

# Installation and maintenance guide

**DAV**tech

DISPENSING VALVE WITH HAND-GRIP DAV 300 MAN - DAV 400 MAN



**DAV TECH SRL**

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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.

Reproduction of any part of this manual, in any form, without the express written permission of DAV Tech. The text and illustrations in this manual are not binding, the DAV tech reserves the right, at any time and without notice, the right to make any changes to improve the product or for reasons of character manufacturing or commercial.

### 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 dispensing valves with hand grip DAV 300 MAN - DAV 400 MAN are pneumatically driven components, designed for accurate dispensing of lubricants at low, medium or high viscosity.

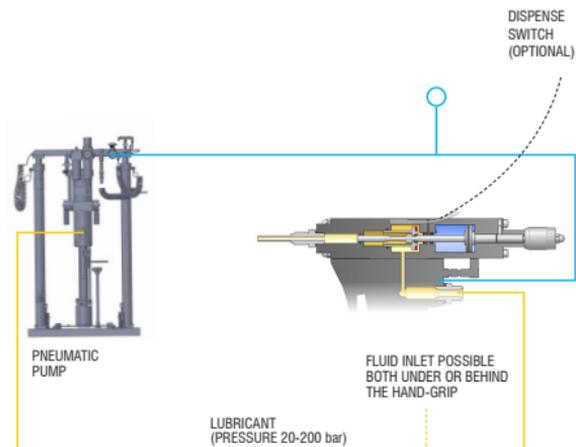
The exchange of the compressed air, at a pressure equal to or greater than 6 bar, will result in the emptying of the volumetric chamber and the relative dispensing of a quantity of fluid constant and adjustable.

### 2.2 Technical specification

<b>Model</b>	DAV 300 MAN - DAV 400 MAN
<b>Operation mode</b>	Double Acting
<b>Weight</b>	1.270 g (DAV 300 MAN-O) 1.540 g (DAV 300 MAN-V)
<b>Fluid pressure inlet</b>	Min 20 bar - Max 200 bar
<b>Quantity dispensable</b>	DAV 300 MAN: 0,1 cm <sup>3</sup> - 2,0 cm <sup>3</sup> - DAV 400 MAN: 1,0 cm <sup>3</sup> - 6,0 cm <sup>3</sup>
<b>Actuating air pressure</b>	5 - 7 bar
<b>Inlet air</b>	M5 for ø 6 mm hose
<b>Inlet fluid thread</b>	1/4 BSP
<b>Outlet fluid</b>	M5 threaded with luer lock holder or fitting 1/8 BSP female
<b>Speed</b>	Up to 60 cycles / min
<b>Adjusting the amount dosed</b>	Micrometric with block screw
<b>Used materials</b>	Stainless steel, anodized aluminum
<b>Fluids to be dispensed</b>	Greases and lubricants up to NLGI 3-1000000 mPa s

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## 2.3 Connection diagram



## 3 INSTALLATION

### 3.1 Drive the valve

The DAV 300 MAN and DAV 400 MAN valves operate pneumatically with a double effect, by pressing the trigger on the handle.

### 3.2 Connection of the fluid

The valve must be connected to a power supply unit, which guarantees a pressure between 20 and 200 bar. A flexible hose, resistant to high pressures, must be connected to the fitting placed in the smallest part of the valve. In the case of the model DAV 300 (400) MAN there is only one product input, in the case of the model DAV 300 (400) MAN O there are 2 inputs for both the control air and the grease. In one case they are placed at the base of the grip while in the other case (to be used alternatively), on the back of the handle.

Possible material and air input



Possible material and air input



### 3.3 Adjusting the amount of material

The amount of product is dispensable functional to fill volume of the room, set by turning the adjustment, mounted on valve head displacement.

A grain then allows you to lock the adjustment and prevent tampering.

### 3.4 Quantity dispensable

Being valves volumetric quantity is dispensable only functional to the volume of the chamber set.

