



We have the Technology for your Lubricant



Advantages

- High quality performance and efficient pump technology for a variety of lubricant manufacturing applications
- 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
- Compact construction
- Clean-cut on the work pieces or items

Compact-Dosing Unit KDE

The Compact Dosing Unit (KDE) is designed for Minimal Quantity Lubrication (MQL) applications. It is characterized by its open and visible construction, and has the versatility to be mounted directly onto machines and devices. It comes equipped with one WERUCON® dosing pump with the possibility of connecting up to two dispensing nozzles. It is ideal for drills, saws, or lathe devices. The lubricant-air mixture is specifically applied to the item to be lubricated, so that a significant reduction of lubricant consumption is efficiently controlled. The advantages of WERUCON® dosing technology equally benefit manufacturing companies and the environment. Which allow it to be mounted directly onto.

Compact-Dosing Unit KDE™

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®'s dosing nozzles are so geometrically designed that with proper adjustments of the air-flow intensity, it does not allow any mist or fog to occur with many commercially available lubricants. Thereby, the work room's air is generally not contaminated with harmful respirable aerosol-particles.

Flexible Applications

Designed for direct mounting onto machines or for direct integration into existing systems; the KDE is ideal for drill, lathe and saw operations. The reliable and reproducible adjustable settings of lubricant dosing guarantee optimum lubrication during the machining process, which is independent of environmental changes, such as temperature fluctuations. The precise coating of the item or tool

enhances the quality of workmanship, increases the life cycle of your components, and generally goes beyond the function of cleaning work pieces and tools. Thus, the benefits of cost-effectiveness and quality-performance are maintained.

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 signal and a scale of 0.02 graduations. The lubricant's varied output rate can be repeated or reproduced at any time.

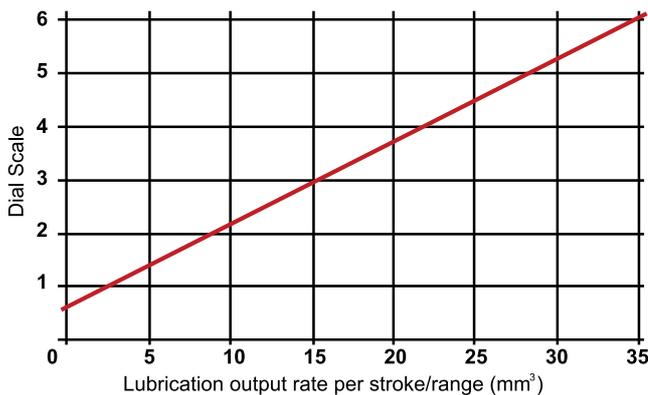
MQL Advantages

- No changing of the lubricant is necessary
- No disposal cost for cooling emulsions
- No residue on work pieces/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
Pumps	<ul style="list-style-type: none"> • 1 WERUCON[®] Dosing pump • Max. Output volume = 35mm³/stroke • Max. Pump frequency rate = 160 minute
Impulse generators	<ul style="list-style-type: none"> • 1 Impulse generator
Spray Air Controls	<ul style="list-style-type: none"> • 1 Pressure regulating valve
Connection Ports/Nozzles	<ul style="list-style-type: none"> • Max. 2 coaxial-hose sets/dosing nozzles • Max. possible length for each hose = 10 m
Control Activation	<ul style="list-style-type: none"> • Electric Control: Mono-stable start signal for the metering unit; 24 V/DC; 24 V/AC; 110 V/AC; 230 V/AC
Lubricant Tank containers	<ul style="list-style-type: none"> • Lubricant containers with fine sieve capacity = 1.0 liter • Low level switch indicator
Pneumatic Air Supply	<ul style="list-style-type: none"> • Compressed air (power) supply min. 4 bars; max. 7 bars
Cabinet	<ul style="list-style-type: none"> • Wall-mountable, steel console in gentian blue
Adjustment range	<ul style="list-style-type: none"> • Output volume = approximately 5 cm³/minute

Accessories

- Carrying handle
- Spray cabinet
- Foot switch



Optional Enhancements

For very thin lubricants we recommend using the **pulse compensator**, which provides a continuous spray of lubricant.

For point accuracy of surface coating, e.g. plate lubrication, a **decompression modulus** is integrated in the system to prevent eventual dripping of the lubricant.

Alternative Units

MDA

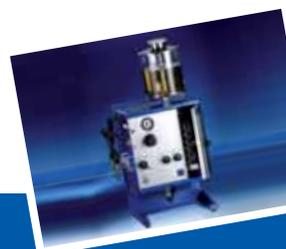
- Automatic dosing unit with up to 6 dosing pumps and 2 pulse generators
- Sturdy construction design with metal cabinetry
- Various configuration options for multiple industrial applications

MDB

- Dosing unit with a maximum of 2 dosing pumps and 2 nozzle connectors
- Lockable cabinet with a control panel
- Diverse industrial application usages

DSS

- Continuous output spray system equipped with switchable spray valves
- Reliable band lubrication application processing



MDA



MDB



DSS

We have the Technology for your Lubricant

WERUCON GmbH

WERUCON® is a leader in advanced metering technology which 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 coating 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 application for machine metal-forming and metal-cutting processing. Our micro-dosing pumps are used especially in companies where MQL is needed. 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
Website: www.werucon.d