

MICRO-Axial piston pumps

Type AKP20

up to 300 bar

0,012 cm³/rev

Features

- High volumetric efficiency
- Low noise level
- Wide speed range
- Continuous self lubrication and cooling through the suction flow
- Usable also in adverse ambient conditions
- Can be operated at high temperatures



Applications

- Oil and gas: directional drilling systems
- Hydraulic systems with small Volume flow rates

Design

- Design with 3 pistons
- Valve controlled on pressure and suction side (not usable as motor)
- Swash shaft with amply dimensioned rolling bearings
- Rotating wobble plate
- Submerged pump, suction side open to tank, no shaft seal
- Small mounting dimensions
- Interface for the direct fitting of the WITTENSTEIN motor type MRSR019A-060H-5C7BA-HAOTHN



Technical data

Hydraulic fluid	mineral oil according to DIN 51524 (other fluids on request)
Fluid temperature range	-20 to 175 °C
Ambient temperature range	-30 to 175 °C
Viscosity range	3 to 220 mm ² /s
Filtration (recommendation)	according to NAS 1638, class 6 resp. ISO/DIN 4406 17/15/12
Max. operating pressure	300 bar
Displacement volume	0,012 cm ³ /rev
Operation pressure at suction port	open to tank, no shaft seal, up to 2000 bar ambient pressure
Suction strainer	120 µm
Axial force onto driving shaft	not allowed
Radial force onto driving shaft	not allowed
Rotation speed range	100 to 5000 min ⁻¹
Direction of rotation	any
Weight	see overview "Product informations"
Materials	housing: corrosion resistant steel pump head: high-strength steel

