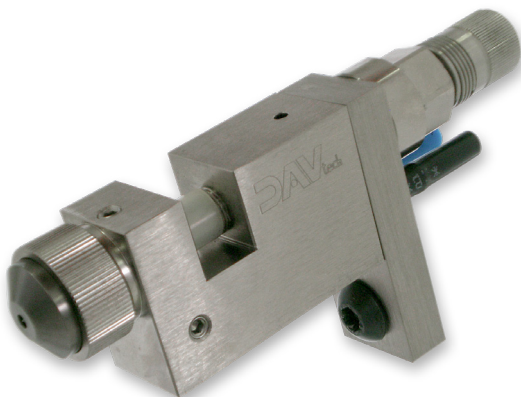


Installation and maintenance guide

DAVtech

SPRAY VALVE DAS 100



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1 INTRODUCTION

1.1 The manual

The user guide is the document that accompanies the valve from the time of its construction and throughout the period of use, it is therefore an integral part of the valve. It requires reading the manual before taking any action involving the valve. The manual must be readily available for use by staff and maintenance of the valve. The user and the attendant use are required to know the contents of this manual.

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1.2 Warranty

The warranty is valid for a period of 12 months from the date of commissioning and no later than 15 months from the date delivery. The interventions carried out during the warranty period does not extend in any way the validity period of the guarantee. The seller is not liable for defects caused by normal wear of parts which by their nature are subject to wear.

1.3 Goods receiving

The original configuration of the valve must never be changed.

Upon receipt of the goods, check that:

- The packaging is intact
- The exact correspondence of the material ordered.

2 TECHNICAL DESCRIPTION

2.1 Valve Operation

The DAS 100 spray valve has been designed and built to be used in various applications. Its design and its versatility make it suitable for any application requiring the use of spraying valves. The DAS 100 valve is a low and medium viscosity fluid dispenser. The valve is pneumatically controlled by external solenoid valves.

Sturdy and compact, it has the particularity of having nozzle and cap covered in anti-stick material.

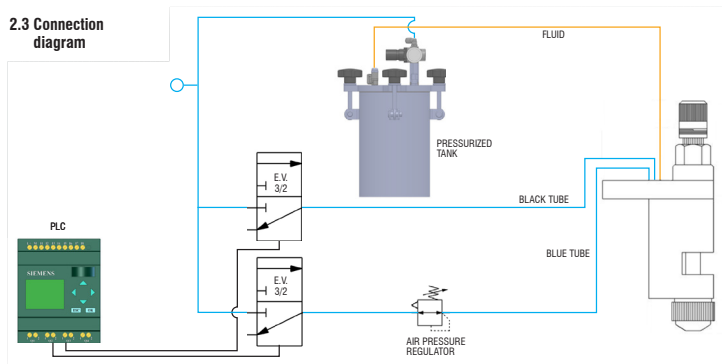
With appropriate gaskets it can be used for spraying solvent or acetate based adhesives.

2.2 Technical Specification

Model	DAS 100
Drive	Single acting
Weight	430 g
Max fluid pressure	Max 10 bar
Drive pressure	5 - 7 bar
Atomizing air pressure	From 0.1 to 3 bar
Air input type	6x4mm Tube
Inlet fluid type	6x4mm Tube
Air cap type	Oval or round
Speed	Up to 200 cycles / min
Adjusting the passage	Micrometric or with screw and nut
Used materials	Stainless steel, nickel-plated brass
Fluids to be dispensed	Oil, lubricants, primers, Vinylic glue

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2.3 Connection diagram



3 INSTALLATION

3.1 Mounting in the machine

The DAS 100 valve must be mounted using the fixing plate on the valve.

A good valve fixing on the machine must be guaranteed, stable without vibration and with good accessibility for adjustment, cleaning and maintenance.



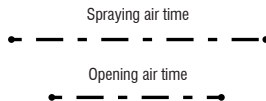
Fastening hole

3.2 Drive the valve

The DAS 100 spray valve must be operated by two separate solenoid valves; a 3/2 way for the pilot (black tube) and a 3/2 way for the nebulization (blue tube). The operating pressure must be between 5 and 7 bar. The nebulization between 0,1...2.5 bar.

The atomizing air must be activated before and closed after the operating air, this to prevent the glue from dirtying the nozzle and the cap.

It is possible, but not recommended, the air control for opening and additional air through the same solenoid valve.



3.3 Fluid connections

The valve must be connected to a fluid supply unit (pressure drum or diaphragm pump).

The material pipe is the clear 6x4 diameter.

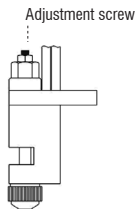
3.4 Setting of the dispensed shot

Adjusting the needle stroke determines the amount of fluid dispensed.

