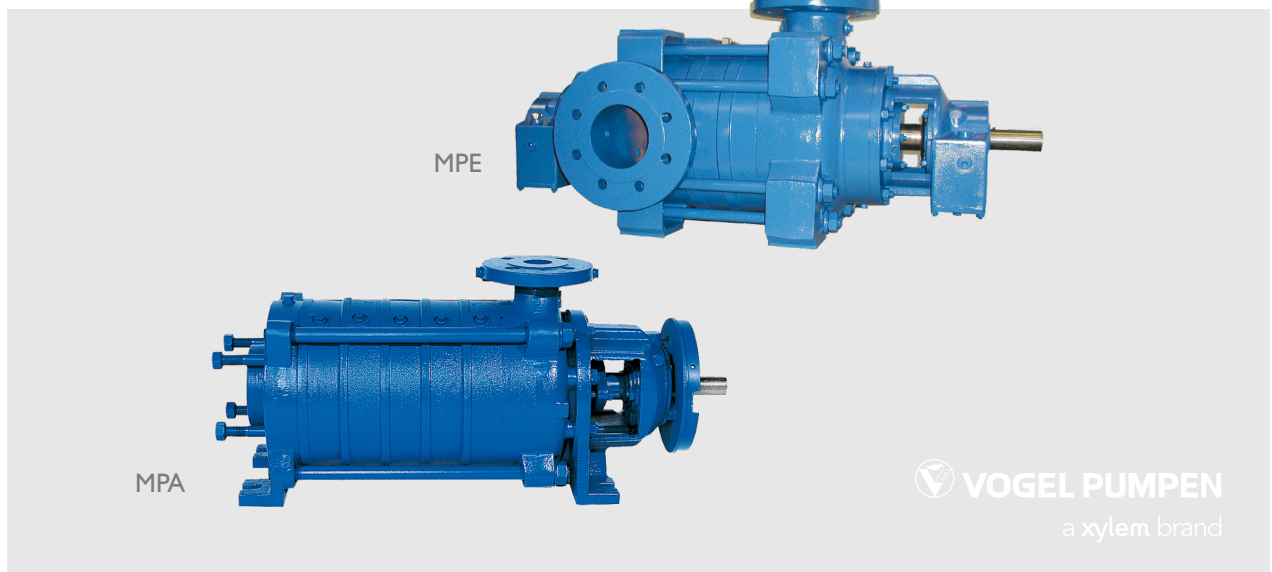


Multi stage pumps

# VOGEL MPA-MPE

## Modular cast iron pumps for geothermic



Vogel MPA multistage pumps utilize a modular design concept which maximizes component interchangeability. As such, multiple design configurations can be engineered to meet customer requirements without compromise to repair part inventories. Closed radial type impellers have wear rings on both sides. Axial thrust is minimized by balance holes for minimum bearing loads and maximum bearing lifetime. Diffusers are separated from stage casings, easily exchangeable. Balanced radial forces, minimum shaft deflection, minimum vibrations. Heavy duty design for long term operation in industrial applications. All design versions acc. to ISO 5199 / EN 25199. End suction type, discharge branch radial upwards. Drive end at discharge side. Thrust bearing at drive side, grease lubrication, medium lubricated slide bearing between first and second stage. Inducer design available for low NPSH applications.

### Specifications MPA:

- o capacity: up to 360 m<sup>3</sup>/h
- o head: up to 500 m
- o maximum speed: 3600 rpm
- o maximum pressure: 55 bar
- o liquid temperature: max +140°C
- o suction/discharge branches: DN40 up to DN125
- o discharge outlet adjusted in 90° increments
- o maintenance friendly design

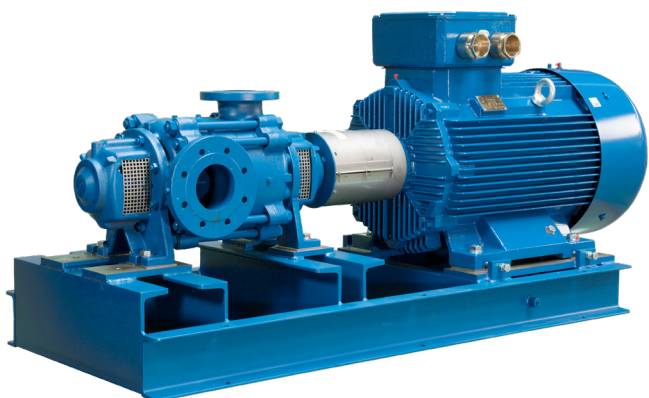
The construction of the Vogel MPE pump is based on more than 100 years of experience in manufacturing of multi-stage pumps and is designed for smooth running with extremely low vibration level, reliable operation, lowest wear as well as long life time in particular of shaft seals and pump bearings. This is reflected in a considerable drop of lifecycle costs to lowest possible level. Maintenance friendly design enables the change of bearings and shaft seals without pump disassembly. Efficiency optimized closed impellers and diffusers avoid radial loads and minimize shaft loads and shaft deflection.

### Specifications MPE:

- o capacity: up to 300 m<sup>3</sup>/h
- o head: up to 850 m
- o maximum speed: 3550 rpm
- o maximum pressure: 100 bar
- o liquid temperature: max +140°C (without cooling)  
+180°C (with cooling)
- o suction/discharge branches: DN65 up to DNI25
- o branches can be adjusted in 90° increments.
- o casing made of carbon steel/ductile iron
- o maintenance friendly design

### Applications:

- o geothermal injection pump
- o general industry
- o steel industry
- o sugar industry
- o pulp and paper industry
- o mine dewatering
- o reverse osmosis
- o snow-making systems



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