

DAVtech

Components, systems and automations for fluid micro-dispensing.

PRODUCTS CATALOGUE

DAV Tech is an Italian company focused in the designing and manufacturing of components and systems for industrial fluids micro-dispensing.

Grown over the years, **DAV Tech** does not want to introduce to the customers as a simple supplier of standard parts, but as a partner with whom to collaborate to develop any kind of application, with a relationship that is established by the offer and tests, is expressed in the order and at the development of the contract, but continues with the necessary support in post-sales service, with the supply of any spare parts for immediate delivery.

The product range starts from dispensing valves, with various operating modes and materials, which are feeded from tanks or follower plate pumps, pneumatically or electrically driven.

Great attention is paid to the accessories of the systems, like process control sensors, feeding tubes, standard or tailor made nozzles. In this way is possible to design a complete system, tested and guaranteed, to give to the customer one single supplier and all the technicals assurances.



DAV TECH SRL

Via Ravizza, 30
36075 Montecchio Maggiore
VICENZA - ITALY
Tel. +39 0444 574510
Fax +39 0444 574324

davtech@davtech.it
www.davtech.it

**DAV TECH POLAND
SP. Z O.O.**

Ul. Na Grobli 1A
32-005 Niepołomice
POLAND
Tel. +48 501548694

davtech@davtech.pl
www.davtech.pl

INDEX

DISPENSING VALVES	2	
dispensing needle valves	4	
diaphragm valves	8	
spray valves	9	
metering valves	15	
metering valves with hand-grip	21	
metering spray valves	23	
motor driven volumetric pumps	24	
2K fluids dispensing systems	26	
FLUID FEEDING SYSTEMS	28	
pressurized tanks	30	
pumps	31	
hydraulic pressure reducer	37	
pressurized cartridge holder	38	
grease degassing system	39	
DISPENSING ACCESSORIES	40	
fluid dispenser	42	
desktop system for anaerobic sealants dispensing	43	
process sensors	44	
nozzles and consumable materials	45	
hoses	48	
accessories for dispensing systems	49	
UTILITY	50	

For 2 or 3D models, technical datasheets,
user manuals and maintenance
visit www.davtech.it at the download section
or contact us at davtech@davtech.it

