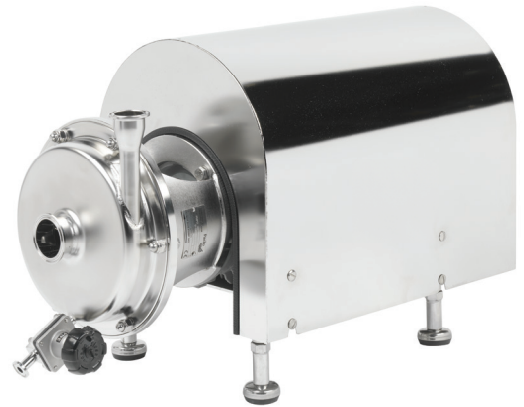


The Packo EHEDG and 3A certified pharmaceutical process pumps of the PHP2 series are used for the most demanding sterile applications in the pharmaceutical, biotech and semi-conductor industry. These perfectly cleanable pumps have stainless steel 316L pump casings constructed in thick cold rolled plate, 100% non porous and extremely smooth. The pumps have fully machined open impellers constructed in 1.4435 material. Thanks to its crevice-free design and electropolishing as a final surface treatment, the PHP2 pump series are perfectly cleanable, resulting in a reliable component into your production process.



### Application areas

These perfectly cleanable process pumps are the ideal solution for pure water circulation loops, cleaning applications, etc. Typical liquids are pure water, WFI, CIP, syrups, etc.

### Your benefits

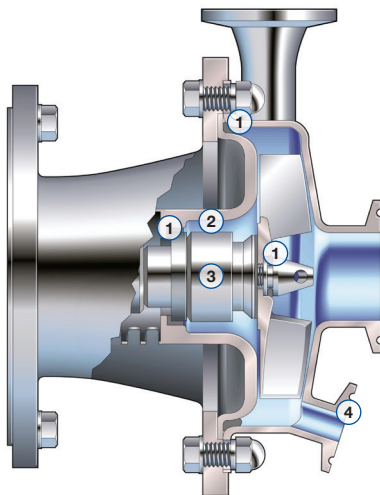
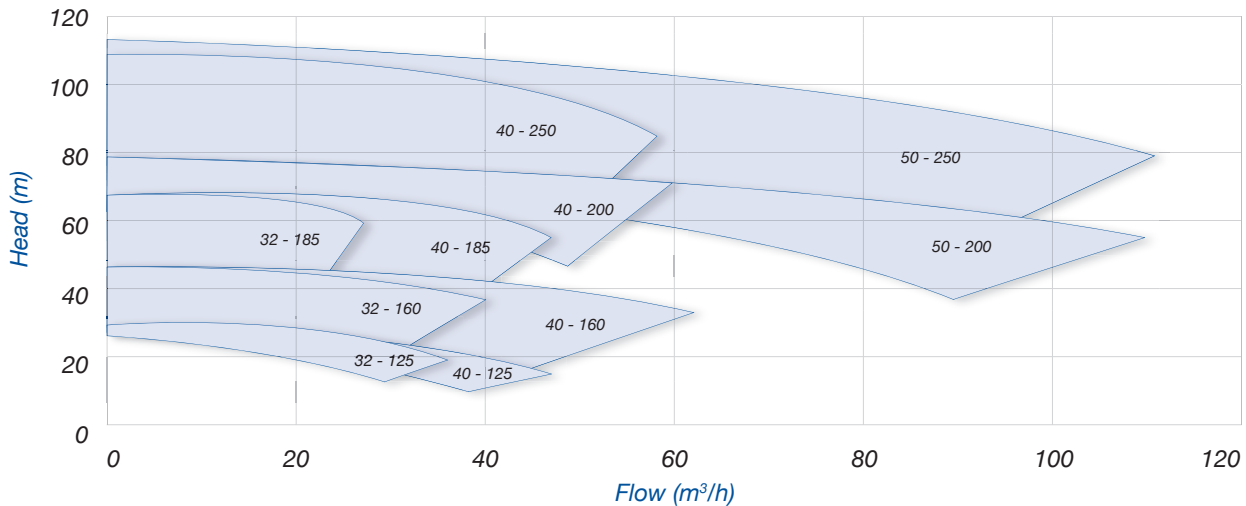
- High pump efficiency resulting in lower energy consumption
- Low NPSH values: less risk on cavitation
- Electropolished: perfectly cleanable
- Easy construction and easy maintenance: Less downtime
- Standard components
- Fully certified (roughness value, FDA, USP, 3.1 for wetted parts, certificate of conformity, etc.)
- Suitable for SIP
- Robust construction in line with ASME BPE guidelines
- Parts in contact < 0,4 µm

### Technical specifications

Max. flow rate	110 m³/h
Max. differential head	110 m
Max. liquid viscosity	500 cP
Max. temperature	140°C
Impeller type	Open
Max. free passage	22 mm
Max. motor power	45 kW
Max. speed	3000 / 3600 rpm
Available frequency	50 / 60 Hz
Connections	Sterile connections
Materials wetted parts	Stainless steel 316L for casing and backplate, 1.4435 for the impellers
Available materials o-ring	EPDM, FKM, FEP-FKM, FFKM, Silicone
Mechanical seal configuration	Single, quench, double
Surface finish	Pharmaceutical quality, roughness value < 0,4 µm for wetted parts. Electropolished; fully certified
Certificates & Legislation	EHEDG, 3A, 1935/2004 EC, FDA, USP, ATEX, EU N° 547/2012

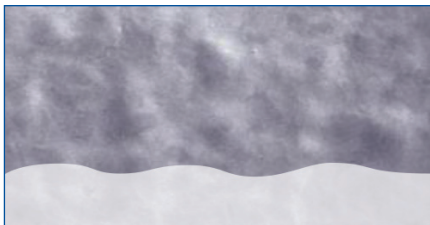


### Performance curves at 2900 rpm

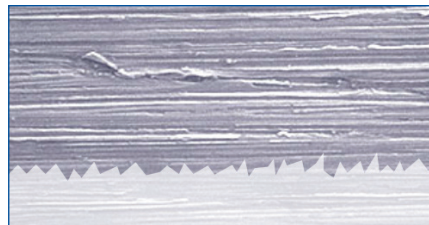


### Specifications

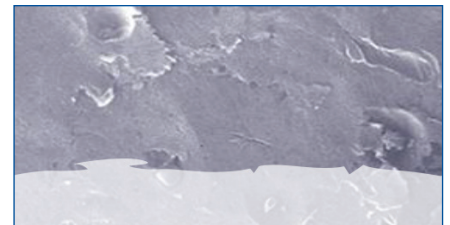
- Easy to clean construction and standardized components
- No bacteria traps and no small clearances in order to clean the area around the O-ring (1)
- Pressed stainless steel in 2B quality plate, extremely smooth
- Large seal cavity to clean mechanical seal properly (2)
- FDA approved sterile mechanical O-ring seals (spring not in contact with the liquid) (3)
- 1 mechanical seal diameter 33 mm up to 22 kW motor power (43 mm for larger motors)
- Fully drainable (4)
- Electropolished design (for wetted & non-wetted parts); easy to clean and increased corrosion resistance
- Roughness value wetted parts < 0.4 µm



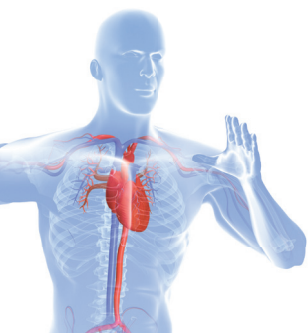
Electropolished



Mechanical polishing 240 grit



Glass bead blasted



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