

- Brief description:** Piston pump system for spraying the smallest quantities of liquid.
- Main application range:** External MQL for circular saws and band saws.
- Operating principle:** The liquid flows from the reservoir into a piston pump. This pushes an exact amount of the medium into the internal feed tube. Separately supplied compressed air splits the medium in the nozzleblock into tiny particles of fluid and sprays it onto the tooth profile of the saw.
- Adjustability:** Swept volume of the pump (manual), clock frequency of the pump (manual), quantity of spray air (manual), switch on/off via drive (electric, pneumatic or manual).



Technical Data:

Operating pressure	bar	4 - 8
Liquid throughput	ml/h	0 - 150 ¹⁾
Typical consumption	ml/h	15- 30 ¹⁾
Lubricoolant		Lubrimax® and others
Recommended viscosity	mm ² /s (at 40°C)	1 - 50
Dimensions (HxWxD)		
Housing (without reservoir)	mm	200 x 200 x 155
Nozzleblock	mm	15x 52 x 30

¹⁾ depending on application, medium used, viscosity and temperature

System components:

1. Base / Base addition

- Pneumatically driven, finely meterable piston pump ① with FPM seals, manually adjustable with PMC precise metering control ③, enabling easy adjustment of the volume using a dial. Volume 0 - 0.03 ml per stroke, including adjusting key.
- **Ventilation unit** ② integrated underneath the pump module.
- **Frequency generator** for pump pulse, manually adjustable 0 - 90 stroke min⁻¹.
- Coupler plug for compressed air supply to left side of housing.
- **Air valve** to set spray air quantity.
- High-grade push in/screw fittings/ pneumatic tubes.
- Stable, compact metal housing 200x200x155 with robust metal closer and door seal for dust protection and noise reduction, earthing pin.
- Connection for feed tube with **EASY-COAX® system** (plug-in system for speedy, simple assembly, disassembly and interchange) on left side of housing.
- **Component labelling** in accordance with the designations in the pneumatic connection diagram.

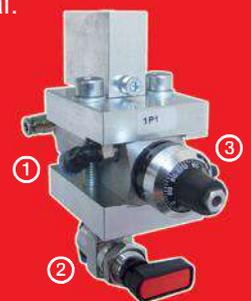


Fig.: pump module SF

2. Reservoirs from 0.33 to 3.0 litres available.

- Reservoir 0.33 litre PA with screw cap, ventilation plug, drainage sieve.
- Reservoir 1.0-/2.0-/3.0-litre with plexiglass cylinder / NBR seals or glass cylinder / FPM seals. With filler neck, screw plug, detachable sieve, automatic ventilation, drainage sieve.



Fig.: Reservoir P2 (2,0)

3. Drive options:

- Solenoid valve 3/2 way (120 NI/min) with auxiliary actuation (for occasional manual switching on/off). Coil with plug in 24V DC, 24V AC, 110V AC or 230V AC. Cable bushing on left side of housing.
- Pneumatic valve 3/2 way (550 NI/min). With push in connection Ø6 for control air on left outer side of housing.
- Hand valve 3/2 way (600 NI/min) as valve rocker on the right outer side of housing.

Vol.	ø.	H
0.33	83	150
1.0	105	190
2.0	140	225
3.0	155	250

4. Feed tube

- Coaxial feed tube with EASY-COAX® system. Outer tube of strong rubber construction with robust metal sleeve Ø11, inner tube for delivery of medium, constructed of long-life PTFE Ø3. Standard length 3,000, non-standard lengths up to 20,000 available on request.

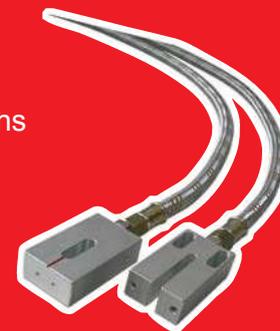


Fig.: Nozzleblocks KS1/2 and BS1/3

5. Nozzle

- Nozzleblock (aluminium 15x52x30) with EASY-COAX® system. For band saws with 3 optimized spray points and two elongated holes for mounting 6x18. For circular saws with 2 optimized spray points and one elongated hole for mounting 6x21.

6. Option

- 4 x round magnet Ø80 (mounted on the reverse side) for easy installation of the housing. (see example on page 14).
- 4 x mounting straps (mounted on the reverse side) for fixed installation of the housing. (see example on page 8).

Order codes:

0. Base	SF	MQL with piston pumps for saws
1. Base addition	/1	(for 1 nozzleblock)
2. Reservoir	Y03 P1 P2 P3 G1 G2 G3	0.33-litre PA 1.0-litre plexiglas / NBR 2.0-litre plexiglas / NBR 3.0-litre plexiglas / NBR 1.0-litre glass / FPM 2.0-litre glass / FPM 3.0-litre glass / FPM
3. Drive	e...V.. pv3 H3	electric (24VDC, 24VAC, 110VAC oder 230VAC) pneumatic hand actuation
4. Feed tube	ZM3000 ZM.....	feed tube, metal outer Ø11 / inner PTFE Ø3, L=3,000 (standard) feed tube, L=.... (non-standard length, min. 500, in increments of 500)
5. Nozzle	BS1/3 KS1/2	band saw nozzle block for 1 feed tube / with 3 spray points circular nozzle block for 1 feed tube / with 2 spray points
6. Option	RG MG	housing mounting 4 x round magnets Ø80 housing mounting 4 x mounting straps

Sample order code:

SF/1 - Y03 - e24VDC - ZM3000 - BS1/3 - RG

