



*We have the Technology for your Lubricant*



### Advantages

- User-friendly and versatile machine design in a compact construction
- High quality performance and efficient pump technology for manufacturing applications of different lubricants
- Flexible operation via the large selection range of adjustable fine-tuned settings
- Mist-free, micro-fine lubricant applications
- Optimal process reliability and accurate resettable grease positions
- Minimization of lubricant consumption

### Micro-Dosing Box (MDB)

The Micro-Dosing Box (MDB) is a multifunctional dispensing device designed for multiple Minimal Quantity Lubricant (MQL) applications and processes. Equipped with one or two WERUCON<sup>®</sup> pump(s) and two connection ports for the micro-dosing nozzles; a feature that stands out on the MDB via a balanced price/performance ratio combined with outstanding capabilities in metal-cutting and metal-forming processing. WERUCON<sup>®</sup> high performance metering pumps stand for flexibility in lubricant dosing application. The sturdy, compact plastic cabinet is fitted with a lockable door; in addition, all of its operating and control elements are installed user-friendly.

# Micro-Dosing Box (MDB)

## Minimal Quantity Lubricant (MQL) incorporated with WERUCON® Technology

Wherever there is a necessity to minimize friction through using a lubricant substance or a protective liquid preservative, the MQL is a cost-effective and environmentally-friendly process. The conversion of lubricants in a production process is often connected to companies with extremely high expenditures. WERUCON® technology is so highly advanced that the dosing units can be adapted to any company's preferred lubricant. Thus, companies of the metal-forming and machine-cutting industry must take into account by setting up the latest state-of-the-art MQL dosing operation that it can be done without incurring high changeover costs. The MQL system considerably decreases lubricant usage in reproducible grease. In turn, this significantly reduces the cost and, more importantly, it reduces the burden on the environment. The precondition for this flexibility in relationship to lubrication and coolant emulsion is the high performance of a dynamic pump system. Our metering pumps are in-house developments, which are designed to enhance the extraction fluidity of various liquids in operation with the customer's own viscosity ratios. This does not only determine the variable application of the liquids, but also the process reliability even at fluctuating outdoor temperatures.

WERUCON® dosing nozzles are so geometrically designed that with proper adjustment of the air-flow intensity no mist or fog is produced with most commercially available lubricants. Thereby, the workroom's air is generally not contaminated with harmful, respirable aerosol-particles.

## Flexible Applications

The Micro-Dosing Box (MDB) has the capability to execute two machining processes simultaneously. It can also carry out metal cutting processing by dispensing the exact dosage of lubricant on the work piece or on tools such as drills, saws, mills, etc. In addition, by utilizing WERUCON® pump technology, it is possible to perform band surface coating for non-metal-cutting processing. Furthermore, the MDB can be either wall-mounted or used as a standalone device.

## Simple Operation

The amount of lubricant required depends upon the setting of the two adjustable parameters located on the metering pump and the pulse generator. The metering pumps' setting has an analogue display indicator and a scale of 0.02 graduations. The lubricant's varied output rate is reproducible at any time.

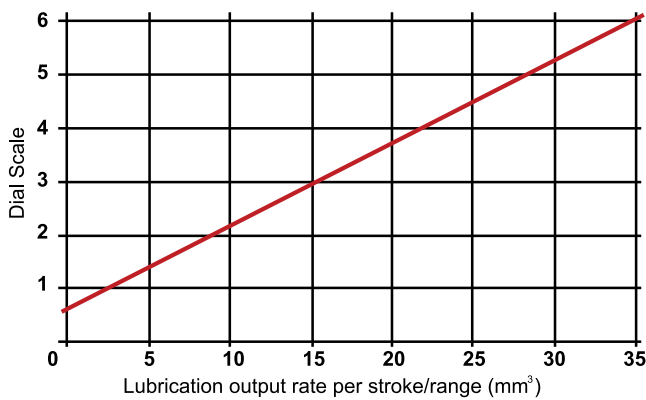
## Advantage of the MQL (MMS)

