

## MMS Minimum – quantity– lubrication unit

Machine software solenoid valve 24 volt, pulse and time controlled by machine software

Fluid amount manually adjustable

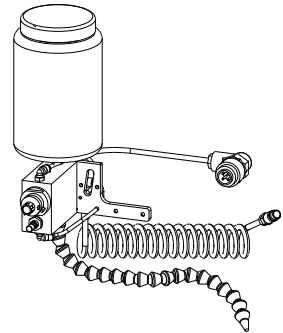
Fluid bottle 0,75 Liter

Connection 24V/2W to tapping machine

Operation pressure 4-8 bar

Air connection hose 4/6 mm

Quick clutch ( $\varnothing = 12$  mm)



## ZAP pneumatic Z-Axis spindle feeding system

Start functions auto start control function

FZ cutting force sensor to start

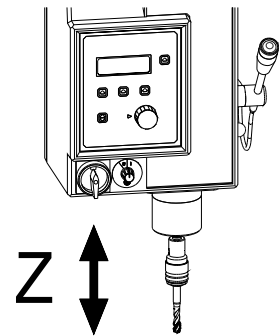
FZ & SZ- part location tolerance setting-Kontrolle ( $\Delta$  Delta-SZ)

Mounting at microtap

Air pressure 2-8 bar

Air connection hose 6/4 quick coupling NW7 / without service unit

Festo Quick clutch 12 mm outer diameter



## Drive unit is in hover situation

mechanical counter-balance compensation

low axiale power

when operated with piloted Z-axis pneumatic (ZAP), infeed device is automatically reset after gating of tool (tap point)

## No lead screw / guidance cartridges

production of thread independently of rise

low wear

no costs and time for changing leadscrew

no pitch faults through mechanical play no broken tap, specially during changing in the backward running

## Control of the ingate strength

in Z-direction incl. FZ- broached-power

FZ & SZ- distance-control ( $\Delta$  Delta-SZ)