







# PSO PUMP RANGE

STAINLESS STEEL, **MAGNETIC DRIVE**, CENTRIFUGAL PUMPS



-  CAPACITY <450L/MIN
-  HEAD <61.3 Metres
-  SEALLESS LEAK FREE DESIGN
-  STAINLESS STEEL BUILD
-  TOTAL CORROSION RESISTANCE
-  UK ASSEMBLY

Part of the **PTCX**  
Pump Range



PS



PL



PM



PW



PSJ

## PSO OVERVIEW

The PSO series of sealless magnetic drive pumps are an open impeller type, which is designed for chemical fluid transfer with sludge or slurries. The open impeller enables a lower NPSH feature.

High capacity stainless steel magnetic drive pumps, with flow rate up to 450 LPM.

Our PTCX Stainless Steel magnetic drive pumps are manufactured in 316L stainless steel as standard.

## SEALLESS LEAK FREE DESIGN

A fully sealless structure design resolves leakage problems, and makes sealless magnetic drive the best choice for transferring hazardous or volatile chemicals

## QUICK INSTALLATION & EASY MAINTENANCE

The feature of simple structure requires no special tools to install or to disassemble. Having no mechanical seal saves time on installation and disassembly and will reduce the frequency for parts replacement and maintenance.



**2 YEARS  
WARRANTY**



**ATEX ZONE 1/2  
AVAILABLE**



**CORROSION  
RESISTANCE**



**FLEXIBLE TO  
DESIGN SPEC**

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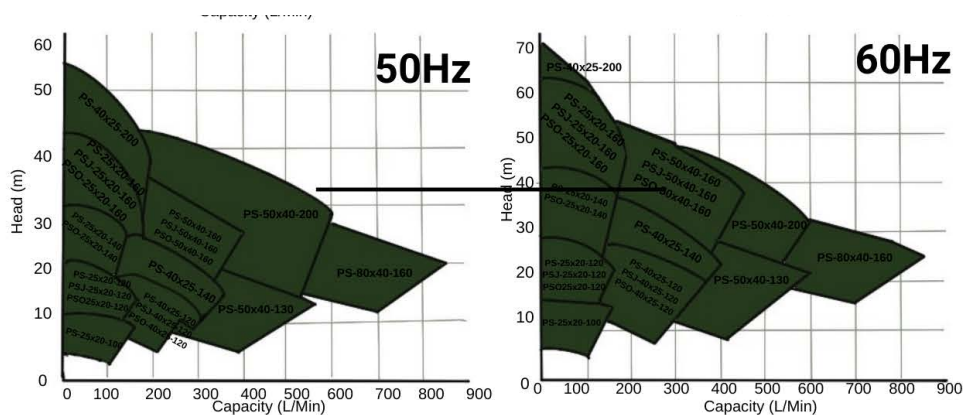
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## RANGE CURVES

Performance curve family for the magnetic drive PSO Series.

### INFORMATION

For more specific model curves, general arrangement drawings or exploded views of individual models, please visit [www.crestpumps.co.uk](http://www.crestpumps.co.uk).



## TECHNICAL SPECIFICATION

	PSO	
Frequency	50Hz	60Hz
Max. Capacity	400L/M	450L/M
Max. Total Head	42.7m	61.3m
Suction & Discharge	25 x 20 - 50 x 40	
Temperature Range	-80°C - 280°C	
Specific Gravity	<2	
Viscosity	<300mPa.s (cp)	
Design Pressure	1.0MPaG	
Flange Standard	ANSI Class 150 / JIS 10K / DIN PN16	
Motor Output	0.75KW - 3.7W	
Pump Material	SUS316L (Standard) / Alloy20 (Optional) / HAS -C equivalent (Optional)	

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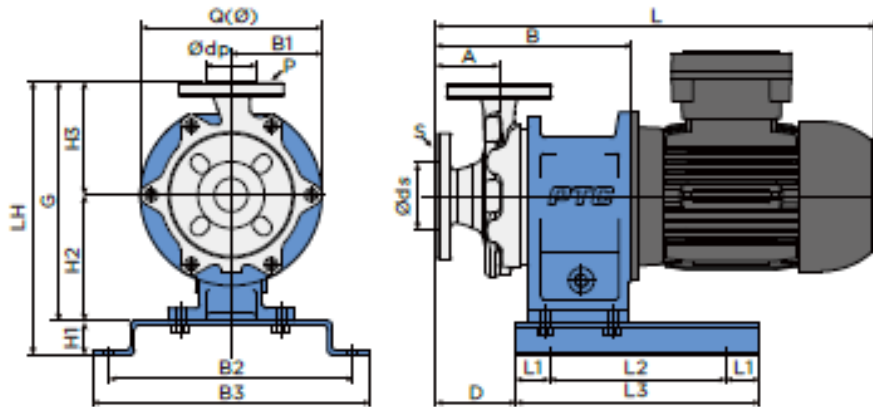
## ∞ RANGE DIMENSIONS

For specific 3D CAD drawings or specific pump dimensions, please contact us at [info@crestpumps.co.uk](mailto:info@crestpumps.co.uk) or telephone +44 (0)1425 627700.

### NOTE:

1. The total length and weight of the pump will differ depending on the brand of the motor.
2. All dimensions are in mm.
3. Assembly tolerances are +/- 3mm.

Model range is full polypropylene range. Please see our website for more details on cast iron models.



