

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

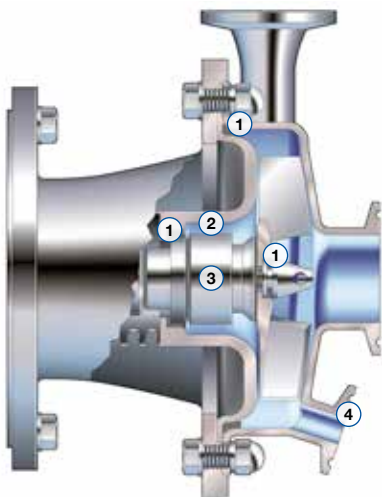
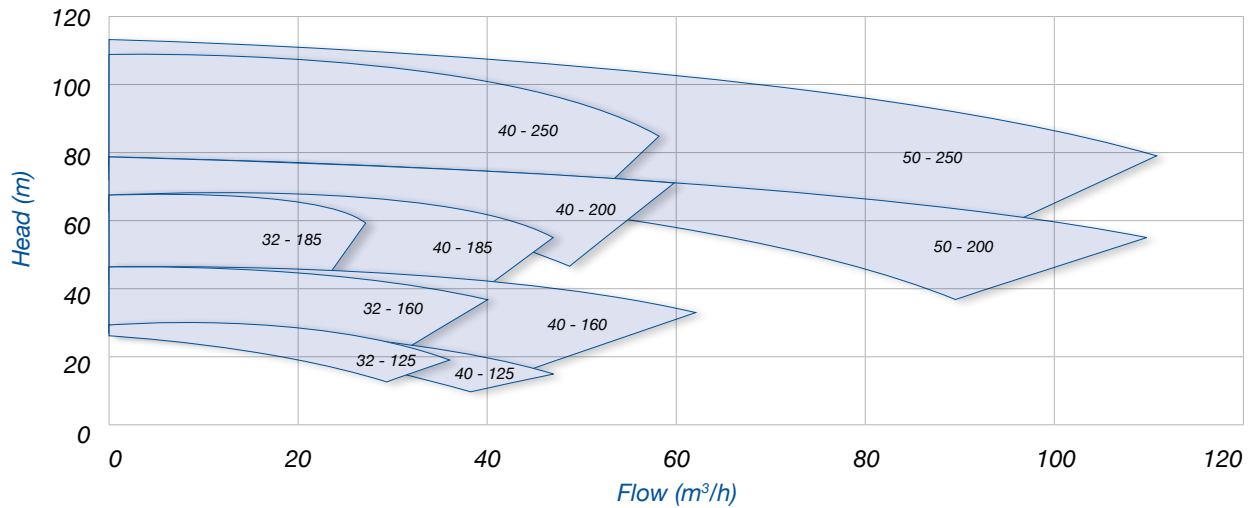
- High pump efficiency resulting in lower energy consumption
- Low NPSH values: less risk on cavitation
- Electropolished: perfectly cleanable
- Easy construction and easy maintenance: Less downtime
- Standard components
- Fully certified (roughness value, FDA, USP, 3.1 for wetted parts, certificate 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 m ³ /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

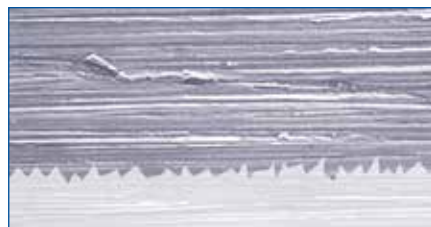


Specifications

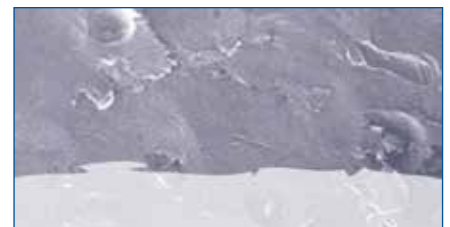
- Easy to clean construction and standardized components
- No bacteria traps and no small clearances in order to clean the area around the O-ring (1)
- Pressed stainless steel in 2B quality plate, extremely smooth
- Large seal cavity to clean mechanical seal properly (2)
- FDA approved sterile mechanical 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

PHP2_Pharmaceutical_pump_series_Technosheet_rev01_2016_(eu)



Find your local supplier at www.verder-liquids.com

For construction, installation and floor mounting drawings please contact your local authorised Verder® distributor.