

# PL PUMP RANGE

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



- ∞ CAPACITY <2001L/MIN
- ∞ HEAD <132 Metres
- ∞ SEALLESS LEAK FREE DESIGN
- ∞ STAINLESS STEEL BUILD
- ∞ TOTAL CORROSION RESISTANCE
- ∞ UK ASSEMBLY

Part of the **PTCX**  
Pump Range



## ∞ PM OVERVIEW

The PL series is the largest capacity series with power up to 18.5KW, which can be used to process large flow and higher head applications.

High capacity stainless steel magnetic drive pumps, with flow rate up to 2001 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 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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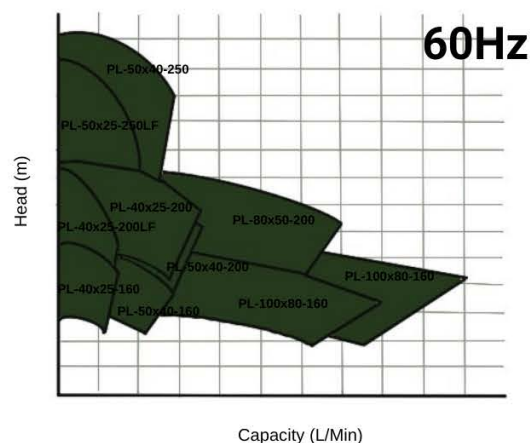
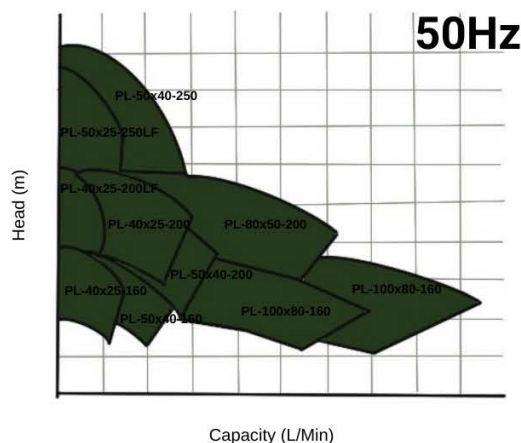
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## RANGE CURVES

Performance curve family for the magnetic drive PL 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

|                     | PL   |         |
|---------------------|--|---------|
| Frequency           | 50Hz   | 60Hz    |
| Max. Capacity       | 1904L/M  | 2001L/M |
| Max. Total Head     | 91.3m  | 132m    |
| Suction & Discharge | 40 x 25 - 100 x 80   |         |
| Temperature Range   | -80°C - 280°C  |         |
| Specific Gravity    | <2   |         |
| Viscosity           | <300mPa.s (cp)   |         |
| Design Pressure     | 1.2MPaG (*PL-50X25-250LF: 1.6MPaG*)                                    |         |
| Flange Standard     | ANSI Class 150 / JIS 10K / DIN PN16                                    |         |
| Motor Output        | 5.5KW - 18.5W  |         |
| Pump Material       | SUS316L (Standard) / Alloy20 (Optional) / HAS -C equivalent (Optional) |         |



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## RANGE DIMENSIONS

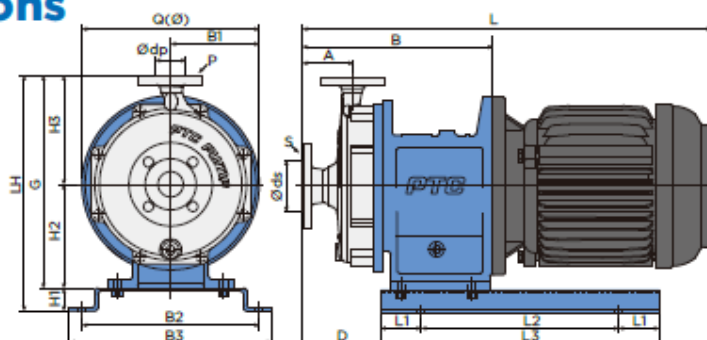
For specific 3D CAD drawings or specific pump dimensions, please contact us at [info@crestpumps.co.uk](mailto:info@crestpumps.co.uk) or telephone +44 (0)1425 627700.

