

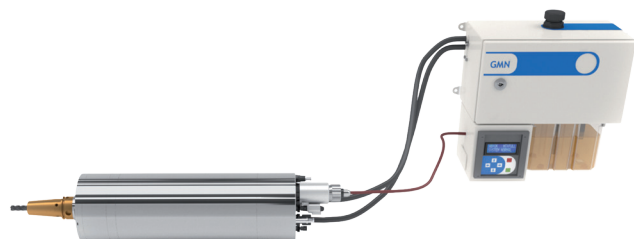
Hydraulic power unit HVD for hydroviscous damped GMN high-speed spindles

Energy-efficient hydraulic power unit for oil supply

The hydroviscously damped GMN high-speed spindles are supplied with oil by a special developed energy-saving hydraulic power unit. The bearing preload of the spindle can be controlled via the oil pressure. In this way, the rigidity of the spindle can be modified and therefore its behaviour optimized depending on machining task, speed, and tool. Increased preload can, for example, be used to significantly improve spindle performance at lower speeds.

Features

- Hydraulic oil:
ISO VG 10 ... 68
- Oil reservoir:
2.7 l
- Pump pressure:
Max. 60 bar
- Flow rate:
0.05 ... 0.3 l/min
- Filter in the oil-circulation system:
5 µm
- Dimensions without oil filter:
Appr. 490 x 425 x 230 mm (W x H x D)
- Leakage-free quick connection couplings
- Mains voltage range for all international common voltages and frequencies
- Pump pressure control with manipulated variable pump speed (BLDC pump motor)
- Feedback control for preload pressure (optional):
 - Proportional pressure relief valve and sensor at the spindle
 - Set point from control system or input at the unit
- Flow sensor for monitoring min./max. oil flow rate
- Integrated electronic control for:
 - Monitoring (pressure and flow rate)
 - Pressure control (for pump and preload)
 - Input and storage of the spindle specific and unit specific monitoring parameter and control parameter
 - Interface to machine control:
Release, set value for preload (option)



Should you have questions to the hydraulic power unit, please get in contact with our sales staff

Spindle technology

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