283	930 ft. 3 m)	up to 930 ft. (283 m)	up to 150 ft. (46 m)	up to 150 ft. (46 m)
PRESSURE	(2964	30 PSI kPa)	up to 430 PSI (2964 kPa)	up to 145 PSI (1000 kPa)	up to 115 PSI (793 kPa)
HORSEPOWER	(37	50 HP kW)	up to 100 HP (75 kW)	up to 15 HP (11 kW)	up to 3 HP (2.2 kW)
DRIVES		Electrical tor	Vertical Electrical Motor	Electric Close Coupled Motors	Vertical Electrical Motor
APPLICATIONS		r and _iquids	Water and Clear Liquids	Water and Clear Liquids	Water and Clear Liquids
TEMPERATURE	5°F (-15°C) to 248°F (120°)		5°F (-15°C) to 248°F (120°)	up to 225°F (107°C)	up to 225°F (107°C)
CONSTRUCTION MATERIAL			Cast Iron as Standard, or Stainless Steel #304 & #316	#304 Stainless Steel	#304 Stainless Steel
		nd Tube changers	Plate and Frame Heat Exchangers	Brazed Heat Exchangers	
SERIES	"W"	"S"	"FFW" AHRI	"BR"	IQP1000 / ACH550
TYPE	Water to Water / Glycol to Water	Steam to Water	Steam to Water Water to Water Glycol to Water	Steam to Water Water to Water Glycol to Water	VFD Flo Fab's Prefered* 200-240V / 3-Phase 380-480V / 3-Phase 500-600V / 3-Phase
CAPACITIES	up to 3000 USGPM 681 m³/hr up to 250 PSI (1724 kpa) Steam		up to 10000 USGPM 2271 m³/hr up to 250 PSI (1724 kpa) Steam	up to 400 USGPM 91 m³/hr up to 150 lbs Steam	150% for 60 sec. (HD), 120% for 60 sec. (ND)
PRESSURE	150 PSI (1034 kPa) 250 PSI (1724 kPa)		300 PSI (2068 kPa)	300 PSI (up to 2068 kPa)	
APPLICATIONS	Water, Glycol or Steam		Water, Glycol or Steam	Water, Glycol or Steam	
TEMPERATURE	up to 300°F (144°C)		up to 300°F (144°C)	up to 300°F (144°C)	
CONSTRUCTION MATERIAL	Carbon Steel or Stainless Steel with Stainless Steel Tubes		Carbon Steel, Titanium and Stainless Steel. Other materials available	Titanium and Stainless Steel. Other materials available	



#### **Quotation Requirement for Skid**

#### What we need?

- 1.1 System PID
- 1.2 Pumps, Tanks and Heat Exchangers Schedule
- 1.3 Cut sheets for non Flo Fab parts such as Boilers, Chillers, etc...
- 1.4 Skids footprint
- 1.5 Mechanical room footprint
- 1.6 Control sequence details

#### **Quality Control**

All pumps are factory tested and certified performance test is available when requested by the consultant. Test facilities up to 400 HP with 27,000-gallon test bench with calibrated instruments.

#### Skid Advantages

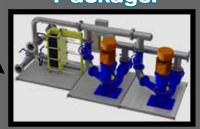
- Solution for both: New construction and Retrofit.
- Easily add more modules for future expansion.
- One single point of Responsibility / Contact.
- One single submittal for approval vs. individual submittals for each component.
- Financial: Cost reduction. Effectively reduce total cost of ownership for all project stakeholders (Contractor / Consultant Engineer / End User)
- Financial: Space saving due to optimized space utilisation.
- Financial: Time (Cost) saving: Skid built in parallel during building construction, also.
- Financial: Cash flow
- Management: One single invoice / payment for all works
- Financial: Overhead savings, including project management, logistical coordination, insurance expense, etc.
- Financial: No surplus or extra components left after fabrication by contractor.
- Time (Cost) saving: No construction delay due to tested = site plug & play
- Safety: Avoid unpleasant site safety incidents and lost days as we tremendously minimize job site man-hours.

