

Minimum quantity lubrication | Single-channel MQL-system

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Minimum quantity lubrication (Single-channel MQL-system) This retrofit package includes all components required for integrating a minimum quantity lubrication system (MQL) into an existing machine. Operation is carried out via a single-channel MQL system. After the retrofit, the machine can be operated either with a conventional coolant supply system or in MQL mode. The MQL system is connected to the machine control system for signal exchange via digital inputs and outputs. More than 30 programs are available for setting the oil quantity and air pressure, ensuring optimum adaptation to different machining processes. The MQL system is equipped with an additional pressure booster station and an additional refill unit. The pressure booster station is used when the available line pressure is not sufficient to ensure optimum chip evacuation. Technical data: · Required inlet pressure (at 10 bar outlet pressure): 5 bar · Required inlet pressure (at 16 bar outlet pressure): 8 bar · Outlet pressure: max. 16 bar at 400 Nl The refill unit is used for automatically filling the MQL unit while simultaneously returning aerosol. It ensures uninterrupted continuation of the machining process. The filling capacities are as follows: · Refill unit: 10 liters · MQL unit: 1.5 liters The complete MQL system is mounted on a mobile installation frame and positioned next to the machine. The following type is used as the single-channel MQL system: · AerosolMaster 4000 ATS, Co. KNOLL

Characteristics

- _ Operation is carried out using a single-channel MQL system
- _ Oil quantity and air pressure selection: 30 programs
- _ Signal exchange via digital inputs/outputs
- _ The complete MQL system is mounted on a mobile installation frame and positioned next to the machine
- _ The machine can be operated either with conventional coolant supply or in MQL mode
- _ Equipped with a pressure boosting station
- _ Equipped with an additional refill unit
- _ Required inlet pressure (at 10 bar outlet pressure): 5 bar
- _ Required inlet pressure (at 16 bar outlet pressure): 8 bar
- _ Outlet pressure: max. 16 bar at 400 Nl
- _ Filling Capacities:
 - _ Refill unit: 10 liters
 - _ MQL unit: 1.5 liters

Benefits

- _ Increased process reliability through targeted lubrication at the cutting edge
- _ More consistent dimensional accuracy and reproducible machining results
- _ Longer tool life and fewer tool changes

Requirements

- _ Use a suitable exhaust system to maintain workplace limits and minimize the risk of fire and explosion at the machine tool.