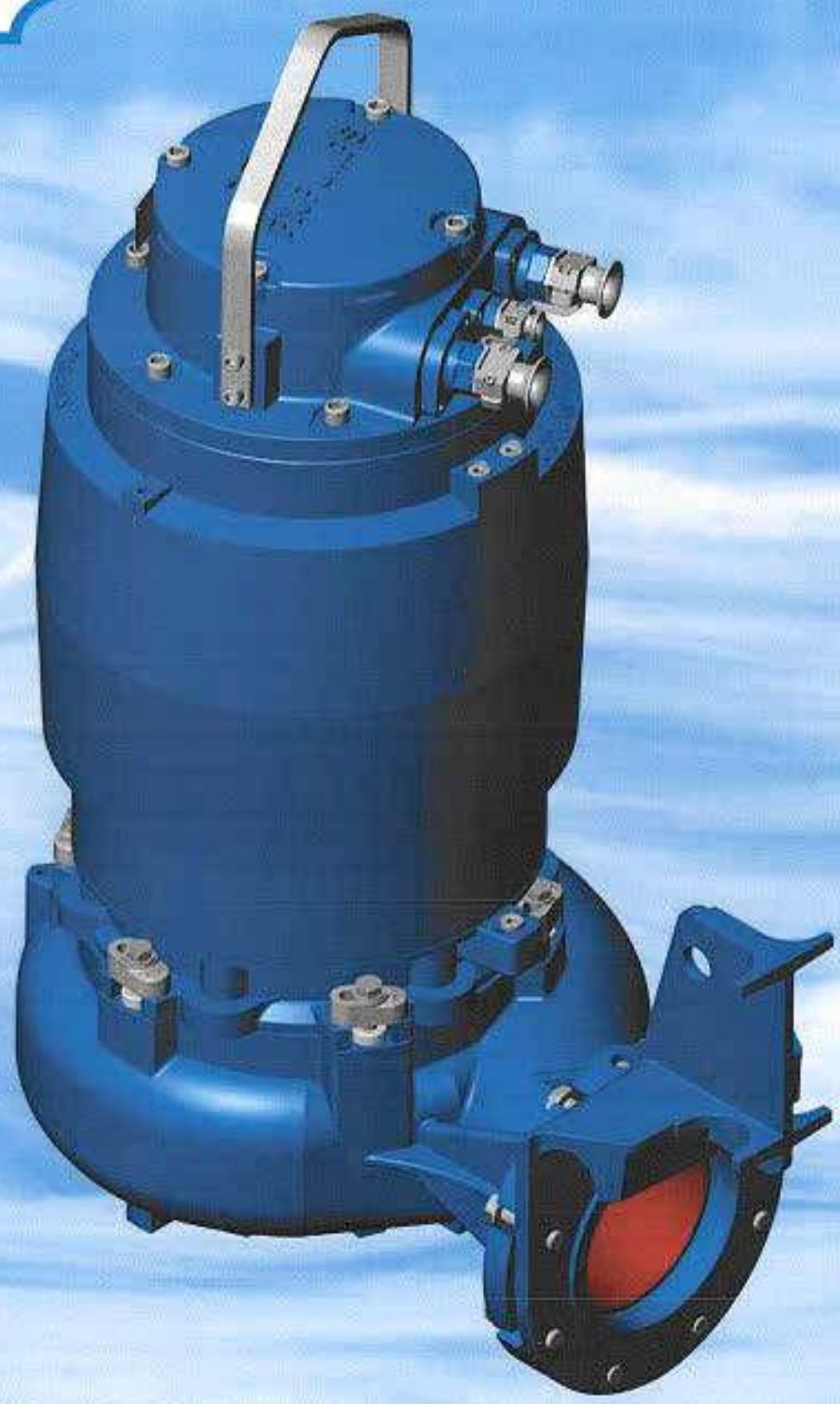
SONDEX PUMPER



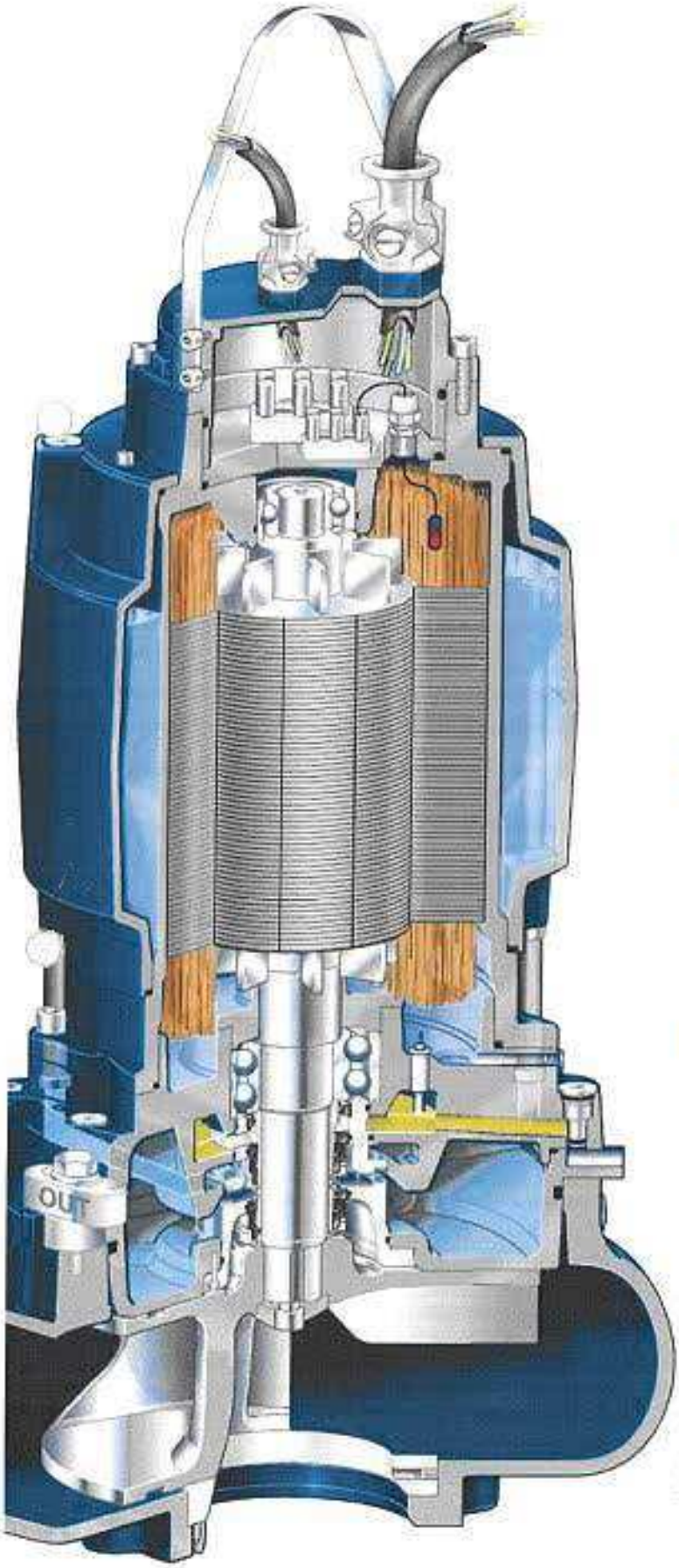
The PX-line; PX1, PX2, PX3 and PX4

Wet, dry and portable wastewater pumps

0,55-55 kW - 50 Hz

www.gulfsondex.ae

SONDEX PUMPER



The PX-line is the combination between high efficiency, intelligent design and practical features. This gives you a user-friendly pump with a long life cycle.

