

AFP ME-Line with ContraBlock® Hydraulics

The next generation of robust, reliable submersible pumps from 15 to 52 kW for sewage, wastewater, process and clear water in municipal and industrial applications

- Cost-Effective pump solutions for users world-wide
- Next generation of AFP pumps with the proven ContraBlock®-System
- Low investment costs
- Low installation costs due to the space saving design
- Low energy costs ensure economical pump operation
- Low maintenance costs due to built in condition monitoring and adjustment features allowing efficient operation



AFP Pumps - for every application the right submersible pump

The AFP pumps are compact unit design, which may be installed either wet or dry thanks to the new, efficient, closed cooling system. The flood-proof pumps are suitable for every type of installation whether for fixed or portable applications, for horizontal or vertical installation.

ABS automatic coupling system with single guide rail ensures quick economical installation and maintenance

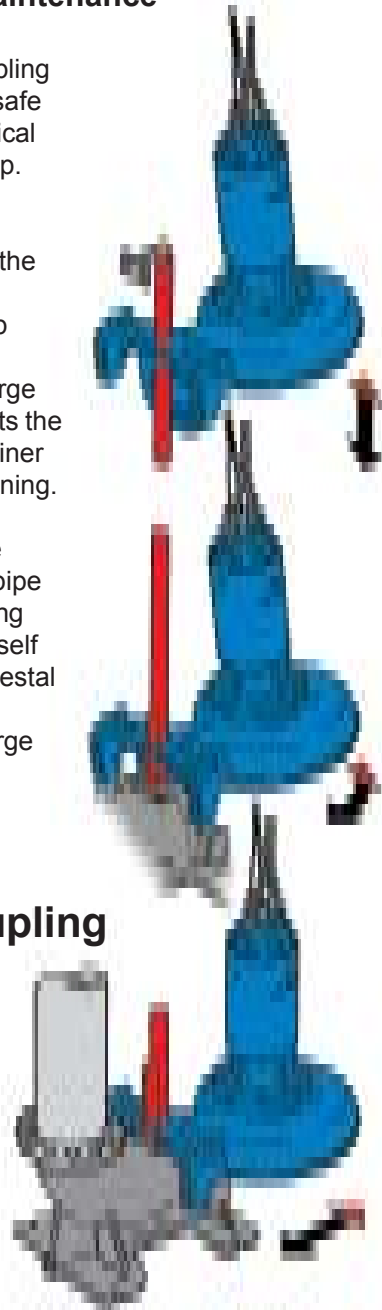
The ABS automatic coupling system ensures quick, safe installation and economical maintenance of the pump.

The special duckfoot pedestal is mounted on the sump floor during construction of the pump station and is then connected to the discharge line. A guide rail connects the pedestal to the pipe retainer located at the sump opening.

The ABS submersible pump is located on the pipe retainer and lowered along the guide rail, couples itself automatically to the pedestal ensuring leakage free pumping into the discharge line.

ABS automatic coupling system:

- locate
- lower
- couple
- start pumping



Advantages

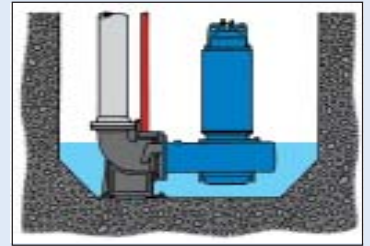
- Elastomer seal ensures leakage free connection
- Single guide rail and fully surrounding coupling device ensures safe lowering and rising
- Low outer anchor points for coupling device on pedestal ensures leakage free coupling also at high discharge heads

There are 4 basic types of installation of the AFP pumps:

Wet well installation

Using the ABS automatic coupling system and single guide rail.

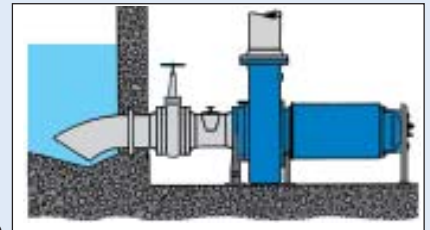
The pump is lowered along the guide rail and automatically reaches its correct operating position on the pedestal and seals itself at the discharge connection.



Horizontal dry Installation

This type of installation is suitable for pump stations with a separate collection sump or fitted to a tank.