> Screw Adjustment Version:

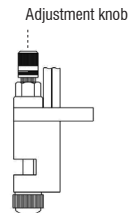
Unscrew the lock nut, located at the top of the valve, with a 10 wrench, adjust the adjustment grain with a 3 - pole wrench.

Rotate clockwise to decrease the stroke stroke and consequently the fluid flow. Turning clockwise, reaching the end of the stroke the valve will be fully closed, so it will not flow fluid. Rotate counterclockwise to increase the stroke stroke and then the amount of fluid.



> Micrometric adjustment version:

To adjust the travel, act on the adjustment knob at the top of the valve. Turn clockwise to decrease spike stroke and consequently the amount of product. Turning clockwise, reaching the end of the stroke the valve will be fully closed, so it will not flow fluid. Rotate counterclockwise to increase the stroke stroke and then the amount of fluid.



Do not tighten the needle setting too firmly to avoid damaging the nozzle and needle.

3.5 Amount of the shot

Adjusting the amount of material (fluid) is determined by:

- > Diameter of the nozzle (0.3 - 0.5 - 0.8 - 1.0 - 1.5)
- > Fluid pressure
- > Needle stroke adjustment

Acting on these factors, you can adjust the amount of material you want.

4 MAINTENANCE

4.1 General rules

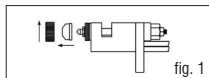
The DAS 100 spray valve, thanks to the construction methods and materials used, is easy to maintain.

A minimum, simple, accurate and constant maintenance allow a long-lasting and regular operation of the valve, keeping its performance unchanged.

4.2 Valve Disassembly and Re-assembly

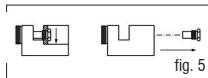
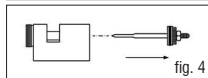
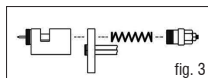
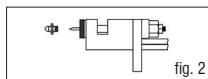
Before disassembling the valve:

- 1) Wash the valve with water
- 2) Drain the pressure from the system
- 3) Unscrew the adjustment block (Pos.17a - 17b) with a 17-key
Be careful because the spring is in thrust
- 4) Unscrew the ring nut (Pos.3) and remove the air cap (Pos.1a - 1b) (fig. 1)



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- Unscrew the nozzle (Pos.2) with a wrench 6 (fig. 2)
- Remove the spring (Pos.15)
- Gently remove the fixing plate complete (Pos.16) complete with tube hoses and tubes (fig. 3)
- With a small needle clamp, remove the needle (Pos.9) (fig.4)
- Unscrew the compass (Pos.7) with a 12-pole wrench and remove it from the body (fig. 5)
- If necessary, remove the needle (Pos.9):
- Remove the piston, hold the needle ring firmly (Pos.12) with a needleciser and unscrew the needle nut (Pos.11) with a 9 wrench then unscrew the needle ring by hand (Pos.12)



⚠ The measurement between the tip of the needle and the needle ring must be 57.5 mm

- Check the wear of the O-ring (Pos. 8 e 14) and replace it if necessary
- Lubricate the new O-ring before mounting it.



After having cleaned it thoroughly and replaced all the damaged parts (above all the seals and the scraper mounted under the bush). Reassemble in the reverse order of disassembly by lightly lubricating the parts and gaskets with mounting grease.

5 TROUBLESHOOTING

5.1 Problems and solutions

The search for defects in the operation should be performed only by personnel qualified respecting the safety rules in force.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Nothing or little fluid	Valve does not receive the command	Check valve (solenoid valve) control. Perform a manual test.
	The pressure of the fluid is too low or absent.	Check the fluid supply pressure and, if necessary, increase it.
	The nozzle is clogged	Unscrew and clean the nozzle.
	The filter is dirty (if present)	Wash or replace the filter.
	A tube is bent	Check the status of the fluid supply pipes
Fluid out of the compass	Insufficient drive pressure	Check drive pressure (5-7 bar)
	Fluid residues present in the system	Clean the system with water
	O-ring or shaped gasket on the damaged valve body	Replace O-ring or shaped gasket

PROBLEM	POSSIBLE CAUSE	SOLUTION
Fluid flow between valve body and fixing plate	O-ring on the damaged dam reservoir	Replace the O-ring of the hub
The nozzle dries even if the valve is not piloted	Presence of dirt in the nozzle	Clean or replace the nozzle.
The valve opens late	Insufficient drive pressure	Check drive pressure 5-7 bar
	O-ring on the damaged spike	Replace the O-ring on the needle
Splashed irregularly	Insufficient spraying pressure	Check spraying pressure (0,1...2,5 bar)
	Dirt in the air cap	Clean the air cap

5.2 Spray setting

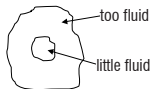
Dirty air cap: fluid flows from the nozzle

