

Pomac pumps

Rotary lobe pumps and centrifugal pumps for hygienic processes.





Pomac pumps.

Pomac was founded in the Netherlands in 1977 and has been specializing since in the production of hygienic pumps made of stainless steel. Pomac rotary lobe pumps and centrifugal pumps are used worldwide in the food industry, in the production of beverages, and in the pharmaceutical and chemical industries. The pumps have been specially designed for conveying fluids from the low-viscosity to the high-viscosity range. All aseptic and sterility-related specifications are met with high reliability and efficiency.

Contents

03	Advantages at a glance
04	Areas of application
06	Rotary lobe pumps
10	Centrifugal pumps
14	Certificates
15	Technical data

Pomac pumps. The advantages at a glance.

1



For individual requirements

Different pump types are available in various models and material qualities for your specific application. Together with you and based on the process data, we select the pump in the suitable design. On request, Pomac also develops customized solutions.

2



Hygienic designs

The pump design meets the EHEDG criteria, i.e., the pumps comply fully with the stringent hygiene standards in the pharmaceutical, biotechnology and food industry.

3



For fluids from low to high viscosity

Pomac centrifugal pumps are intended for low-viscosity fluids. For high-viscosity fluids, we recommend the use of our rotary lobe pumps.

4



High metering accuracy

Every pump is specifically designed for its respective intended use in order to ensure that it complies with the operating points.

5



Maintenance-friendly design

Pomac rotary lobe and centrifugal pumps feature a unique modular design and numerous available options in the area of their shaft seals. The "front-pull-out principle" makes it possible to access all standard seals of the rotary lobe pump from the front and to interchange them.

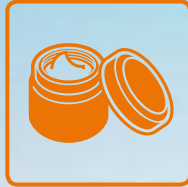
6



Service

As a matter of course, LEWA also takes care of spare parts for your Pomac pump and of its maintenance and repairs.

Areas of application.



Special coatings for abrasive media such as toothpaste guarantee process safety and a long service life of the pump.



Electropolished surfaces guarantee precise operation in accordance with international standards, for example in the ultrapure production of active ingredients and medication.



In the production of dairy products, each production step must be completed in a gentle and sterile manner. For this, we have hygienic pumps for low-pulsation conveyance.



For conveying liquid fertilizers, Pomac centrifugal pumps meet the requirements optimally: They are dry-run safe and easy to maintain and repair due to their modular design.

For high-viscosity fluids. Pomac rotary lobe pumps.

Pomac rotary lobe pumps are particularly suited to high-viscosity and/or shear-sensitive fluids. They are designed for continuous operation and are used in almost all industrial sectors.

The lobe design of the pump is selected depending on how viscous or lumpy the fluids to be conveyed are. Five different lobe designs and five different seals are available. Pomac pumps meet the tight requirements of the EHEDG guidelines.



Technical data for rotary lobe pumps

Flow rate max.: 110,000 l/h

Discharge pressure max.: 20 bar

Temperatures: from -/+0 to +120 °C

Speed range: 10 to 1,000 rpm

The series.

PLP: The standard rotary lobe pump

The flexible pump for hygienic standard applications up to highly complex sterile applications.



Outstanding advantages:

Gentle product conveying

High speed reliability

Low noise level

Suitable for relatively large solids content

Wide application range (e.g. dairy products, sugar mass, creams, toothpaste, sauces, doughs)

Front-loaded seal

PLP: The hygienic rotary lobe pump

The hygienically designed version is suitable for applications such as those in pharmaceuticals and biotechnology. It is a pharmaceutical model with two or four lobes.



Outstanding advantages:

With vertical flow direction, almost 100% draining

Large selection of connections

Amply dimensioned intake opening

Surfaces $\leq 0.8 \mu$ (on request $\leq 0.5 \mu$, electrically polished)

