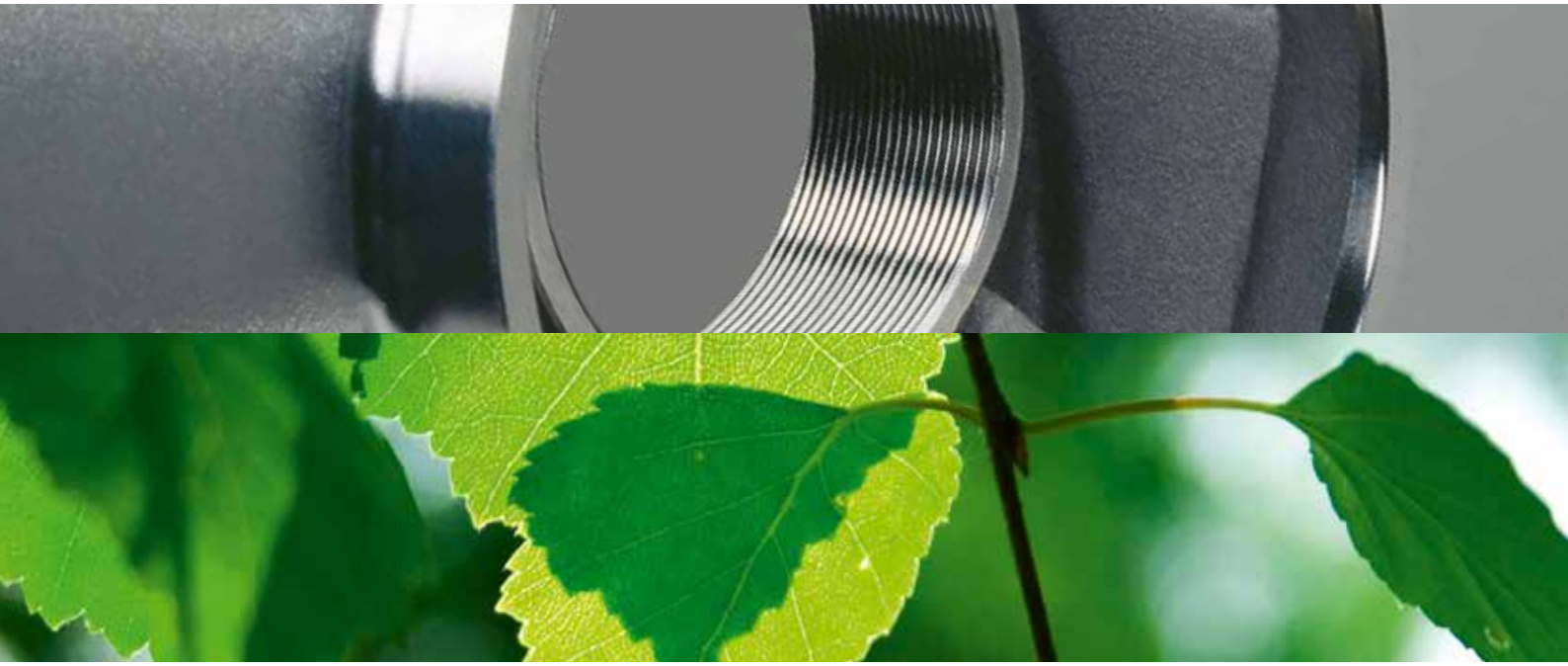
cp pump systems

Overview of Centrifugal Pumps for Difficult Applications

Boosting your Processes with Swiss Quality



High-safety, hermetically sealed and efficient centrifugal pumps, produced and manufactured in Switzerland since 1948.

Mastering challenges for your industry:

- Chemical
- Petrochemical
- Pharmaceutical
- Biotechnology
- Food and beverages

Magnetic Metallic Driven Pumps MKP
Unique Drive Principle by CP

Up to 30 % solids and 1 mm particle size can be pumped – depending on the nature of the particles.*

MKP technical data

MKP without heating chamber

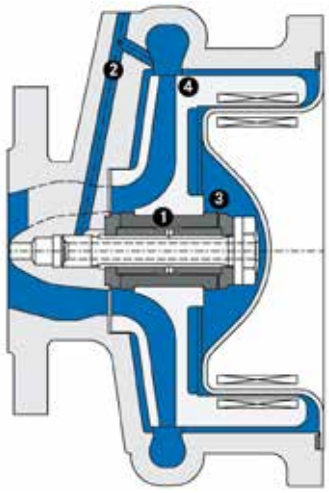
The MKP's design offers key advantages over conventional pump designs:

1 The centrally located bearing assembly, minimal bearing loads and absence of a plain bearing carrier ensure highly reliable operation and allow superior handling of solids-laden fluids.

