

Accurate measuring of the coolant volume and the reaction time with minimal quantity lubrication (MQL)

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The development of the new MQL-Check allows simple and quick measuring of the coolant volume and the reaction time with minimal quantity lubrication (MQL) directly at the tool point. For the user, the result is a considerable increase in process reliability with MQL machining.

Especially with minimal quantity lubrication, an optimal delivery of the minimal coolant volume to the cutting edge is paramount. An insufficient delivery or a delayed response time respectively can lead to fatal results such as premature wear, a deterioration in machining quality or even tool breakage. In contrast, an excessive coolant volume results in increased costs through unnecessary coolant consumption and additional cleaning expense for components or machines as well as unnecessary impact on the environment and personnel.

Until now, measuring the coolant volume exiting at the tool point was practically impossible. The MQL-Check, for the first time, is a simple to operate measuring instrument for quickly checking the coolant volume directly at the tool point. MQL-Check is simply installed in the machine, the tool point is passed into the measuring opening of the measuring unit and the coolant delivery switched on. The measuring unit of the MQL-Check sends the recorded data wireless to the associated display equipment, on which the resulting values are displayed in ml/h. Furthermore, the data interface on the display facility allows the transfer of the data to a PC as an option, making further evaluations and above all the documentation of the measurements possible.

Subsequently, the user benefits from:

- Simple, quick measuring of the coolant volume directly at the tool point.
- Ascertaining the actual response time, i.e. the time from starting the system to the coolant exiting at the tool point.
- Reproduceable and at any time comparable measuring data.
- A workshop suitable system, wireless operation – in terms of power supply as well as data transfer.
- Comparative measuring regarding function of MQL equipment, machine, spindle, tool holder and tool.

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Technical Data

Measuring range: 5 to 60 ml/h
Tool diameter range: 3 to 20 mm
Measuring position: 0 to 90 degrees (vertical and horizontal machining)
Power supply: battery

MQL-Check consists of:

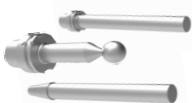
- Measuring unit including sender and magnetic base for installation with horizontal machining.
- Display facility with receiver.
- Measuring filter for measuring range up to 12 ml/h, up to 30 ml/h and up to 60 ml/h

Data interface and PC software are available as an option.

Preventive Maintenance Gauges

Dimensional Gauges, Balancing Masters, Coolant Supply Gauges, Center Height/Master Setting, Tool Changer Alignment Gauges, Machine Set-up Gauges. Also ask us about custom gauges and personalized solutions for your machine or machine tool.

Runout Test Arbors



Available for all major machine tapers, including CAT/DIN/BT Steep Taper, HSK, Capto, KM, Morse, and others.

Chuck Force Gauges



Measure chuck jaw clamping force at high speeds. Also available for other chuck measuring applications.

Drawbar Force Gauges



Measure tool clamping force to protect spindles and ensure machining accuracy.

Custom Machine Tool Gauges

Any gauge for any machine or machine tool.