Selection of five different shaft seals

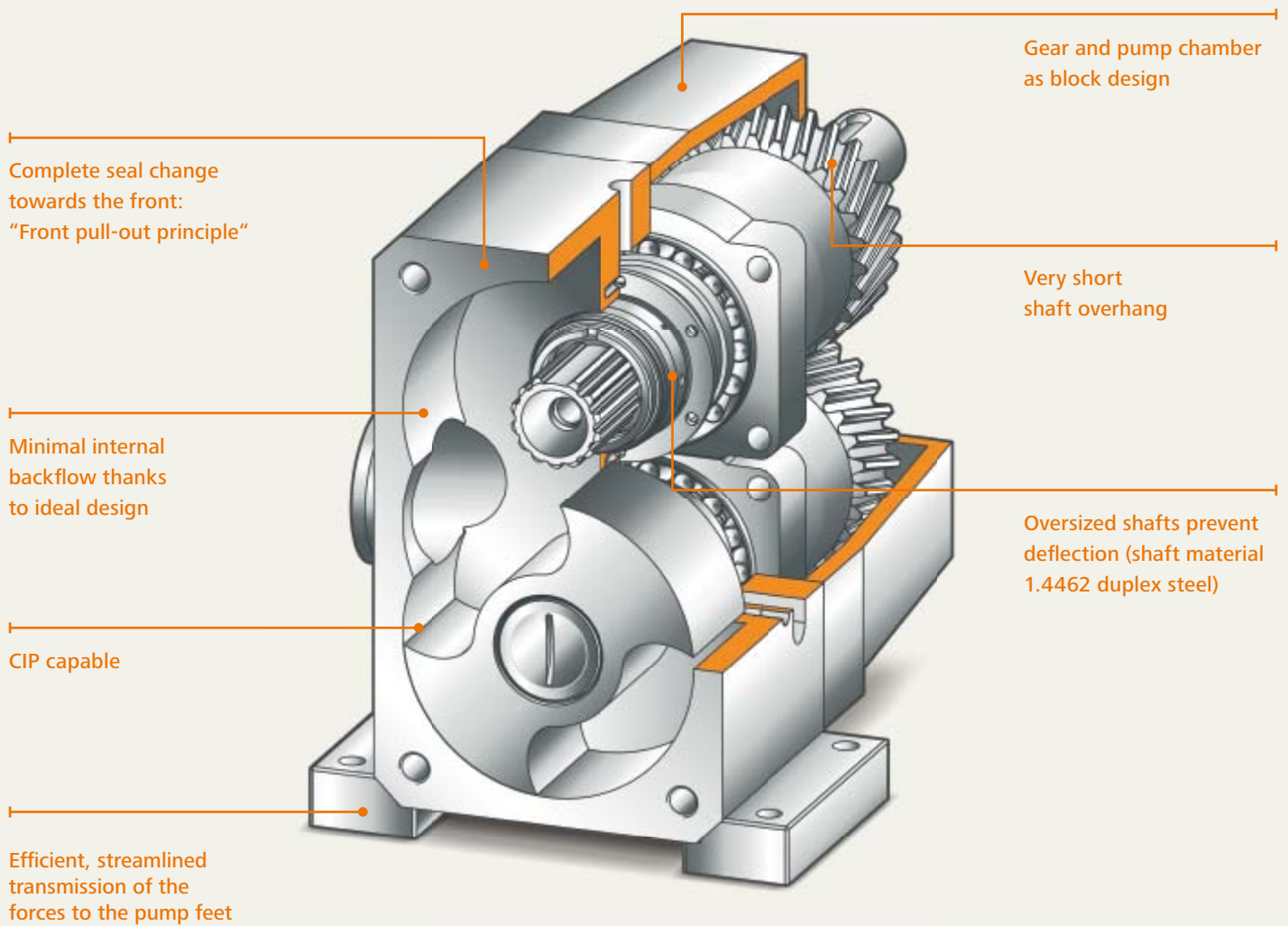
Easy exchange with other seal designs

Short replacement times of the seals

Easy configuration of rotor tolerances

With certificate of proof, e.g. 3.1 certificate, FDA, USP, EHEDG

The design.



Options and designs.