In any case it is necessary consider the minimum time required for charging and discharging of the valve, the times that vary with the pressure of the incoming fluid, its viscosity, and depending on the type of applicator connected to the nozzle valve.

## 4 MAINTENANCE

### 4.1 General rules

Le valvole DAV 300 MAN e DAV 400 MAN, thanks to construction methods and materials used are easy to maintain. Minimal maintenance , simple, accurate and allow a steady long-term operation and regular time of the valve, maintaining unchanged performance.

### 4.2 Valve disassembly

Before disassembling the valve:

- 1) Clean the outside
- 2) Release the pressure from the system
- 3) Disconnect the power supply of lubricant to the valve
- 4) Key 4mm remove the 4 tie rods present in the head and foot valve
- 5) Remove various aluminum bodies
- 6) Remove the needle and the volumetric chamber
- 7) If necessary, unscrew the air piston needle from the spool.

### 4.3 Valve reassembly

After it has been cleaned thoroughly and have replaced all the damaged parts (especially the seals, scrapers etc.), reassemble in reverse order of disassembly little lubrication parts and seals with grease fittings.

Be careful not to overdo the tightening of the 4 tie rods, to avoid damage.

## 5 TROUBLESHOOTING

### 5.1 Problems and solutions

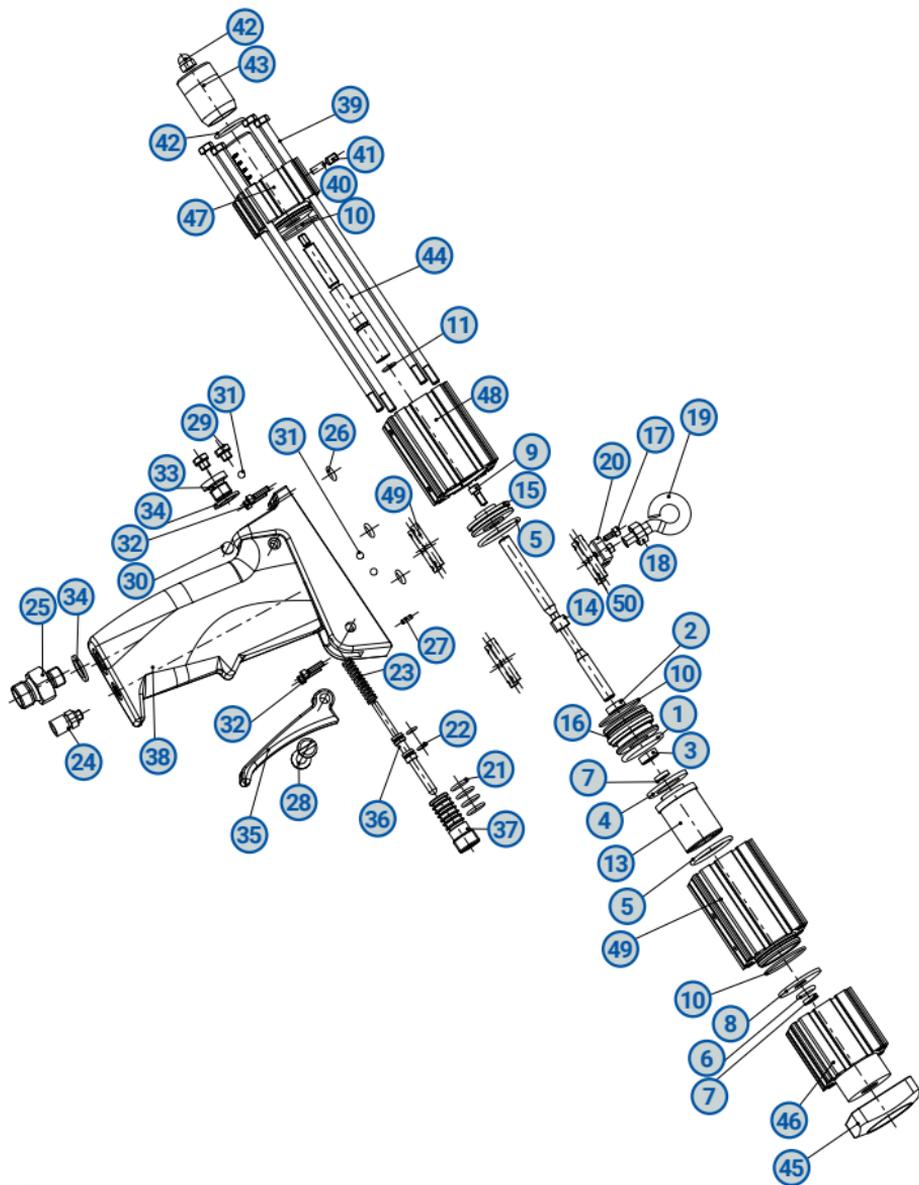
The search for defects in the operation should be performed only by personnel qualified respecting the safety rules in force.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The lubricant does not come out	The valve does not receive the command	Check the control (solenoid) of valve. Perform a manual test.
	The pressure of the grease is too low or absent.	Check the pressure of the power supply fluid and possibly increase in range 20/200 bar
	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 tire	Ensure sufficient pressure to drive (5-7 bar)
Lubricant leakage retired	The lubricant has a viscosity too high	The valves can DAV 100 and DAV 200 dispense lubricant viscosity max. 1,000,000 mPa s and NLGI 3
	Molded seals or gaskets	Replace the damaged needle or needle shaped