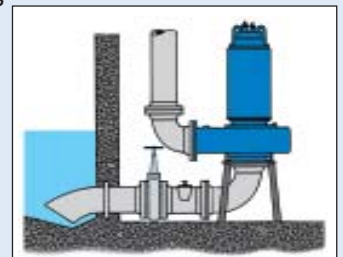
The motors are not damaged when flooded in dry well installation thanks to their submersible design.



Vertical dry installation

This type of installation is suitable for pumping stations with a separate collection sump or fitted to a tank.

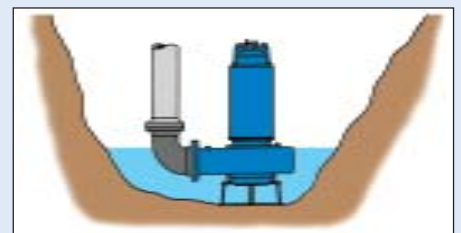
The preferred space and cost saving alternative for the refurbishment of existing old pumping stations equipped with long shaft pumps.



Portable applications

With support ring, discharge elbow for hose- or pipe - connection.

For rapid installation in emergencies, for service use and when constructing or repairing sewers.



The next generation ContraBlock®-System

Continually developed and improved

The system has been continually developed and improved. Years of experience combined with intensive research at the ABS hydraulics laboratory give ABS a unique position in blockage free pumping.

The user has the benefit of blockage free pumping combined with high hydraulic efficiency. The need to lift blocked pumps to free them is effectively eliminated. This reduces the labour cost for maintenance to achieve the lowest life cycle cost.

In addition, the environment is protected as sewage overflows from blocked pumping stations are eliminated.

The ContraBlock®-System functions by means of the complementary features of the various components:



Open channel impeller with sloped leading edge of the impeller vanes. Gap between bottom plate and impeller is easily adjusted to restore efficiency in the event of wear. Large suction inlet with inward feeding slots to assist transport of material.



Bottom plate with continuous spiral grooves which transport

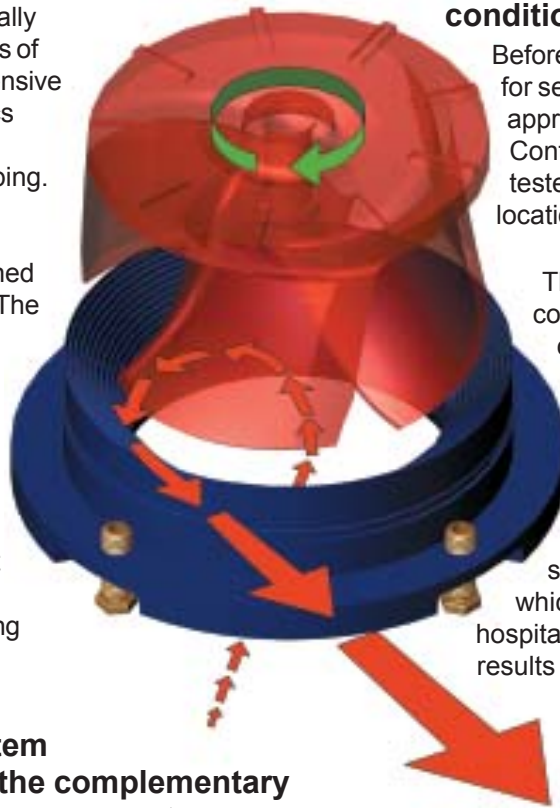
fibrous material from the inlet to the discharge. The spiral groove is "as cast" i.e. the natural cast surface is not removed by machining and is extremely hard and wear resistant.

Field test under toughest conditions

Before each new pump type for sewage applications is approved and released as a member of the ContraBlock® family, it has been thoroughly tested and monitored at various selected locations, including Europe, USA and Asia.

The consistency of sewage differs from country to country and within the countries, depending on historically based, cultural or individual behaviour of the population.

Sometimes sewage collection systems are misused to get rid of fabrics, plastic articles, etc. ABS has selected the most difficult applications, which may be department stores, airports, hospitals and prisons for our field tests. The results show again and again, that the ContraBlock® continued pumping when other impellers were blocked.