Designs:

- Horizontal or vertical connection position
- Cover heating and/or housing heating
- Cover with safety valve

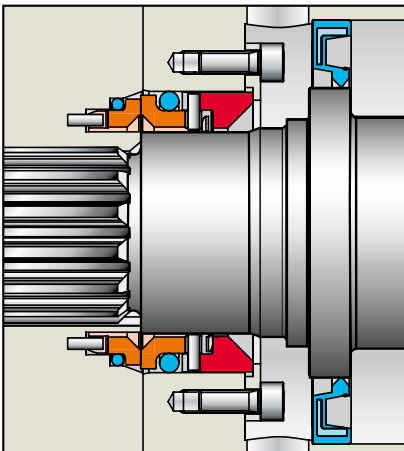
Elastomers:

- EPDM
- EPDM-FDA
- Viton
- Viton-FDA
- NBR
- PTFE
- Kalrez (perfluor elastomer)

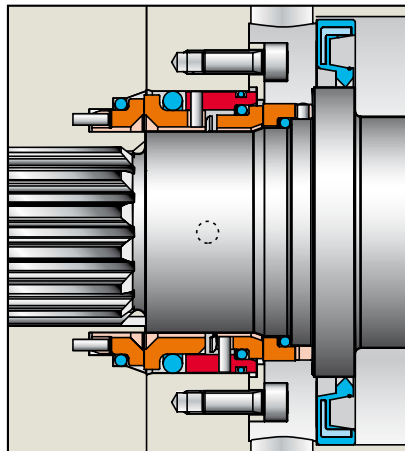
Seals:

The "front-pull-out principle" makes it possible to access all different standard seal options from the front and to interchange them at any time. The choice of the sealing principle depends on many criteria related to products and systems used.

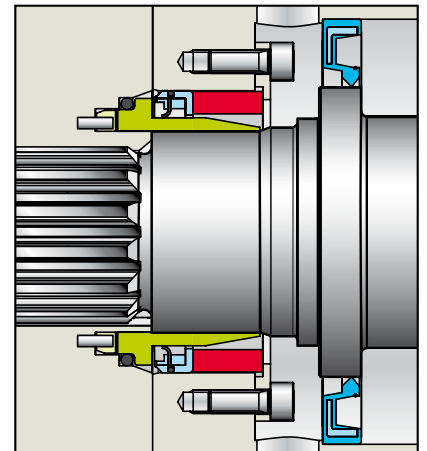
- Mechanical seals
- (silicon carbide or tungsten carbide)
- Mechanical seals flushed
- (silicon carbide or tungsten carbide)
- Lip seal, dry-run safe
- O-ring
- O-ring flushed



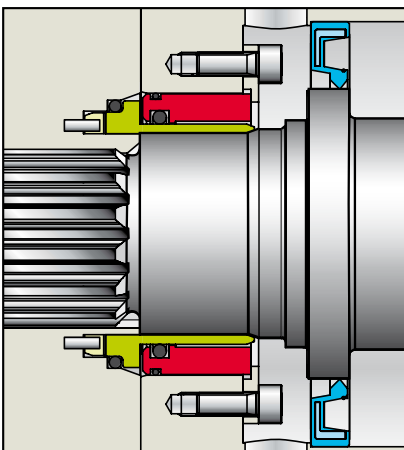
Mechanical seal



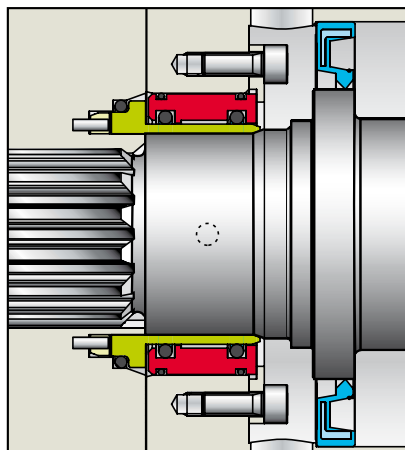
Mechanical seal flushed



Lip seal, dry-run safe



O-ring



O-ring flushed

For low-viscosity fluids. Pomac centrifugal pumps.

Whenever low-viscosity fluids are concerned, the gentle centrifugal pumps from Pomac show their potential. The stainless-steel pumps feature optimum hydraulic data, a unique modular design and numerous available options in the area of shaft seals.

The pump design meets the EHEDG criteria. For example, all components in contact with the fluid are made of 1.4404 (316L) stainless steel. The pumps are available as a self-priming as well as in a non self-priming version.

Technical data for centrifugal pumps

Flow rate max.: 320 m³/h

Discharge pressure max.: 16 bar

Viscosity max.: 500 mPa·s

The series.