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## 6 BREAKDOWN AND DIMENSIONS

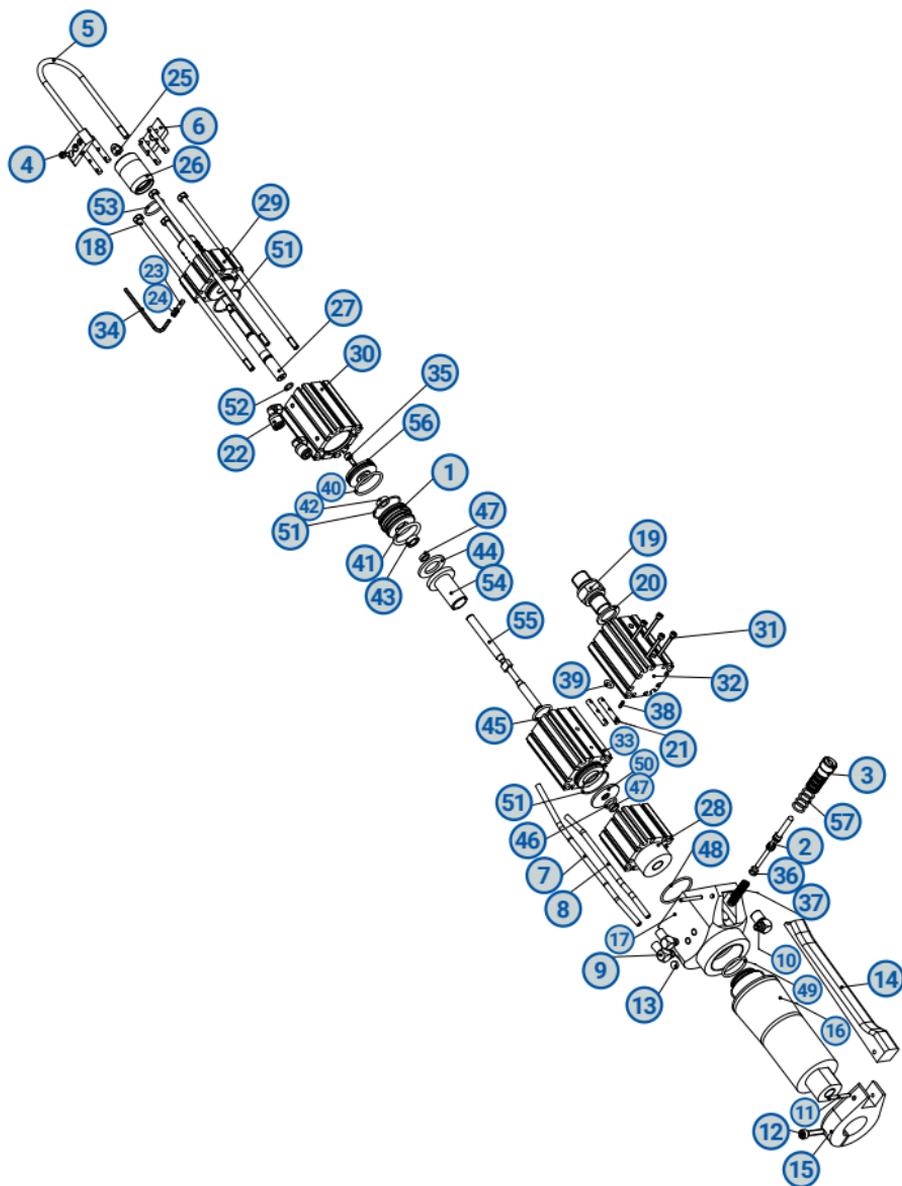
### 6.2 Breakdown DAV- 300/400MANO - HORIZONTAL HANDLE GRIP



