

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
- Pharmaceutical
- Petrochemical
- Biotechnology
- Food and beverages

Magnetic Metallic Driven Pumps MKP

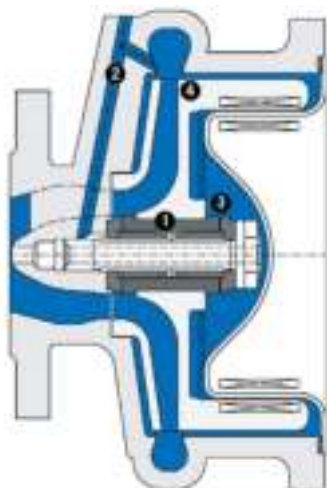
Unique Reversed Driving Principle - Design CP

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

MKP without heating chamber

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

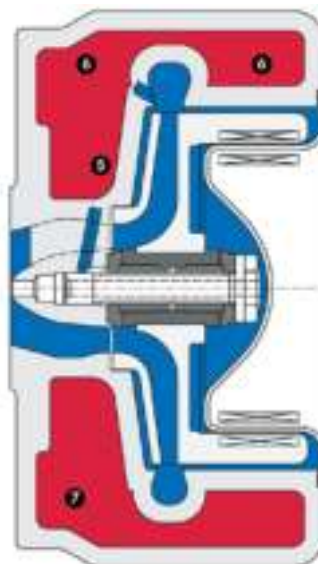
- 1 The centrally located bearing assembly, minimal bearing loads and absence of a plain bearing carrier ensure highly reliable operation and allow superior handling of solids-laden fluids.
- 2 A large flush line branching off from the casing provides excellent lubrication and cooling of the bearing 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.



MKP 300-250-315: The big one. Stainless steel magnetic drive chemical process pump for up to 1300 m³/h

The Sealless Magnetic Drive Pump MKP 300-250-315 is particularly well suited to the high demands in the chemical industry and many other industrial sectors. Thanks to its size and its performance, it is able to pump flow rates of up to 1300 m³/h to a pumping head up to 55 m. Do you need to solve particularly challenging pumping tasks? That suits, because CP Pump Systems has centrifugal pumps with particularly good properties. As a Swiss pump manufacturer, CP Pump Systems develop and produce them especially for pumping difficult liquids.



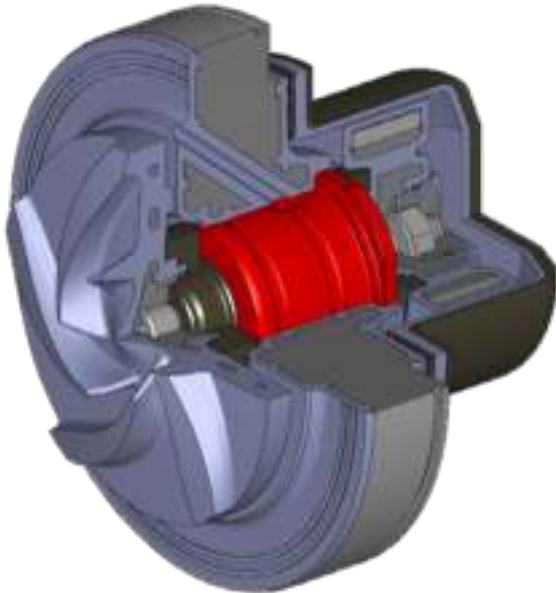
*Fluids with solids content can be pumped, depending on application and subject to prior technical evaluation.



PFA-Lined Magnetic Driven Chemical Process Pump MKPL

Extra Robust High Temperature Resistant – Design CP

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



MKPL

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 and thrust 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 – The corrosion and diffusion resistant centrifugal pump – even at high temperatures. 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 or external flush connection
- 6 Single bolt with waisted shank to fasten 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 ring
- 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	SI: 0.25 to 1300 m ³ /h US: 1.1 to 5723 gpm
Heads	SI: 3 to 145 m US: 9.8 to 475 ft
Temperatures	SI: -100 to +350 °C US: -148 to 662 °F
316Nb, 316L, 304L, Uranus® B6, Hastelloy®, Titanium, Nickel	
MKP ANSI standard available for specific sizes.	