#### PID: Production:





#### Package:



#### 2.1 Heating and Cooling Systems

2.2 HC Module will be composed of two pumps, control panel VFD, expansion tank, air separator, chemical pot feeder, and glycol fill system (optional), balancing valves, isolation valves, air vents and drain connections, multifunction valves, suction diffusers or Y strainers, interconnecting black steel schedule 40 piping. All package components are mounted on a structural steel base with lifting lugs.

#### **SPECS** example:

Probet	Product Type	Declinics)	Date Submitted	time	
300	Separately Coupled, Hurturdally tourised, In-Line Centrifugal Pumps	232/23-HIORONO PUMPE	160016	Symbol	View Catalia
98990	Separately Coupled, Vertically Mounted, in-Line Centifugal Furnies	202123-HIORONG PURPS	150015	Scientisci	View Cretato
2000	Separately Coupled, Base- Mounted, End-Suction Centrifugal Fumps	232125-HIORONIC PLAIFS	150016	Scotter	View Cetaits



#### FFBP33 & FFBP50

Discharge: 1½" NPT, female, vertical.

Spherical solids handling: 1/2"

HP: 0.3 & 0.5 RPM: 3500

Impeller: 10 vane vortex, with vanes on back side, dynamically balanced. Cast iron ASTM A-48, class 30.

Shaft: 416 series stainless steel.

Motor: NEMA L, single phase, permanent split capacitor, 120 volts, 60 Hz, oil filled, with overload

protection in motor.

Pump operation: automatic float switch or

automatic vertical float switch.



## FF2AHS

Discharge: 2" NPT, vertical.
Spherical solids handling: 1/2"

HP: 1

RPM: 3500

Impeller: 8 vane, open, semi-vortex.

Hytrel® thermoplastic elastomer.

Shaft: 410 series stainless steel.

Motor: dry type submersible motor, 1 & 3 phase,

115 & 230 volts, 60 Hz, 3500 RPM.

For continuous duty, with thermal protector IP68

in winding, insulation class B.



#### FFBPEV512

Discharge: 2" NPT, female, vertical. Spherical solids handling: 3/4"

HP: 0.5 RPM: 3500

Impeller: vortex, dynamically balanced. Cast iron ASTM A-48, class 30. ISO G6.3

Shaft: 416 series stainless steel.

Motor: NEMA L, single phase, permanent split capacitor, 115 volts, 60 Hz, oil filled, with overload

protection in motor.



## **FFBPSTEP**

Discharge: 2" NPT, vertical. Spherical solids handling: 3/4"

HP: 0.5 & 1 RPM: 3500

Impeller: single vane enclosed.

Polypropylene with stainless steel insert.

Shaft: stainless steel.

Motor: NEMA L, single phase, permanent split capacitor, 115/230 volts, 60 Hz, oil filled, class B insulation, with overload protection in motor.



## FF2BEH-SS

Discharge: 2" NPT, vertical. Spherical solids handling: 3/4"

HP: 0.5 & 1 RPM: 3500

Impeller: 2 vane, open, with vanes on back side, dynamically balanced ISO G6.3. Bronze 85-5-5.

Shaft: stainless steel.

Motor:

Single phase: NEMA L, permanent split

capacitor, 115/230 volts, oil filled, with overload

protection in motor.

Three phase: NEMA B, 208/230 & 460 volts, oil filled. Requires overload protection to be



## FF2BSE411 & FF2BSE511

Discharge: 2" NPT, vertical. Spherical solids handling: 2"

HP: 0.4 & 0.5 RPM: 1750

Impeller: open, double vane, dynamically balanced.

Cast iron ASTM A-48, class 30, ISO G6.3.

Shaft: 416 series stainless steel.

Motor: NEMA L, single phase, permanent split capacitor, 115 volts, 60 Hz, oil filled, with overload

protection in motor.



## FF2SEV512

Discharge: 2" NPT, female, vertical.

Spherical solids handling: 2"

HP: 0.5 RPM: 3500

Impeller: vortex. Cast iron ASTM A-48, class 30,

ISO G6.3.

Shaft: 416 series stainless steel.

Motor: NEMA L, single phase, permanent split

capacitor, 115 volts, 60 Hz, oil filled, with overload

protection in motor.



## FF2BSE-SS / FF3BSE-SS

Discharge: 2" or 3" NPT female, vertical, bolt on flange. Includes both flanges.