The PX range covers a complete series of high quality and user-friendly wastewater pumps. From the smallest PX0 - suitable for light industrial effluents to the PX4 - the big brother capable of handling wastewater from cities and industries.

From PX0 to PX4 - the pumps are available with different strengths and features and with exception of the PX0 they come in dry, wet or portable installation and with the choice of a vortex or a channel impeller. For the PX4 we are proud to offer the B-tween impeller - our combination of a vortex and a channel impeller that combines the different advantages in one product.

High efficiency motors

The motors all have an efficiency up to 93% and are all classified according to EFF1 - the highest energy saving standard. They also all have class H insulation and three thermal overload switches to prevent the pump from overheating. The motors are produced by Siemens with respect for the EU manufacturing and environmental standards.

Oversized shafts

Each pump has its own oversized shaft - oversized to ensure a smooth running pump without vibrations even at maximum power. This ensures many hours of reliable service both for the parts and for the pump as a whole. This guarantees a controlled temperature within the pump, which also protects the shaft and the motor windings. The stainless steel ensures high strength and corrosion resistance.

Exceptional cooling

The cooling system is a unique feature in the PX-line. All pumps from 2-55 kW - as both wet, dry and portable installations have an "Ecoflu" cooling jacket as a standard for the PX2 and PX3 and as a possible option for the PX1 and PX4 The system ensures an optimal cooling of the motor in many different operating conditions such as frequency inverter drives, dry installations and low level sump where overheating is otherwise likely to occur.

The cooling system Ecoflu is driven by an internal impeller placed in the mechanical cartridge seal that circulates the cooling liquid through the passages around the motor. The cooling liquid absorbs the high temperature from the motor and passes it on to the media being pumped through the pump. As the Ecoflu is a closed cooling system that does not use the media for cooling, the Ecoflu system does not clog due to the sludge.

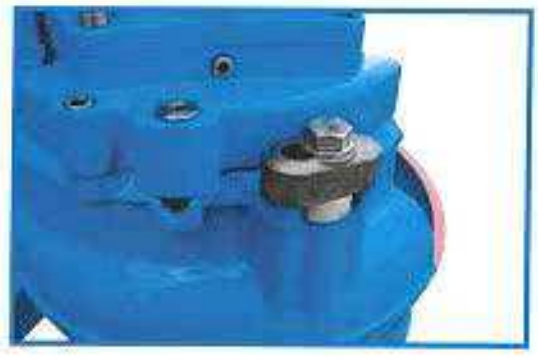
Evenly controlled process

As the temperature is controlled throughout the complete pumping process the parts of the pump are protected from too much starting and stopping, heating and cooling. The bearings, o-rings and mechanical seals all benefit from this reliable service, which again contributes to a long life for the pump.



Mechanical seals

Our double mechanical seals are installed in a user-friendly cartridge that makes it possible to change the seal without using any special tools. The seal is made of silicon carbide against silicon carbide on the media side and of carbon against silicon carbide on the cooling side.
Each seal - whether sold in a pump or separately as a spare part is pressure tested before dispatch.

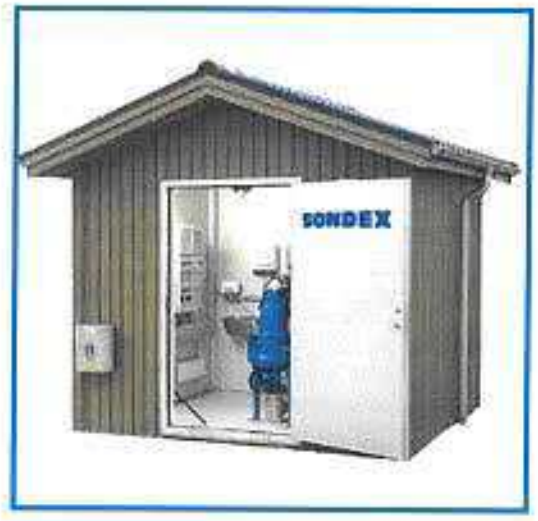


Adjustable wear-ring

Sondex uses an axially adjustable wear-ring to reduce the hydraulic loss between the impeller and the wear-ring. With this feature the wear-ring can be regularly adjusted to optimize the pump efficiency as the pump starts to be affected by wear.

Fast lock

Another unique feature for the Sondex is the fast lock latch bolts that make it easy to separate the pump from the motor. This feature is very popular with the service staff as it reduces to maintenance downtime considerably. The locks are made in stainless steel.



Choose the impeller you need

Sondex has a wide variety of Channel 1, Channel 2 and Vortex impellers. They are made from cast iron GJS-400-15 (GGG40) or in stainless steel as an option. All the impellers are designed for non-clogging and will be trimmed according to demand until it fits the customer's request to the right millimetre. This is the way to reach the precise required duty point for the pump.

In addition, all the impellers fit in the same volute. This makes it possible to change the impeller according to eventual changed duties for the pump or to optimize the efficiency. Besides we offer our B-tween impeller for PX4 150, 200, 250 and 300.