**Not afraid
of solids!**



MKP - Stainless Steel Magnetic Drive Chemical Process Pump With Heating Chamber, High Temperature

Capacities	SI: 0.25 to 1300 m ³ /h US: 1.1 to 5723 gpm
Heads	SI: 3 to 145 m US: 9.8 to 475 ft
Temperatures	SI: -100 to +350 °C US: -148 to 662 °F
316Nb, 316L, 304L, Uranus® B6, Hastelloy®, Titanium, Nickel	



**For quick
heating up,
no cold spots.**



MKP-V - Stainless Steel Magnetic Drive Chemical Process Pump, Vertical

Capacities	SI: 0.25 to 220 m ³ /h US: 1.1 to 968 gpm
Heads	SI: 0 - 72 m US: 0 to 236 ft
Temperatures	SI: -100 to +350 °C US: -148 to 662 °F
316Nb, 316L, 304L, Uranus® B6, Hastelloy®, Titanium, Nickel	



Compact

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

Capacities	SI: 0.25 to 4 m ³ /h US: 1.1 to 17 gpm
Heads	SI: 1 to 40 m US: 3.3 to 131 ft
Temperatures	SI: -100 to +200 °C US: -148 to +392 °F
316Nb, 316L, 304L, Uranus® B6, Hastelloy®	



Low flow



MKP Bio - Stainless Steel Magnetic Drive Biotech Process Pump

Capacities	SI: 0.5 to 60 m ³ /h US: 2.2 to 264 gpm
Heads	SI: 5 to 80 m US: 16.4 to 262 ft
Temperatures	SI: -20 to +150 °C US: -4 to +302 °F
316L, 304L, 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	SI: 0.5 to 40 m ³ /h US: 2.2 to 176 gpm
Heads	SI: 1.4 to 22 m US: 4.6 to 72.2 ft
Temperatures	SI: -100 to +200 °C US: -148 to +392 °F
316L, 304L, Uranus® B6	



In-line





Magnetic Driven Pumps PFA-Lined and Full PTFE for Corrosive Fluids

MKPL – PFA-Lined Magnetic Drive Chemical Process Pump

Capacities	SI: 0.5 to 400 m ³ /h US: 2.2 to 1761 gpm
Heads	SI: 3 to 90 m US: 9.8 to 295 ft
Temperatures	SI: -20 to +200 °C US: -4 to +392 °F
Cast iron (GGG 40.3)/vacuum-tight PFA lining	



200 °C,
5 mm lining, no diffusion,
vacuum resistant

MSKP – Solid PTFE Magnetic Drive Chemical Process Pump

Capacities	SI: 0.2 to 140 m ³ /h US: 0.9 to 616 gpm
Heads	SI: 1 to 90 m US: 3.3 to 295 ft
Temperatures	SI: -20 to +150 °C US: -4 to +302 °F
Carbon-filled PTFE, virgin PTFE, PVDF, shaft PFA-lined	



Casing in full PTFE,
non-ceramic shaft

MSKPP – Solid PTFE Magnetic Drive Chemical Process Peripheral Pump

Capacities	SI: 0.1 to 8 m ³ /h US: 0.4 to 35.2 gpm
Heads	SI: 2 to 160 m US: 6.6 to 524 ft
Temperatures	SI: -20 to +100 °C US: -4 to +212 °F
Carbon-filled PTFE, virgin PTFE, PVDF, shaft PFA-lined	



Low flow,
heads to 125 m,
casing in full PTFE

MSKS – Solid PTFE Self-Priming Magnetic Drive Chemical Process Side Channel Pump

Capacities	SI: 0.2 to 2.5 m ³ /h US: 0.9 to 11 gpm
Heads	SI: 1 to 34 m US: 3.3 to 11.6 ft
Temperatures	SI: -20 to +80 °C US: -4 to +176 °F
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	SI: 0.5 to 400 m ³ /h US: 2.2 to 1761 gpm
Heads	SI: 5 to 100 m US: 16.4 to 328 ft
Temperatures	SI: -20 to +150 °C US: -4 to +302 °F
Cast iron, vacuum-tight PFA lining, seal CP Futuratef®	



Corrosion-resistant

ET – Ceramic-Lined Double Mechanical Seal Chemical Process Pump



Capacities	SI: 0.5 to 300 m ³ /h US: 2.2 to 1320 gpm
Heads	SI: 3 to 70 m US: 9.8 to 229 ft
Temperatures	SI: -20 to +150 °C US: -4 to +302 °F
Cast iron, ceramic lining, seal CP Futuramik®	