- > Clean the air cap and the nozzle
- > Decrease the atomizing air

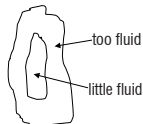
Too fluid

- > Decrease the fluid pressure

Round cap



Oval cap



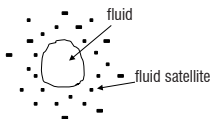
Irregular application: Insufficient misting air

- > Increase the atomizing air pressure

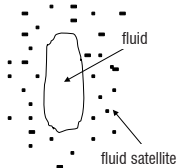
Poor amount of fluid

- > Increase the fluid pressure

Round cap

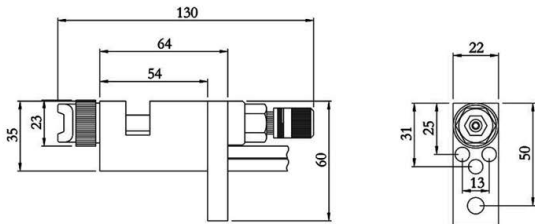


Oval cap



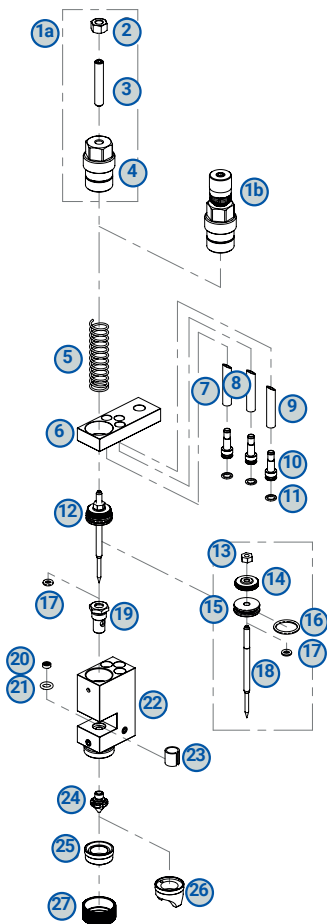
6 SPARE PARTS AND DIMENSIONS

6.1 Overall dimensions



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6.2 Spare parts DAS 100



6.3 Spare parts list DAS 100

Ref.	Description		Code
1a	SCREW REGULATION COMPLETE		0003.36000007
1b	MICROMETRIC REGULATION COMPLETE		0003.36000009
2	NUT		0003.0006010
3	GRUB SCREW		0003.00060351
4	SCREW REGULATION BLOCK		0003.36000008
5	SPRING		0003.000200
6	FIXING PLATE		0003.36000006
7	BLUE HOSE (ATOMIZING AIR)		0003.010407
8	CLEAR HOSE (FLUID)		0003.050407
9	BLACK HOSE (COMMAND AIR)		0003.140407
10	HOSE HOLDER		0003.36000011
11	O-RING		0003.000901N
12	NEEDLE COMPLETE		
	NEEDLE COMPLETE 0,3 MM	12.1	0003.84150003
	NEEDLE COMPLETE 0,5 MM	12.2	0003.84150005
	NEEDLE COMPLETE 0,8 MM	12.3	0003.84150008
	NEEDLE COMPLETE 1,0 MM	12.4	0003.84150010
	NEEDLE COMPLETE 1,5 MM	12.5	0003.84150015
13	NEEDLE NUT		0003.0004010
14	NEEDLE COLLAR		0003.36000028
15	PISTON		0003.36000005
16	O-RING		0003.000015E
17	O-RING		0003.000007E
18	BASIC NEEDLE		
	BASIC NEEDLE 0,3 MM	18.1	0003.84015503
	BASIC NEEDLE 0,5 MM	18.2	0003.84015505
	BASIC NEEDLE 0,8 MM	18.3	0003.84015508
	BASIC NEEDLE 1,0 MM	18.4	0003.84015510
	BASIC NEEDLE 1,5 MM	18.5	0003.84015515
19	BUSH		0003.36000003
20	VARISEAL		0003.30570T
21	O-RING		0003.000010E
22	BODY VALVE		0003.36000001
23	PLASTIC COLLAR		0003.36000029
24	NOZZLE		
	NOZZLE 0,3 MM	18.1	0003.85731103
	NOZZLE 0,5 MM	18.2	0003.85731105
	NOZZLE 0,8 MM	18.3	0003.85731108
	NOZZLE 1,0 MM	18.4	0003.85731110
	NOZZLE 1,5 MM	18.5	0003.85731115
25	ROUND AIR CAP 0,3 - 1,0	25.1	0003.85792110
	ROUND AIR CAP 1,5	25.2	0003.85792115
26	FLAT AIR CAP 0,3 - 1,0	26.1	0003.85792210
	FLAT AIR CAP 1,5	26.2	0003.85792215
27	COLLAR		0003.85792001
	KIT GUARNIZIONI COMPLETO		GASKETKIT-DAS100

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We reserve the right to modify at any time, without notice, the specifications, dimensions and weights in this manual.
The illustrations are not binding.