(The name of the pump changes to FF3BSE when used with the 3" discharge flange.)

Spherical solids handling: 2"

HP: 0.5 & 0.75 RPM: 1750

Impeller: 2 vane, open, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor: NEMA L, single phase, permanent split capacitor, 120 volts, 60 Hz, oil filled, with overload

protection in motor.



## FF3BSE-SS / 1 HP

Discharge: 3" NPT, female, vertical, bolt on flange.

Spherical solids handling: 2"

HP: 1

RPM: 1750

Impeller: 2 vane, open, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor:

Single phase: NEMA L, permanent split capacitor, 230 volts, 60 Hz, oil filled, with overload protection

in motor.

Three phase: NEMA B, 230/460 volts, 60 Hz, oil filled. Requires overload protection to be

included in control panel.



## FF3BSE-SS / 1.5 & 2 HP

Discharge: 3" NPT, female, vertical, bolt on flange.

Spherical solids handling: 21/2"

HP: 1.5 & 2 RPM: 1750

Impeller: 2 vane, open, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor:

Single phase: NEMA L, permanent split capacitor, 230 volts, 60 Hz, oil filled, with overload protection

in motor.

Three phase: NEMA B, 230/460 volts, 60 Hz, oil filled. Requires overload protection to be



## FF3BSE-SS / 3 HP

Discharge: 3" NPT, female, vertical, bolt on flange.

Spherical solids handling: 21/2"

HP: 3

RPM: 1750

Impeller: 2 vane, open, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor:

Single phase: permanent split capacitor, 230 volts, 60 Hz, oil filled, with overload protection in motor.

Three phase: 230/460 volts, 60 Hz, oil filled. Requires overload protection to be included in

control panel.



## FF3BWSE-DS

Discharge: 3", 125 lb, flange horizontal.

Spherical solids handling: 21/2"

HP: 2-5 RPM: 1750

Impeller: 2 vane, semi-open, with vanes on back

side. Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230 & 460 volts,

60 Hz, oil filled, with class F insulation.

Requires overload protection to be included

in control panel.



## FF4BSE-SS

Discharge: 4" NPT vertical. Spherical solids handling: 3"

HP: 3 & 5 RPM: 1750

Impeller: 2 vane, open, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230/460 volts,

60 Hz, oil filled, with class F insulation.

Requires overload protection to be included

in control panel.



## FF4BWSE-DS

Discharge: 4", 125 lb, flange horizontal.

Spherical solids handling: 3"

HP: 2-7.5 RPM: 1750

Impeller: 2 vane, open, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 316 series stainless steel.

Motor: NEMA B, three phase, 230 & 460 volts,

60 Hz, oil filled, with class F insulation.

Requires overload protection to be included

in control panel.



## FF4BSE-DS

Discharge: 4", 125 lb, flange horizontal.

Spherical solids handling: 3"

HP: 4.5-15 RPM: 1750

Impeller: 2 vane, open, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor:

Single phase: NEMA L, permanent split capacitor,

230 volts, 60 Hz, oil filled.

Three phase: NEMA B 230/460 volts, 60 Hz,

oil filled.



## FF4BSE-HLDS

Discharge: 4", 125 lb, flange horizontal.

Spherical solids handling: 3"

HP: 7.5-15 RPM: 1750

Impeller: 2 vane, closed, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230/460 volts, 60 Hz,

oil filled. Requires overload protection to be



## FF6BSE-LDS / 9-30 HP

Discharge: 6", 125 lb, flange horizontal.

Spherical solids handling: 4"

HP: 9-30 RPM: 1150

Impeller: 1 vane, closed, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230/460 volts, 60 Hz,

oil filled. Requires overload protection to be

included in control panel.



## FF6BSE-LDS / 18-60 HP

Discharge: 6", 125 lb, flange horizontal.

Spherical solids handling: 4"

HP: 18-60 RPM: 1750

Impeller: 1 vane (2 vane for 48 & 60 HP),

closed, with vanes on back side. Cast iron ASTM

A-48, class 30.

Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230/460 volts, 60 Hz, oil filled. Requires overload protection

to be included in control panel.



## FF6BSE-HLDS

Discharge: 6", 125 lb, flange horizontal.