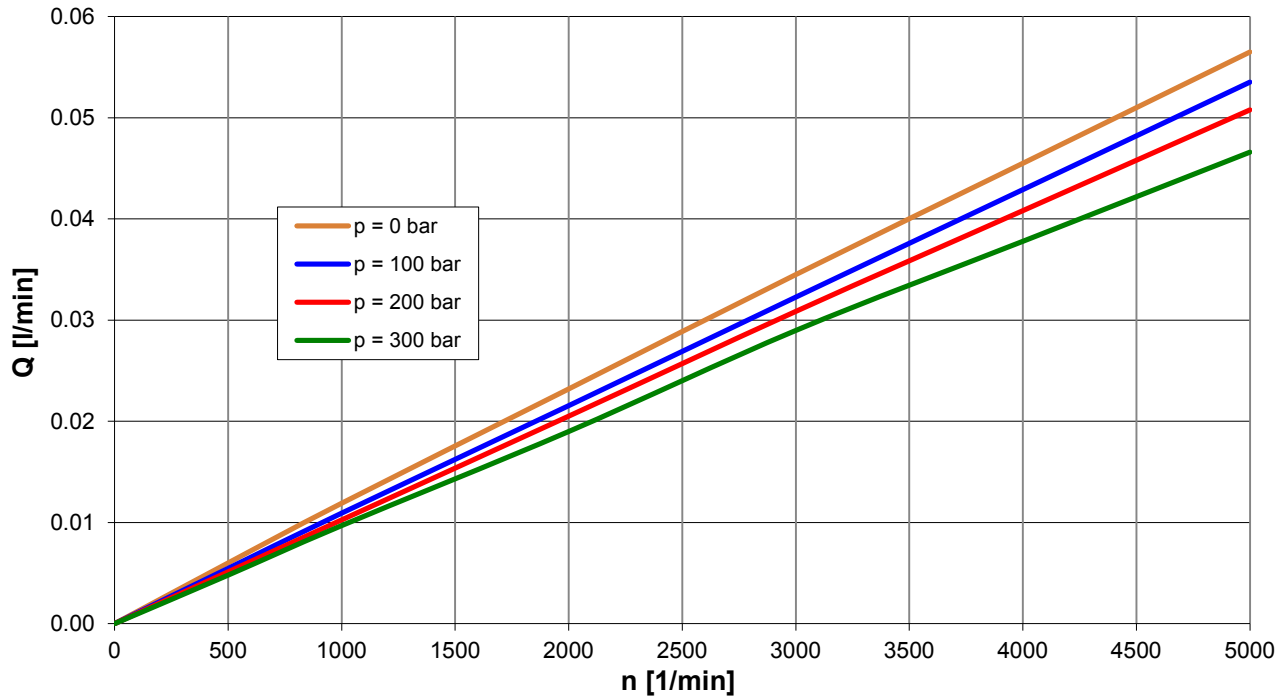
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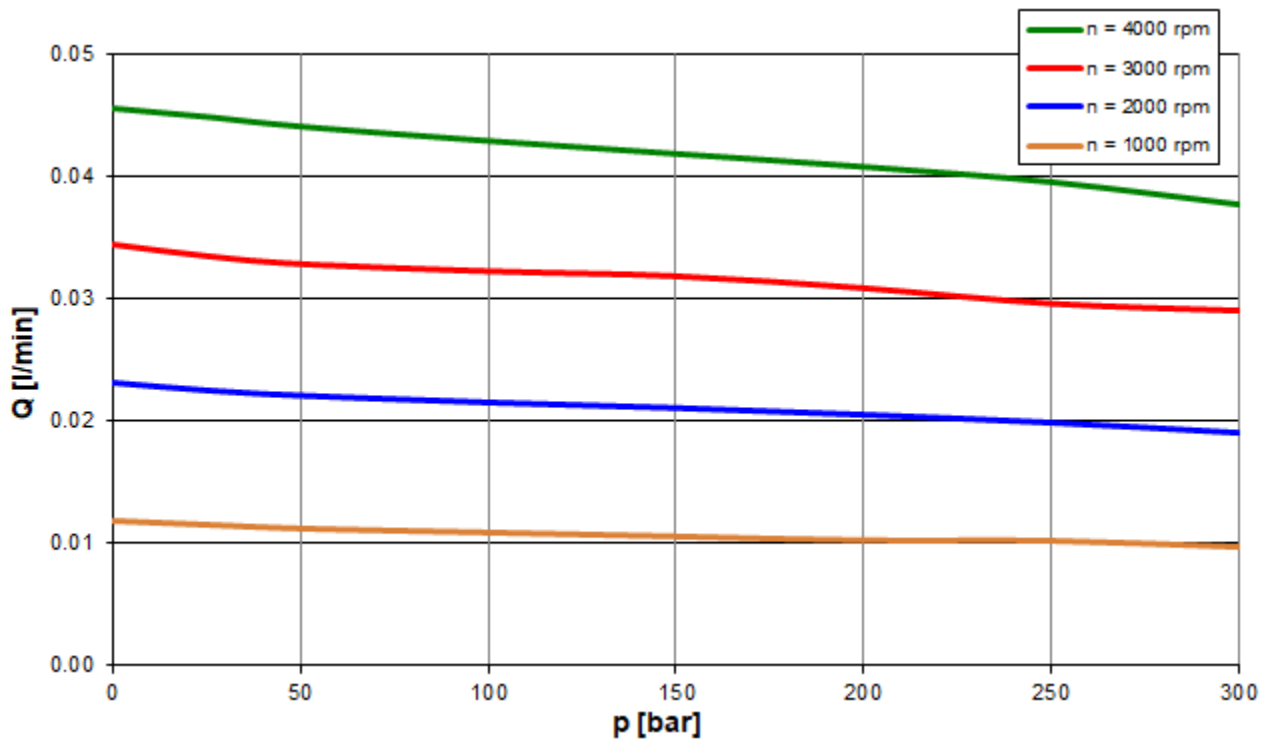
Characteristics