Type	kW P2	kW P1	Insulation Class	Rpm	Weight in kg Wet install	Weight in kg Dry install	Weight in kg Portable install	Weight in kg Base elbow	Throughlet in mm	Outlet flange
PX0-30-2	0,4	0,4	F	2850	NA	NA	6	NA	5	R1"
PX0-37-2	0,6	0,8	F	2850	14	NA	14	5	36	R1¼"
PX0-50-2	0,8	1,2	F	2850	22	NA	22	5	45	R2"
PX1-65-4	1,1	1,6	F	1430	32	NA	33	13	55	R2½"
PX1-65-2	1,9	2,6	F	2860	33	NA	34	13	55	R2½"
PX1-65-2	2,2	3,1	F	2850	40	NA	41	13	55	R2½"
PX1-70-2	3,5	4,7	H	2890	95	102	104	35	60	DN80
PX1-80-4	2,5	3,5	H	1420	92	100	102	35	70	DN100
PX2-80-2	6,5	7,8	H	2900	148	150	150	35	70	DN80
PX2-80-2	9,0	11,0	H	2925	151	153	154	35	70	DN80
PX2-100-6	2,5	3,7	H	940	142	144	144	36	100	DN100
PX2-100-4	4,0	5,1	H	1440	143	145	145	36	100	DN100
PX2-100-4	6,0	7,3	H	1440	151	153	153	36	100	DN100
PX2-150-6	2,5	3,7	H	940	156	158	158	65	100	DN150
PX2-150-4	4,0	5,1	H	1440	148	150	150	65	100	DN150
PX2-150-4	6,0	7,3	H	1440	159	161	161	65	100	DN150
PX3-80-2	5,0	10,1	H	2930	205	207	207	36	70	DN100
PX3-80-2	12,5	14,8	H	2930	219	221	221	36	70	DN100
PX3-80-2	21,0	25,3	H	2940	252	254	254	36	70	DN100
PX3-100-4	7,5	9,8	H	1465	201	203	207	36	100	DN100
PX3-100-4	9,0	11,2	H	1465	204	206	211	36	100	DN100
PX3-100-4	12,5	14,8	H	1460	226	227	232	36	100	DN100
PX3-100-4	17,0	19,8	H	1460	241	243	247	36	100	DN100
PX3-100-4	22,0	25,1	H	1455	246	247	250	36	100	DN100
PX3-150-6	6,6	8,9	H	950	223	225	235	66	100	DN150
PX3-150-6	13,5	16,5	H	960	270	272	282	66	100	DN150
PX3-150-4	7,5	9,8	H	1465	215	217	227	66	100	DN150
PX3-150-4	9,0	11,2	H	1465	217	219	229	65	100	DN150
PX3-150-4	12,5	14,8	H	1460	238	240	250	65	100	DN150
PX3-150-4	17,0	19,8	H	1460	255	257	267	65	100	DN150
PX3-150-4	22,0	25,1	H	1455	259	262	270	65	100	DN150
PX4-100-4	18,5	20,5	H	1465	443	593	474	36	80	DN100
PX4-100-4	22,0	25,1	H	1465	453	603	484	36	80	DN100
PX4-100-4	30,0	34,9	H	1460	499	626	510	36	80	DN100
PX4-100-4	37,0	41,0	H	1465	549	674	560	36	80	DN100
PX4-100-4	45,0	47,9	H	1475	592	717	603	36	80	DN100
PX4-100-4	55,0	57,9	H	1475	604	729	615	36	80	DN100
PX4-150-4	18,5	20,5	H	1465	466	573	475	65	100	DN150
PX4-150-4	22,0	23,9	H	1465	476	583	485	65	100	DN150
PX4-150-4	30,0	32,1	H	1465	502	609	510	65	100	DN150
PX4-150-4	37,0	41,0	H	1465	553	654	560	65	100	DN150
PX4-150-4	45,0	47,9	H	1478	596	697	603	65	100	DN150
PX4-150-4	55,0	57,9	H	1475	608	709	615	66	100	DN150
PX4-200-4	18,5	20,5	H	1465	515	615	547	76	100	DN200
PX4-200-4	22,0	23,9	H	1465	525	625	557	76	100	DN200
PX4-200-4	30,0	32,9	H	1465	533	638	570	76	100	DN200
PX4-200-4	37,0	41,4	H	1465	583	683	620	76	100	DN200
PX4-200-4	45,0	47,9	H	1475	626	726	663	76	100	DN200
PX4-200-4	55,0	57,9	H	1475	638	738	675	76	100	DN200
PX4-200-6	18,5	20,5	H	970	533	638	570	76	100	DN200
PX4-200-6	22,0	24,1	H	975	566	666	603	76	100	DN200
PX4-200-6	30,0	33,7	H	975	616	716	653	76	100	DN200
PX4-200-6	37,0	38,9	H	975	625	725	662	76	100	DN200
PX4-250-6	18,5	20,5	H	970	533	638	570	235	100	DN250
PX4-250-6	22,0	24,1	H	975	566	666	603	235	100	DN250
PX4-250-6	30,0	33,7	H	975	616	716	653	235	100	DN250
PX4-250-6	37,0	38,9	H	975	625	725	662	235	100	DN250
PX4-250-4	18,5	20,5	H	1465	533	638	570	235	100	DN250
PX4-250-4	22,0	23,9	H	1465	513	618	550	235	100	DN250
PX4-250-4	30,0	32,9	H	1465	533	638	570	235	100	DN250
PX4-250-4	37,0	41,4	H	1465	583	683	620	235	100	DN250
PX4-250-4	45,0	47,9	H	1478	626	726	663	235	100	DN250
PX4-250-4	55,0	57,9	H	1475	974	978	974	235	100	DN250
PX4-300-6	18,5	20,5	H	970	700	763	784	235	100	DN300
PX4-300-6	22,0	24,1	H	975	733	791	817	235	100	DN300
PX4-300-6	30,0	33,7	H	975	783	841	867	235	100	DN300
PX4-300-6	37,0	38,9	H	975	792	850	876	235	100	DN300
PX4-300-6	45,0	46,3	H	975	1200	1210	1200	235	100	DN300
PX4-300-8	15,0	16,5	H	725	710	774	794	235	100	DN300
PX4-300-8	18,5	20,5	H	725	710	774	794	235	100	DN300

NA = Not available

*Coolant = 80% water & 20% propylene glycol

MODELS



PX0

The PX0 is the smallest wastewater pump - very efficient for low volume domestic sewage, single houses and farms. The PX0 is made of cast iron and has a double mechanical seal. This range of pumps is fitted with vortex impeller and suitable for light industrial effluents. The PX0 is available as either PX0-37 or PX0-50.



PX1

Large through lets allow this range to be offered for municipal raw sewage applications characterised by large solid contents or fibrous media. The PX1 is one of our most popular products and is well known for its rugged construction and proven reliability.



PX2

PX2 is a medium sized high capacity pump - also well known for its rugged construction and proven reliability.
Both PX2 and PX3 are available in a wide variety of customer-designed combinations to reach precisely the requested duty points.



PX3

PX3 is a bigger and stronger pump compared to the PX2 - otherwise they are very similar to each other and they are our most sold pumps. They both include all the unique Sondex Pumper features as the fast lock latch bolts and the Ecoflu and they are available as wet, dry or portable installation. The Ecoflu makes the pumps particularly suitable for frequency inverter drives and for sumps with a low water level.
For both pumps, you can order Vortex I, Vortex II, Channel I or Channel II impeller depending on the size of the pump.