Spherical solids handling: 3"

HP: 30-60 RPM: 1750

Impeller: 3 vane, closed, with vanes on back side.

Cast iron ASTM A-48, class 30. Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230/460 volts, 60 Hz,

oil filled. Requires overload protection to be



#### FF8BSE-HLDS

Discharge: 8", 125 lb, flange horizontal.

Spherical solids handling: 3"

HP: 36-48 RPM: 1150

Impeller: 3 vanes, closed, with a bronze wear ring and vanes on back side. Cast iron ASTM A-48,

class 30.

Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230/460 volts, 60 Hz,

oil filled. Requires overload protection to be

included in control panel.



## FF8BSE-HADS

Discharge: 8", 125 lb, flange horizontal.

Spherical solids handling: 3"

HP: 30-75 / 100-200 RPM: 1150 / 3450

Impeller: 3 vane, closed, with with a bronze wear ring and vanes on back side. Cast iron ASTM A-48,

class 30.

Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230/460 volts, 60 Hz,

air cooled. Explosion proof, class 1, division 1, group C & D. Requires overload protection to be



## FF4XBSE W/ EXPLOSION PROOF MOTORS

Discharge: 4", 125 lb, flange horizontal.

Spherical solids handling: 3"

HP: 5-20

RPM: 1150 & 1750

Impeller: 2 vane, open, with vanes on back side.

Cast iron ASTM A-48 class 30. Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230 & 460 volts, 60 Hz, 1150 & 1750 RPM, air cooled. Explosion Proof, Class 1, Division 1, Group C & D, insulation Class F. Requires overload protection to be included

in control panel.



## FF6XBSE W/ EXPLOSION PROOF MOTORS

Discharge: 6", 125 lb, flange horizontal.

Spherical solids handling: 4"

HP: 15-75

RPM: 1150 & 1750

Impeller: 1 vane, closed, with vanes on back side.

Cast iron ASTM A-48 class 30. Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 230 & 460 volts, 60 Hz, 1150 & 1750 RPM, air cooled. Explosion Proof, Class 1, Division 1, Group C & D, insulation Class F. Requires overload protection to be included

in control panel.



## FF8XBSE W/ EXPLOSION PROOF MOTORS

Discharge: 8", 125 lb, flange horizontal.

Spherical solids handling: 3"

HP: 30-150

RPM: 1150 & 1750

Impeller: 3 vane, closed, with with a bronze wear ring and vanes on back side. Cast iron ASTM A-48,

class 30.

Shaft: 416 series stainless steel.

Motor: NEMA B, three phase, 460 volts, 60 Hz, 1150 & 1750 RPM, air cooled. Explosion Proof, Class 1, Division 1, Group C & D, insulation Class F.

Requires overload protection to be included in

control panel.



#### FFBGP-DS / 2 HP

Discharge: 11/4" NPT, vertical.

HP: 2

RPM: 3500

Impeller: 12 vanes, vortex with vanes on back side, dynamically balanced. Cast iron ASTM A-48, class 30. Radial cutter and shredding ring: hardened 440C,

stainless steel, hardness Rockwell C-55.

Shaft: 420 series stainless steel.

Motor:

Single phase: permanent split capacitor, 220 volts, 60 Hz, oil filled, with overload protection in motor.

Class F insulation.

Three phase: 220/440 volts, 60 Hz, oil filled with overload protection in motor. Class F insulation.



## FFBGP-DS / 3, 5 & 7.5 HP

Discharge: 2" NPT, vertical.

HP: 3, 5 & 7.5 RPM: 3500

Impeller: 10 vanes, vortex with vanes on back side, dynamically balanced. Cast iron ASTM A-48, class 30. Radial cutter and shredding ring: hardened 440C,

stainless steel, hardness Rockwell C-55.

Shaft: 420 series stainless steel.

Motor:

Single phase: NEMA L, permanent split capacitor (to be located in control panel), 230 volts, 60 Hz,

oil filled. Class F insulation.

Three phase: NEMA B, 230/460 volts, 60 Hz, oil filled. Class F insulation. Requires overload protection to be included in control panel.



## FFBGPH-DS / 3, 5 & 7.5 HP

Discharge: 2½" flange, horizontal.

