

- Brief description:** Low pressure system for spraying low viscose substances in medium quantities.
- Main application range:** External MQL in simple metal-cutting operations. As a spray system in application of substances in not to small quantities. Depending on the substance and type of application, a suction is recommended.
- Operating principle:** In the Venturi nozzle ⑤, the spray air produces a partial vacuum, which causes the liquid to be sucked out of the unpressurized reservoir ④ and sprayed.
- Adjustability:** Spray air ③ quantity (manual), quantity of liquid ② (manual), spray air pressure ① (manual), switch on/off actuation (electric, pneumatic or manual)

Technical Data:

		Nozzle VD07	Nozzle VD15
Operating pressure	bar	4 - 7	4 - 7
Liquid throughput	ml/h per nozzle	0 - 1.000 ¹⁾	0 - 6.000 ¹⁾
Typical consumption	ml/h per nozzle	30 - 50 ¹⁾	50 - 100 ¹⁾
Lubricoolant		Lubrimax® and others	Lubrimax® and others
Recommended viscosity	mm ² /s (at 40°C)	1 - 25 ¹⁾	1 - 50 ¹⁾
Max. suction height	mm	1.000 ¹⁾	3.000 ¹⁾
Max. feed tube length	mm	10.000 ¹⁾	20.000 ¹⁾

¹⁾ Partly application-specific, depending on operating pressure, medium used, tube length and suction height

Dimensions (HxWxD) of the standard version, depending on reservoir

S700/1-Y1W	250 x 175 x 150
S700/1-Y6W	250 x 300 x 200
S700/1-Y20	300 x 400 x 300
S700/1-Y40	300 x 600 x 400

System components:

1. Base / Base addition

- For each nozzle a **needle valve** to adjust **air spray** and one to adjust quantity of **liquid**.
- **Pressure reducing valve** for spray air to adjust spray jet (low pressure = coarse spray droplets; high pressure = fine spray droplets).
- Manometer (0 – 10 bar) on pressure reducing valve to indicate spray air pressure.
- **Ascending pipe** for liquid with non-return valve and liquid filter.

2. Reservoirs 1.0 to 40 litres available:

- Reservoir 1.0 litre PE (S700/1 only) with aluminium screw cap, ventilation plug and wall bracket (with 2 round magnets Ø57, on request).
- Reservoir 6.0 / 20 or 40 litre PP, with filler neck, screw plug, detachable sieve, automatic ventilation, hinged cover, visual fill level display on the outside. Can be supplied with float switch min or min+max (potential-free, either NC or NO). Wall bracket for reservoir 6.0 litre on request, with or without 4 round magnets Ø57.

3. Actuation electric, pneumatic or manual option:

- Solenoid valve 3/2 way (up to 4 nozzles 120 NI/min, over 4 nozzles 1300 NL/min) with auxiliary actuation (for occasional manual switching on/off). Coil with plug in 24VDC, 24VAC, 110VAC or 230VAC. In case of separate actuation each nozzle (group) controlled via a dedicated solenoid valve. Pneumatic valve 3/2 way (up to 4 nozzles 550 NI/min, over 1300 NL/min)
- Hand actuated ball valve (2/2 way).

4. Feed tube, coaxial, PUN Ø8 outer with internal PUN Ø3. Standard length: 1,000; non-standard length: see Technical Data. On request with outer metal protection sleeve.

5. Nozzle

- Venturi nozzle VD07 for lower capacity of up to 1l/h. Available in copper tube or multi link tube style, length 300. Nozzle tip full jet as standard or flat-jet. Different mounting options available.



Fig.: S700 with reservoir Y6



Fig. S700 with reservoir Y1W

Spraymat® S700

- Venturi nozzle VD15 for higher capacity of up to 6 l/h. Available in copper tube or multi link tube style, length 300. Nozzle tip full jet. Different mounting options available.



Fig.: Multi link tube and copper tube style

6. Option

- Pneumatic drip shut-off system (per nozzle) in FPM. Required if the nozzle is inserted underneath (otherwise danger of subsequent dripping) or far above (otherwise increased reaction time) of the reservoir level.



Fig.: Detail showing nozzle tip VD15, VD07F and VD07

Order codes:

0. Base	S700	Spray system with Venturi nozzle
1. Base addition	/..... /.....S...	(state number of nozzles, e.g. „/4“) (separate drive. All nozzles separately, e.g.: „/3S“ or in groups, e.g.: „/3S2+1“)
2. Reservoir	Y1W Y1WR Y6 Y6W Y6WR Y6...NC Y6...NO Y6...NCNC Y20 Y20.... Y40 Y40....	1.0-litre PE with wall bracket (S700/1 only) ... with 2 x round magnet Ø57 6.0-litre PP ... with wall bracket ... with wall bracket and 4 x round magnet Ø57 ... with float switch min NC ... with float switch min NO ... with float switch min NC + max NC 20-litre PP ... with float switch variations as Y6 40-litre PP, ... with float switch variations as Y6
3. Actuation	e...V.. E...V.. pv3 (PV3) H2	electric, up to 4 nozzles (24VDC, 24VAC, 110VAC or 230VAC) actuation electric, over 4 nozzles (24VDC, 24VAC, 110VAC or 230VAC) actuation pneumatic actuation, up to 4 nozzles hand actuation
4. Feed tube	ZP1000 ZP..... ZPM.....	feed tube, PUN Ø3 inner / PUN Ø8 outer, L=1,000 non-standard length, L=.... (min. 500, in increments of 500) feed tube as ZP, but with metal protection sleeve, length like ZP
5. Nozzle	VD07GLB VD07GLBR VD07GLF... VD07KK VD07KB VD07KBR VD07KF... VD15GLB VD15GLBR VD15KK VD15KB VD15KBR	Venturi nozzle, full jet, multi link tube, L= 300, with connection block ... with round magnet Ø80 Venturi nozzle VD07GL like above, but flat-jet Venturi nozzle, full jet, copper tube (L= 300) with 2 clamps Venturi nozzle, full jet, copper tube (L= 300) with connection block ... with connection block and round magnet Ø80 Venturi nozzle VD07K like above, but flat-jet Venturi nozzle, full jet, multi link tube, L= 300, with connection block ... with round magnet Ø80 Venturi nozzle, full jet, copper tube (L= 300) with 2 clamps Venturi nozzle, full jet, copper tube (L= 300) with connection block ... with connection block and round magnet Ø80
6. Option	NpF	pneumatic drip shut-off system, FPM

Sample order code: S700/3 - Y6WRNC - e24VDC - ZP1000 - VD07KBR - NpF