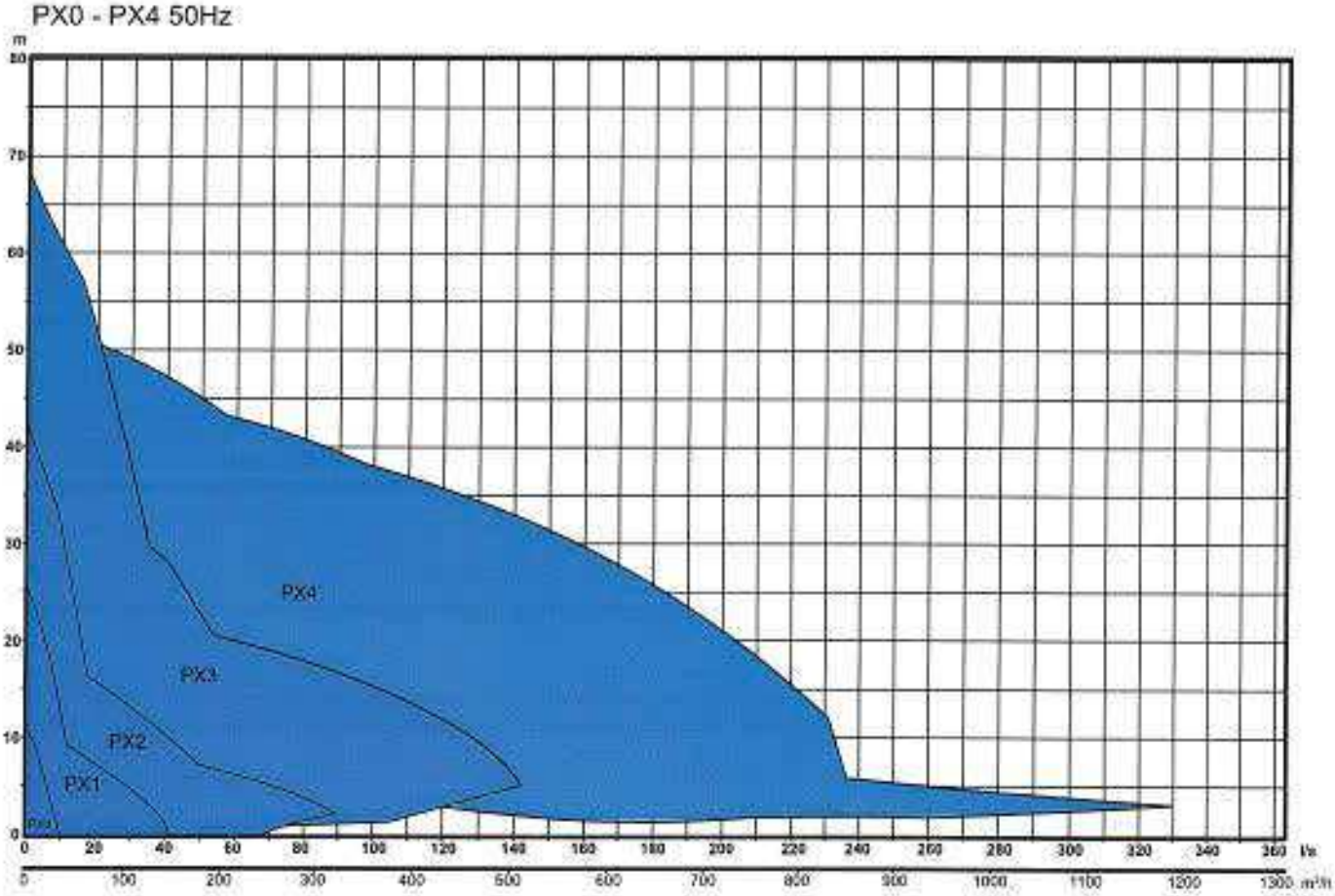
PX4

PX4 is our high capacity pump and the biggest pump in our range. This pump is designed especially to offer high hydraulic efficiencies from 22 to 55 kW. The through let in the PX4 with the Channel 2 and the B-tween impeller is 100-130mm which allow them to treat unscreened wastewater from sewage plants and industries.

MATERIAL SPECIFICATION

Pump housing, base elbow, sealing housing	Grey Cast iron	GJL-250 (GG25)	A48 Class35
Impeller (cast iron), adapter	Ductile cast iron	GJS-400-15 (GGG-40)	A536 GR 65-45-15
Stainless impeller (option)	Stainless cast steel	W. Nr. 1.4301	A351 CF8
Shaft	Stainless steel	W.Nr.1.4057	AISI 431
Seal sleeve, screws	Stainless steel	W. Nr. 1.4301	AISI 304
Coolant	20% Propylen glycol	80% water	
O-rings	Nitril	NBR	
Oil	Mobil DTE 24	Premium Hydraulic	
Mechanical seal	Media side: SIC/SIC	Cooling side: SIC(Carbon)	
Motor	Siemens	EFF I	Class H

For further information, please contact Sondex.



Advantages

- 2 years guarantee
- Cartridge seal
- Fast lock latch bolts
- Oil tap drain
- Closed cooling jacket
- Adjustable wear ring
- Channel and vortex impellers in the same volute
- High efficiency motors
- Few spare parts
- Easy maintenance and dismantling



SONDEX PUMPER



Sondex company information

Sondex is based on 25 years of experience with wastewater pumps.
In Denmark we have a proud record of being the premier supplier of submersible wastewater pumps and abroad our pumps are sold through a worldwide distribution network in more than 36 countries.

Our large production facility in Denmark is equipped with modern CNC machining centres to guarantee high quality products of the well-known Scandinavian standard.

Sondex has been a fully integrated part of the Finnish HyXo Group since 2008.

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PAPANTONATOS
Pumps service & engineering



PXFLOW®

sewage pumps

QUALITY WHICH REDUCES PUMPING COSTS

For over 45 years, PAPANTONATOS S.A. has focused on the customer's design, manufacturing and service needs in the field of submersible pumps.

Our engineering department has acquired invaluable technical knowledge throughout our long and close collaboration, as a customer and a supplier, with some of the leading global pump manufacturing companies.

This extensive technical experience has significantly contributed to our success as a pump manufacturer. We are currently offering some of the most robust and energy efficient pump units in the market that are perfectly adapted to all sorts of difficult operating conditions in clean water and wastewater pumping applications.

We are working according to the ISO 9001:2000 norms certificate from TUV since May 2000.

Our well organized company-owned facilities utilize contemporary CNC (Computer Numerical Controlled) lathes and milling equipment for the machining of our motor cast parts and pump components that are produced in our foundry .

Our design department utilizes some of the most advanced 3D-CAD (Computer Aided Design) programs in order to materialize with great accuracy the most efficient pump designs.

We have carefully chosen to equip our pumps with motors and standard parts made by some of the leading motor manufactures in the European Union such as Pleuger, Siemens and Franklin that are in full accordance with the latest manufacturing and environmental standards.

Finally all of our pumps from both family lines, (PXFLOW and FLOWPAP), are meticulously tested in our modern test stand where crucial technical data is collected and recorded before the pumps are released for dispatch to the customer.