2 A large flush line branching off from the casing provides excellent lubrication and cooling of the bearing assembly with the pumped fluid.

3 The compact design with virtually no dead areas means that suspended solids can also be pumped.

4 Simple construction and few components make the pump very easy to assemble.



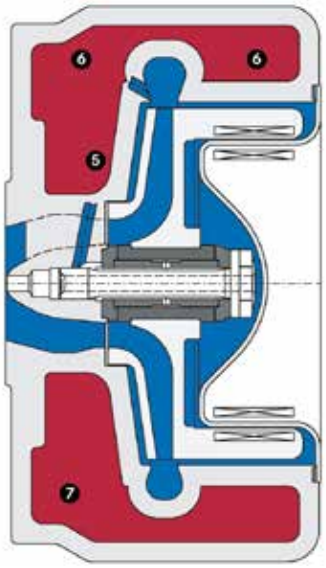
MKP with heating chamber

The MKP's design offers key advantages over conventional pump designs:

5 Heating the entire pump with a single heating chamber cuts installation costs.

6 Excellent heat distribution in the interior of the pump reduces temperature differences and prevents cold zones.

7 High heat transfer efficiency, with the heating energy delivered directly into the fluid chamber, shortens heat-up times.

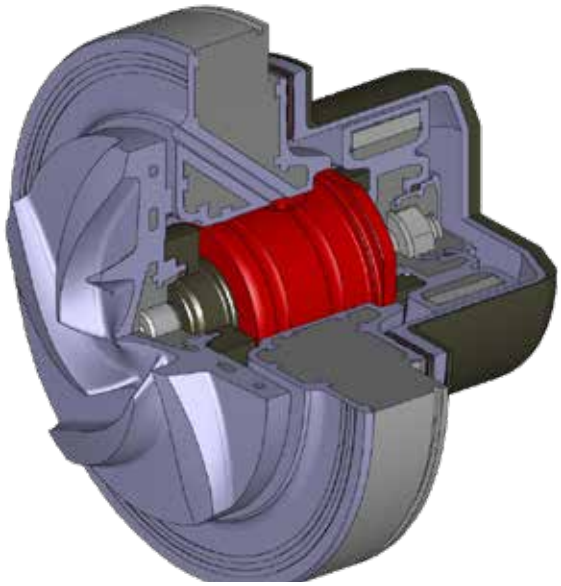


*Capable of conveying fluids containing solid particles, subject to prior technical approval.

PFA-Lined Magnetic Driven Chemical Process Pump MKPL
Extra Robust & High Temperature Resistant

Metal reinforcement with thick, corrosion- and diffusion-resistant PFA lining.

MKPL technical data

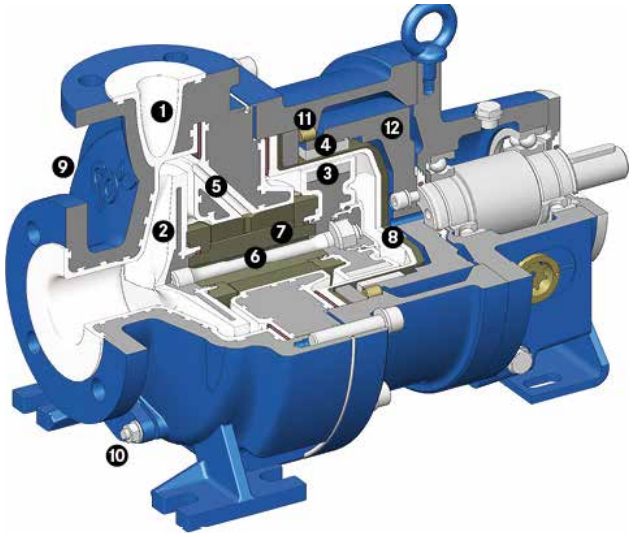


MKPL – The corrosion and diffusion resistant centrifugal pump – even at high temperatures.