CPC: The robust centrifugal pump

These pumps stand out particularly due to their robust and stable design, which makes them excellently suited to production processes in the pharmaceutical and food industry with fluids of a viscosity up to 500 cP and pressures up to 16 bar. The CPC centrifugal pumps are equipped with very narrow gaps, causing the impellers to provide an extremely high production performance.



Advantages/options:

Cleaning of the shaft seal and housing by exposed impellers

Optimal cleaning thanks to pressure relief plugs on the exposed impellers

Minimum contact with the fluid and optimal cleaning properties of the contact surfaces thanks to dry assembly of the impeller on the shaft using O-rings

CPC/ZA: The economical centrifugal pump

This pump model expands our CPC product range. The CPC/ZA pump is distinguished by its self-priming, where it is particularly well suited to pumping air-fluid mixtures. The maximum flow rate is 200 m³/h at a manometric head of 9 bar.



Advantages/options:

Optimal pumping of the air portion thanks to the use of an exposed impeller

SPRL: Self-priming liquid ring pump

These self-priming pumps operate according to the water-ring principle and can therefore pump air-fluid mixtures. The maximum flow rate is 60 m³/h at a manometric head of 5 bar.



Advantages/options:

Cleaning of the shaft seal and housing by exposed impellers

O-ring designs for minimizing the fluid contact and for optimal cleaning of the contact surfaces

The shaft seals comply with the hygienic EHEDG standards

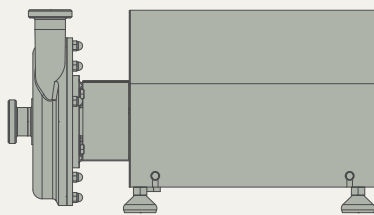
All components in contact with the pumped fluid are made of 1.4404 (316L) stainless steel

The design.

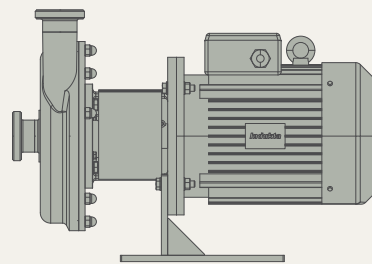
Pomac centrifugal pumps and self-priming pumps are available in the following different, mutually interchangeable designs:

- KAM: The pump and motor are directly connected and set up on adjustable stainless steel feet. The motor is supported by a stainless steel shell.
- KAC: The pump and motor are directly connected and set up on a steel console.
- KAV: The pump and motor are directly connected and set up on the motor base.
- IGH: The pump is mounted on the bearing housing and connected to a hydromotor.