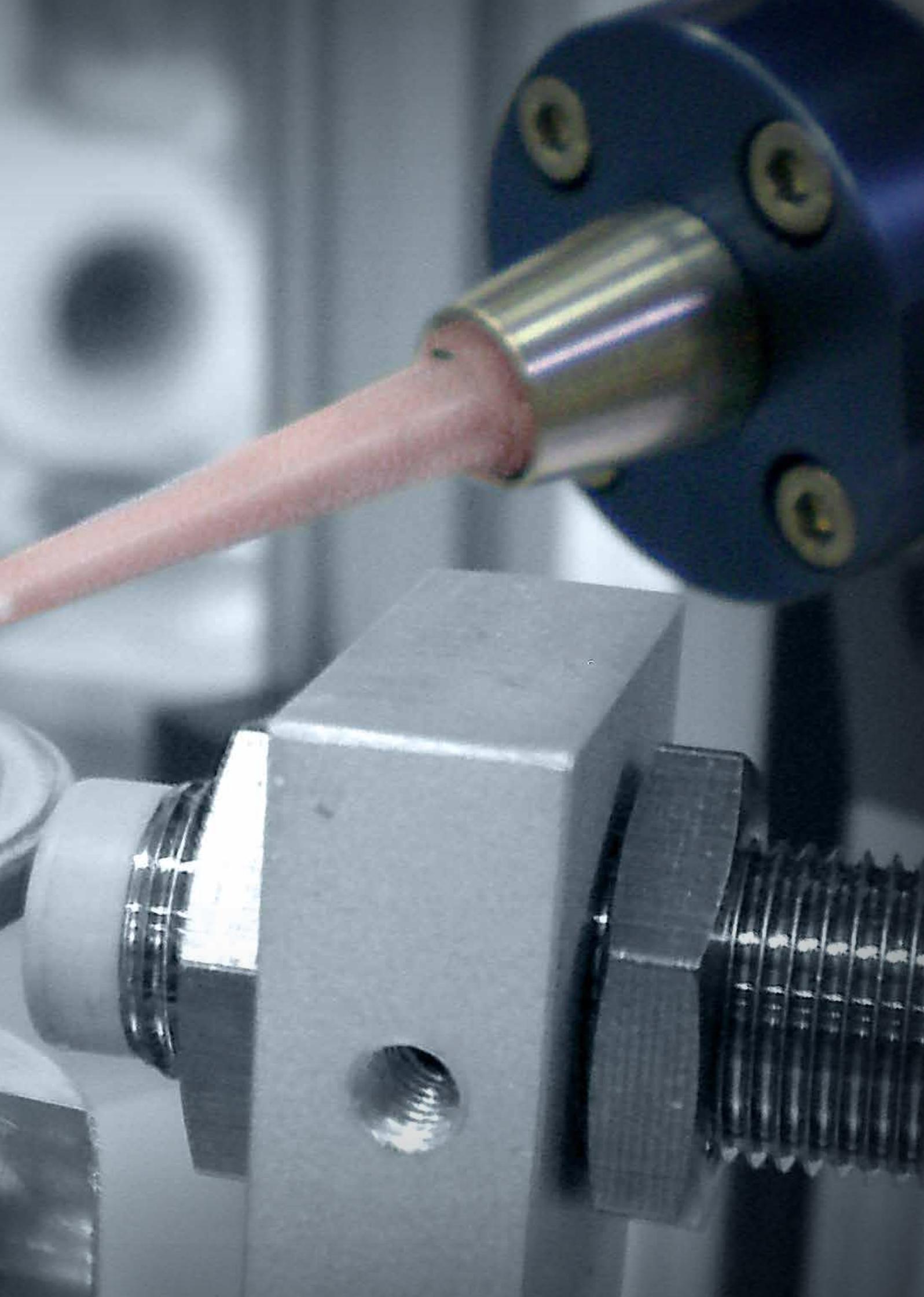
DISPENSING VALVES

The dispensing valve, in a dosing system is usually the closest component to the application area.

Key points are its speed and reliability, with attention for a compact size, for an easy and fast integration on the assembly systems.

Any fluid is different, any process have some critical points; choosing the right valve is important to have a dispensing process reliable and constant.







DISPENSING NEEDLE VALVE DA 400

FIELDS OF APPLICATION:

- > **Silicone dispensing**
- > **Grease dispensing**
- > **Resin dispensing**
- > **High viscosity fluids dispensing**

FEATURES:

- > Fine adjustment of the flow rate (optional)
- > Driving is possible both in single or double acting (spring security inside)
- > Easy maintenance and cleaning of the valve
- > TCT needle and stainless steel nozzle for long life
- > Teflon surface coating to make it easy to clean the inside and improve the flow of high viscosity products
- > Divorced construction, the pneumatic side is separated from the passage of the product.



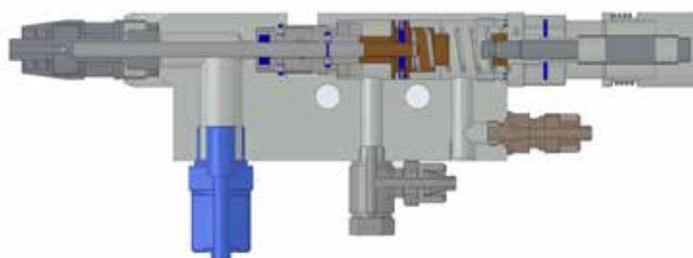
The needle valve **DA 400** is designed to dispense in a controlled, precise and repeatable way, fluids with medium-high viscosity.

The valve has the feature to be customized with nozzles various with shapes and sizes, available in the catalog.

Extremely reliable and robust is ideal for the most demanding applications, while its maintenance is simple and economical.

TECHNICAL DATA

Model	DA 400
Drive	Simple or Double Acting
Weight	260 g
Max fluid pressure	80 bar (drive double acting)
Actuating air pressure	5 - 7 bar
Air inlet thread	M5
Fluid inlet thread	1/8 BSP
Fluid outlet	Nozzle gas threaded, luer lock, steel nozzles of various shapes and sizes availables
Speed	Up to 200 cycles/min
Adjusting the passage	Micrometric or with screw and nut
Materials used	Stainless steel, TCT, nickel plated brass and Teflon
Fluids to be dispensed	Silicones, liquid gaskets, greases, resins, various medium-high viscosity





DISPENSING NEEDLE VALVE DA 400 EV

The needle valve **DA 400 EV** is designed to dispense in a controlled, precise and repeatable way, fluids with medium to high viscosity.

The valve has the feature to be customized with nozzles with various shapes and sizes, available in the catalog.

The solenoid valve, mounted directly on board, allows high precision in the deposition, and makes it ideal to be integrated on automated systems, such as robots, SCARA and Cartesian arms.

TECHNICAL DATA

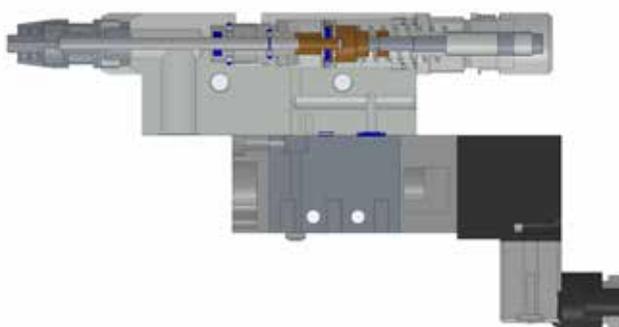
Model	DA 400 EV
Operation mode	Double Acting
Weight	310 g
Max fluid pressure	80 bar
Actuating air pressure	6 - 7 bar
Air inlet thread	M5
Fluid inlet thread	1/8 BSP
Outlet Thread	Threaded nozzles, luer lock thread, steel nozzles of various shapes and sizes
Speed	Up to 300 cycles/min
Adjusting the passage	With micrometric screw or with screw and nut
Used Materials	Stainless steel, TCT, nickel plated brass and Teflon
Fluids to be used	Silicones, liquid gaskets, greases, resins, various medium-high viscosity