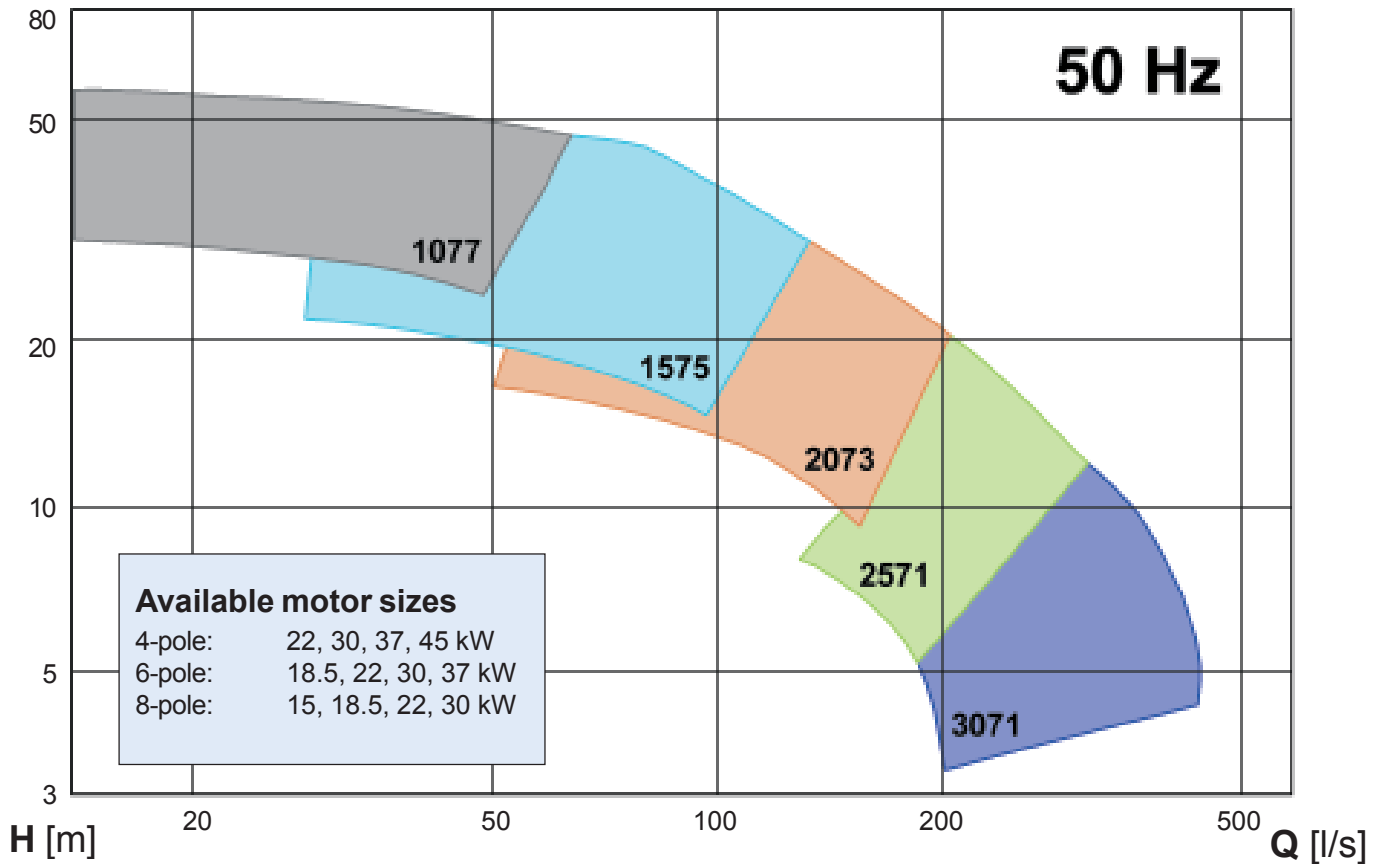


Advantages

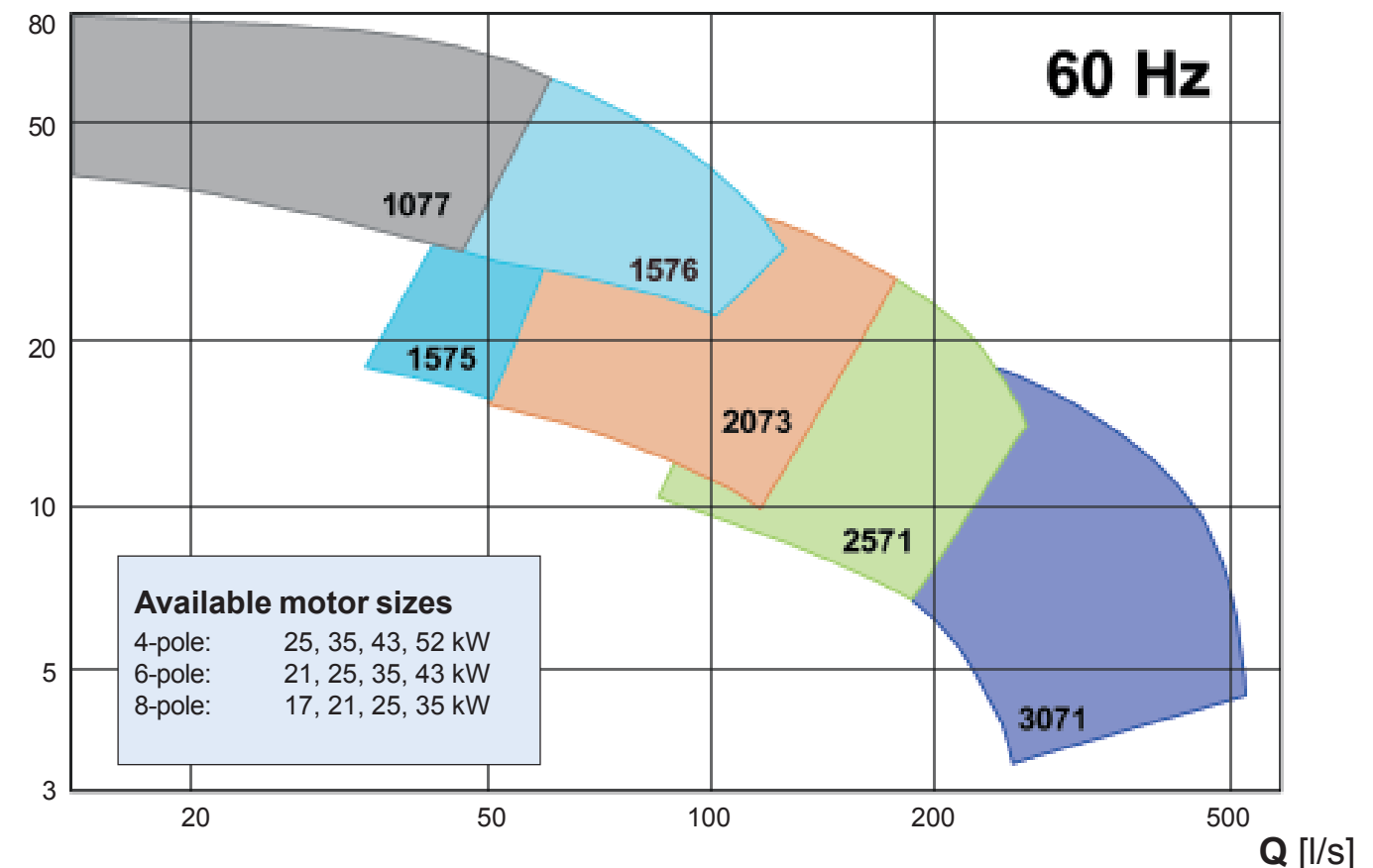
- **Considerable cost savings** with less maintenance and service calls.
- An anti-blockage system proven in **more than one million applications** world-wide.
- Can pump **raw unscreened sewage** reliably without blockage.
- **Easily adjustable spiral bottom plate** means efficiency can be quickly restored in the event of wear.
- The ContraBlock®-System can handle **various solid sizes up to 100 mm** and can deal with fibres, pieces of cloth etc., which can block conventional pumps.

Performance areas 50 and 60 Hz

H [m]



H [m]



For precise selection we recommend the use of our individual performance curves or our pump selection programme ABSEL. Please consult our ABS sales companies for further information.

Scavenger® Effluent & Sewage Ejector Pumps

Rugged submersible pumps for residential, commercial, municipal, and industrial applications.