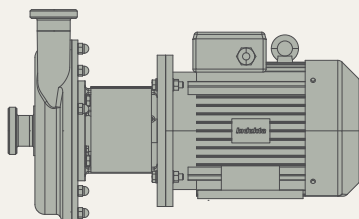
KAM



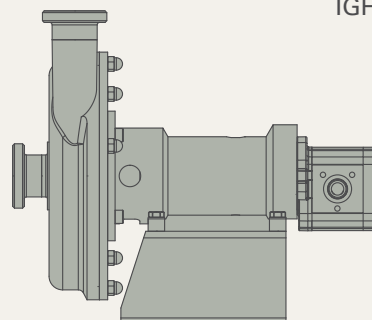
KAC



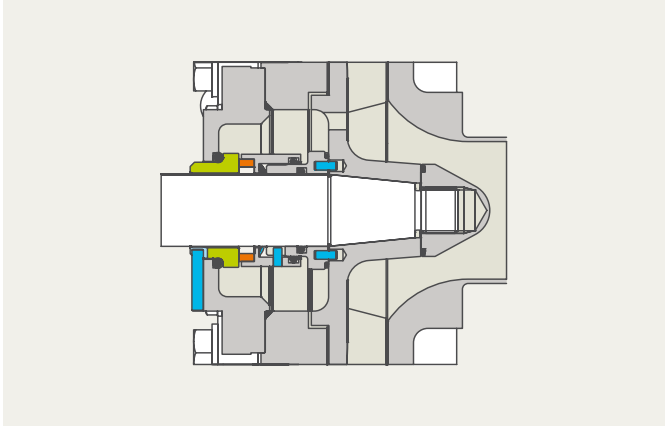
KAV



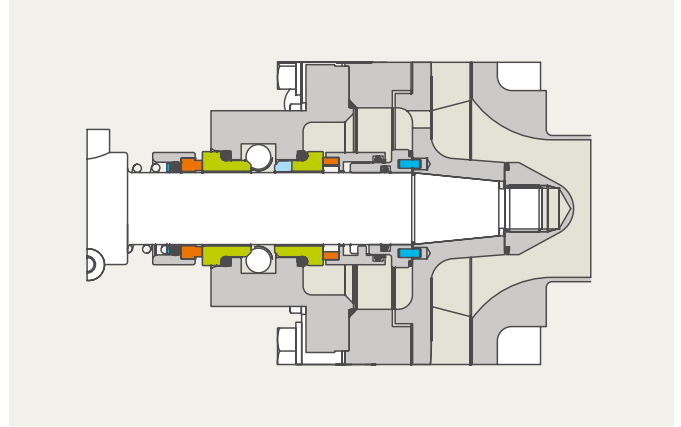
IGH



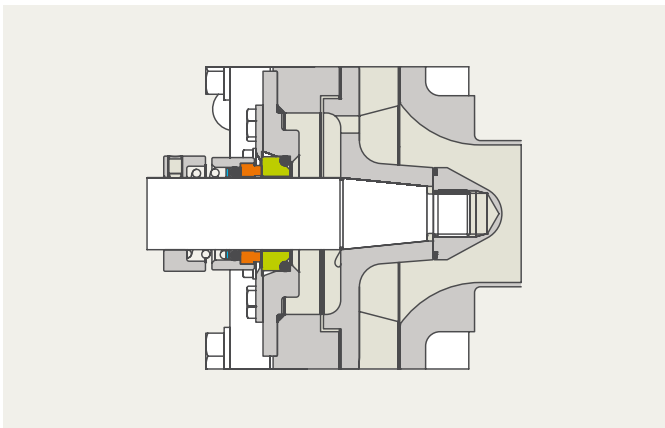
Options and designs.



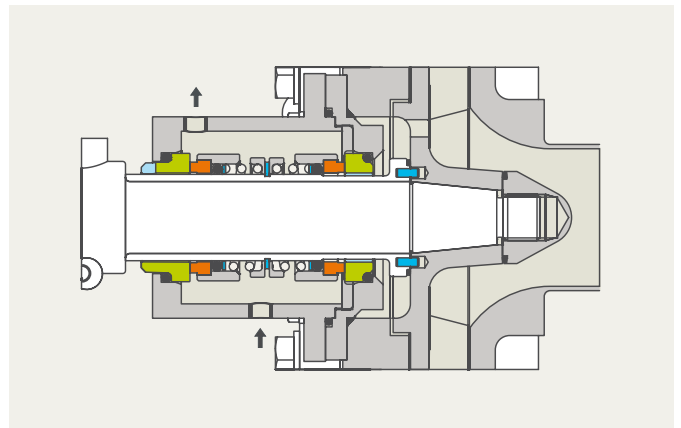
Inside mechanical seal



Inside mechanical seal with depressurized rinsing



Outside mechanical seal



Outside mechanical seal with rinsing

- Standard version with tangential outlet, suited for system pressures up to 16 bar
- High-pressure version for system pressures up to 50 bar
- Special version with in-line terminals for direct assembly between the lines
- Dairy whey pump (WW), specially developed for pumping soft and sensitive products
- Connection types:
 - Screwed fittings in accordance with DIN 11851, DIN 11864-1, SMS, etc.
 - Pipe connections in accordance with NEN 1472 and DIN 1850
 - Flange connections in accordance with DIN 2633 and DIN 11864-2
 - Tri-clamp in accordance with DIN or ISO
- Various drive types:
 - KAM/KAC: B5 flange motors in accordance with IEC with balanced stainless steel plug-on shaft
 - KAV: B3/B5 flange motor in accordance with IEC with balanced plug-on shaft
 - IGH: Pump with hydraulic motor
 - 3-phase motors can be delivered in all available classes of splash water seals, isolation and power supply as well as in low-noise designs and ATEX

- Different variants of the shaft seal:
 - Unbalanced shaft seals: Can be used up to max. 10 bar/max. 220 °C depending on make and design
 - Balanced shaft seals: Can be used up to max. 25 bar/max. 220 °C depending on make and design
- Designs:
 - Inside mechanical seal
 - Inside mechanical seal with depressurized rinsing
 - Outside mechanical seal
 - Outside mechanical seal with rinsing
- Available in various combinations of materials:
 - Carbon on CrMo steel
 - Carbon on silicon carbide
 - Carbon on ceramics
 - Carbide on carbide
 - Silicon carbide on silicon carbide
 - Tungsten carbide on tungsten carbide

Certificates.



