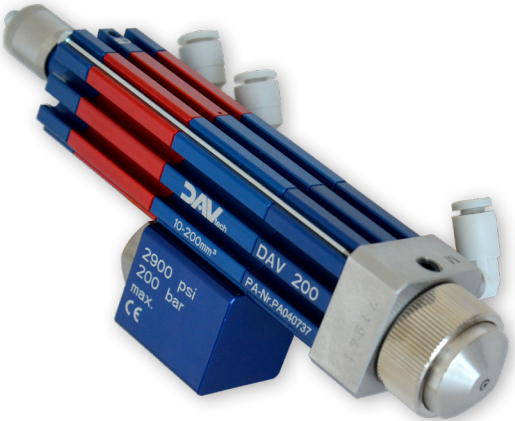
Installation and maintenance guide

SPRAY METERING VALVE **DAV 100 - DAV 200**



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Index

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.

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

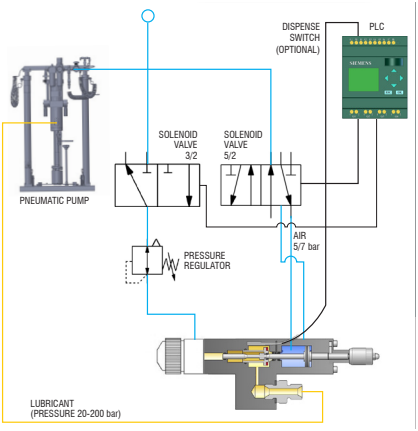
2.1 Valve operation

The DAVS 100 - DAVS 200 volumetric dosing valves are pneumatically operated components designed for the precision dosing of low, medium or high viscosity lubricants. The exchange of the pneumatic supply, at a pressure equal to or greater than 6 bar, will result in the emptying of the volumetric chamber and the relative release of a constant and adjustable quantity of fluid. At the same time, the pneumatic supply of the front extension, via an external 3/2 solenoid valve, will result in the spraying of the dispensed grease with various effects depending on the extension used.

2.2 Technical specification

Model	DAV 100 Spray - DAV 200 Spray
Driving	Double effect
Weight	280 g
Fluid pressure	Min 20 bar - Max 200 bar (disponibile versione a bassa pressione)
Range of metering	DAVS 100: 1 - 20 mm^3 (0,001 - 0,020 cc) - DAVS 200: 10 - 200 mm^3 (0,01 - 0,20 cc)
Driving pressure	5 - 7 bar
Air inlet treading	M3 fitting for hose ø 4mm
Fluid inlet treading	1/8 gas
Fluid outlet treading	M5 with luer lock adapter or 1/8 gas female
Speed	Until a 60 cycle/min
Metering setting	Micrometric
Used Materials	Stainless steel, aluminum
Operating fluids	Greases and lubricants up to NLGI 2

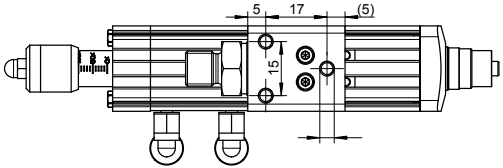
2.3 Connection diagram



3 INSTALLATION

3.1 Mounting the valve on the machine

The valves can be mounted using volumetric ie threaded holes on his body, close to the junction input lurbificante.
In case of need please contact us and we will be happy to provide you with 3D models of the valve for design brackets, fasteners, and check the dimensions.



3.2 Drive the valve

The DAVS 100 and DAVS 200 valves must be controlled for double-acting dosing via an external 5/2 solenoid valve. As regards spraying, an external 3/2 solenoid valve is required.

3.3 Connection of the fluid

The valve must be connected to a power supply, such as a pneumatic pump, which ensures a pressure between 20 and 200 bar. A flexible tube, high pressure resistant, must be connected to the connector in place smaller part of the valve.

3.4 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.

3.5 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

The valves DAVS 100 and DAVS 200 , 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 pin and the volumetric chamber
7) If necessary, unscrew the air piston pin 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 litttle lubrication parts and seals with grease fittings.
Be careful not to overdo the tightening of the 4 tie rods, to avoid damage.

