# Packo

# PRP2 pharmaceutical air handling CIP return pump



The pumps of the PRP2 series are perfectly cleanable EHEDG and 3A certified air handling pumps and are mainly used to pump a mixture of liquid and air. They are used for the most demanding cleaning in place 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 PRP2 pump series are perfectly cleanable, resulting in a reliable component into your production process.



### **Application areas**

Thanks to its unique air handling design based on a standard centrifugal pump, the PRP2 series are particularly suitable as CIP return pump!

#### Your benefits

- → Higher pump efficiency compared with a classic liquid ring pump
- Low NPSH values: less risk on cavitation
- Electropolished: perfectly cleanable
- → Easy construction and easy maintenance: Less downtime
- Limited noise level
- 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**

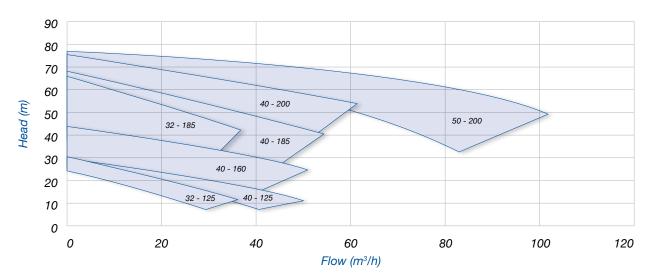
Max. flow rate	80 m³/h
Max. differential head	75 m
Max. liquid viscosity	10 cP (to guarantee air handling capabilities)
Max. temperature	140°C
Impeller type	Open
Max. free passage	22 mm
Max. motor power	22 kW
Max. speed	3000 / 3600 rpm
Available frequency	50 / 60 Hz
Connections	Sterile connections
Materials 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

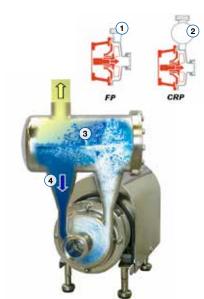
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### Performance curves at 2900 rpm



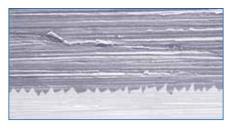


## **Specifications**

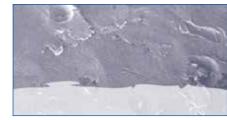
- → Modular concept based on EHEDG & 3A certified pharmaceutical pump series
  PHP2; the only difference is the pump casing (1 +2)
- → Unique air handling design with cleanable air separator (3)
- → By-pass to casing taking care about air evacuation (4)
- → Standardized mechanical seals to EN 12756
- FDA approved sterile O-ring seals with spring not in contact with the liquid
- → 1 mechanical seal diameter 33 mm
- Electropolished design (for wetted & non-wetted parts): easy to clean and increased corrosion resistance
- Fully drainable
- → Roughness value parts in contact < 0,4 µm



Electropolished



Mechanical polishing 240 grit



Glass bead blasted





