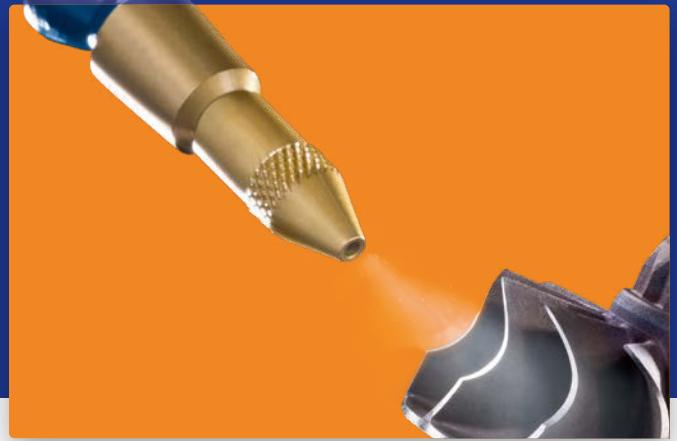


# Minimum quantity lubricants



Minimum quantity lubricants, shortened MQL, are applied to the operating range between tool and workpiece by means of special spraying systems. Thus, optimum lubrication and cooling is ensured by minimum consumption of lubricant.

The product series MICROTOL was particularly developed for minimum quantity lubrication. Depending on the application, different base lubricants are used for a high process and material compatibility.

All MICROTOL products provide an excellent lubricating performance and are suitable for 1-channel as well as 2-channel systems. The optimized aerosol behavior of the MICROTOL products guarantees an efficient lubrication and cooling during the machining process with low losses through misting.

The process safety of Oemeta's MQL is proven by several approvals from renowned customers and machine manufacturers.

## BENEFITS FROM MICROTOL

✓  
Excellent residue behaviour provides for clean workpieces and machine parts

✓  
Suitable for all common metering systems (1-channel and 2-channel systems)

✓  
Very good lubricating performance increases tool life

✓  
Outstanding material compatibility

✓  
Human and environmental compatibility

✓  
Very good wetting performance

# Minimum quantity lubricants



## Products

### Based on fatty alcohols

These high-performance products are based on fatty alcohols and characterized by a particularly good residue behaviour.

#### MICROTOL FA 20

- Recommended for all metallic materials
- Suitable for easy and medium difficult machining, deep-drawing, bending and punching
- Excellent adhesion capacity and good cooling effect
- Outstanding spray behaviour
- Viscosity at 40° C: 21 mm<sup>2</sup>/s
- Neutral odour

#### MICROTOL FA 30/E APPROVED BY BIELOMATIK

- Recommended for all metallic materials
- Suitable for easy and medium difficult machining, deep-drawing, bending and punching
- Emulsifiability \*
- Very good wetting performance
- Particularly developed for cleaning with aqueous media
- Outstanding spray behaviour
- Very good cooling and lubricating characteristics
- Viscosity at 40° C: 32 mm<sup>2</sup>/s
- Neutral odour

### Based on synthetic esters

These high-performance products are based on synthetic ester oils and renewable raw materials.

#### MICROTOL EC 12

- Recommended for all common processing materials
- Suitable for easy forming and machining processes
- Emulsifiability \*
- Compatible with Oemeta HYCUT system
- Viscosity at 40° C: 13 mm<sup>2</sup>/s
- Free of chlorine

#### MICROTOL EC 32 APPROVED BY BIELOMATIK

- Recommended for all common processing materials
- Suitable for medium difficult forming and machining processes
- Emulsifiability \*
- Compatible with Oemeta HYCUT system
- Viscosity at 40° C: 32 mm<sup>2</sup>/s
- Free of chlorine and silicon

#### MICROTOL EC 46

- Recommended for high-alloy steels and casting alloys of all kinds
- Suitable for demanding machining processes
- Emulsifiability \*
- Compatible with Oemeta HYCUT system
- Viscosity at 40° C: 46 mm<sup>2</sup>/s



#### \* Emulsifiability

Emulsifiability of these products in water facilitates subsequent cleaning processes and thus, provides a distinctive feature compared to commercial products.