- Unique triple seal design.
- ABS patented Contra Block impeller with adjustable wear plate system, for clog free operation.
- Single phase models through 5 HP. Three phase models through 10 HP
- Discharges, 1 1/4 to 4 "
- High torque capacitor start single phase motors
- Rugged cast iron construction with stainless steel fasteners and motor shaft
- Oil filled motors (non toxic oil)
- Stainless steel open loop lifting bale for ease of removal
- High head models available
- UL and CSA listing pending



Scavenger® Effluent & Sewage Ejector Pumps

Effluent Pumps

1 ¼ Inch Discharge

Model	HP	Phase*	RPM	Voltage**	Amps	Discharge	Solids Size	Max Head (feet)	Max Flow (gpm)	Weight (Lbs.)
EF 05W-1H	½	1	3450	115, 230	15.0, 7.5	Horizontal NPT	5/8"	73	44	68
EF 10W-1H	1	1	3450	230	13.0	Horizontal NPT	5/8"	108	44	70

2 Inch Discharge

EF 10W-2	1	1	3450	230	13.0	Vertical NPT	3/4"	73	160	62
EF 10D-2	1	3	3450	230/460, 575	5.8/2.9, 2.3	Vertical NPT	3/4"	73	160	57

Sewage Ejector Pumps

2 Inch Discharge

Model	HP	Phase*	RPM	Voltage**	Amps	Discharge	Solids Size	Max Head (feet)	Max Flow (gpm)	Weight (Lbs.)
EJ 10W-2	1	1	1750	230	10.0	Horizontal Flange ‡	2"	30	240	77
EJ 10D-2	1	3	1750	230/460, 575	5.0/2.5, 2.0	Horizontal Flange ‡	2"	30	240	70
EJ 15W-2	1½	1	1750	230	15.0	Horizontal Flange ‡	2"	37	300	90
EJ 15D-2	1½	3	1750	230/460, 575	7.0/3.5, 2.8	Horizontal Flange ‡	2"	37	300	84
EJ 20W-2	2	1	1750	230	19.0	Horizontal Flange ‡	2"	45	320	90
EJ 20D-2	2	3	1750	230/460, 575	9.0/4.5, 3.6	Horizontal Flange ‡	2"	45	320	84

3 Inch Discharge

EJ 10W-3	1	1	1750	230	10.0	Horizontal Flange	2½"	30	265	77
EJ 10D-3	1	3	1750	230/460, 575	5.0/2.5, 2.0	Horizontal Flange	2½"	30	265	70
EJ 15W-3	1½	1	1750	230	15.0	Horizontal Flange	2½"	35	300	90
EJ 15D-3	1½	3	1750	230/460, 575	7.0/3.5, 2.8	Horizontal Flange	2½"	35	300	84
EJ 20W-3	2	1	1750	230	19.0	Horizontal Flange	2½"	44	330	90
EJ 20D-3	2	3	1750	230/460, 575	9.0/4.5, 3.6	Horizontal Flange	2½"	44	330	84
EJ 30W-3	3	1	1750	230	23.0	Horizontal Flange	2½"	50	450	147
EJ 30D-3	3	3	1750	230/460, 575	13.0/6.5, 5.2	Horizontal Flange	2½"	50	450	143
EJ 50W-3	5	1	1750	230	27.0	Horizontal Flange	2½"	57	470	161
EJ 50D-3	5	3	1750	230/460, 575	19.0/9.5, 7.6	Horizontal Flange	2½"	57	470	154
EJ 75D-3	7½	3	1750	230/460, 575	23.0/11.5, 9.2	Horizontal Flange	2½"	67	525	161

4 Inch Discharge

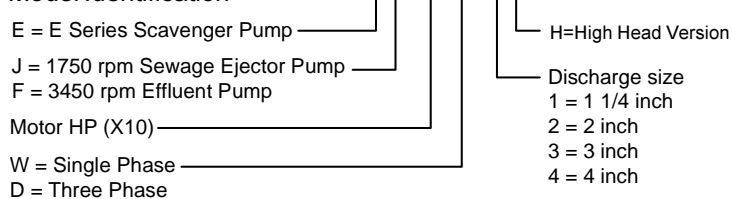
EJ 30W-4	3	1	1750	230	23.0	Horizontal Flange	3"	46	525	154
EJ 30D-4	3	3	1750	230/460, 575	13.0/6.5, 5.2	Horizontal Flange	3"	46	525	150
EJ 50W-4	5	1	1750	230	27.0	Horizontal Flange	3"	52	550	165
EJ 50D-4	5	3	1750	230/460, 575	19.0/9.5, 7.6	Horizontal Flange	3"	52	550	158
EJ 75D-4	7½	3	1750	230/460, 575	23.0/11.5, 9.2	Horizontal Flange	3"	61	600	165
EJ 100D-4	10	3	1750	230/460, 575	28.0/14.0, 11.2	Horizontal Flange	3"	70	620	170

*Single phase pumps from ½ HP through 2 HP have capacitor and thermal protection built into pump. Single phase pumps from 3 HP through 5 HP require an external capacitor start box or control panel, with overload protection. All three phase pumps require a control panel with overload protection.