## 6.3 Components DAV- 300/400MANO

Ref.	Description		Code
1	O- RING	1	0005121
2	UPPER LIP SEAL	1	8365000
3	LOWER LIP SEAL	1	8331100
4	MAGNET RING	1	0001528
5	O- RING	2	0001590
6	O- RING	1	8223200
7	VARISEAL	2	8223201
8	WASHER	1	0001595
9	FLAT HEAD SCREW	1	8424105
10	O- RING	3	8232100
11	O- RING	1	8222500
12	O- RING	1	8227700
13	VOLUMETRIC CHAMBER DAV-300	1	0001583
13 bis	VOLUMETRIC CHAMBER DAV-400	1	0001583
14	NEEDLE	1	0001586
15	PNEUMATIC PISTON	1	0001591
16	BUSH	1	0005113
17	FLAT HEAD SCREW	2	8423900
18	NUT	1	8400700
19	GOLFARE	1	8447200
20	FASTENING	1	0002007
21	O- RING	4	8223705
22	O- RING	2	8220900
23	HANDLE SPRING	1	8135000
24	AIR FITTING	1	8589300
25	INLET NIPPLEX	1	2258400
26	O- RING	3	8221400
27	HANDLE SPRING PIN	1	8460002
28	HANDLE SCREW COMPLETE	1	8515504
29	FITTING CAP	2	8639300
30	SINTERIZED DISC	1	4222200
31	BALL	3	8206600
32	FLAT HEAD SCREW	4	0004734
33	FITTING CAP	1	8430001
34	SHAPED GASKET	2	8259300
35	LEVER	1	4202100
36	HANDLE VALVE PISTON	1	4222001
37	HANDLE VALVE BODY	1	4241500
38	HANDLE BODY	1	0006426
39	SCREW	4	0005147
40	PIN	1	0001589
41	GRUB SCREW	1	8512700
42	NUT	1	8411000
43	MICROMETRIC REGULATION	1	0001588
44	STOPPER	1	0001587
45	FRONTAL PLATE DAV-300/400	1	0005068
46	FRONTAL BODY	1	0004922
47	REGULATION BODY	1	0004918
48	PNEUMATIC BODY	1	0004919
49	MID BODY DAV-300	1	0004920
49 bis	MID BODY DAV-400	1	0004920
50	NUT	6	0002213
	HORIZONTAL HANDLE GRIP COMPLETE		0006033
	GASKET KIT COMPLETE (HANDLE GRIP GASKET NOT INCLUDED)		GASKETKIT-DAV300400