ALL SUBMERSIBLE PUMPS IN ONE PROGRAM SELECTION



FLOW-select is a special program and an indispensable tool for all pump consulting engineers and users. Both pump family names, (FLOWPAP clean water submersible pumps and PXFLOW waste water submersible pumps), are included in the program.

If the basic planning data such as capacity and total head are available, the Flow-select can suggest different pump types from both pump family names. If the data is not available Flow-select provides a simple friction loss calculator that can still aid the user to choose the correct pump unit.



Other FLOW select advantages

- User friendly interface translated in 19 languages
- Easy unit conversion.
- 50-60Hz (where applicable)
- Impeller trimming
- Variable curve speed (for applications with inverter)
- Combination curve characteristics with friction loose curve.

PXFLOW
sewage pumps





PX3

DESIGN FEATURES

All **PXFLOW** pumps are designed and built tough to the highest industrial specifications up to date and are equipped with a number of operation/maintenance friendly features.

Only the very best features come as a standard in **PXFLOW** pumps.

PXFLOW *code system*

ex. PX3-150.0 VX3-150+ M3.2-18,5/4

- No of poles
- Motor power P2 Kw (50Hz) / Hp (60Hz)
- Motor series
- Impeller code
- Impeller type V=Vortex, C=Channe
- Pump volute code
- Volute outlet size
- Pump series for waste water

MOTOR UNIT*

The pumps are equipted with Siemens high effiency motors, (rating EFF1 or EFF2),and are fitted with F class insulation, (for operating temperatures up to 155 degrees Celsius), or can be optionally fitted with H class insulation.

Three thermal overload switches, one per phase, are inside the winding, to combat high temperature loads. The oversized stainless steel rotor shaft and the two oversized ball bearings ensure the motor's smooth and vibration free rotation. Consequently the motor's operational life time is significantly extended.



INTERNAL MOTOR COOLING SYSTEM WITH "ECOFLU COOLING JACKET" *

All **PXFLOW** standard motor sizes are equipped with a closed cooling system. An internal impeller that is fitted in between the two mechanical shaft seals circulates the cooling liquid (ecoflu) in a closed loop inside a cooling jacket.

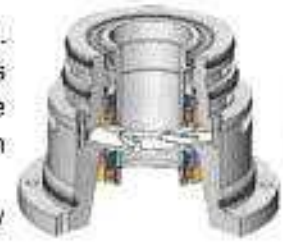
The heat is then transferred to the pumped liquid by means of a cooling flange (heat exchange).

This efficient cooling system has the following great advantages:

- Maintains the optimal temperature range for the motor bearings.
- The cooling system is separated from the pumped liquid to eliminate any risk of clogging and sedimentation.
- The double sound absorbing pump motor casing, enables the unit to be running at an extremely low noise levels.

CARTRIDGE SEALING SYSTEM "FAST SEAL" *

The shaft system consists of a double set of mechanical seals that are built into a replaceable cartridge. The cartridge sealing system can be easily removed on site without the need of any special tools and thus eliminating the risk of any improper installation. The primary seal (impeller side) is made of abrasive resistant carbide against silicon carbide. The secondary seal (motor side) is made of heat resistant carbon against silicon carbide. Both mechanical seals incorporate a stainless steel shaft sleeve (316 as option) protecting the pump shaft. Every cartridge sealing system has been pressure tested at the factory regardless if it is being installed inside a **PXFLOW** pump or sold separately as spare parts.



CLEARANCE REDUCTION SYSTEM "REDUCER" *

The channel impellers are fitted with volute/impeller clearance reduction wear rings.

This system easily allows the ring to be repositioned axially in order to reduce the clearance between the channel impeller and the volute. This sealing method advantages over other methods which use radial impeller and volute wear rings that cannot be repositioned and have to be replaced when wear levels are not acceptable.



PUMP VOLUTES

The **PXFLOW** volutes are made from high quality cast iron and have been designed to have additional thickness on the walls. Extra attention has been given to the inside smoothed volute surfaces so higher hydraulic efficiency and minimum turbulence can be achieved. The volute is connected with the motor unit through a fast lock* connection system by means of stainless steel latch bolts for easy and fast removal. The motor unit can be quickly removed from the pump's volute for an easy inspection.

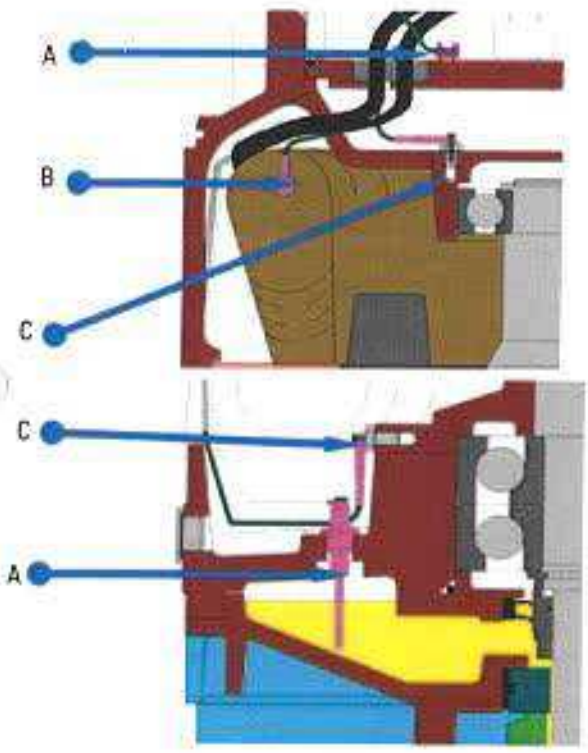


IMPELLERS

PXFLOW impellers are made from hardwearing ductile iron, (stainless steel 316 or DUPLEX as an option), and come in three types (single channel, multi channel and vortex) with a non clogging design that meets the pumping liquid needs and duty. The initial impeller design can be easily adjusted, (when trimmed), to meet the customer's performance requirements. **PXFLOW** impellers are dynamically balanced and machined to exacting tolerances to reduce any unwanted vibrations.



* not for PX0, PX1-65



MOTOR PROTECTIONS

A. Moisture sensors

All **PXFLOW** pumps are equipped with two moisture sensors that are linked together in a series connection. Both sensors are connected to an electronic moisture monitoring system in order to effectively detect any increase in moisture inside the following areas:

- Terminal connection area (upper motor side).
- Inside the motor housing enclosure.
- Oil chamber of the sealing cartridge unit.

B. Motor winding Thermo-sensor

All **PXFLOW** pumps are equipped with thermo sensors to protect the stator from overheating and burning in the event of a motor malfunction. The thermal protection in the typical standard motor configuration consists of three bi-metals switches in series connection that are embedded in each respecting motor winding. Optionally we can offer with PTC or PT 100.