HP: 3, 5 & 7.5 RPM: 3500

Impeller: 10 vanes, vortex with vanes on back side, dynamically balanced. Cast iron ASTM A-48, class 30. Radial cutter and shredding ring: hardened 440C,

stainless steel, hardness Rockwell C-55.

Shaft: 420 series stainless steel.

Single phase: NEMA L, permanent split capacitor (to be located in control panel), 230 volts, 60 Hz, oil filled. Class F insulation.

Three phase: NEMA B, 230/460 volts, 60 Hz, oil filled. Class F insulation. Requires overload protection to be included in control panel.



## **FFBVRI**

Discharge: 2" & 3" NPT elbow, vertical. Spherical solids handling: 1½" & 2"

HP: 0.5 - 7.5 RPM: 3500

Impeller: 8 vane, semi-open Vortex. 316 series

stainless steel.

Shaft: 416 series stainless steel.

Motor: For continuous duty, 1 & 3 phase, 3450 RPM,

dry type, insulation class B, protection IP68,

115/230 volts.



## **FFBVRI**

Discharge: 2.5" & 3" NPT elbow, vertical.

Spherical solids handling: 2½" & 3"

HP: 1.5 - 3 RPM: 3450

Impeller: 6 & 8 vane, semi-open Vortex.

Cast iron ASTM A-48, class 30. Shaft: 410 series stainless steel.

Motor: 1 & 3 phase, 230 volts, 60 Hz, 3450 RPM. For continuous duty, with protection IP68 in winding,

insulation class B.



## FFMCN-G CHEMICAL PROCESS PUMP

#### **TECH DATA**

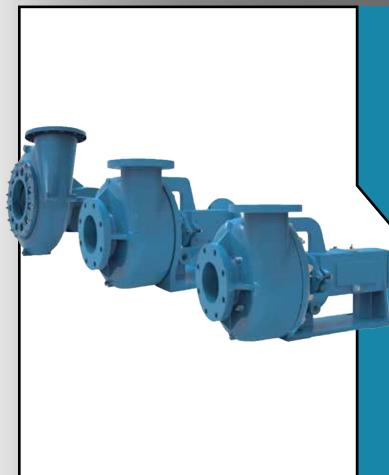
- Size: 1" 10"
- Max head: 6164GPM
- Max cap: 466'
- Media temp: -13°F ~+ 284°F
- Max System Pressure: 363PSI

#### **ADVANTAGE**

- Complies with ANSI B73.1
- Open impeller
- High efficiency & energy saving
- Wide operation range
- Robust structure
- Modern design

#### **APPLICATION**

- Chemical Engineering
- Paper and pulp
- All process industries
- Petrochemical



#### FFMCO SLURRY PUMP

#### **TECH DATA**

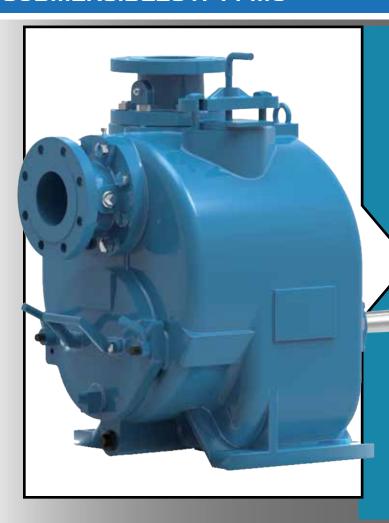
- Size:2" 12"
- Max cap: 7045GPM
- Max head: 361' '
- Media temp: -13°F ~+ 284°F
- Max system pressure: 232PSI

#### **ADVANTAGE**

- Semi-open impeller
- Robust design
- Wide operation range
- Heavy duty bearing housing

#### **APPLICATION**

- Barite & mineral oil based drilling
- Bentonite, Salt water slurry
- Cement
- Paper and pulp, Mine dewatering
- Lime, Gypsum, Calcium,
- Ash & coal liquid slurry
- Chemical industry



## FFMCT SELF PRIMING TRASH PUMP

#### **TECH DATA**

• Size: 2"- 12"

• Max cap: 3400GPM

• Max head: 130'

Media temp: 14°F ~+ 185°F
Max system pressure: 51PSI

• Max suction: 25'