Special features
- Fluid temperature up to 200°C
- 100% vacuum-tight
- PFA-lined plain bearing carrier

Construction
- Compact and virtually free of dead space
- No shaft feedthrough and leak-free
- Single-part and central bearing
- Bearing made of pure SSiC (=highest operating safety)
- Plain bearings secured with polygonal form-fit, self-centring anti-rotation devices

Assembly and repair
- Bearing frame and motor can be dismantled (pump remains in the facility and is sealed to the outside)
- Modular system made up of few individual parts
- Assembly friendly



MKPL – Bearing frame* (–20°C to +200°C), horizontal

1 Pump casing with PFA lining
2 Impeller
3 Inner magnet assembly (on product side)
4 Outer magnet assembly (on atmospheric side)
5 Internal bearing lubrication
6 Single bolt with locking sleeve for the rotating unit
7 Plain bearing assembly
8 One-piece, vacuum-resistant, non-metallic containment shell
9 Pt100 temperature probe on casing
10 Casing drain
11 Bump pin
12 Flywheel

*Also available in close coupled execution.

Metallic Magnetic Driven Pumps
for Chemicals, Solvents, Molten Products

MKP – Stainless Steel Magnetic Drive
Chemical Process Pump

Capacities	0.25 to 1300 m³/h
Heads	3 to 230 m
Temperatures	–100 to +350 °C
316, 304, Uranus® B6, Hastelloy®, Duplex, Titanium, Nickel	
MKP ANSI standard available for specific sizes.	

Not afraid of solids!

MKP – Stainless Steel Magnetic Drive
Chemical Process Pump
With Heating Chamber

Capacities	0.25 to 1300 m³/h
Heads	3 to 230 m
Temperatures	–100 to +350 °C
316, 304, Uranus® B6, Hastelloy®, Duplex, Titanium, Nickel	

For quick heating up, no cold spots.

MKP-Vertical – Stainless Steel Magnetic Drive
Chemical Process Pump

Capacities	0.25 to 220 m³/h
Heads	0 – 72 m
Temperatures	–100 to +250 °C
316, 304, Uranus® B6, Hastelloy®, Duplex, Titanium, Nickel	

Compact

MKPP – Stainless Steel Magnetic Drive
In-Line Chemical Process Peripheral Pump

Capacities	0.25 to 4 m³/h
Heads	1 to 40 m
Temperatures	–100 to +200 °C
316, Uranus® B6, Hastelloy®	

Low flow

MKP Bio – Stainless Steel Magnetic Drive
Biotech Process Pump

Capacities	0.5 to 60 m³/h
Heads	5 to 80 m
Temperatures	–20 to +150 °C
316, Uranus® B6, Hastelloy ®	
– 100% Clean-In-Place (CIP) and Sterilization-In-Place (SIP) – parts in contact with medium: Surface quality Ra ≤ 0.8, inside edges R3, surfaces inclined > 3°, 3A Sanitary Standard	
Possible certificates FDA, USP Class VI	

100% sanitary design, CIP, SIP

SZMK – Stainless Steel Magnetic Drive
In-Line Chemical Process Pump

Capacities	0.5 to 40 m³/h
Heads	1.4 to 22 m
Temperatures	–100 to +200 °C
316	

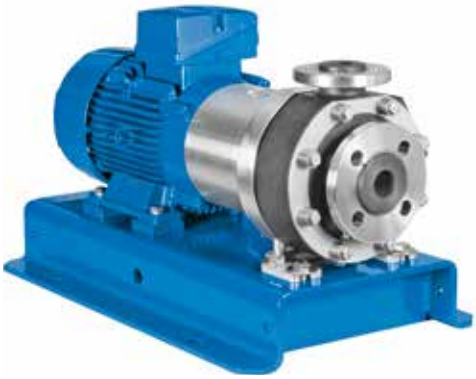
In-line

Magnectic Driven Pumps PFA-Lined and Full PFTE
for Corrosive Fluids

MKPL – PFA-Lined Magnetic Drive Chemical Process Pump	
Capacities	0.5 to 350 m³/h
Heads	3 to 80 m
Temperatures	–20 to +200 °C
Cast iron (GGG 40.3)/vacuum-tight PFA lining	