CE: Certification in accordance with CE (“Conformité Européenne”) marking is standard for European customers; it is also available for non-European customers on request.



EAC: TR-CU and TR-CU-Ex: The pumps are certified for the Eurasian Economic Union (EAEU).



3.1: Optionally, we offer the 3.1 acceptance test certificate for all parts that come into contact with the media.



Ex: The PLP rotary lobe pumps and CPC centrifugal pumps are available in ATEX design.



EHEDG: The hygienic designs of most Pomac pumps meet the EHEDG criteria.



FDA: Pomac pumps are FDA-compliant.



EC1935/2004: Pomac pumps comply with the regulation on materials and articles intended to come into contact with food.



USP Class VI: Pomac pumps are designed in accordance with USP class VI.

At a glance.

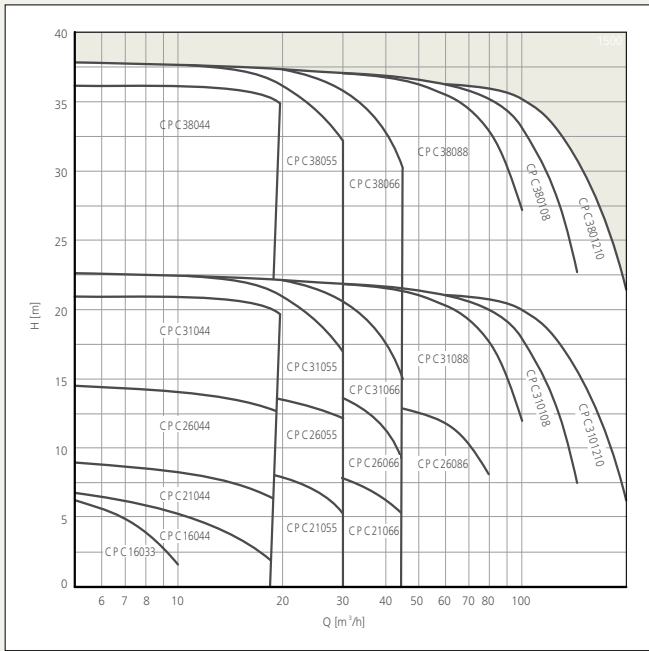
Technical data.

Performance overview for Pomac rotary lobe pump

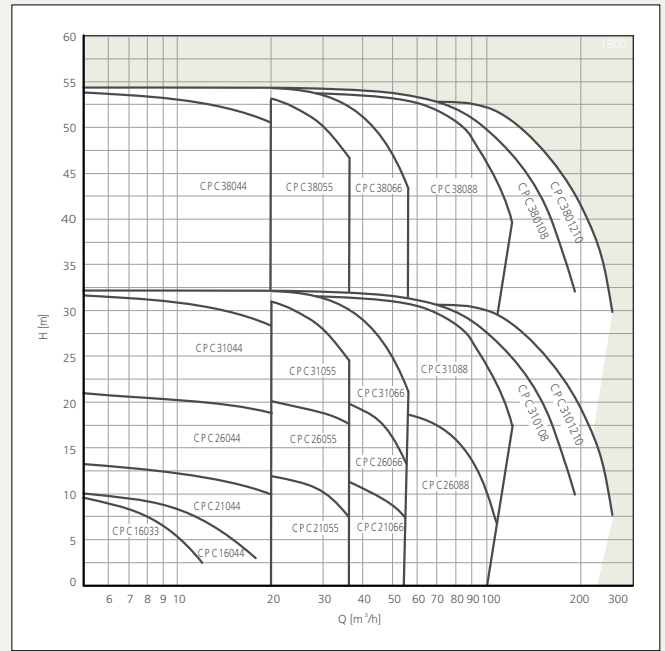
Type	Displacement (l/100 revolutions)	Max. pressure (bar)	Max speed (rpm)
PLP 1-3/4	4,2	15	1,000
PLP 1-1	6	15	1,000
PLP 1-1.5	10	15	1,000
PLP 15-2	20	8	1,000
PLP 2-1.5	22	15	1,000
PLP 2-2	30	15	1,000
PLP 2-2.5	36	15	1,000
PLP 3-2	55	15	750
PLP 3-3	100	15	750
PLP 3-4	130	15	750
PLP 4-4	250	15	750

At a glance. Technical data.