### 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.

## Dimensions



Unit:mm

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                                   |           |     |    |     |     |       |     |     |       |     |     |       |    |     |     |       |    |     |     |
| PL-40x25-160   | 132L       | 5,5/7,5     | 40    | ANSI Class 150 / JIS 10K / DIN PN16 | 25     | ANSI Class 150 / JIS 10K / DIN PN16 | 375       | 335 | 40 | 170 | 165 | 150   | 350 | 400 | 300   | 100 | 341 | 149,5 | 80 | 240 | 400 |       |    |     |     |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 415       | 370 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 371 |       |    |     |     |       |    |     |     |
| PL-40x25-200   | 132L       | 5,5/7,5     | 40    |                                     | 25     |                                     | 375       | 335 | 40 | 170 | 165 | 150   | 350 | 400 | 300   | 100 | 341 |       |    |     |     |       |    |     |     |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 415       | 370 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 371 |       |    |     |     |       |    |     |     |
| PL-40x25-200LF | 132L       | 5,5/7,5     | 40    |                                     | 25     |                                     | 375       | 335 | 40 | 170 | 165 | 150   | 350 | 400 | 300   | 100 | 341 |       |    |     |     |       |    |     |     |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 415       | 370 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 371 |       |    |     |     |       |    |     |     |
| PL-50x25-250LF | 132L       | 5,5/7,5     | 50    |                                     | 25     |                                     | 425       | 385 | 40 | 170 | 215 | 169   | 350 | 400 | 338   | 100 | 346 | 154,5 | 80 | 240 | 400 |       |    |     |     |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 465       | 420 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 376 |       |    |     |     |       |    |     |     |
| PL-50x40-160   | 132L       | 5,5/7,5     | 50    |                                     | 40     |                                     | 375       | 335 | 40 | 170 | 165 | 150   | 350 | 400 | 300   | 100 | 341 |       |    |     |     |       |    |     |     |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 415       | 370 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 371 |       |    |     |     |       |    |     |     |
| PL-50x40-200   | 132L       | 5,5/7,5     | 50    |                                     | 40     |                                     | 375       | 335 | 40 | 170 | 165 | 150   | 350 | 400 | 300   | 100 | 341 |       |    |     |     |       |    |     |     |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 415       | 370 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 371 |       |    |     |     |       |    |     |     |
| PL-50x40-250   | 132L       | 5,5/7,5     | 50    |                                     | 40     |                                     | 425       | 385 | 40 | 170 | 215 | 169   | 350 | 400 | 338   | 100 | 346 |       |    |     |     |       |    |     |     |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 465       | 420 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 376 |       |    |     |     |       |    |     |     |
| PL-80x50-160   | 132L       | 5,5/7,5     | 80    |                                     | 50     |                                     | 410       | 370 | 40 | 170 | 200 | 150   | 350 | 400 | 300   | 100 | 346 | 154,5 | 80 | 240 | 400 |       |    |     |     |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 450       | 405 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 376 |       |    |     |     |       |    |     |     |
| PL-80x50-200   | 132L       | 5,5/7,5     | 80    |                                     | 50     |                                     | 410       | 370 | 40 | 170 | 200 | 150   | 350 | 400 | 300   | 100 | 346 |       |    |     |     |       |    |     |     |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 450       | 405 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 376 |       |    |     |     |       |    |     |     |
| PL-100x80-160  | 132L       | 5,5/7,5     | 100   |                                     | 80     |                                     | 410       | 370 | 40 | 170 | 200 | 163,5 | 350 | 400 | 313,5 | 100 | 360 |       |    |     |     | 168,5 | 80 | 240 | 400 |
|                | 160L       | 11/15/18,5  |       |                                     |        |                                     | 450       | 405 | 45 | 205 | 175 | 175   | 350 | 400 | 350   | 100 | 390 |       |    |     |     |       |    |     |     |

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

1.



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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.



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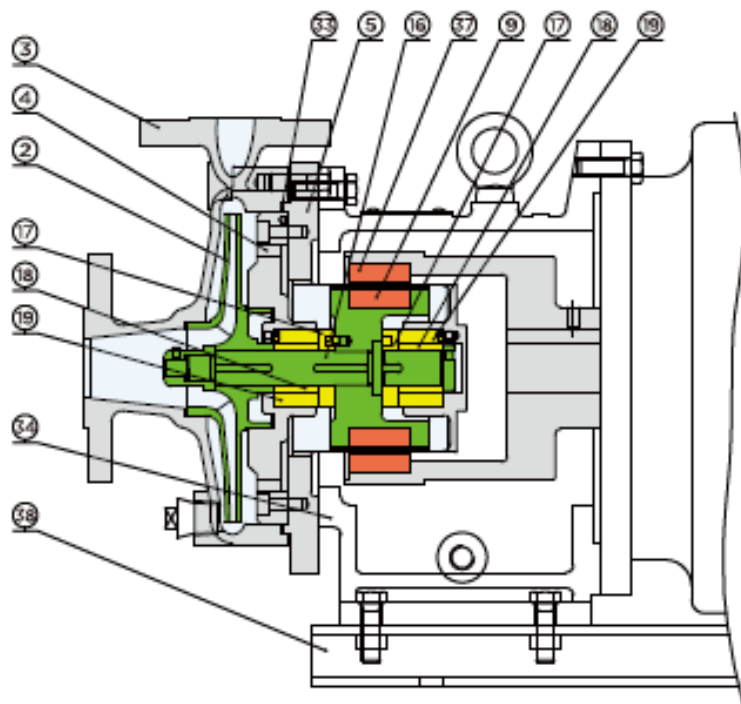
If you need 3D CAD models of the range, please contact one of our team and we will arrange for a copy to be sent to you by email.



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## PARTS LIST & MATERIAL CONSTRUCTION



| MATERIAL CODE | PARTS NAME    | MATERIAL             |
|---------------|---------------|----------------------|
| 2             | IMPELLER      | SUS316L              |
| 3             | FRONT CASING  | SUS316L              |
| 4             | CASING COVER  | SUS316L              |
| 5             | REAR CASING   | SUS316L              |
| 9             | INNER MAGNET  | SUS316L + RARE EARTH |
| 16            | SHAFT         | SUS316L              |
| 17            | THRUST RING   | SiC                  |
| 18            | SLEEVE        | SiC                  |
| 19            | BEARING       | SiC                  |
| 33            | GASKET        | PTFE                 |
| 34            | FRAME ADAPTER | SS400                |
| 37            | OUTER MAGNET  | SS400 + RARE EARTH   |
| 38            | BASEPLATE     | FC25                 |