## 6.4 Breakdown DAV- 300/400MANV - VERTICAL HANDLE GRIP



## 6.5 Components DAV- 300/400MANV

Ref.	Description		Code
1	BUSH	1	0005113
2	HANLDE VALVE PISTON	1	4222001
3	HANLDE VALVE BODY	1	4241500
4	FLAT HEAD SCREW	4	8423900
5	FASTENING	1	0002008
6	FIXING PLATE	2	0002007
7	BLACK HOSE 150MM	1	8589400
8	BLACK HOSE 115MM	1	8589400
9	AIR FITTING	2	8589100
10	AIR FITTING	1	8589102
11	GRUB SCREW	2	8461700
12	FLAT HEAD SCREW	1	8424304
13	SINTERIZED DISC	1	4222200
14	LEVER	1	4247300
15	HANDLE FRONTAL BODY	1	4247200
16	HANDLE BODY	1	4247100
17	HANDLE HEAD	1	0002026
18	SCREW	4	0005147
19	INLET NIPPLEX	1	0004850
20	SHAPED GASKET	1	8259500
21	NUT	6	0002213
22	AIR FITTING	2	8634201
23	PIN	1	0001589
24	GRUB SCREW	1	8512700
25	NUT	1	8411000
26	MICROMETRIC REGULATION	1	0001588
27	STOPPER	1	0001587
28	FRONTAL BODY	1	0004922
29	REGULATION BODY	1	0004918
30	PNEUMATIC BODY	1	0004919
31	SCREW	4	0001593
32	CONNECTION BODY	1	0004923
33	MID BODY DAV-300	1	0004921
33 bis	MID BODY DAV-400	1	0004920
34	FIXING KEY	1	3234403
35	FLAT HEAD SCREW	1	8424105
36	O - RING	2	8220900
37	HANDLE SPRING	1	8135000
38	GRUB SCREW	1	8460002
39	O - RING	1	8221400
40	O - RING	1	0001590
41	O - RING	1	0005121
42	UPPER LIP SEAL	1	8365000
43	LOWER LIP SEAL	1	8331100
44	MAGNET RING	1	0001528
45	O - RING DAV-300	1	8227302
45 bis	O - RING DAV-400	1	0001590
46	O - RING	1	8223200
47	VARISEAL	2	8223201
48	O - RING	1	8233000
49	O - RING	1	8229301
50	WASHER	1	0005384
51	O - RING	3	8232100
52	O - RING	1	8222500
53	O - RING	1	8227700
54	VOLUMETRIC CHAMBER DAV-300	1	0001584
54 BIS	VOLUMETRIC CHAMBER DAV-400	1	0001583
55	NEEDLE	1	0001586
56	PNEUMATIC PISTON	1	0001591
57	O - RING	4	8223705
	VERTICAL HANDLE GRIP COMPLETE		0004576
	GASKET KIT COMPLETE (ESCLUSE GUARNIZIONI IMPUGNATURA)		GASKETKIT-DAV300400

## **Declaration of Incorporation**

according to the EU Machinery Directive 2006/42/EG, Annex II, 1.B for partly completed machinery

### **Manufacturer:**

DAV Tech Srl

Via Ravizza, 30 - 36075 Montecchio Maggiore

VICENZA - ITALY

### **Person residing within the Community authorised to compile the relevant technical documentation:**

Andrea Grazioli

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VICENZA - ITALY

### **Description and identification of the partly completed machinery:**

Type: Volumetric valves

Model: DAV 100, DAV 200, DAV 300, DAV 400, DAV 100 MAN, DAV 200 MAN, DAV 300 MAN, DAV 400 MAN.

**It is also declared that the relevant technical documentation has been compiled in accordance with part B of Annex VII.**

**It is expressly declared that the partly completed machinery the machinery fulfils all relevant provisions of the following EU Directives:**

- 2006/42/CE
- 2006/42/EG
- 95/16/EG

The manufacturer or his authorised representative undertakes to transmit, in response to a reasoned request by the national authorities, relevant information on the partly completed machinery. This transmission takes place:

This does not affect the intellectual property rights!

**Important note! The partly completed machinery may be put into service only if it was determined, where appropriate, that the machinery into which the partly completed machinery is to be installed meets the provisions of this Directive.**

Andrea Grazioli  
