

# ZMP

## Stainless Steel Mechanical Seal Chemical Process Grinder Pump



The ZMP grinder pump is ideal to meet the stringent requirements of chemical processing and a multitude of other industries. This highly advanced pump is built for reliability and absolute safety in handling a huge variety of fluids with a high solids content.

Capable of far more than an ordinary feed pump, the ZMP grinds, chops, macerates, mixes and pumps multiphase media all at the same time. The core of the ZMP is the rotor mounted at an oblique angle on the shaft. When the pump is running, the angled rotor creates a tumbling motion that accelerates the medium in both an axial and radial direction, thoroughly mixing the material being pumped. Rotation of the rotor simultaneously generates a centrifugal force that pumps the medium radially through the casing liner and finally discharges it through the outlet.

Teeth on the rotor and casing liner reduce the solids in the medium to a defined maximum particle size. Slots and holes allow both coarse suspensions to be pumped and soft particles to be broken up. Customised casing liners are available to reduce solids to the required size. The ZMP is offered with a comprehensive array of options that can be combined to meet individual needs.

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### Configurations

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Bearing-frame

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### Mounts

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- Baseplate
- Horizontal

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### Casing materials

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- Stainless steel 1.4581 (316Nb)
- Stainless steel (e.g. 1.4306, Uranus® B6)
- Duplex alloys (e.g. 1.4517)
- Nickel-base alloys (e.g. Hastelloy® C-4, C-22)
- Nickel (e.g. 2.4170)

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### Pump protection

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- Engine load sensor

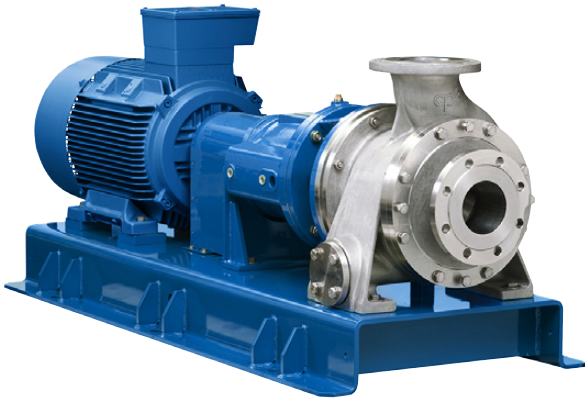
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### Industries, processes and fluids

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Learn more about typical applications:





### Technical data

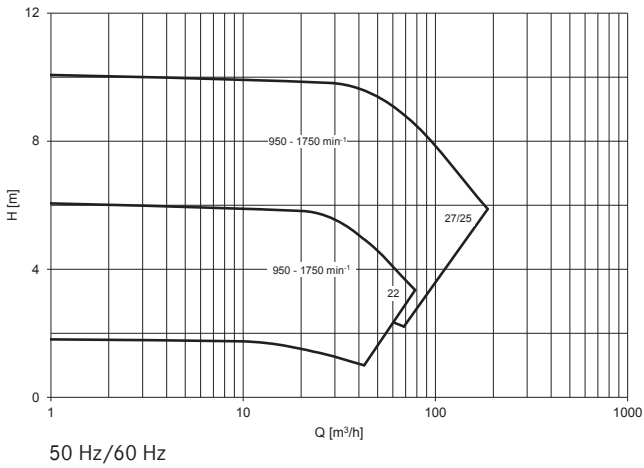
Capacities (min./max.)	0.5 to 220 m <sup>3</sup> /h   2.2 to 968.64 gpm
Heads (min./max.)	2 to 14 m   6.56 to 45.93 ft
Temperatures (min./max.)	-20 to +180°C   -4 to +356°F
Kinematic viscosities	0.5 to 1000 mm <sup>2</sup> /s   cSt
Solids handling	highly suitable (abrasion-resistant pump chamber)

### Directives and standards

EC Machinery Directive

EC ATEX Directive

DIN EN ISO 5199



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