- No Changing of the lubricant is necessary
- No disposal cost for cooling emulsions
- No residue on work piece components, tools and machinery
- No cleaning is required
- No expensive coolant circulation system; drip pan, splash guard, filter, etc. are no longer required
- Longer tool life-cycle
- Higher speed performances are possible
- Better surface quality and dimensional accuracy if the work piece components
- No air-pollution via toxic aerosols in the work area
- No dermatological hazards, such as coolant emulsions
- No environmental pollution, the lubricants are biodegradable



## Specifications

Theoretical Conveyor/Delivery Data



	Specifications
<b>Pumps</b>	<ul style="list-style-type: none"> <li>• Max. 2 WERUCON® Dosing pumps</li> <li>• Max. Output-volume = 35mm<sup>3</sup>/stroke</li> <li>• Max. Pump frequency = 160/minute</li> </ul>
<b>Impulse generators</b>	<ul style="list-style-type: none"> <li>• 1 Impulse generator</li> </ul>
<b>Spray-air-controls</b>	<ul style="list-style-type: none"> <li>• 1 Pressure regulating valve for the air spray intensity</li> </ul>
<b>Connection ports</b>	<ul style="list-style-type: none"> <li>• Max. 2 coaxial-hose sets/dosing nozzles</li> <li>• Max. possible length for each hose = 10 m</li> </ul>
<b>Control/activation</b>	<ul style="list-style-type: none"> <li>• <b>Electric Control:</b> Mono-stable start signal for the metering unit, 24 V/DC; 24 V/AC; 110 V/AC; 230 V/AC</li> <li>• <b>Pneumatic:</b> At least 4 bars, uncoiled and filtered (10 µm)</li> </ul>
<b>Lubricant containers</b>	<ul style="list-style-type: none"> <li>• Lubricant containers with mesh screens</li> <li>• Tank capacity = 1.0 liter</li> </ul>
<b>Compressed air supply unit</b>	<ul style="list-style-type: none"> <li>• Compressed air (power) supply min. 4 bars, max. 7 bars</li> </ul>
<b>Cabinet</b>	<ul style="list-style-type: none"> <li>• Plastic construction</li> </ul>
<b>Adjustment range</b>	<ul style="list-style-type: none"> <li>• Output capacity: circa 5 cm<sup>3</sup>/minute</li> </ul>

## Accessories

- Dosing nozzles are available in various configurations
- Spray cabinet
- Low level switch indicator



## Alternative units

### MDA

- Automatic dosing unit with up to 6 dosing pumps and 2 pulse generators
- Sturdy design construction with metal cabinetry
- Various configuration options for multiple industrial applications

### KDE

- Compact unit with 1 dosing pump and up to 2 metering nozzles
- Direct mounting on machines, e.g. drilling, milling, etc. is possible

### DSS

- Continuous spray system equipped with switchable spray valves
- Process reliable band lubrication



MDA



KDE



DSS

*We have the Technology for your Lubricant*

## WERUCON GmbH

WERUCON® is a leader in advanced metering technology that supplies special production machines for the automobile industry and the mechanical engineering service sector in the capacity of assembly and dosing technology, for Minimal Quantity Lubrication (MQL) of surface moistening production and precise dosing application of lubricant substances.

The strength of our company is a result of our solution-oriented engineering services combined with our ability to deliver expeditiously. We maintain plentiful stock of ready to operate, automatic devices and machines; as our products are designed and manufactured in-house. The installation of WERUCON® machines is specifically customized to fit our customers' infrastructure. As an innovative, technological supplier of MQL, we work in partnership with manufacturers of lubricants who continue to set high standards; and are pioneers in the field of lubricant surface coating.

WERUCON® dosing technology stands for reliable and precise lubricant dosing application for metal-forming and metal-cutting processing. First and foremost, in companies where MQL is in demand, our micro-dosing pumps are in use. With our dosing technology, the lubrication is virtually independent of the environment and is always reproducible.

### Contact Details:

WERUCON GmbH  
Fahrenheitstraße 9  
28359 Bremen

Tel: +49 (0)421 / 22 30 85 - 0  
Fax: +49 (0)421 / 22 30 85 - 99

E-Mail: [info@werucon.de](mailto:info@werucon.de)  
Website: [www.werucon.de](http://www.werucon.de)