**Abrasion-, corrosion- and
diffusion-resistant**

ZMP – Stainless Steel Mechanical Seal Chemical Process Grinder Pump



Capacities	SI: 0.5 to 220 m ³ /h US: 2.2 to 968 gpm
Heads	SI: 2 to 14 m US: 6.6 to 45.9 ft
Temperatures	SI: -20 to +180 °C US: -4 to +356 °F
316Nb, 316L, 304L, Uranus® B6, Hastelloy®, Titanium	



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



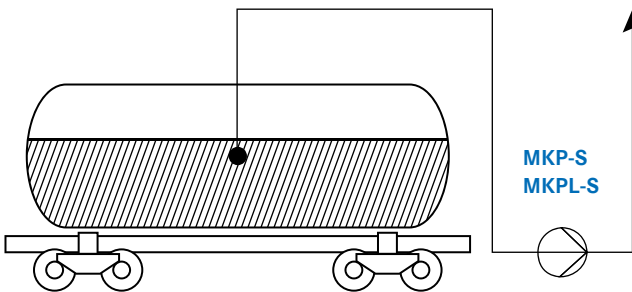
Magnetic Driven Pumps for Challenging Applications

Self-priming, Submersible

MKP-S - Stainless Steel Self-Priming Magnetic Drive Chemical Process Pump



Capacities	SI: 1 to 80 m ³ /h US: 2.2 to 325 gpm
Heads	SI: 5 to 60 m US: 16.4 to 196 ft
Temperatures	SI: -100 to +250 °C US: -148 to 482 °F
316Nb, 316L, 304L, Uranus® B6, Hastelloy®, Titanium	



MKPL-S - PFA-Lined Self-Priming Magnetic Drive Chemical Process Pump



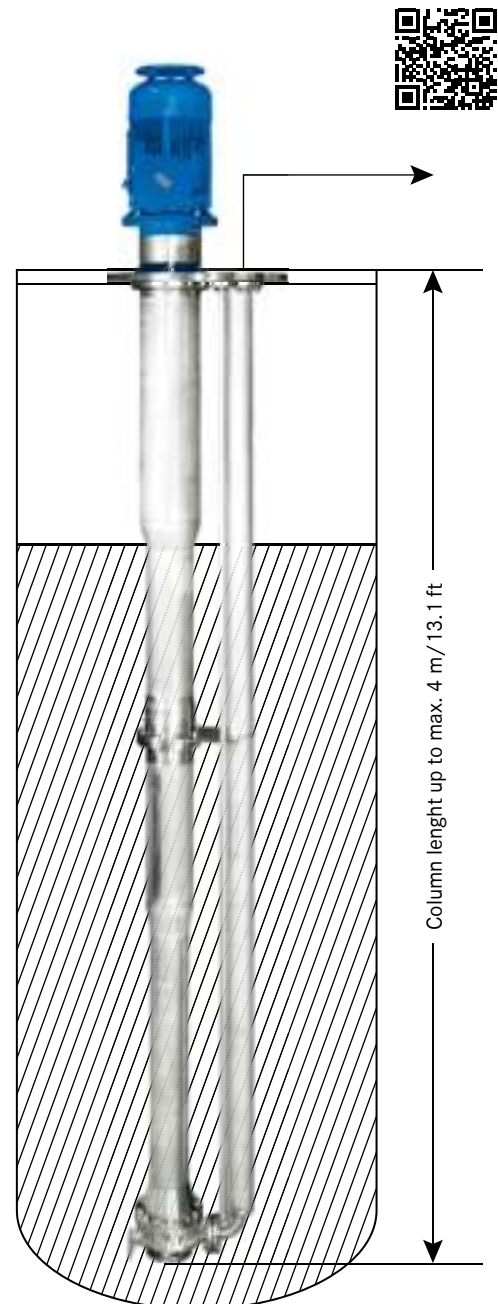
Capacities	SI: 0.5 to 35 m ³ /h US: 2.2 to 154 gpm
Heads	SI: 3 to 40 m US: 9.8 to 131 ft
Temperatures	SI: -20 to +150 °C US: -4 to +302 °F
Cast iron (GGG 40.3)/vacuum-tight PFA lining	



MKTP - Stainless Steel Magnetic Drive Chemical Process Sump Pump



Capacities	SI: 0.25 to 250 m ³ /h US: 1.1 to 1100 gpm
Heads	SI: 3 to 100 m US: 9.8 to 328 ft
Temperatures	SI: -20 to +170 °C US: -4 to +338 °F
Pump 316Nb, 316L, 304L; piping in 304L	





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



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

