



### SL Pro - Safe Lubrication Process

The new Air+Oil unit presented by MWM Schmieranlagen, sets new standards in Minimal Quantity Lubrication of high speed/power bearings for spindles in machine-tools.

The integration of patented optical sensors, digital pressure sensors and advanced PLC functions, allow 100% control of all important parameters. Visual and electronic feedback and simple error signaling is available to the machine control, to assure reliable MQL during start-up and 100% Safe work.

**MVF-A Metering Mixer** with integrated optical sensors (Pat.) meters precise droplets of oil, starting from 10mm<sup>3</sup>, into an adjustable air flow.



This A+O flow is continuously monitored by precise opto-electronic sensors which can detect changes in oil quantities and air-flow and immediately signal to the PLC in the SL Pro unit.

The MVF-A unit can be delivered in different versions from 1 to 6 outlets.

The digital air-pressure sensors are directly mounted on the MVF-A and allow to set minimum and maximum levels.



In case of under or over pressure the sensors signal visually (color change) and with an electronic signal to the PLC.

This ensures monitoring both obstructions and interruptions in the A+O line between the SL Pro unit and the spindle bearings. Thus completing the 100% Safe Lubrication Process.

#### **Touch-Screen PLC Control**

LED backlighting with 3 colours: green, orange and red: to signal normal, warning and alarm.



Simple user-friendly programming of prelub and lubrication cycles. Two control output, with two failure level. Control can be connected to NC of machine.

## Connecting technology



All sensors with M12 connectors with switching status LED (function display operation), main connector M23 for easy maintenance.

# SL Pro Series

Safe Lubrication Proces new AIR+OIL Unit

Minimal Quantity Lubrication

AIR+OIL tity lubrication

minimal quantity lubrication completely assembled ready for use

Special features: IFX optical sensors digital air/pressure sensors Touch/Screen PLC

Checking and monitoring very small lubricant flows

# Precise Iubrication for high-speed spindles

MQL application for:

- High speed bearings
  High speed gears
  Linear guides
- Ball circulation screws

