

# pump size

## MKP 300-250-315: The big one. Stainless Steel Magnetic Drive Chemical Process Pump for up to 1,300 m<sup>3</sup>/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 1,300 m<sup>3</sup>/h to a pumping head up to 55 m. This highly developped and extraordinarily energy-efficient pump available in stainless steel and different special materials is able to transport various types of fluids in a reliable and absolutely safe way.

Thanks to the special design, the new MKP 300-250-315 does not require a plain bearing carrier.

The single, centrally located impeller bearing assembly is optimally lubricated and cooled by the process fluid. For this reason, it is also possible to pump solids-laden and low-boiling fluids.. Depending on the conveyed medium, a high solid content and large grain sizes in the liquid are no problem.

The impeller of the pump rotates stably around a stationary axis according to the gyroscopic principle maintaining a perfect hydraulic balance. This minimizes the bearing loads and increases the operational safety of the pump.

The MKP 300-250-315 has a compact design with minimum dead space. Moreover, this pump consists of a few rugged components. The intelligent modular system simplifies the assembly and lowers the costs for spare parts, maintenance and service to a minimum. The MKP 300-250-315 is available in different versions. Thanks to the compact design without plain bearing carrier, the pump can be perfectly heated with the help of a pump housing with heating jacket. The heatable version of the MKP 300-250-315, for example, can be used to transport fatty acids, palm oils or even liquid sulfur. Moreover, many other options are available.

The pumps can be used in various applications of the chemical industry, for example, as circulation pumps for loop reactors (loop/jet reactors) for alkoxylations, esterifications or similar processes. The oleochemical sector, the production of TDI/MDI or other large volume products and procedures are the ideal areas of application of this pump.

#### Versions and configurations

- Frame-mounted
- Horizontal
- High temperature version
- Jacketed
- Baseplate

#### **Housing materials**

- Stainless steel
- Uranus® B6
- Nickel-based alloys, e.g. Hastelloy® B or C
- Pure nickel
- Titanium

#### **Pump protection**

- Containment shell thermocouple
- Closed lantern with leakage monitoring
- Vibration measurement on the bearing frame
- Motor load sensor Processes and liquids

Typical applications (selection):

- Refrigeration and heating cycles, heat transfer oil up to 300 °C
- Ethoxylations, oleochemistry
- Chlor-alkali electrolysis
- Caprolactam
- Molten sulphur
- Caustic soda (NaOH), caustic potash (KOH)
- Sulphuric acid
- Hydrogen peroxide



Technical data	
Capacities (min./max.)	400 to 1,300 m <sup>3</sup> /h
Heads (min./max.)	10 to 55 m
Temperatures (min./max.)	-100°C to +330°C
Kinematic viscosities	0.5 to 350 mm <sup>2</sup> /s
Solids content	up to 30% depending on fluid*
Guidelines and standards	
EC Machinery Directive	
EC ATEX directive	
DIN EN ISO 5199	

DIN EN ISO 15783

\*Media containing solids can generally be pumped, but an application-specific check beforehand is obligatory.



1,500 rpm/50 Hz



1,800 rpm/60 Hz

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