5 TROUBLESHOOTING

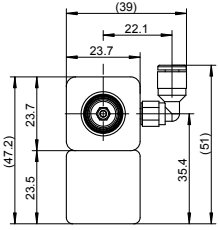
5.1 Problems and solutions

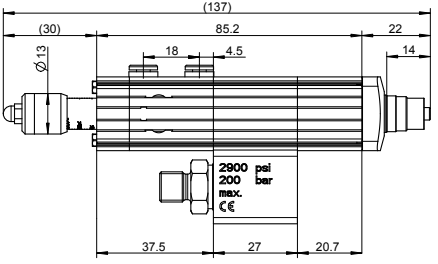
The search for defects in the operation should be performed only by personnel qualified respecting the safety rules in force.

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)
	The lubricant has a viscosity too high	The valves can DAV 100 and DAV 200 dispense lubricant viscosity max. 1,000,000 m Pa s and NLGI 3
Lubricant leakage retired	Molded seals or gaskets	Replace the damaged needle or needle shaped

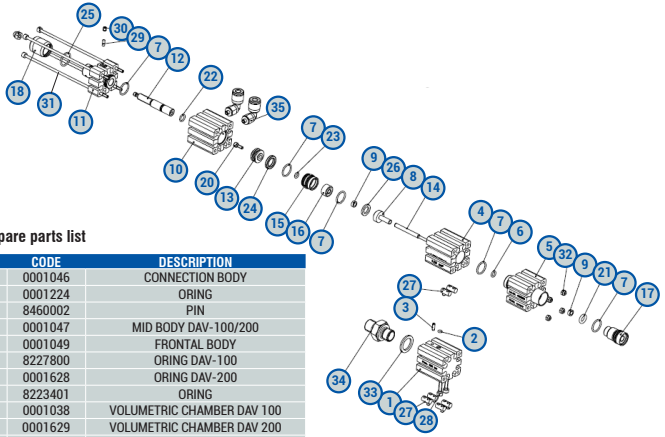
6 SPARE PARTS AND DIMENSIONS

6.1 Overall dimensions DAVS 100 e DAVS 200





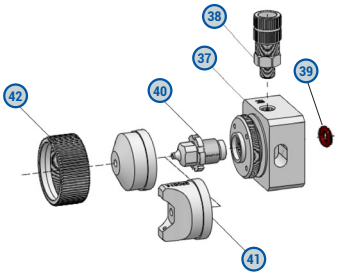
6.2 Spare parts



6.3 Spare parts list

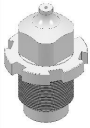
POS.	CODE	DESCRIPTION
1	0001046	CONNECTION BODY
2	0001224	ORING
3	8460002	PIN
4	0001047	MID BODY DAV-100/200
5	0001049	FRONTAL BODY
6	8227800	ORING DAV-100
6BIS	0001628	ORING DAV-200
7	8223401	ORING
8	0001038	VOLUMETRIC CHAMBER DAV 100
8BIS	0001629	VOLUMETRIC CHAMBER DAV 200
9	8221401	VARISEAL
10	0001048	PNEUMATIC BODY
11	0001050	REGULATION BODY
12	0001045	STOPPER
13	0001043	PNEUMATIC PISTON
14	0001039	NEEDLE
15	0001041	BUSH
16	8353502	LIP SEAL
17	0001037	LUER LOCK BUSH
18	0001042	MICROMETRIC REGULATION
19	8411400	NUT
20	0001226	NEEDLE SCREW
21	8221400	ORING
22	8221600	ORING
23	8220400	ORING
24	0001106	XRING
25	8225600	ORING
26	0001044	MAGNETIC RING
27	0001525	FIXING NUT
28	8423904	SCREW
29	0001227	PIN
30	8510101	GRUB SCREW
31	0001228	FIXING SCREW
32	0001165	NUT
34	8259300	SHAPED GASKET
35	8573307	INLET NIPPLEX
36	8634201	AIR FITTING (1 PC)
GASKETKIT-DAV100200		GASKET KIT COMPLETE (DAVS-BLOCK GASKET NOT INCLUDED)