** 230 Volt pumps can be operated on 208 volts without modifications.

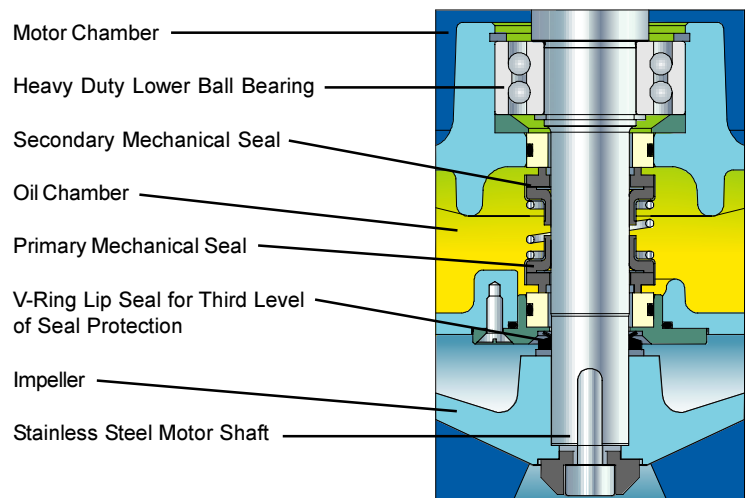
‡ Discharge elbow (2" flange x 2" NPT) supplied with the pump.

Model Identification



Materials of Construction

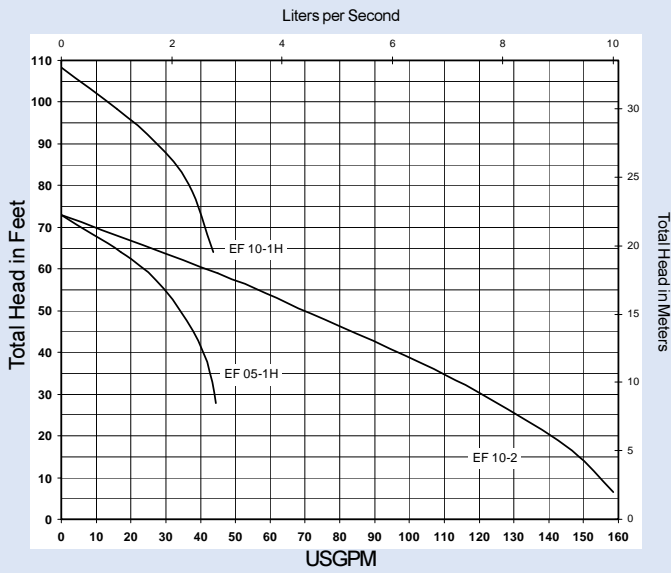
Housings & Volute	Cast Iron
Impeller and Wear Plate	Cast Iron
External Hardware	304 Stainless Steel
Motor Shaft	420 Stainless Steel
Mechanical Seals	Carbon/Ceramic (optional Silicon Carbide)
Bearings	Ball Bearings
Motor Windings	Copper (class B or F depending on model)
Start Switch (1 phase)	Solid State Electronic Switch
Power Cable	Thermoplastic Elastomer
O-Rings	Buna-N
Oil	Non-Toxic



The Scavenger Triple Seal System

This *ABS exclusive* design provides three levels of sealing for outstanding reliability! A double mechanical seal located inside the oil chamber provides two full levels of sealing. An additional V-Ring type lip seal between the oil chamber and pump volute provides a third, extra level of sealing, and enhanced mechanical seal protection.

