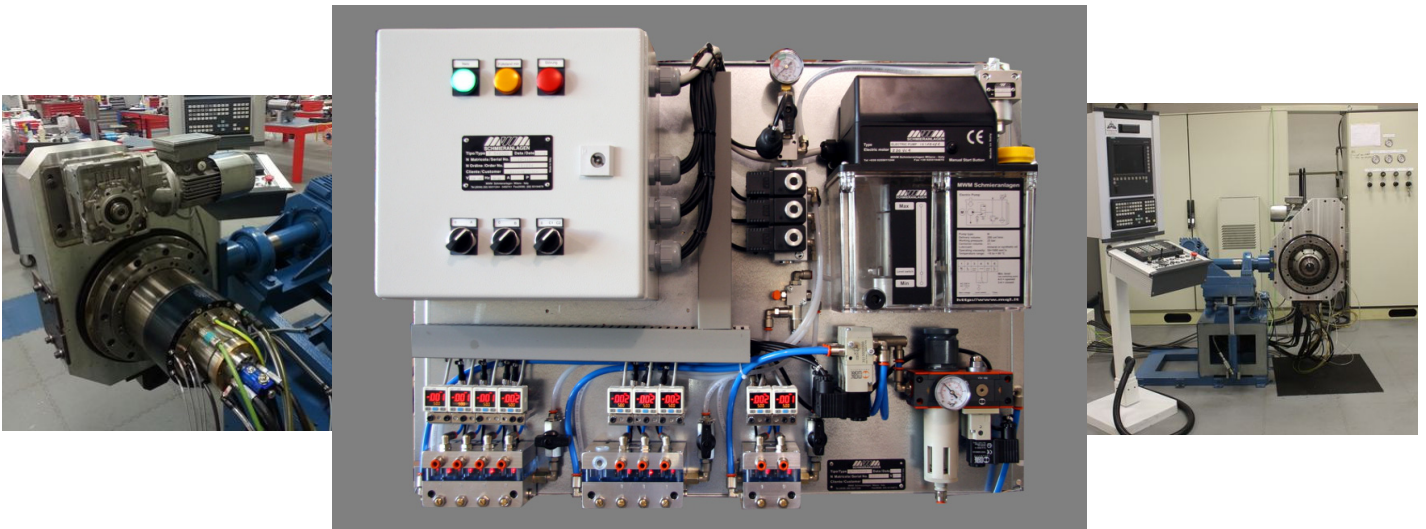


ZT Professional SPINDLE TEST BENCHES AIR+OIL LUBRICATION UNITS “easy flexibility on the bench”



One lubrication system with many benefits for spindle test bench
Flexible application with all necessary monitoring functions

FLEXIBLE	One system to test many spindles, each with different lubrication points and oil volumes
EASY	Set-up with two simple inputs , no manual intervention during tests. SW managed cycles for de-aeration, pre-lubrication and lubrication are also available
ACCURATE	Precision dosing units and working parameters specifically set for each single spindle
SAFE	Integrated digital and optoelectronic sensors (oil streak sensor) tested software for total automatic control, 100% safe tests
PRODUCTIVE	Quick and easy set-up operations to reduce overall test time, ideal for long and unattended tests
CUSTOMIZED	Customized system, tailored investment for your needs

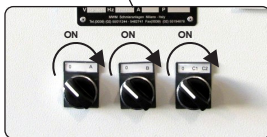
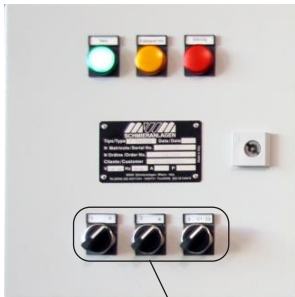
ZT-Air+Oil Lubrication units for spindle test benches

Serie ZT Professional

Safe Lubrication Process

Minimal lubrication systems
AIR + OIL

Systems fully assembled
and ready to use



DEFINITION OF LUBRICATION POINTS: easy selection of the number of outputs needed (lubrication points) by operating switches located on the front panel.

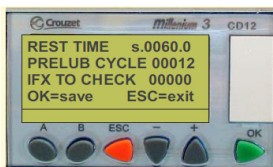
On-board PLC System automatically activates components which manage different outputs.

Total number of outputs installed can be chosen on demand (photos show ZT system with 1 to 9 outputs).

PLC: protected in a dedicated cabinet, features a back-lit display. If required, before testing cycle PLC starts a pre-lubrication cycle.

During the spindle test phase the PLC drives the pump motor and solenoid valves, while monitoring all parameters and managing alarms.

The PLC can also be connected to an additional external control unit.



CYCLE TIME: to change frequency of oil dosing elements, simply press buttons located on the front panel of the PLC and check the value on the display. The PLC drives automatically the lubrication cycle to provide the spindle with the correct oil quantity.

Special Features:
optical flow sensors IFX
digital pressure sensors
PLC with display
3 microns oil filtration

Control and monitoring
of very small
lubricant flow rates



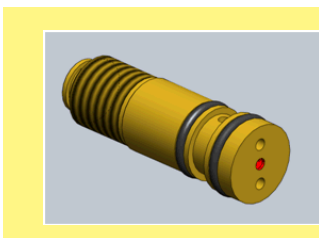
MIXER: it is the core system component, result of MWM innovation and covered by an international patent:

MVF-A, European Patent Certificate No 2427301.

In one compact block it includes: high-precision dosing elements, Air+Oil mixing system, IFX patented optical sensors monitoring the oil streak flow to the lubrication point, digital pressure switches for air pressure control with dual display level (min-max).



DIGITAL AIR PRESSURE SWITCHES: are directly mounted on the mixer MVF-A and allow to set the minimum and maximum levels of control. In case of exceeding the limits of pressure sensors change color and send an electronic signal to the PLC.



OIL DOSING ELEMENTS: the patented MWM mixer includes precise dosing elements, 100% QC controlled, with tight tolerance range. For example, the 10 mm³ dosing elements have a set tolerance -0% +20% on the nominal value. The precise dosing elements are available with dosing values of 10, 20 or 30 mm³.

Minimal Quantity Lubrication

MQL