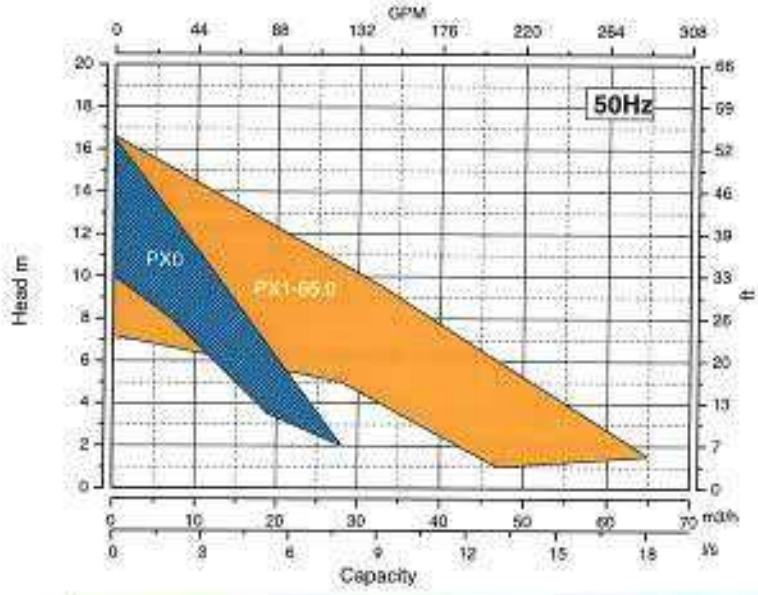
C. Bearing Thermo-sensors

In our largest pumps, (series PX4 and above), the upper and lower bearings housings can be equipped with the PT100 thermo sensors which provide the protection necessary against excessive temperatures.

SERIES PX0,PX1-65 WITH VORTEX IMPELLER

The PX0 and Px1-65 pumps are made of cast iron and are equipped with a vortex impeller that is designed for pumping wastewater and other contaminated liquids.

The Px0 series, (single phase voltage configuration), is available with float switches and thermal protection or without them. The three phase voltage configuration can also be equipped with thermal protection upon the customer's request.





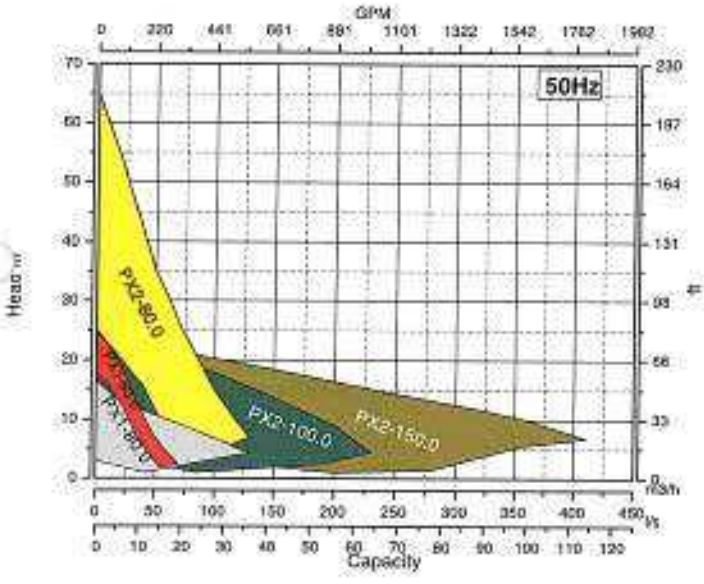
PX1, PX2

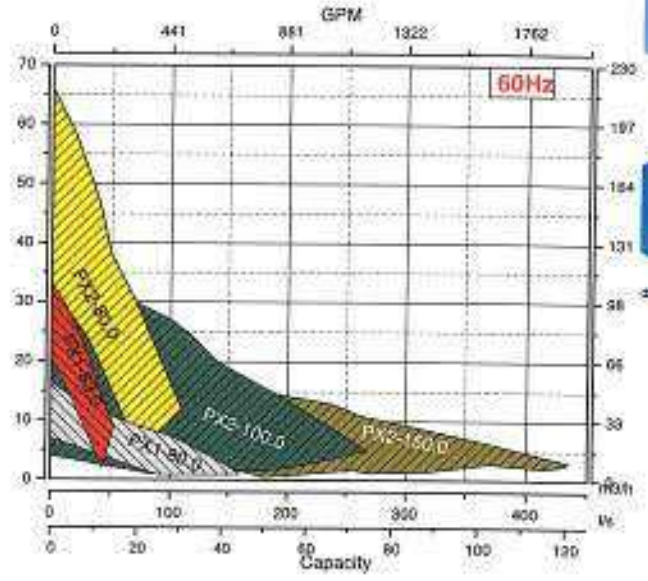


DESIGN FEATURES

- Internal motor cooling system with "ECOFLU " (closed loop through a cooling jacket)
- Cartridge sealing system " Fast Seal "
- Easily adjustable channel impeller clearance system "Reducer"*, for all installation types ,for improved performance and less clogging occurrences
- Oil tap drain
- Free choice* channel or vortex impeller that can be fitted to the same volute
- Fast lock assembly/disassembly feature with only two latch bolts for quick and easy volute/impeller inspection (major advantage is the significant reduction of man-hours)
- Electrical motor **PXFLOW** - SIEMENS with highest energy saving norm EFF1(option) have Class F insulation (rated for 155 degrees Celsius)as standard (Class H as option)
- Motor inspection hole
- Cable entry on the side of the pump cover
- Handle in Stainless steel

**PX1-83.0,PX2-80.0 is only available in the Vortex impeller design and has got no wear rings.*





Model	PX1-80.0	PX1-83.0	PX2-80.0	PX2-100.0	PX2-150.0
Rating 50Hz	1.5-3.5kW	4-5.5kW	4-12.5kW	3-9kW	3-9kW
Rating 60Hz	2.5-6HP	6-8HP	7.5-19HP	4.6-15HP	4.6-15HP
Motor	4/6pole	2pole	2/4pole	4/6pole	4/6pole
Pump outlet flange	80-100/3"-4"	65-80/2 1/2"-3"	80/3"	100/4"	150/6"
Pump inlet flange	80-100/3"-4"	100/4"	80/3"	100/4"	150/6"
Impeller types	channel / vortex	vortex	vortex	channel / vortex	channel / vortex
Installation types available	wet/dry/portable	wet/dry/portable	wet/dry/portable	wet/dry/portable	wet/dry/portable