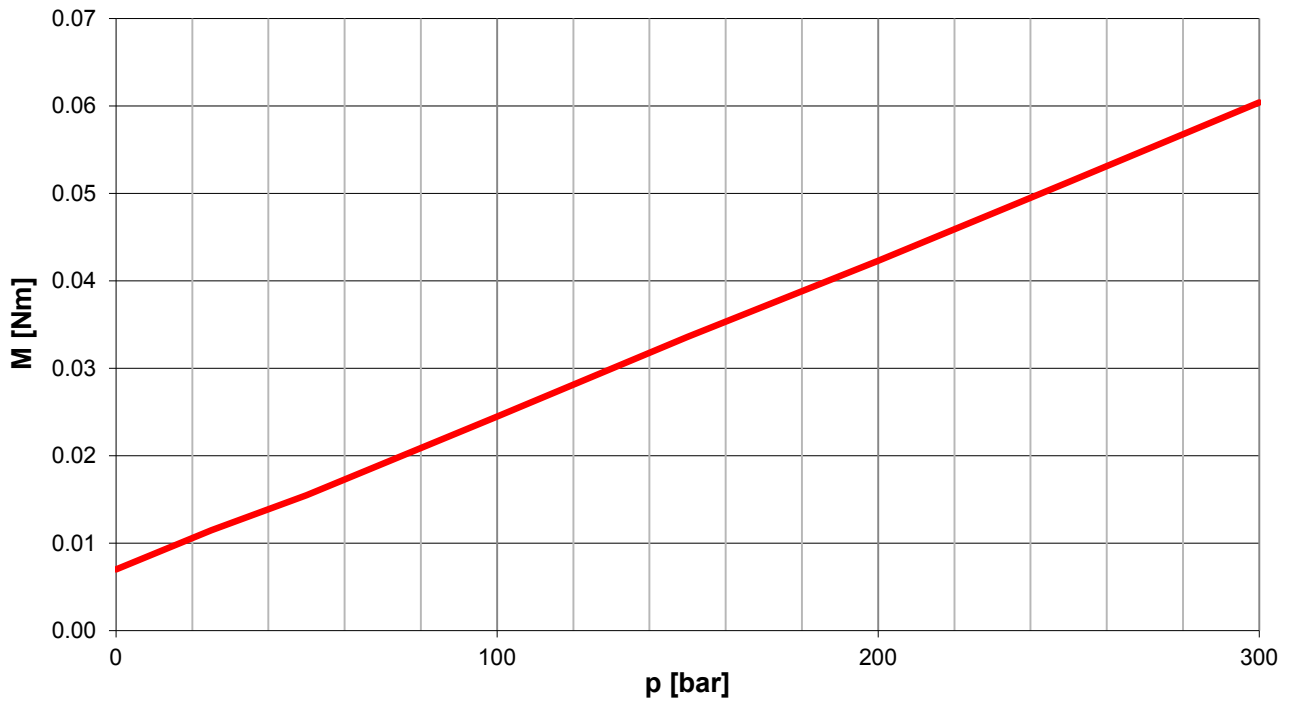
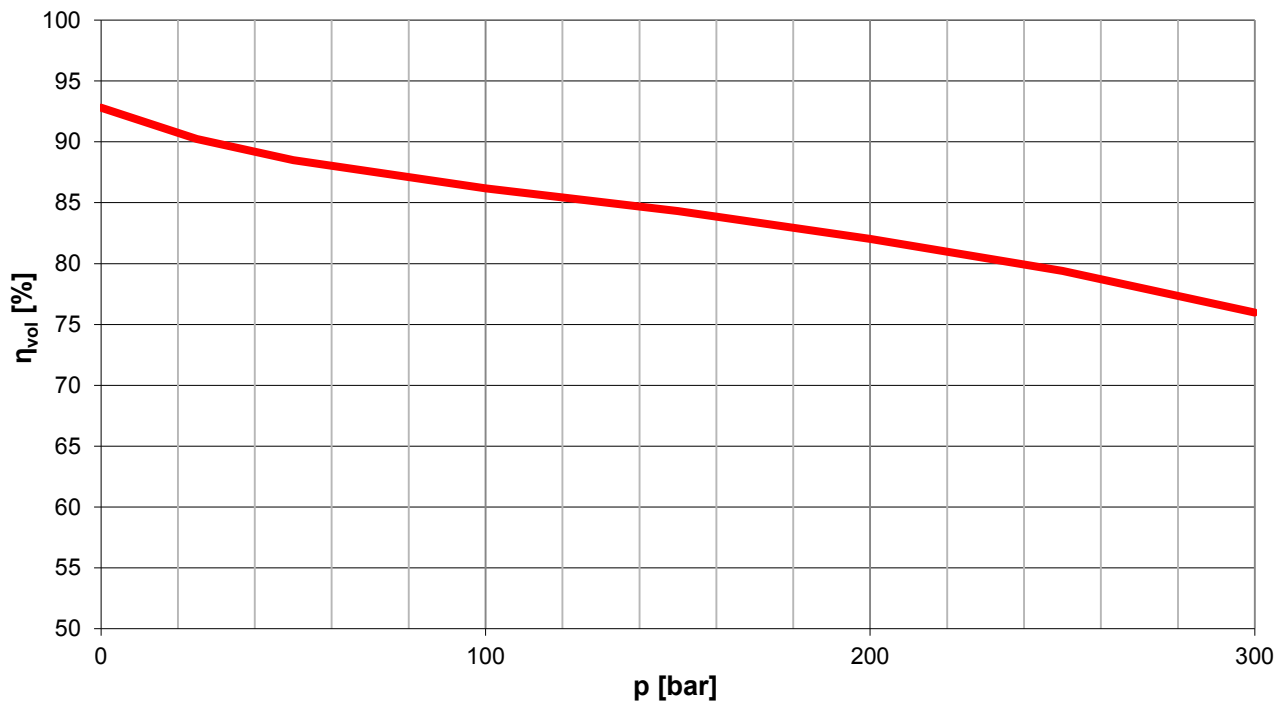
($v = 30 \text{ mm}^2/\text{s}$, $T = 40^\circ\text{C}$)

