

# PSJ PUMP RANGE

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



- ∞ CAPACITY <450L/MIN
- ∞ HEAD <53.1 Metres
- ∞ SEALLESS LEAK FREE DESIGN
- ∞ STAINLESS STEEL BUILD
- ∞ TOTAL CORROSION RESISTANCE
- ∞ UK ASSEMBLY

Part of the **PTCX**  
Pump Range



## ∞ PSJ OVERVIEW

The PSJ series is in form of a semi-jacketed type which is used to maintain process temperature as well as being high efficiency.

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.



**2 YEARS  
WARRANTY**



**ATEX ZONE 1/2  
AVAILABLE**



**CORROSION  
RESISTANCE**



**FLEXIBLE TO  
DESIGN SPEC**

## ∞ 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 the frequency for parts replacement and maintenance.

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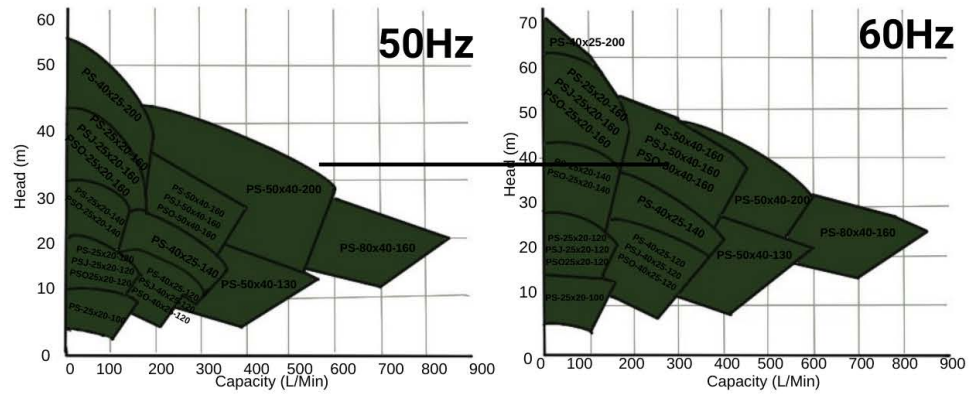
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## ∞ RANGE CURVES

Performance curve family for the magnetic drive PSJ 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

|                                | PSJ  |        |
|--------------------------------|--|--------|
|                                | 50Hz   | 60Hz   |
| <b>Frequency</b>               | 50Hz   | 60Hz   |
| <b>Max. Capacity</b>           | 400L/M   | 450L/M |
| <b>Max. Total Head</b>         | 36.8m  | 53.1m  |
| <b>Suction &amp; Discharge</b> | 25 x 20 - 50 x 40  |        |
| <b>Temperature Range</b>       | -80°C - 280°C  |        |
| <b>Specific Gravity</b>        | <2   |        |
| <b>Viscosity</b>               | <300mPa.s (cp)   |        |
| <b>Design Pressure</b>         | 1.0MPaG  |        |
| <b>Flange Standard</b>         | ANSI Class 150 / JIS 10K / DIN PN16                                    |        |
| <b>Motor Output</b>            | 0.75KW - 3.7W  |        |
| <b>Pump Material</b>           | SUS316L (Standard) / Alloy20 (Optional) / HAS -C equivalent (Optional) |        |

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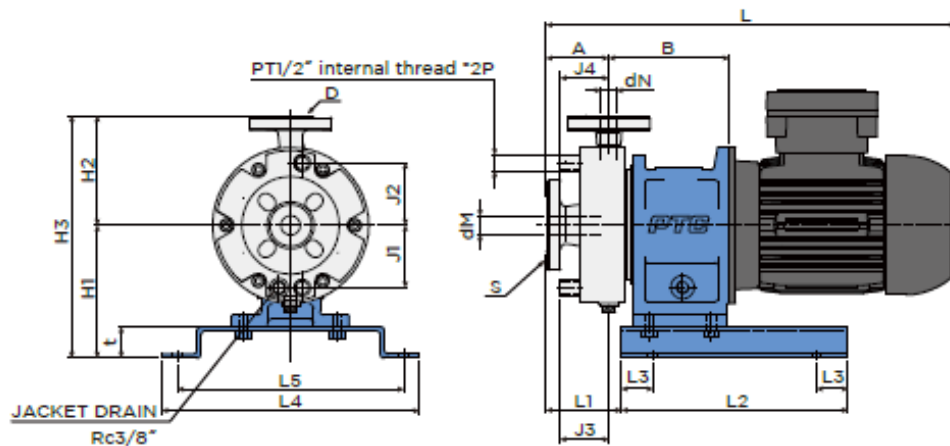
## ∞ RANGE DIMENSIONS