FIELDS OF APPLICATION:

- > **Silicone dispensing**
- > **Grease dispensing**
- > **Resin dispensing**
- > **Medium to high viscosity fluids dispensing**

FEATURES:

- > Fine adjustment of the flow rate (optional)
- > Solenoid Valve 5/2 mounted on board to have an instantaneous start / stop
- > Easy maintenance and cleaning of the valve
- > TCT needle and nozzle in stainless steel for long life
- > Surface coating with Teflon to make the valve easy to clean the inside and improve the flow of the highest viscosity fluids
- > Divorced construction, the pneumatic part is separated from the passage of the fluid.





DISPENSING NEEDLE VALVE DA 500



FIELDS OF APPLICATION:

- > **Silicone dispensing**
- > **Silicone greases dispensing**
- > **Resin dispensing**
- > **Paste fluid dispensing**

FEATURES:

- > Drive both double that in single acting (spring security inside)
- > Easy maintenance and cleaning of the valve
- > Operation at very high pressure
- > Ability to choose between multiple standard nozzles
- > Robust and reliable construction.

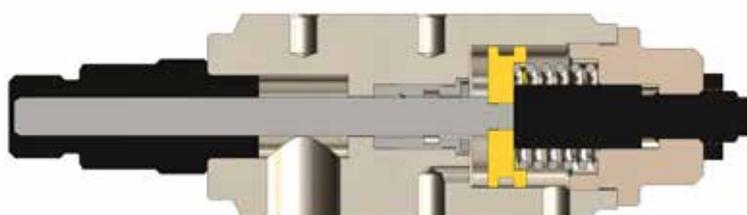


The needle valve **DA 500** was created to dispense with the maximum precision big quantity of paste products such as silicones, silicone greases, resins, etc., or for industrial filling in a fast and accurate way.

Its construction allows the fluid to be supplied with high pressure, enabling the dispensing of medium to large beads, while maintaining high-speed handling.

TECHNICAL DATA

Model	DA 500
Drive	Single or double acting
Weight	510 g
Max fluid pressure	200 bar (double acting)
Actuating air pressure	6 - 7 bar
Air inlet thread	M5
Fluid inlet thread	1/4 BSP
Fluid outlet	Threaded nozzles, luer lock nozzle, steel nozzles of various shapes and sizes
Speed	Up to 200 cycles/min
Adjusting the passage	Micrometric or with screw and nut
Used materials	Stainless steel, TCT, nickel plated brass and Teflon
Fluids to be dispensed	Silicones, liquid gaskets, greases, resins, various medium-high viscosity






DA 400 MINI DA 400 MINI PEEK

DA 400 MINI needle valves, and its **PEEK** version, are designed to dispense in an accurate and reliable way low to medium viscosity fluids.

The valve have the possibility to be equipped with various sized and shaped nozzles. The solenoid valve is mounted directly on board and combines fast response with extremely contained overall dimensions.

TECHNICAL DATA

Model	DA 400 MINI / DA 400 MINI PEEK
Operation mode	Double Acting
Weight	230 g / 150 g (PEEK)
Max fluid pressure inlet	50 bar / 20 bar (PEEK)
Actuating air pressure	5 bar
Air inlet thread	M5
Fluid inlet thread	1/8 gas
Outlet thread	Luer lock nozzle, steel nozzles of various shapes and sizes, also with gas threads
Speed	Up to 300 cycles / min
Adjusting the passage	Micrometric
Used materials	Stainless steel, TCT, nickel plated brass and Teflon / PEEK
Fluids to be dispensed	Anaerobic glue (PEEK) greases, resins, oil, various low to medium viscosity fluids



FIELDS OF APPLICATION:

- > Anaerobic glue dispensing (PEEK version)
- > Lubricants dispensing
- > Aggressive fluids dispensing

FEATURES:

- > Fine adjustment of the flow rate
- > Solenoid Valve 5/2 mounted on board allow a super fast dispensing start / stop
- > Easy maintenance and cleaning of the valve
- > All parts in contact with the fluid are in PEEK (PEEK Version)
- > Divorced construction, the pneumatic side is separated from the passage of the product.





