Installation and maintenance guide



DISPENSING VALVE DA 500



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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 DA 500 dosing valve is a pneumatic driving valve designed for precision dosing of low, medium or high viscosity fluids. Its rest state is normally closed (even if there is no pneumatic supply), as there is a safety spring inside it. Pneumatic supply, at a pressure equal to or greater than 6 bar will lead to the retraction of the inner needle and fluid flow. Fluid flow can be modulated, as well as with the pressure to which it is supplied, by adjusting the needle opening by adjusting the upper part of the DA 500 valve.

2.2 Technical Specification

2.3 Connection diagram



3 INSTALLATION

3.1 Mounting on the machine

The DA 500 valve can be mounted using the threaded holes on its body. Download 3D models of the valve from our web-site to design brackets, fasteners and check the dimensions.



3.2 Drive the valve

The DA 500 valve can be used as a single-acting valve, air for opening and closing with the spring; or as a double-acting valve, air for opening and closing. The DA 500 valve must be connected to a solenoid valve 3/2 for the opening or to a solenoid valve 5/2 for opening and closing.

The minimum operating pressure must be at least 6 bar.



3.3 Fluid connection

The valve must be connected to a power supply unit (tank, pump or other). A hose must be connected to the fitting located at the bottom of the valve.

When working at pressures above 8 bar, use high pressure connections and tubes.



3.4 Setting of the valve

The adjustment of the stroke determines together with the pressure of the material and at the opening time the amount of fluid dispensed.

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 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 and then the amount of fluid. Determine the amount of product you want to tighten the lock nut with a 10-key.

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

3.5 Setting of the material quantity

Adjusting the amount of material is determined by:

- > Nozzle diameter (1- 2 3 4 mm)
- > Fluid pressure
- > Adjusting the stroke of the needle

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

Adjustment screw



4 MAINTENANCE

4.1 General rules

The DA 500 valves, thanks to the construction methods and the materials used, are easy to maintain. Minimal, simple, accurate, and constant maintenance allow for long-lasting and smooth operation in valve time, while maintaining performance unchanged.

4.2 Valve disassembly

Before disassembling the valve:

- 1) Clean it externally
- 2) Drain the pressure from the system
- 3) Unscrew the adjustment block, be careful as the spring is in thrust
- 4) Unscrew the nozzle with a 10-key
- 5) Remove the spring
- 6) With a small pinch clamp, remove the needle

7) With a screwdriver, unscrew and remove the compass from the valve body.

4.3 Re-assembly

After having thoroughly cleaned and replaced all the damaged parts (especially the gaskets and scraper mounted under the compass), reassemble following the reverse order of the disassembly by slightly lubricating the parts and gaskets with the fitting grease.

5 TROUBLESHOOTING

5.1 Problems and solutions

The search for any malfunctions must be carried out by qualified personnel only, subject to the relevant safety regulations.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Nothing or little fluid	Valve does not receive the command	Check the control (solenoid) of valve. Perform a manual test.
	The pressure of the fluid is too low or absent.	Check the pressure of the power supply fluid and possibly increase it.
	The nozzle is clogged	Remove and clean the nozzle.
	The filter is dirty (if any)	Clean or replace the filter.
	A tube is bent	Check the fluid supply pipe
	Actuating pressure is not sufficient	Verify the actuation pressure (6 bar)
	Residual fluid in the system to clean	Remove any solid particles
Flow of fluid compass	Moulded gasket damaged	Replace the molded seal
The nozzle drips also if the valve is not pilot	Presence of dirt in the nozzle	Clean or replace nozzle
The valve opens late	Pressure drive is not enough	Check the operating pressure (6 bar)
	O-ring on the piston damaged tire	Replace O-ring on the piston pneumatic



6 SPARE PARTS AND DIMENSIONS

6.1 Overall dimensions

The size varies depending on the nozzle and the type of flow regulation you choose. Download 3D models from our web-site.







6.2 Spare parts DA 500





6.3 Spare parts list DA 500

Ref.	Description		Code
1	NUT		0003.0108110
2	REGULATION BLOCK		0003.32500014
3	0-RING		0003.000020E
4	REGULATION GRUB SCREW		0003.32500013
5	0-RING		0003.000010E
6	PRESSURE SPRING		0003.000500
7	KV NEEDLE		0003.84230420
8	0-RING		0003.000018E
9	NEEDLE (FOR M 1/4" NEEDLE)		0003.84230550
10	NEEDLE LV		0003.84230520
11	BUSH		0003.000019
12	O-RING		0003.000011E
13	VARISEAL		0003.60890T
14	VALVE BODY		0003.000052
15	LV NOZZLE		
	LV NOZZLE ø 2 mm	15.1	0003.85340020
	LV NOZZLE Ø 3 mm	15.2	0003.85340030
	LV NOZZLE Ø 4 mm	15.3	0003.85340040
	LV NOZZLE ø 5 mm	15.4	0003.85340050
16	M 1/4" NOZZLE		0003.85100140
17	KV NOZZLE		
	KV NOZZLE Ø 2 mm	17.1	0003.85520020
	KV NOZZLE Ø 3 mm	17.2	0003.85520030
	KV NOZZLE Ø 4 mm	17.3	0003.85520040
	KV NOZZLE Ø 5 mm	17.4	0003.85520050
18	KL NOZZLE		
	KL NOZZLE 10 MM		
	KL NOZZLE Ø 2 mm	18.1	0003.85520120
	KL NOZZLE Ø 3 mm	18.2	0003.85520130
	KL NOZZLE Ø 4 mm	18.3	0003.85520140
	KL NOZZLE Ø 5 mm	18.4	0003.85520150
	KL NOZZLE 15 MM	10.5	0000 05500000
	KL NOZZLE Ø 2 mm	18.5	0003.85520220
	KL NOZZLE Ø 3 mm	18.6	0003.85520230
	KL NUZZLE Ø 4 mm	18.7	0003.85520240
	KL NUZZLE Ø 5 mm	18.8	0003.85520250
	KL NUZZLE ZU MM	10.0	0000 05500000
	KL NUZZLE Ø 2 mm	18.9	0003.85520320
	KL NUZZLE Ø 3 mm	18.10	0003.85520330
	KL NUZZLE Ø 4 mm	18.11	0003.85520340
10	KL NUZZLE Ø 5 MM	18.12	0003.85520350
19			0003.85100130
	GASKET KIT COMPLETE		GASKETKIT-DA500

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