200 °C, 5 mm lining, permeation- and vacuum-resistant

MSKP – Solid PTFE Magnetic Drive Chemical Process Pump	
Capacities	0.25 to 70m³/h
Heads	2 to 90 m
Temperatures	–20 to +100 °C
Carbon-filled PTFE, virgin PTFE, PVDF, shaft PFA-lined	



Solid PTFE casing, non-ceramic shaft

MSKPP – Solid PTFE Magnetic Drive Chemical Process Peripheral Pump	
Capacities	0.25 to 7 m³/h
Heads	3 to 130 m
Temperatures	–20 to +100 °C
Carbon-filled PTFE, virgin PTFE, PVDF, shaft PFA-lined	

Low flow, heads to 130 m, solid PTFE casing

MSKS – Solid PTFE Self-Priming Magnetic Drive Chemical Process Side Channel Pump	
Capacities	0.2 to 2.5 m³/h
Heads	1 to 34 m
Temperatures	–20 to +80 °C
Carbon-filled PTFE, virgin PTFE, PVDF, shaft PFA-lined	

Self-priming, side channel PTFE mag-drive

Centrifugal Pumps with Mechanical Seals
for Corrosive, Abrasive and Liquids with Particles

EB – PFA-Lined Double Mechanical Seal Chemical Process Pump

Capacities	0.5 to 400 m³/h
Heads	5 to 100 m
Temperatures	–20 to +150 °C

Cast iron, vacuum-tight PFA lining, seal CP Futuratef®

Corrosion-resistant

ET – Ceramic-Lined Double Mechanical Seal Chemical Process Pump

Capacities	0.5 to 300 m³/h
Heads	3 to 70 m
Temperatures	–20 to +150 °C

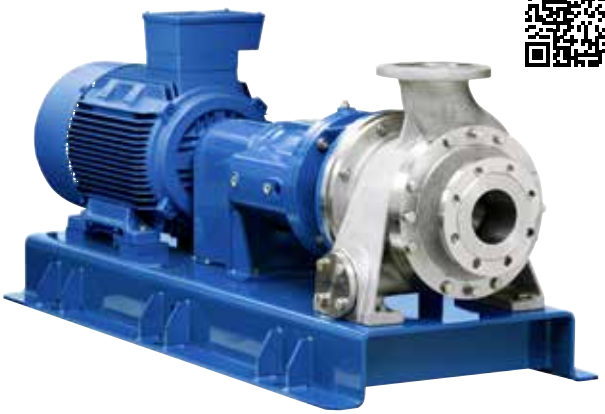
Cast iron, ceramic lining, seal CP Futuramik®

Abrasion-, corrosion- and diffusion-resistant

ZMP – Stainless Steel Mechanical Seal Chemical Process Grinder Pump

Capacities	0.5 to 200 m³/h
Heads	2 to 10 m
Temperatures	-20 to +180 °C

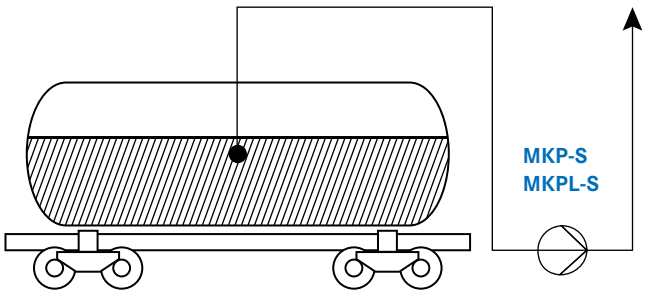
316, 304, Uranus® B6, Hastelloy®, Titanium



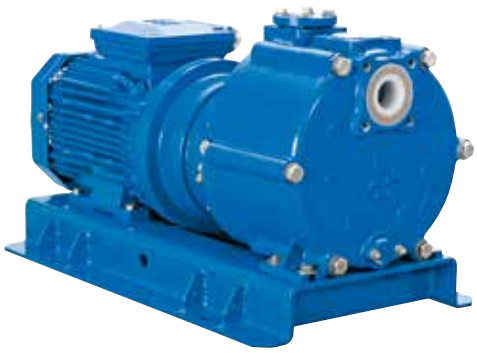
3-In-One crushing pump: crushing + mixing + pumping for granulates