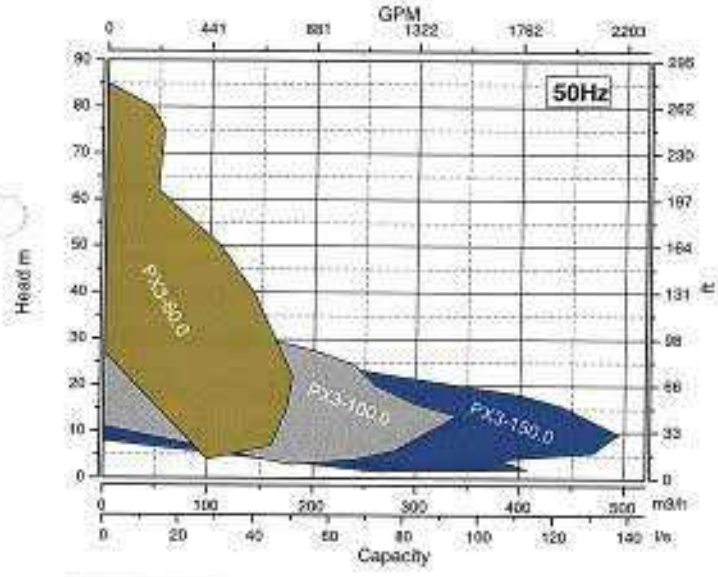
PX3

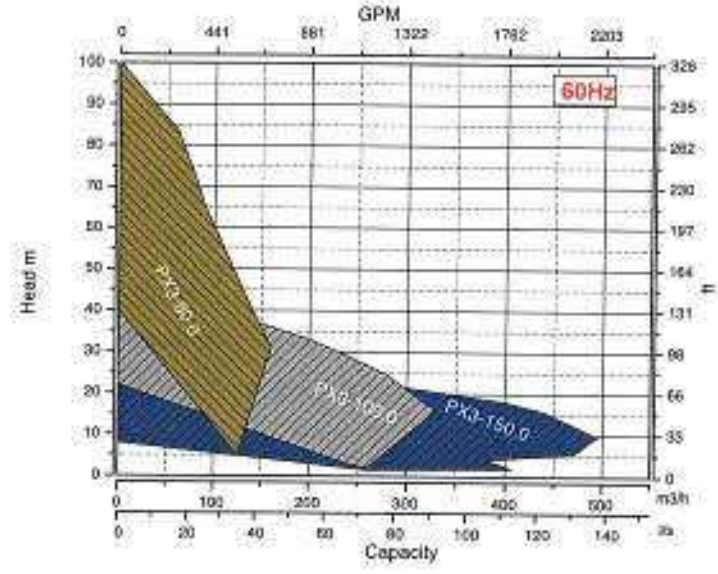
DESIGN FEATURES

- Internal motor cooling system with "ECOFLU "
  (closed loop through a cooling jacket)
- Cartridge sealing system " Fast Seal "
- Easily adjustable channel impeller clearance system "Reducer"*.
  for all installation types ,for improved performance and less clogging occurrences
- Oil tap drain
- Free choice* channel or vortex impeller that can be fitted to the same volute
- Fast lock assembly/disassembly feature with only four latch bolts for quick and easy volute/impeller inspection (major advantage is the significant reduction of man-hours)
- Electrical motor **PXFLOW** -SIEMENS with highest energy saving norm EFF1(option) have Class F insulation (rated for 155 degrees Celsius)as standard (Class H as option)
- Motor inspection hole
- Cable entry on the side of the pump cover
- Handle in Stainless steel

** PX3-80.0 is only available in the Vortex impeller design and has got no wear rings.*







Model	PX3-80.0	PX3-100.0	PX3-150.0
Rating 50Hz	8-32kW	7,5-28kW	7,5-28kW
Rating 60Hz	19-46HP	15-40HP	15-40HP
Motor	2pole	4/6pole	4/6pole
Pump outlet flange	80-100/3"-4"	100/4"	150/6"
Pump inlet flange	80-100/3"-4"	100/4"	150/6"
Impeller types	vortex	channel / vortex	channel/vortex
installation types available	wet/dry/portable	wet/dry/portable	wet/dry/portable

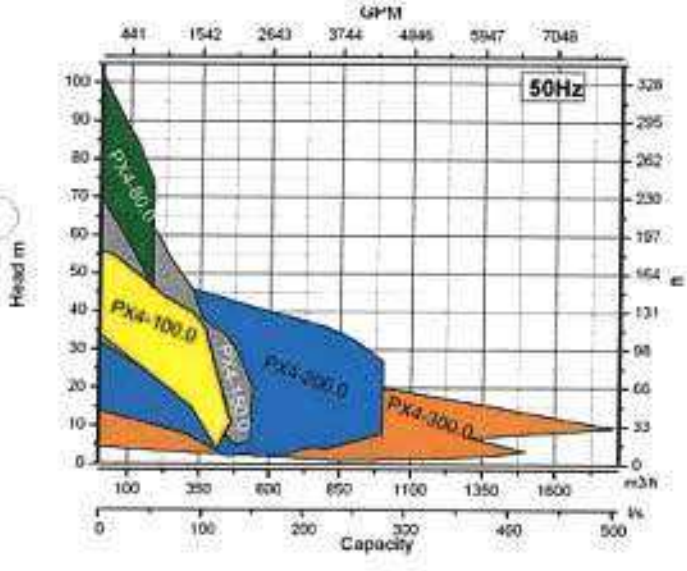
PX4

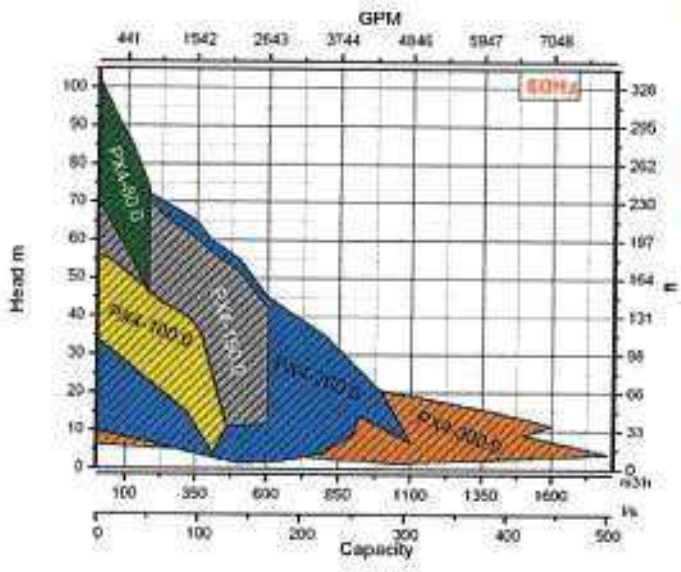
DESIGN FEATURES

- Internal motor cooling system with "ECOFLU "
  (closed loop through a cooling jacket)
- Cartridge sealing system " Fast Seal "
- Easily adjustable channel impeller clearance system "Reducer",
  for all installation types ,for improved performance and less clogging occurrences
- Oil tap drain
- Free choice* channel or vortex impeller that can be fitted to the same volute
- Fast lock assembly/disassembly feature with only six latch bolts for quick
  and easy volute/impeller inspection (major advantage is the significant reduction
  of man-hours)
- -Electrical motor PXFLOW - SIEMENS with highest energy saving norm
  EFF1(option) have Class H insulation (rated for 180 degrees Celsius)as standard
- Motor inspection hole
- Cable entry on the side of the pump cover
- Handle in Stainless steel