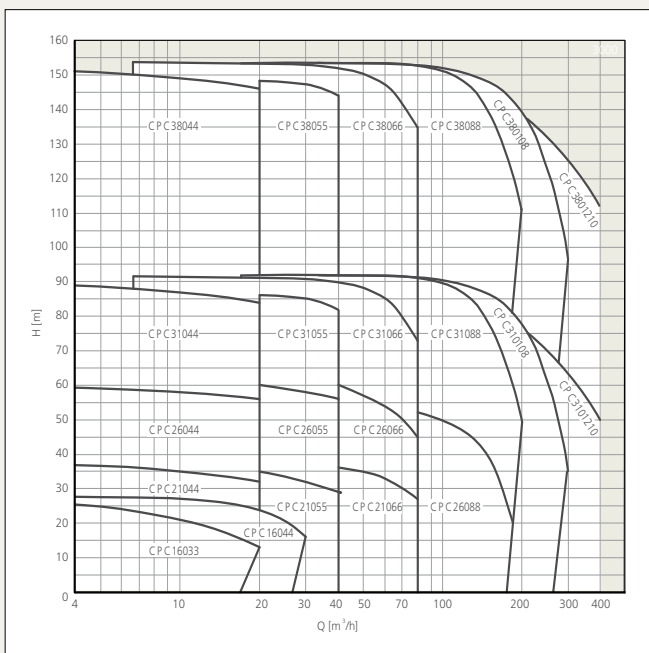
Pomac centrifugal pump, characteristic curves for CPC type