Magnetic Driven Pumps for Challenging Applications
Self-priming, Submersible

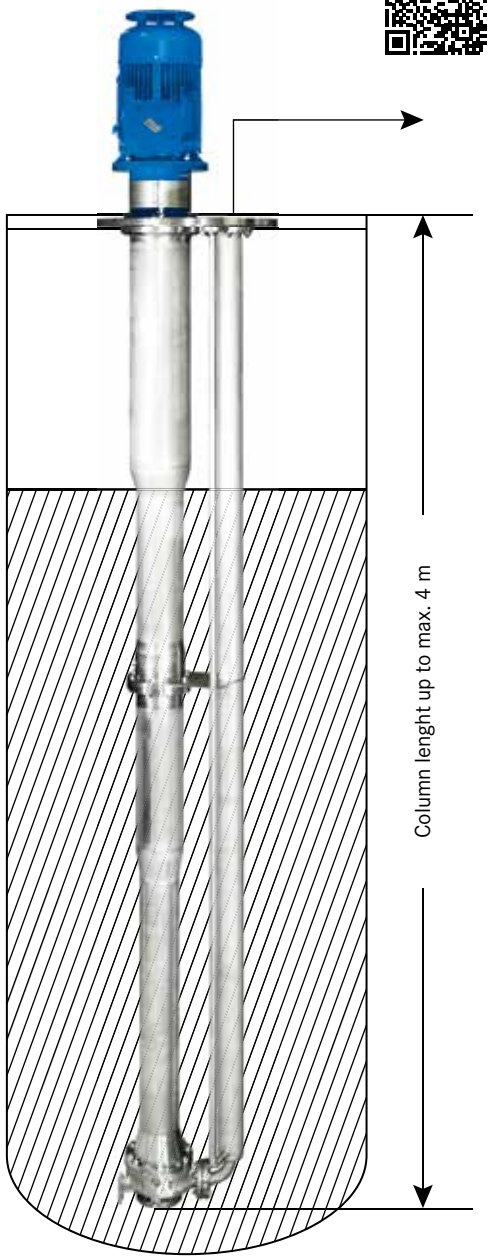
MKP-S – Stainless Steel Self-Priming Magnetic Drive Chemical Process Pump	
Capacities	1 to 80 m³/h
Heads	5 to 60 m
Temperatures	–100 to +250 °C
316, 304, Uranus® B6, Hastelloy®, Titanium	



MKPL-S – PFA-Lined Self-Priming Magnetic Drive Chemical Process Pump	
Capacities	0.5 to 35 m³/h
Heads	3 to 40 m
Temperatures	–20 to +150 °C
Cast iron (GGG 40.3)/vacuum-tight PFA lining	



MKTP – Stainless Steel Magnetic Drive Chemical Process Sump Pump	
Capacities	0.25 to 250 m³/h
Heads	3 to 100 m
Temperatures	–20 to +175 °C
316, 304	



CP Pumpen Services
For the Heart of Your Plant

Without them, Definitely Nothing Works
Pump repairs or maintenance work sometimes arise even with the best pump. In the event of damage, above all the response must be fast!

As a customer of CP Pumpen you benefit from our competence and expertise as the original manufacturer. In case of repairs we use original spare parts. We thereby always ensure maximum, good as new quality. The value of the CP pumps is retained and the investment pays off.

To your Service Support

Your Advantages
All customers can access our factory repair service in Zofingen. We can also carry out comprehensive repairs at short notice in our in-house workshop.

Our committed pump experts and well-equipped, modern machinery guarantee that your centrifugal pumps will be improved or repaired flexibly and efficiently.

- Short reaction times and fast solutions
- Service and repairs in familiar CP quality
- Choice between local Service Partner or CP workshop
- Long-term value retention of the pump
- Lower life cycle costs thanks to regular service

CP Pumpen Spare Parts & Repairs
Original – Fast – Reliable

Headquarters
CP Pumpen AG
Switzerland, Zofingen

SWISS MADE

Distribution companies
CP Pumpen GmbH
Germany, Mannheim

CP Pompes SAS
France, Strasbourg

CP Pumps Inc.
USA, Birmingham (AL)

CP Pumps Thailand
Thailand, Bangkok

CP Pump Limited 씨피 펌프 유한회사
Republic of Korea, Seoul

Please find your local CP distributor on
www.cp-pumps.com
or contact CP directly:
+41 62 746 85 85 / info@cp-pumps.com

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