DIAPHRAGM VALVE DA 250



FIELDS OF APPLICATION:

- > Anaerobic glues
- > Cyanoacrylate glues
- > Aggressive fluids

FEATURES:

- > Micrometric adjustment of the flow rate
- > Fluid in contact only with PTFE and inert materials
- > Operation normally closed with safety spring
- > Anodized aluminum body
- > Ability to operate simple or double-acting
- > Easy maintenance and cleaning valve
- > Membrane co-molded with a useful life of more than 10 million cycles

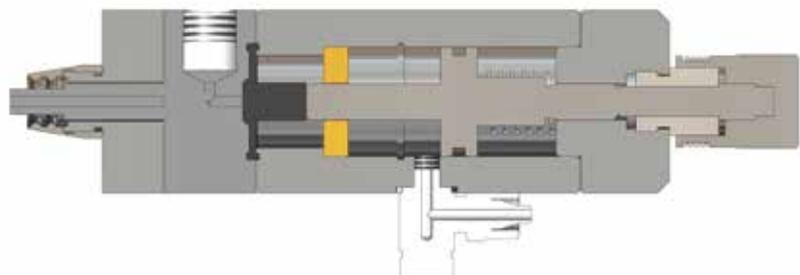


The diaphragm valve **DA 250** is designed to dispense in a controlled, precise and repeatable way, low to medium viscosity fluids such as anaerobic adhesives (thread locker and coaxial blockers), cyanoacrylate glues and other aggressive fluids.

The particular design of the valve make the fluid during the dispensing only comes into contact with the body in PTFE and with the membrane that opens and closes the passage, thus preventing contamination and clogging.

TECHNICAL DATA

Model	DA 250
Drive	Simple or Double Acting
Max fluid pressure	10 bar
Operating pressure	5-7 bar
Thread inlet	1/8 BSP
Thread outlet	Luer Lock or others on request
Speed	Up to 200 cycles/min
Adjustment	Micrometric screw adjustment
Used materials	Anodized aluminum, stainless steel, PTFE, membrane co-molded with non-reactive materials
Fluids used	Cyanoacrylate glue, anaerobic fluids, low viscosity fluids in general (even aggressive)





SPRAY VALVE DAS 30

The micro-spray valve **DAS 30** is designed to obtain micro-spraying of various types of fluid. The miniaturized size is perfect for compact layouts, and its design and strength make it ideal for who is looking for a real cost-effective solution.

The spray valve DAS 30 can be equipped with various kind of extensions, to fit perfectly any different application.

TECHNICAL DATA

Model	DAS 30
Drive	Single acting
Weight	140g
Dimensions	40x25x25 mm
Max fluid pressure	Max 3 bar - MP version until 12 bar
Actuating air pressure	5-6bar
Atomizing air pressure	0,5 - 6 bar
Type inlet air	Tube 6x4mm
Type inlet fluid	Tube 6x4mm
Air cap	For round or flat spray, or extensions for radial dispensing
Speed	Until 200 cycle/min
Adjusting	Micrometric
Used materials	Stainless steel
Fluids to be dispensed	Oil, lubricants, release agents, thread-lockers (PEEK Version) etc

FIELDS OF APPLICATION:

- > Oil and lubricants micro-spraying
- > Release agents micro-spraying
- > Aggressive agents micro-spraying

FEATURES:

- > Fine adjustment of the flow rate
- > Needle and nozzle in stainless steels
- > Simple and cheap
- > Available in PEEK for reactive fluids
- > Available with various extensions for any application
- > Available with sensor to check the dispensing.





SPRAY VALVE

DAS 50 DAS 50N



FIELDS OF APPLICATION:

- > **Non contact radial dispensing of low to medium viscosity fluids**

The spray valve **DAS 50** and **DAS 50N** are designed to dispense radially without contact fluids such as oils, lubricants, primers etc. inside cylinders, holes, chambers etc. The special construction prevent leaking and avoid formation of fume or mist.

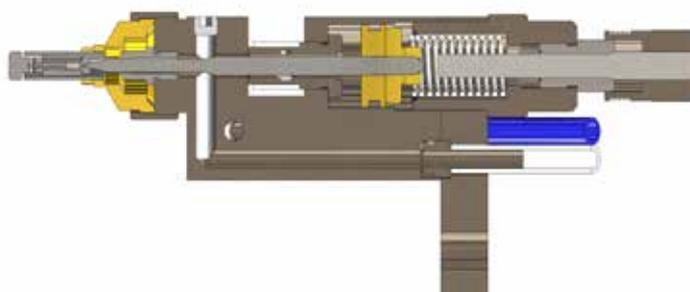
The valve dispense a crown at 360° inside the cylinder, without contaminating other areas, while by moving the valve is possible to lubricate an hole in all its length.

FEATURES:

- > Fine adjustment of the flow rate
- > Extension nozzles available in standard length 15, 20, 30, 50, 100, 200 mm (possibility to create special ones)
- > Operation mode normally closed with safety spring
- > Works with cylinders,holes etc from i.d. 10 mm to i.d. 120 mm
- > Avoid any mist and dripping
- > Easy maintenance and cleaning of the valve.