#### • Max solids: 3"

Proven design

**ADVANTAGE** 

- Excellent performance
- Non-clogging design
- Excellent self priming function
- Installation and maintenance

#### **APPLICATION**

- Municipal
- Marine
- Industrial sewage water treatment
- Agriculture irrigation
- Drainage/Construction



## FFMCST SELF PRIMING TRASH PUMP

#### **TECH DATA**

• Size: 2"- 12"

• Max cap: 3400GPM

• Max head: 130'

Media temp: 14°F ~+ 185°F
Max system pressure: 51PSI

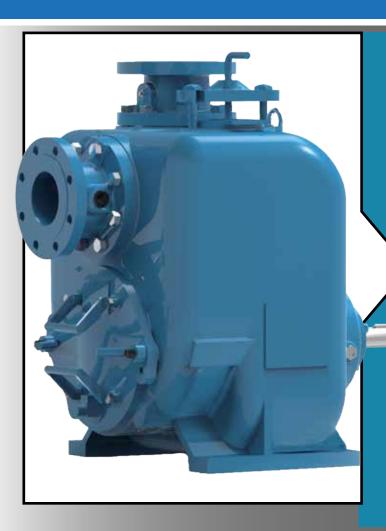
Max suction: 25'Max solids: 3''

#### **ADVANTAGE**

- Proven design
- Excellent performance
- Non-clogging design
- Excellent self priming function
- Installation and maintenance

#### **APPLICATION**

- Municipal
- Marine
- Industrial sewage water treatment
- Agriculture irrigation
- Drainage/Construction



# FFMCU HIGH HEAD SELF PRIMING TRASH PUMP

#### **TECH DATA**

• Size: 3" - 6"

• Max cap: 1500GPM

• Max head: 207'

Media temp: 14°F ~+ 185°F
Max system pressure: 87PSI

Max suctron:25'Max solids: 1.25''

#### **ADVANTAGE**

Proven design

• Excellent & reliable performance

• Non- clogging design

• Excellent self priming function

• Installation and maintenance

• Excellent trash handling capability

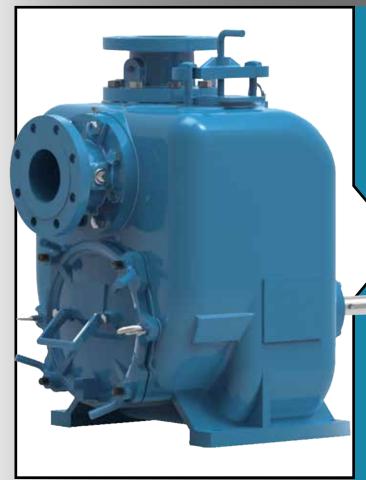
#### **APPLICATION**

Municipal

Marine

• Industrial sewage water treatment

• Agriculture irrigation



# FFMCSU HIGH HEAD SELF PRIMING TRASH PUMP

#### **TECH DATA**

• Size: 3" - 6"

• Max cap: 1500GPM

• Max head: 207'

Media temp: 14°F ~+ 185°F
Max system pressure: 87PSI

• Max suctron:25'

• Max solids: 1.25"