Volume flow rate as a function of rotation speed

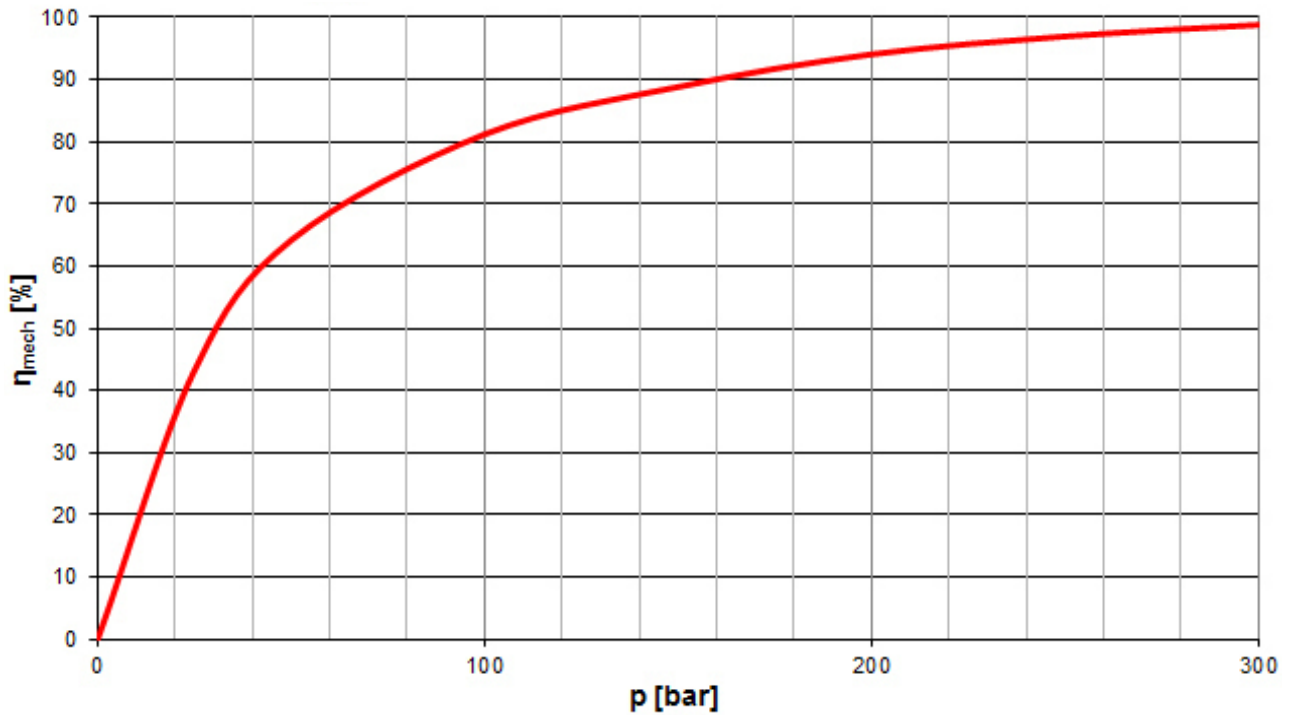


Volume flow rate as a function of pressure



Torque in function of pressure**Volumetric efficiency as a function of pressure**

Mechanical efficiency as a function of pressure



Overall efficiency as a function of pressure