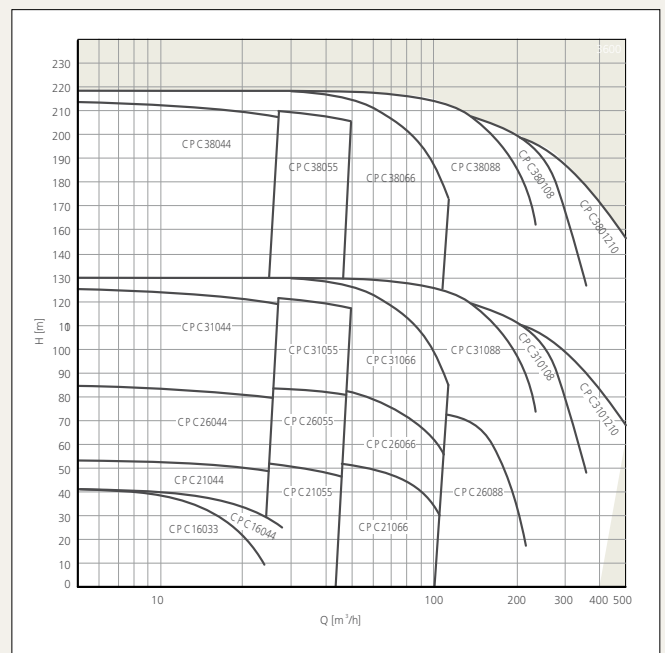
1,500 rpm



1,800 rpm

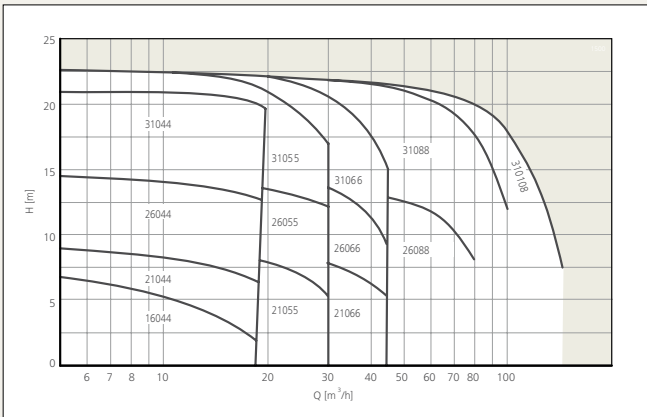


3,000 rpm

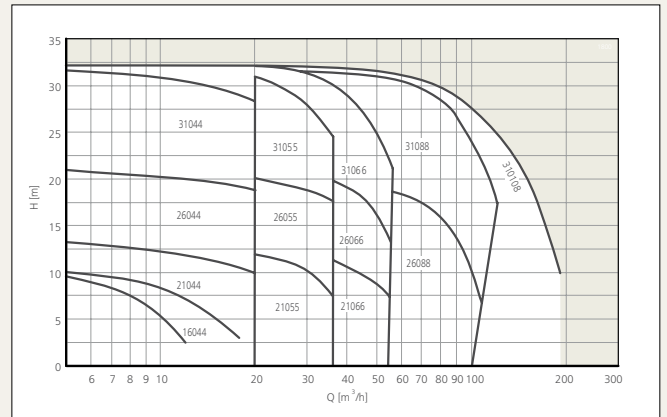


3,600 rpm

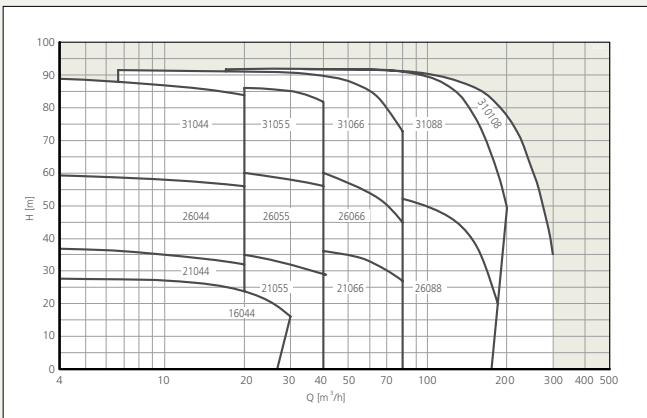
Pomac centrifugal pump, characteristic curves for CPC/ZA type



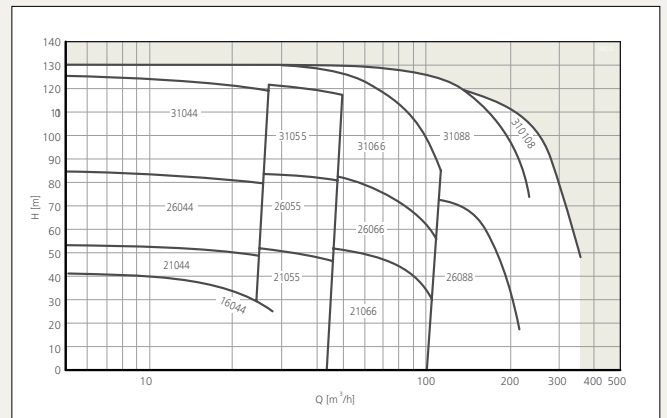
1,500 rpm



1,800 rpm

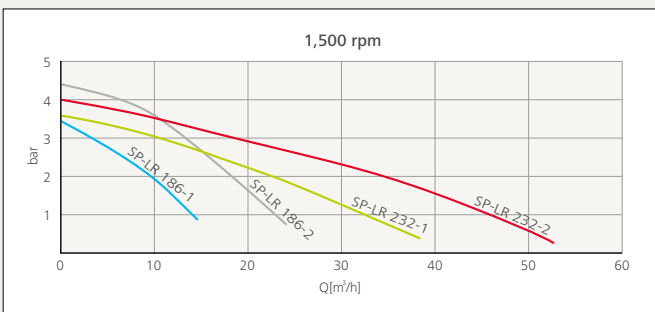


3,000 rpm



3,600 rpm

SPRL: Self-priming liquid ring pump



Your local representative:



LEWA GmbH
Ulmer Str. 10
71229 Leonberg
Germany

Telephone +49 7152 14-0
Fax +49 7152 14-1303
sales@lewa.de
www.lewa.com