POS.	CODE	DESCRIPTION
37	DAVS-BLOCK	SPRAYING BLOCK
38	220089	AIR FITTING
39	DAVSBLOCK-ORING	O-RING
40	vedi tab successiva	NOZZLE
41	vedi tab successiva	AIR CAP
42	410028	COLLAR



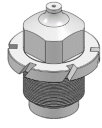
6.4 Nozzles

STANDARD NOZZLE



Code	Description
210110	NOZZLE 0,2 MM
210111	NOZZLE 0,3 MM
210112	NOZZLE 0,5 MM
210113	NOZZLE 0,8 MM
210114	NOZZLE 1,0 MM
210115	NOZZLE 1,2 MM
210116	NOZZLE 1,5 MM
210117	NOZZLE 2,0 MM
210118	NOZZLE 2,5 MM

SPIN NOZZLE



Code	Description
210776	NOZZLE 0,2 MM
210777	NOZZLE 0,3 MM
210778	NOZZLE 0,5 MM
210779	NOZZLE 0,8 MM
210780	NOZZLE 1,0 MM
210781	NOZZLE 1,2 MM
210782	NOZZLE 1,5 MM
210783	NOZZLE 2,0 MM
210784	NOZZLE 2,5 MM

6.5 Air cap

FLAT AIR CAP

60° (STANDARD)

Code	Description
310032	FOR NOZZLE 0,2-1,0 MM
310033	FOR NOZZLE 1,2-1,5 MM
310079	FOR NOZZLE 1,8-2,0 MM
310090	FOR NOZZLE 2,5 MM

90°

Code	Description
310036	FOR NOZZLE 0,2-1,0 MM
310037	FOR NOZZLE 1,2-1,5 MM
310166	FOR NOZZLE 1,8-2,0 MM
310167	FOR NOZZLE 2,5 MM

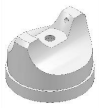
45°

Code	Description
310038	FOR NOZZLE 0,2-1,0 MM
310039	FOR NOZZLE 1,2-1,5 MM

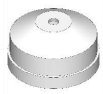
ROUND AIR CAP

15° (STANDARD

Code	Description
310034	FOR NOZZLE 0,2-1,0 MM
310035	FOR NOZZLE 1,2-1,5 MM
310080	FOR NOZZLE 1,8-2,0 MM
310091	FOR NOZZLE 2,5 MM



FLAT AIR CAP



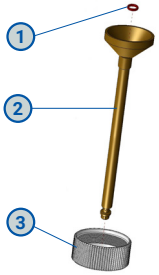
ROUND AIR CAP

6.6 Extender (Standard)

RADIAL 360° DISPENSING EXTENDER - L:100 MM

Ø 4 MM

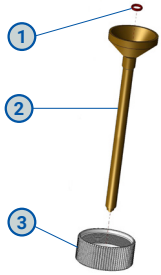
Pos	Code	Description
1	640203	O-RING
2	230747	RADIAL EXTENDER COMPLETE
3	410028	COLLAR



FRONTAL DISPENSING EXTENDER - L:100 MM

Ø 4 MM

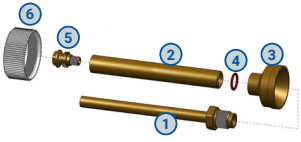
Pos	Code	Description
1	640203	O-RING
2	231515	FRONTAL EXTENDER COMPLETE
3	410028	COLLAR



RADIAL 360° DISPENSING EXTENDER - L:100 MM

Ø 8 MM

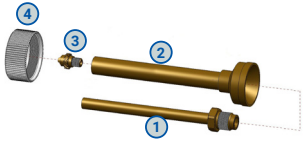
Pos	Description	vers.	Code
1	INNER TUBE		850129
2	OUTER TUBE		850130
3	BELL		220197
4	O-RING		640039
5	NOZZLE 0,4 MM NOZZLE 0,6 MM NOZZLE 0,8 MM	5.1 5.2 5.3	211206 211343 211327
6	COLLAR		410028



DISPENSING EXTENDER - L:100 MM

Ø 8 MM

Pos	Description	Code
1	INNER TUBE	850129
2	OUTER TUBE COMPLETE	850215
3	NOZZLE 0,5 MM	210348
4	COLLAR	410028



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