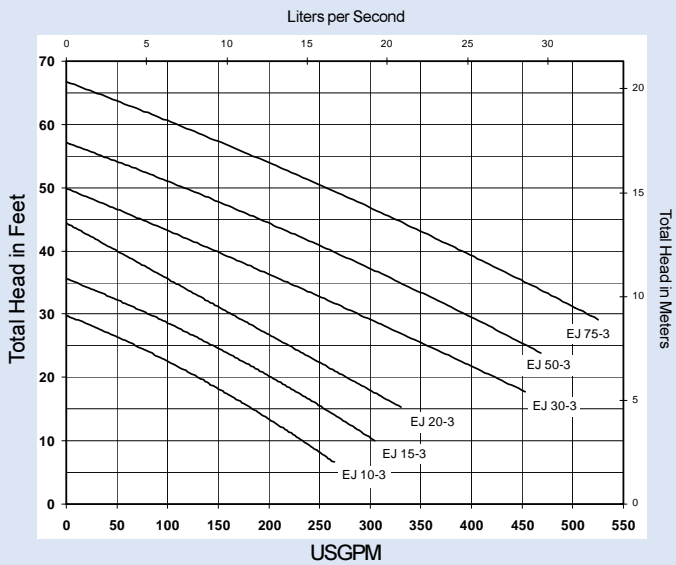
Effluent Pumps 1 1/4 & 2 Inch



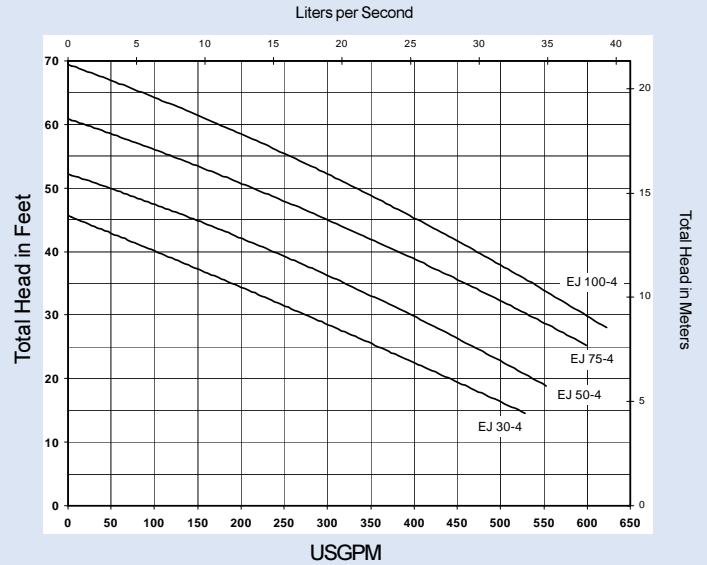
Sewage Ejectors, 2 Inch



Sewage Ejectors, 3 Inch



Sewage Ejectors, 4 Inch



Curves represent both single and three phase performance

Example Applications:

Commercial

- Airports
- Apartments & Hotels
- Bus & Train Terminals
- Car Washes
- Condominiums
- Convention Centers
- Hospitals
- Office Buildings
- Restaurants
- Shopping Malls
- Trailer Parks

Industrial

- Factory Sewage
- Garages
- HVAC Condensate
- Machine Effluent
- Transfer Tanks
- Washdown Tanks
- Waste Treatment

Marine

- Ballast Transfer
- Bilge Dewatering
- Bilge Transfer
- Dry Docks
- Fish Hatcheries

Residential & Municipal

- Building Sumps
- Home Sewage
- Irrigation
- Schools
- Small Lift Stations
- Water Features