TECHNICAL DATA

Model	DAS 50 / DAS 50N
Drive	Single acting
Weight	440 g
Max fluid pressure	Max 10 bar
Actuating air pressure	5 - 7 bar
Atomizing air pressure	0,1 - 2 bar
Input type air	6x4mm Tube
Inlet type fluid	6x4mm Tube
Extension length	15, 20, 30, 50, 100, 200 mm
Speed	Up to 200 cycles/min
Adjusting the passage	Micrometric
Used materials	Stainless steel, nickel-plated brass
Fluids to be dispensed	Oils, lubricants, greases up to NLGI 2, primers





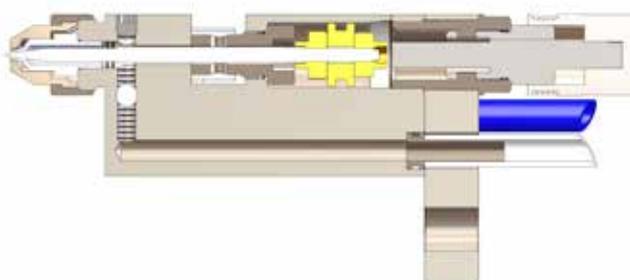
SPRAY VALVE DAS 90

The spray valve **DAS 90** is designed to obtain micro-spraying of various types of fluid.

Its very compact size makes a great solution when the mounting space is limited, while its precision allows for repeatable and consistent dosages in time.

TECHNICAL DATA

Model	DAS 90
Drive	Single acting
Weight	310g
Max fluid pressure	Max 10 bar
Actuating air pressure	5 - 7 bar
Atomizing air pressure	from 0.1 to 3 bar
Type inlet air	6x4mm Tube
Type inlet fluid	6x4mm Tube
Air cap	For round spray
Speed	Up to 200 cycles/min
Adjusting the passage	Micrometric
Used materials	Stainless steel, nickel-plated brass
Fluids to be dispensed	Oil, lubricants, water based paints, primers, inks (need to be tested)



FIELDS OF APPLICATION:

- > **Lubricants micro-spraying**
- > **Primers micro-spraying**
- > **Water based paints spraying**

FEATURES:

- > Fine adjustment of the flow rate
- > Needle and nozzle in stainless steel
- > Operation mode normally closed with safety spring
- > Micro-spray on parts with minimum size of 4-5 mm
- > Do not create mist or unwanted drips
- > Easy maintenance and cleaning of the valve.





SPRAY VALVE DAS 100



FIELDS OF APPLICATION:

- > Lubricant spraying
- > Primer spraying
- > Vinylic glue spraying
- > Water based paint spraying

FEATURES:

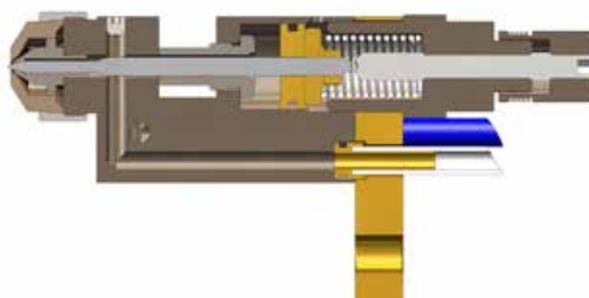
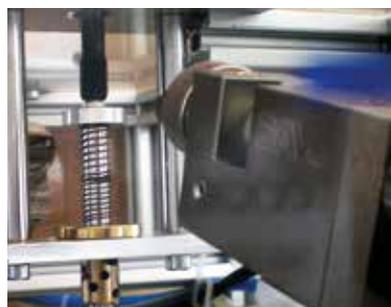
- > Fine adjustment of the flow rate (optional)
- > Nozzle and needle in stainless steel
- > Operation mode normally closed with safety spring
- > Micro-spraying on parts with minimum size of 10 mm
- > Do not create mist or unwanted drips
- > Easy maintenance and cleaning of the valve.

The spray valve **DAS 100** is designed to spray various types of fluid. This valve allows to obtain very high performance combined with an extreme robustness and simplicity of construction.

The spray caps are available in various shapes, depending on the effect required, while various nozzle diameters are adapted to the viscosity of the used fluid.

TECHNICAL DATA

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 hose
Inlet fluid type	6x4mm hose
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





SPRAY VALVE DAS 100 EV

The spray valve **DAS 100 EV** is designed to obtain micro-spraying of various kind of fluid. Its threaded inlet allows the feeding of products of medium to high viscosity, such as greases and lubricating pastes.

The valve allows to obtain uniform coverage of the areas without going to affect the surrounding parts. For this reason it's ideal to be mounted on robot, arms etc. The spray caps are available in various shapes depending on the effect required.