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. |           | A         | B   | H1  | H2 | H3        | L  | L1  | L2        | L3 | L4  | L5  | t  | J1 | J2 | J3 | J4 |  |
|               |            |             | dM    | S  | dN     | D         |           |     |     |    |           |    |     |           |    |     |     |    |    |    |    |    |  |
| PSJ-25x20-120 | 80         | 0,75        | 25    | 20 | 80     | 154       | 170       | 140 | 310 | 81 | 290       | 40 | 330 | 140       | 40 | 80  | 80  | 63 | 63 |    |    |    |  |
|               | 90S/90L    | 1,5/2,2     |       |    |        |           |           |     |     |    |           |    |     |           |    |     |     |    |    |    |    |    |  |
| PSJ-40x25-120 | 90S/90L    | 1,5/2,2     | 40    | 25 | 95     | 151 / 161 | 190       | 160 | 350 | 83 | 290 / 320 | 40 | 330 | 140 / 120 | 40 | 100 | 100 | 63 | 63 |    |    |    |  |
|               | 100L/112M  | 3/4         |       |    |        |           |           |     |     |    |           |    |     |           |    |     |     |    |    |    |    |    |  |
| PSJ-25x20-160 | 90S/90L    | 1,5/2,2     | 25    | 20 | 85     | 151 / 161 | 190       | 160 | 350 | 83 | 290 / 320 | 40 | 330 | 140 / 120 | 40 | 100 | 100 | 63 | 63 |    |    |    |  |
|               | 100L/112M  | 3/4         |       |    |        |           |           |     |     |    |           |    |     |           |    |     |     |    |    |    |    |    |  |
| PSJ-50x40-160 | 90L        | 2,2         | 50    | 40 | 85     | 152 / 162 | 190       | 170 | 360 | 84 | 290 / 320 | 40 | 330 | 140 / 120 | 40 | 105 | 105 | 63 | 63 |    |    |    |  |
|               | 100L/112M  | 3/4         |       |    |        |           |           |     |     |    |           |    |     |           |    |     |     |    |    |    |    |    |  |


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

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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.

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

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

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

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

**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.

**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.

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

**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.

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

**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 frame**; and closed piped design requires no special nor shaft alignment.



## INFORMATION

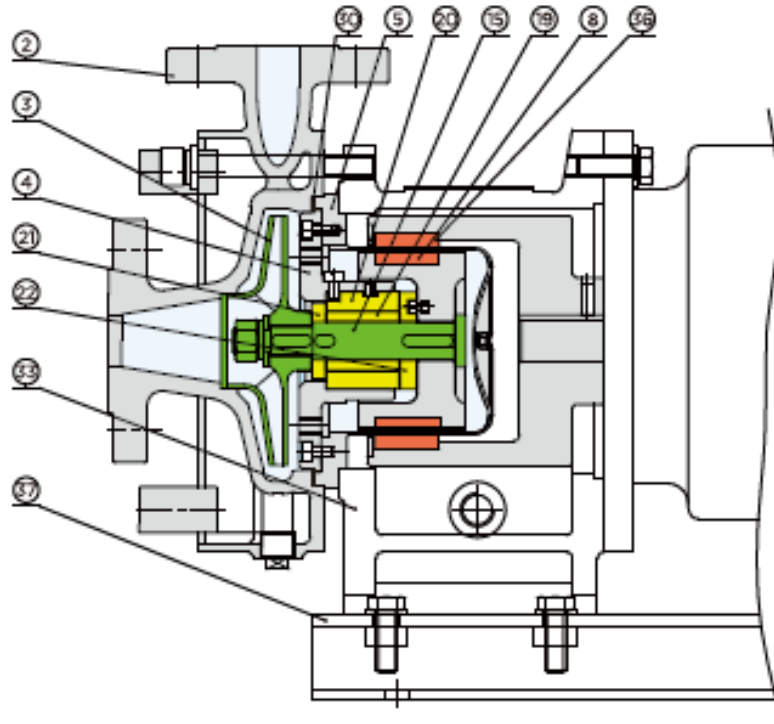
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## PARTS LIST & MATERIAL CONSTRUCTION



| MATERIAL CODE | PARTS NAME      | MATERIAL             |
|---------------|-----------------|----------------------|
| 2             | FRONT CASING    | SUS316L              |
| 3             | IMPELLER        | SUS316L              |
| 4             | CASING COVER    | SUS316L              |
| 5             | REAR CASING     | SUS316L              |
| 8             | INNER MAGNET    | SUS316L + RARE EARTH |
| 15            | SHAFT           | SUS316L              |
| 19            | SLEEVE          | SiC                  |
| 20            | BEARING         | SiC                  |
| 21            | THRUST RING (A) | SiC                  |
| 22            | THRUST RING (B) | SiC                  |
| 30            | GASKET          | PTFE                 |
| 33            | FRAME ADAPTER   | FC25                 |
| 36            | OUTER MAGNET    | SS400 + RARE EARTH   |
| 37            | BASEPLATE       | SS400                |