** PX4-80.0 is only available in the Vortex impeller design and has got no wear rings.*







Model	PX4-80.0	PX4-100.0	PX4-150.0	PX4-200.0	PX4-300.0
Rating 50Hz	37-75kW	22-70kW	22-95kW	13.5-95kW	15-95kW
Rating 60Hz	55-120HP	30-100HP	30-125HP	10-125HP	25-100HP
Motor	2pole	4pole	2/4pole	4/6/8pole	4/6/8pole
Pump outlet flange	80-100/3"-4"	100/4"	150/6"	200/8"	300/12"
Pump inlet flange	80-100/3"-4"	100/4"	150/6"	200/8"	300/12"
Impeller types	vortex	channel / vortex	channel / vortex	channel / vortex	channel
Installation types available	wet/dry/portable	wet/dry/portable	wet/dry/portable	wet/dry/portable	wet/dry/portable

PXGRIND Series

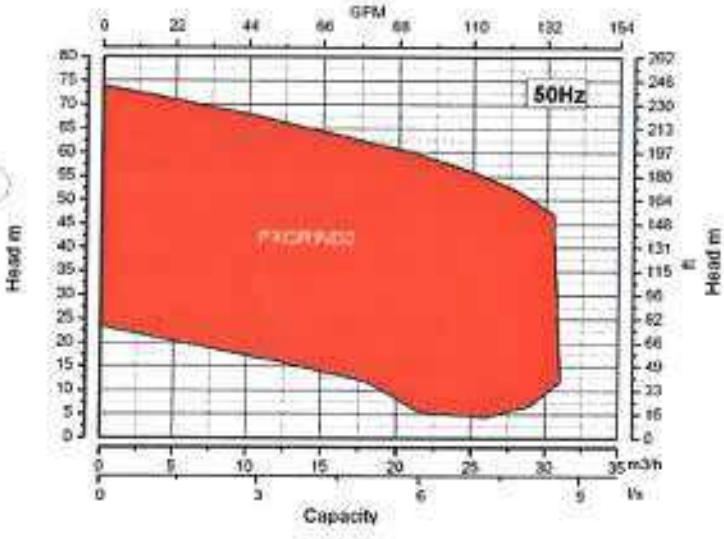
GRINDER PUMPS

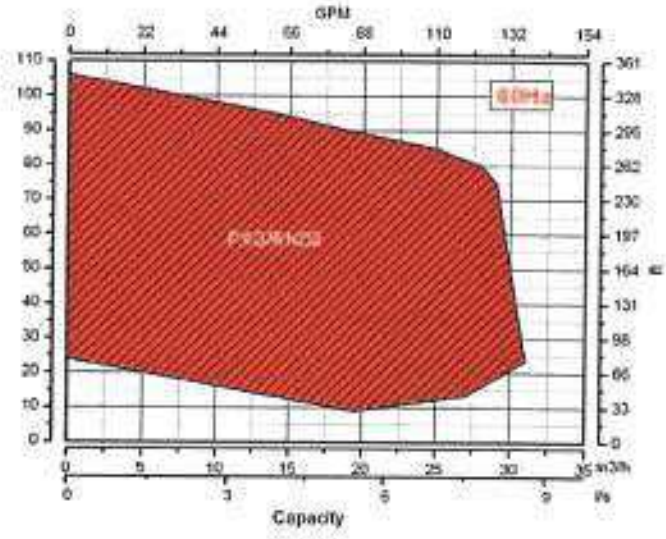


The **PXGRIND** pumps are equipped with a grinding system that effectively reduces all destructible solid pieces and fibrous materials, such as paper, textile, plastics, etc into small particles so they can be led away through pipes of relatively small diameter.

DESIGN FEATURES

- Stainless steel cutter system
- Internal motor cooling system with "ECOFLU" (closed loop through a cooling jacket)
- Cartridge sealing system " Fast Seal "
- Easily adjustable channel impeller clearance system "Reducer" for improved performance and less clogging occurrences
- Oil tap drain
- Ductile multi channel impeller
- Fast lock assembly/disassembly feature with only two latch bolts for quick and easy volute/impeller inspection (major advantage is the significant reduction of man-hours)
- High efficiency EFF2 rated **PXFLOW** - SIEMENS motor
- Motor inspection hole
- Cable entry on the side of the pump cover
- Handle in Stainless steel





Model	PXGRIND2
Rating 50Hz	6,5-12,5kW
Rating 60Hz	10-19HP
Motor	2/4pole
Pump outlet flange	50/2"
Pump inlet flange	Grinder
Impeller types	Channel
installation types available	wet/portable



TYPES OF INSTALLATION

A. Wet type installation

The self guiding coupling system allows for the quick and efficient pump unit inspection. The elbow shaped stationary Discharge Connection Bracket (DCB) is securely fastened at the bottom of the sump. The pump's discharge outlet is perfectly aligned with the DCB's opening and the connection is maintained sealed by the pump's own weight.

B. Dry type installation

In this case a **PXFLOW** pump, equipped with the ECOFLU (internal motor cooling system), is installed in a separate pump chamber. All piping is bolted directly to the pump volute (suction and discharge end). The fast lock connection system permits the fast motor unit and impeller removal from the pump's volute for an easy and friendly inspection. These pumps can replace old existing pumps with dry motors and can still remain operational even if there still water inside the pump chamber.

C. Transportable installation

This type of submersible pump is equipped with a suction stand that comes with or without a strainer. This portable pump unit can be an excellent solution for dewatering construction sites especially when equipped with the ECOFLU cooling system.

SERVICE ADVANTAGES

Discharge flange connection and adapter designed for quick and easy replacement of other pumps brand. **PXFLOW** pumps, depending the replacement brand, can use **PXFLOW** adapter or the existing flange adapter and can be installed on existing base elbow which stays in wet well with their guide rails systems.



PAPANTONATOS
Pumps service & engineering

At Papantonatos S.A. we are proud to claim that our Flowpap and PXflow pumps, for clean water and waste water applications respectively, have earned us the credential of being one of the fastest growing submersible pump manufacturers in South Eastern Europe. Our large network of distributors and service specialists in the Americas, Europe, Asia Pacific and the Middle East is growing very rapidly. Look for one of our specialists to a location near you and let our team of technical and engineering support professionals to answer any technical question and solve any new issues that your company may encounter.

BRIGHTIDEAS





Please contact us to learn about the location of a sales and service point near you.

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Service points in Greece

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MADE IN E.U.

ISO 9001:2000

PXFLOW sewage pumps

FLOWPAP submersible pumps