TECHNICAL DATA

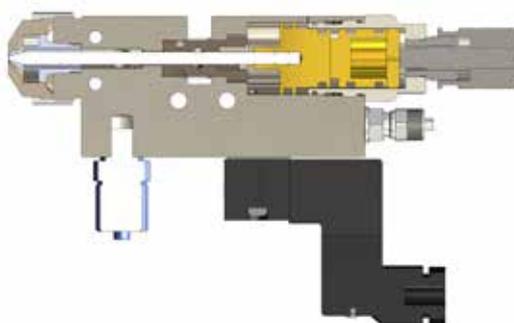
Model	DAS 100 EV
Operation	Double Acting
Weight	490 g
Max fluid pressure	Max 25 bar
Actuating air pressure	5 - 7 bar
Atomizing air pressure	From 0.1 to 6 bar
Type air inlet	Hose 6x4mm 4x2, 5mm
Fluid inlet thread	1/8 BSP
Air cap type	Oval or round
Speed	Up to 200 cycles/min
Adjusting of the passage	Micrometric
Used materials	Stainless steel, nickel-plated brass
Fluids to be dispensed	Grease, oil, lubricants, primers, vinilic glues

FIELDS OF APPLICATION:

- > Grease micro-spraying
- > Lubricants micro-spraying
- > Primer micro-spraying
- > Vinilic glues micro-spraying

FEATURES:

- > Fine adjustment of the flow rate
- > Needle and nozzle in stainless steel
- > Operation mode normally closed with safety spring
- > Micro-spray on parts with minimum size of 8-10 mm
- > Do not create mist or unwanted drips
- > Easy maintenance and cleaning of the valve.





MANUAL SPRAY VALVE DAS 200

FIELDS OF APPLICATION:

- > Oil and lubricants manual spray
- > Release agents manual spray
- > Grease and lubricants manual spray (HP Version)

FEATURES:

- > Micro-metric fluid passage adjusting
- > Stainless steel needle and nozzle
- > Simple and economic
- > Available in HP version, for pressure up to 25 bar
- > Available many kind of extensions, also for radial spray.



The manual spray valve **DAS 200** is designed to spray various kind of fluids. The ergonomic handgrip and its weight make it very easy to handle and use, and the operator can focus on the process.

The valve DAS 200 can be equipped with various kind of extensions to have anytime the right dispensing result.

TECHNICAL DATA

Model	DAS 200
Drive	Manual
Weight	240g
Fluid pressure	Max 4 bar (standard version) Max 25 bar (HP version)
Atomizing air pressure	0,5 - 6 bar
Air inlet	Tube 6x4mm
Fluid inlet	Tube 6x4mm (standard version) - Fitting 1/4 gas (HP version)
Air cap	Tube 6x4mm
Fluid adjustment	Micrometric
Materials	Stainless steel and aluminium
Fluids to be dispensed	Oil, lubricants, release agents, grease and pasty products (HP Version)





METERING VALVE DAV 100

The metering valve **DAV 100** is designed to dispense with the highest accuracy and repeatability greases and lubricants to NLGI 3 (1,000,000 mPa s).

The chamber has a volumetric capacity adjustable from 1 to 20 mm³ (0.001 to 0.02 cc) and with a special sensor is possible to check the emptying of the dosing chamber, for the highest control of the assembly process.

TECHNICAL DATA

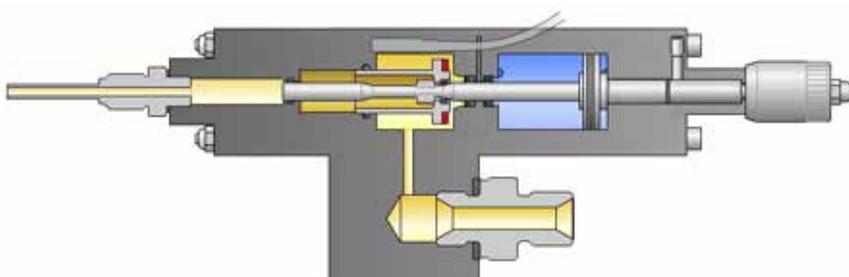
Model	DAV 100
Operation mode	Double Acting
Weight	170 g
Fluid pressure inlet	20 bar Min - Max 200 bar (low pressure version available)
Quantity dispensable	1 mm ³ - 20 mm ³ (0,001 cc - 0,020 cc)
Actuating air pressure	5 - 7 bar
Inlet air	M2,5 fittings for ø 4mm hose
Inlet fluid thread	1/8 BSP
Outlet fluid	M5 threaded with luer lock holder or fitting 1/8 BSP female
Speed	Up to 60 cycles/min
Adjusting the amount dosed	Micrometric with block screw
Used materials	Stainless steel, anodized aluminum
Fluids to be dispensed	Greases and lubricants up to NLGI 3-1000000 mPa s

FIELDS OF APPLICATION:

- > Grease metering
- > Lubricants metering

FEATURES:

- > Volumetric dosing, reliable and constant
- > Dosing independent of viscosity, pressure and temperature of the lubricant
- > Pressure control system not necessary
- > Dosing objectivable with a sensor
- > Quantity dispensed easily adjustable and that can't be changed accidentally using the block screw
- > Small and Light (170 g)
- > Available on request in version for low feed pressure.