Unit:mm

Model	Motor		Bore				Pump size															
	Frame Size	Output (KW)	Suct.		Disch.		LH	G	H1	H2	H3	B1	B2	B3	Q (Ø)	A	B	L	D	L1	L2	L3
			ds	S	dp	P																
PSO-25x20-120	80L	0.75	25	ANSI Class 150 / JIS 10K / DIN PN16	20	ANSI Class 150 / JIS 10K / DIN PN16	290	250	40	130	120	100	290	330	200	60	214.5	*Note1	76.5	40	210	290
	90L	1.5/2.2					320	280	40	150	130	108 125	290	330	216 250	65	215.5 225.5		77.5	40	210 240	290 320
PSO-25x20-140	90L	1.5/2.2	25		20		330	290	40	150	140	127.5	290	330	255	65	216.5 226.5		78.5	40	210 240	290 320
	112L	3.7																				
PSO-25x20-160	90L	1.5/2.2	25		20		330	290	40	150	140	127.5	290	330	255	65	216.5 226.5		78.5	40	210 240	290 320
	112L	3.7																				
PSO-40x25-120	90L	1.5/2.2	40		25		325	285	40	150	135	108 125	290	330	216 250	75	233 243		95	40	210 240	290 320
	112L	3.7																				
PSO-50x40-160	90L	1.5/2.2	50		40		345	305	40	150	155	127.5	290	330	255	75	227 237		79	40	210 240	290 320
	112L	3.7																				

\*Note1. Dimension of (L) will differ depending on the brand and installation of the motor

STAINLESS STEEL MAGNETIC DRIVE PUMP

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## EXPLODED VIEW

### Modular Design Interchangeable Parts Reduce Cost



#### Front Casing

Precision casting method is used to bring a **universal flange design** for three types of piping connections which are ANSI, JIS, and DIN.



#### Casing Cover

**Special flow channel** and easy disassembly design make easy maintenance.



#### Gasket

PTFE is used as gasket **standard material** which compatibility is used for most chemicals in the industry.



#### Main Material

**SUS316L** is provided for better **corrosion resistance**. Alloy20 and Hastelloy-C equivalent are also provided for optional selection.



#### Impeller

Precision casting method is used to bring **one-piece design** of structure without welding which improves durability and better corrosion resistance.



#### Bearing Thrust ring Sleeve

Parts are made with **SIC material** which provides low friction with minimum wear and excellent chemical corrosion resistance.



#### Shaft

**High precision forging unit** is used to improve balance during operation. Shaft reaming design helps inner flow channel for better cooling and improve durability.



#### Anti-Vortex

**Anti-vortex design** for rear casing is to prevent abrasion caused by impurity substances.



#### Outer Magnet

Outer magnet surface with **anti-corrosion coating** is avoid corrosion caused external environmental influences.



#### Inner Magnet

**High-performance rear earth magnet** is used to provide for the inner magnet, temperature use range from minus 80 degree to 280 degree Celsius.



#### Rear Casing

**One-piece design** of rear casing is of excellent pressure and corrosion resistance. Coupling type material provide SUS316L, additionally an optional Hastelloy-C equivalent material to reduce the magnetic loss and improve the operation efficiency.



#### Baseplate Adapter

**Two-piece design** for baseplate adapter can be customized adjusted according to the installation height on site. The installation of motor is designed for **star IEC motor frames** and closed piped design requires no special nor shaft alignment.



## INFORMATION

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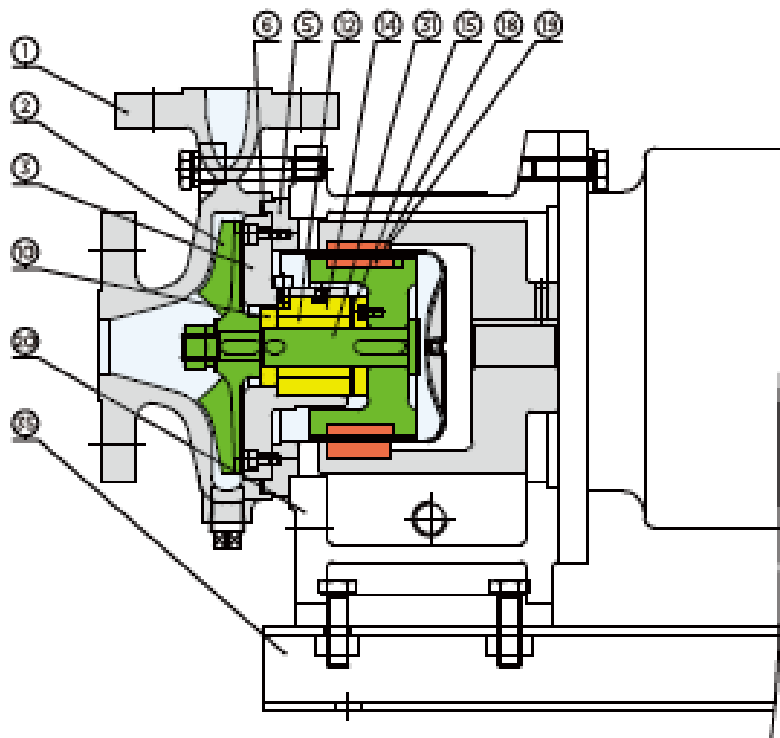
If you need 3D CAD models of the range, please contact one of our team and we will arrange for a copy to be sent to you by email.



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## PARTS LIST & MATERIAL CONSTRUCTION



MATERIAL CODE	PARTS NAME	MATERIAL
1	FRONT CASING	SUS316L
2	IMPELLER	SUS316L
3	CASING COVER	SUS316L
5	REAR CASING	SUS316L
6	GASKET	PTFE
10	THRUST RING (A)	SiC
12	SLEEVE	SiC
14	BEARING	SiC
15	THRUST RING (B))	SiC
18	INNER MAGNET	SUS316L + RARE EARTH
19	OUTER MAGNET	SS400 + RARE EARTH
20	FRAME ADAPTER	FC25
31	SHAFT	SUS316L
35	BASEPLATE	SS400