#### **ADVANTAGE**

Proven design

• Excellent & reliable performance

• Non- clogging design

• Excellent self priming function

Installation and maintenance

• Excellent trash handling capability

#### **APPLICATION**

Municipal

Marine

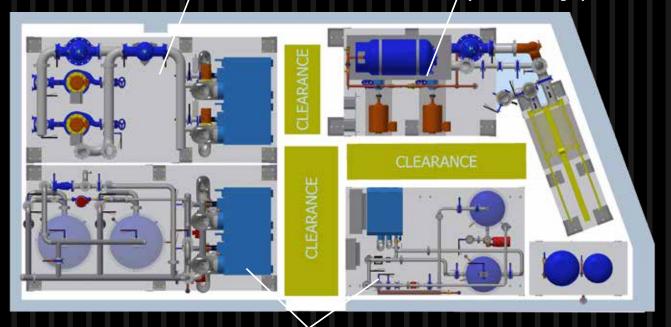
• Industrial sewage water treatment

• Agriculture irrigation

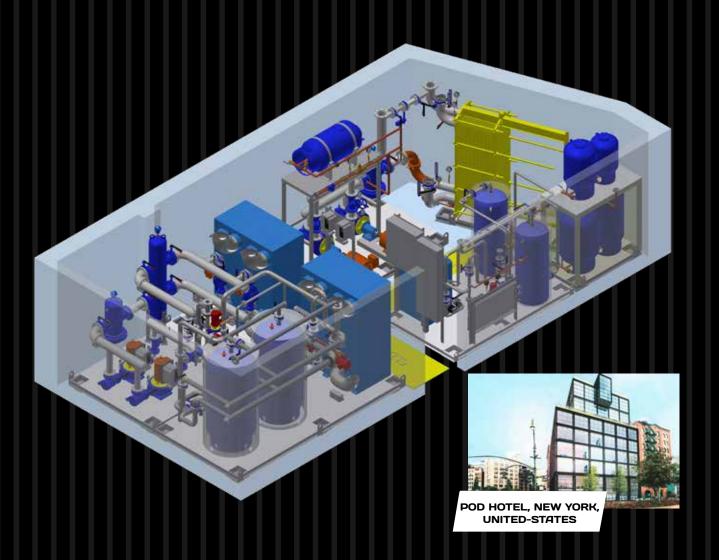
# Typical Mechanical Room

Hydronic Heating System Skid

**Hydronic Cooling System Skid** 



**Hot Water Domestic Skids** 



# FLEXIBLE - ST Material: Steel and Stainless Steel Pressure: 475 PSIG at 850°F with water Size Range: 1/2" to 2" Connections: Threaded























						<b>A</b>			
	SERIES	LB-25, 4 215 &		FS-237, 337 & 437, 475, 675, 4110, 6110, 8110	LBV-40	LBV-75, 215 & 315	LBK-75	LBK-215 & 315	
	TYPE	Effluent	Pump	Multi-Purpose Drainage Pump		& Sewage x Pump	Effluent	Sewage Non Clog Pump	
	CAPACITIES	up to 175 (40 m <sup>3</sup>	/hr)	up to 1400 USGPM (317 m³/hr)	(36	59 USGPM m³/hr)	. (42 r	5 USGPM n³/hr)	
	HEAD	8 to 72 (2.4 to 2	1.5 m)	10 to 163 ft. (3 to 49 m)	(1.2 t	59 ft. to 18m)	(3 to	59 ft. 18m)	
	SOLID SIZE	3/8 (9 m)		3/4" (19 mm)	3/4" (19mm)	2" (50mm)	3/4" (19mm)	2" (50mm)	
	HORSEPOWER	up to 1 (0.75	κW)	up to 30 HP (22 kW)	(0.7	o 1 HP 5 kW)	(0.7	1 HP 5 kW)	
	DRIVES	Air Fil Electrical Explosior	Motors	Air Filled Electrical Motors Explosion Proof	Electric	Filled al Motors ion Proof	Air Filled Electrical Motors Explosion Proof		
	APPLICATIONS	Wate	er	Water	Water, Sewage & Waste Liquids		Water	Water & Waste Li- quids	
	TEMPERATURE	up to 200°F (94 °C)		up to 200°F (94 °C)	up to 200°F (94°C)		up to 200°F (94 °C)		
	CONSTRUCTION MATERIALS	Cast Iron		Cast Iron and Stainless Steel	Cast Iron		Cast	: Iron	
						7		To the second se	
	SERIES	FBV-332	FBV-337 & 437	FGC-015 / FGC-022 FGC-037 / FGC-055	BAF		Sub Accessories		
	TYPE	Sewa Non Clog	Pump	Sewage Grinder Pump	Break Av	way Fitting			
	CAPACITIES	up to 317 72 m <sup>3</sup>	/hr	up to 61 USGPM 14 m³/hr					
	HEAD	8 to 6 (2.4 to 2	20 m)	17 to 105ft (5.2 to 32 m)					
	SOLID SIZE	2" (50 mm)	3" (80 mm)	3/4" (19 mm)					
	HORSEPOWER	up to 5 (3.7 k	W)	up to 5 HP (3.7 kW)					
	DRIVES	Air Fil Electrical Explosior	Motors Proof	Air Filled Electrical Motor Explosion Proof					
	APPLICATIONS	Water, Se Waste Li		Water, Sewage & Waste Liquids					
	TEMPERATURE	up to 200°	= (94°C)	up to 200°F (94°C)					
<b>2</b> 4	CONSTRUCTION  MATERIAL  Cast Iron		Cast Iron	Cas	t Iron				