METERING VALVE DAV 200



FIELDS OF APPLICATION:

- > Grease metering
- > Lubricants metering

FEATURES:

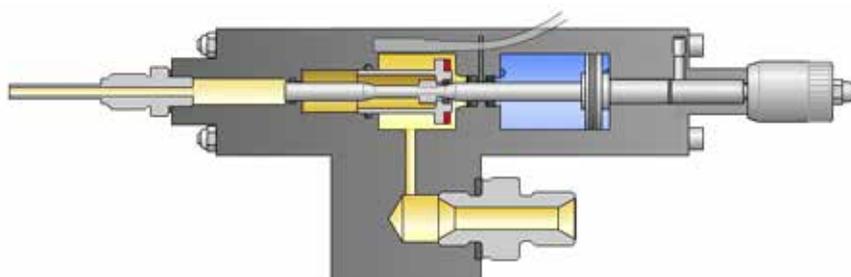
- > Volumetric dosing, reliable and constant
- > Dosing independent of viscosity, pressure and temperature of the lubricant
- > Pressure control system not necessary
- > Dosing objectivable with a sensor
- > Quantity dispensed easily adjustable and that can't be changed accidentally using the block screw
- > Small and Light (170 g)
- > Available on request in version for low feed pressure.

The metering valve **DAV 200** is designed to dispense with the highest accuracy and repeatability greases and lubricants to NLGI 3 (1,000,000 mPa s).

The chamber has a volumetric capacity adjustable from 10 to 200 mm³ (0.01 to 0.2 cc) and with a special sensor is possible to check the emptying of the dosing chamber, for the highest control of the assembly process.

TECHNICAL DATA

Model	DAV 200
Operation mode	Double Acting
Weight	170 g
Fluid pressure inlet	20 bar Min - Max 200 bar (low pressure version available)
Quantity dispensable	10 mm ³ - 200 mm ³ (0,01 cc - 0,2 cc)
Actuating air pressure	5 - 7 bar
Inlet air	M2,5 fittings for ø 4mm hose
Inlet fluid thread	1/8 BSP
Outlet fluid	M5 threaded with luer lock holder or fitting 1/8 BSP female
Speed	Up to 60 cycles/min
Adjusting the amount dosed	Micrometric with block screw
Used materials	Stainless steel, anodized aluminum
Fluids to be dispensed	Greases and lubricants up to NLGI 3-1000000 mPa s





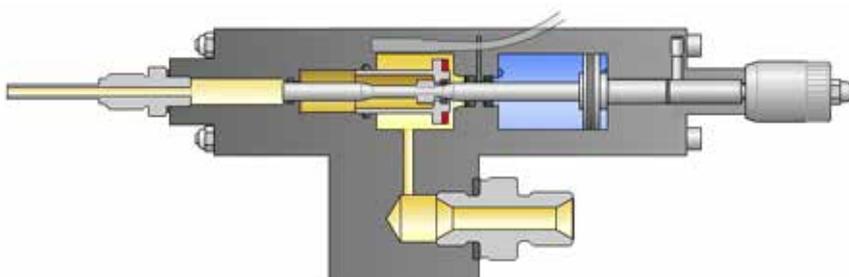
METERING VALVE DAV 300

The metering valve **DAV 300** is designed to dispense with the highest accuracy and repeatability greases and lubricants to NLGI 3 (1,000,000 mPa s).

The chamber has a volumetric capacity adjustable from 0,1 to 2,0 cm³ and with a special sensor is possible to check the emptying of the dosing chamber, for the highest control of the assembly process.

TECHNICAL DATA

Model	DAV 300
Operation mode	Double Acting
Weight	730 g
Fluid pressure inlet	20 bar Min - Max 200 bar (low pressure version available)
Quantity dispensable	0,1 cm ³ - 2,0 cm ³
Actuating air pressure	5 - 7 bar
Inlet air	M3 fittings for ø 4mm hose
Inlet fluid thread	1/4 BSP
Outlet fluid	1/8 BSP
Speed	Up to 60 cycles/min
Adjusting the amount dosed	Micrometric with block screw
Used materials	Stainless steel, anodized aluminum
Fluids to be dispensed	Greases and lubricants up to NLGI 3-1.000.000 mPa s



FIELDS OF APPLICATION:

- > Grease metering
- > Lubricants metering

FEATURES:

- > Volumetric dosing, reliable and constant
- > Dosing independent of viscosity, pressure and temperature of the lubricant
- > Pressure control system not necessary
- > Dosing objectivable with a sensor
- > Quantity dispensed easily adjustable and that can't be changed accidentally using the block screw
- > Pressure control system not needed.