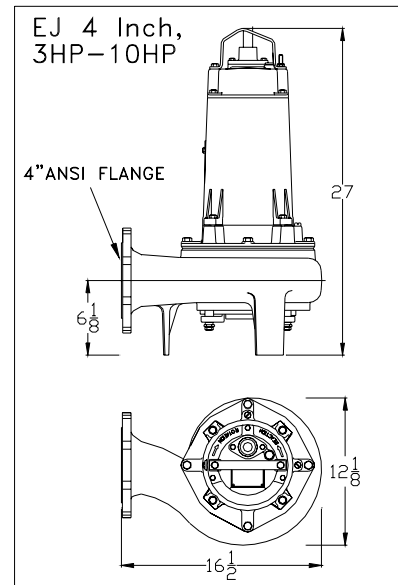
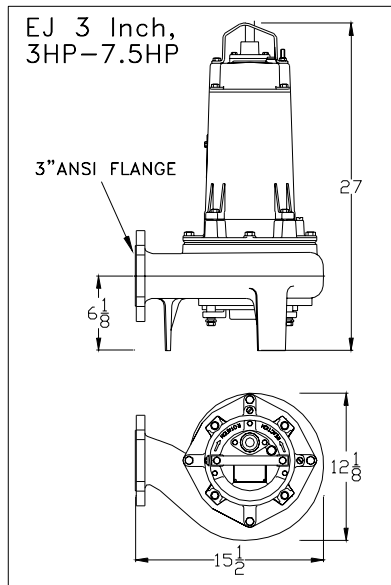
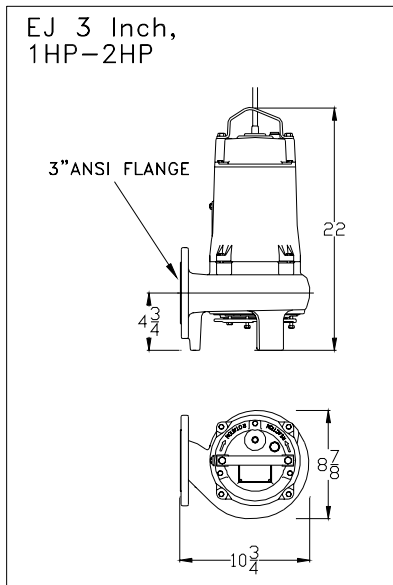
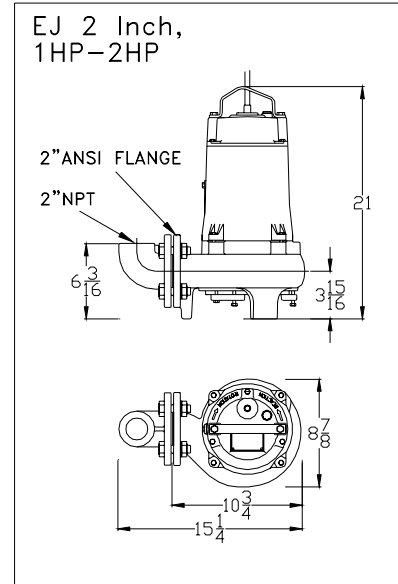
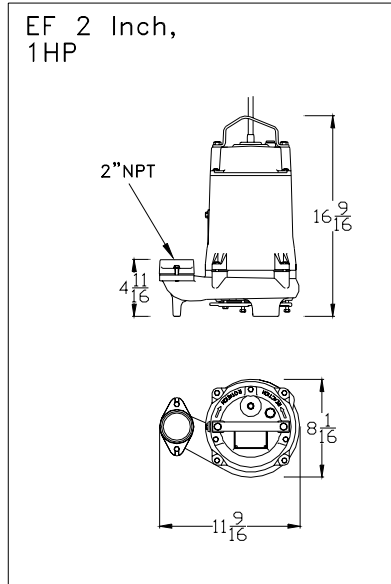
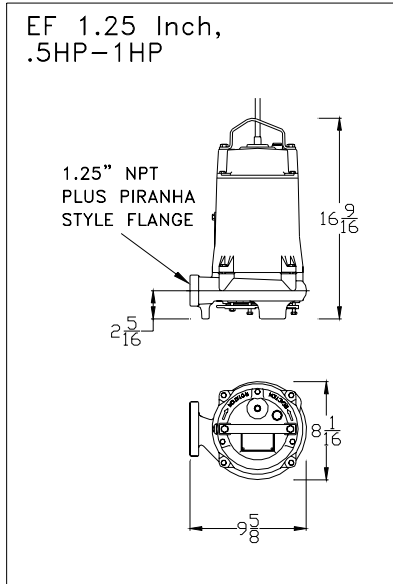
Agriculture

- Dairy Sewage
- Irrigation
- Tail Water Transfer



Av. Colonial 5771 - Callao
 Central 464-0404 Email: info@unitec.pe
 www.unitec.pe

Scavenger® Effluent & Sewage Ejector Pumps



ABS
COST-EFFECTIVE PUMPING

Corporate Office:
ABS Pumps, Inc.
140 Pond View Drive
Meriden, CT 06450
Tel: (203) 238-2700
Fax: (203) 238-0738

Regional Offices:
ABS Pumps, Inc.
111 Maritime Drive
Sanford, FL 32771
Tel: (407) 330-3456
Fax: (407) 330-3404

Odell's Pump & Motor Service
1650 Bell Avenue, Suite 140
Sacramento, CA 95838
Tel: (916) 925-8508
Fax: (916) 925-3914

CH&E Pumps
3849 N. Palmer Street
Milwaukee, WI 53212
Tel: (414) 964-3400
Fax: (414) 964-0677

ABS Pumps Corp.
1215 Meyerside Drive, Unit # 7
Mississauga, ONT L5T 1H3
Tel: (905) 670-4677
Fax: (905) 670-3709