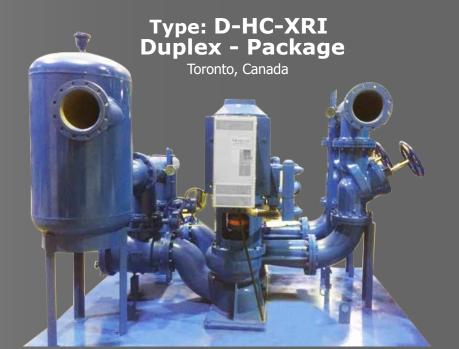
CAPACITIES	up to 30 USGPM (3.1 m³/hr)
HEAD	up to 692 ft. (300 PSI) (211 m)
PRESSURE	up to 300 PSI (2069 kPa)
HORSEPOWER	up to 10 HP (7.46 kW)
DRIVES	Electrical Motors
APPLICATIONS	Light Fuel Oil
TEMPERATURE	up to 150°F (65°C)
CONSTRUCTION MATERIAL	Bronze / Stainless Steel or Cast Iron



CAPACITIES	up to 12000 USGPM (2725 m³/hr)
HEAD	up to 692 ft. (300 PSI) (211 m)
PRESSURE	up to 300 PSI (2069 kPa)
HORSEPOWER	up to 400 HP (298.3 kW)
DRIVES	Electrical Motors
APPLICATIONS	Water / Glycol
TEMPERATURE	up to 300°F (144°C)
CONSTRUCTION MATERIAL	Bronze / Stainless Steel or Cast Iron



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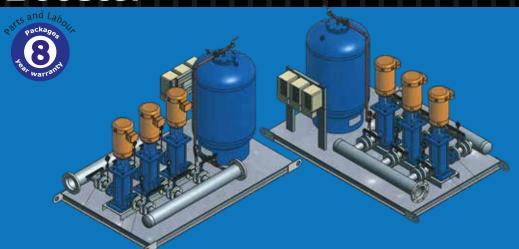


Type: HCE Heating **Cooling with** Enclosure Michigan, USA





## Booster





# **Heating or Cooling**

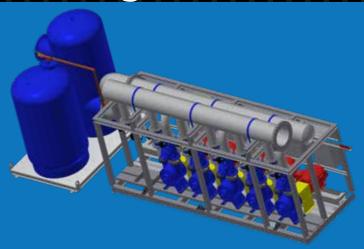




CONCORD GARDEN RICHMOND, B.C., CA

# Large Cooling



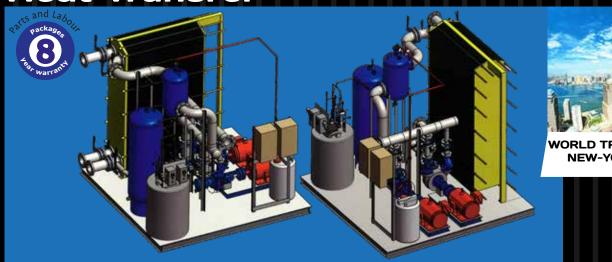




#### Proud pump supplier for the New World Trade Center towers in New York

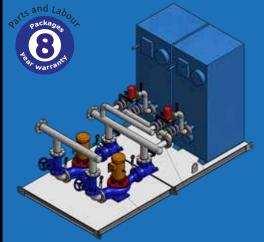
#### **AND MORE**

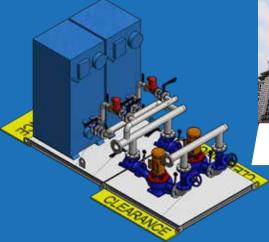
## **Heat Transfer**





## **Duplex Pumps - Heating System**

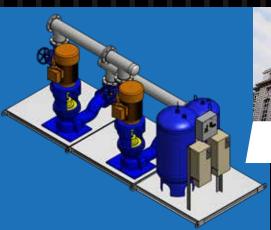






## **Boiler Pack**







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