METERING VALVE DAV 400



FIELDS OF APPLICATION:

- > Grease metering
- > Lubricants metering

FEATURES:

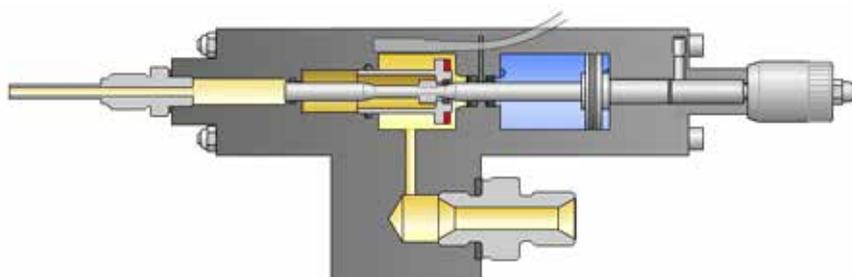
- > Volumetric dosing, reliable and constant
- > Dosing independent of viscosity, pressure and temperature of the lubricant
- > Pressure control system not necessary
- > Dosing objectivable with a sensor
- > Quantity dispensed easily adjustable and that can't be changed accidentally using the block screw
- > Pressure control system not needed

The metering valve **DAV 400** is designed to dispense with the highest accuracy and repeatability greases and lubricants to NLGI 3 (1,000,000 mPa s).

The chamber has a volumetric capacity adjustable from 1,0 to 6,0 cm³ and with a special sensor is possible to check the emptying of the dosing chamber, for the highest control of the assembly process.

TECHNICAL DATA

Model	DAV 400
Operation mode	Double Acting
Weight	710 g
Fluid pressure inlet	20 bar Min - Max 200 bar (low pressure version available)
Quantity dispensable	1,0 cm ³ - 6,0 cm ³
Actuating air pressure	5 - 7 bar
Inlet air	M3 fittings for ø 4mm hose
Inlet fluid thread	1/4 gas
Outlet fluid	1/8 female
Speed	Up to 60 cycles/min
Adjusting the amount dosed	Micrometric with block screw
Used materials	Stainless steel, anodized aluminum
Fluids to be dispensed	Greases and lubricants up to NLGI 3-1.000.000 mPa s





METERING VALVE DAV 600

The metering valve **DAV 600** is designed to dispense with the highest accuracy and repeatability greases and pasty products.

The chamber has a volumetric capacity adjustable from 0,1 to 3,0 cm³ and with a special sensor is possible to check the emptying of the dosing chamber, for the highest control of the assembly process.

TECHNICAL DATA

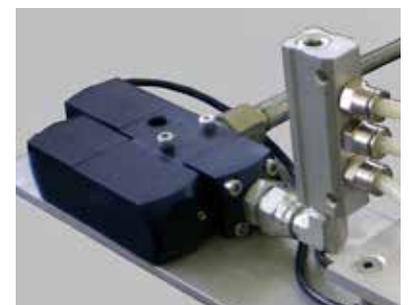
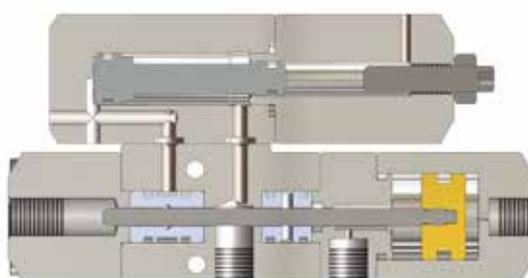
Model	DAV 600
Operation mode	Double Acting
Weight	650 g
Fluid pressure inlet	Min 10 bar - Max 150 bar
Quantity dispensable	0,1 cm ³ - 3,0 cm ³
Actuating air pressure	5 - 7 bar
Inlet air	1/8 gas
Inlet fluid thread	1/8 gas
Outlet fluid	1/8 gas
Speed	Up to 40 cycles/min
Adjusting the amount dosed	Mechanic stopper with sensor holder
Used materials	Stainless steel, anodized aluminum
Fluids to be dispensed	Greases and lubricants and pasty products

FIELDS OF APPLICATION:

- > Grease metering
- > Pasty products metering

FEATURES:

- > Volumetric dosing, reliable and constant
- > Dosing independent of viscosity, pressure and temperature of the lubricant
- > Pressure control system not necessary
- > Dosing objectivable with a sensor
- > Quantity dispensed easily adjustable and that can't be changed accidentally using the block screw
- > Anodized body.





CONTACT-LESS DISPENSING SYSTEM **DAVR**



FIELDS OF APPLICATION:

- > Contact-less dispensing of fluids and lubricants on inner holes from 12 to 200 mm and over

FEATURES:

- > Contact-less dispensing, no setup changing the hole diameter
- > Checked dispensing by sensor
- > Continuous bead on 360°

The **DAVR** contact-less dispensing system allow to have inside an hole, without expensive interpolation moving, a continuous and accurate bead of fluids such as grease and lubricants.

The change of the dispensed hole haven't any change on the application result. The system can be adapted for various DAV Tech valves.



HIGH VOLUMES METERING VALVE **DAV 800**



FIELDS OF APPLICATION:

- > Volumetric dosing of high volumes
- > Filling of gear-boxes and mechanical parts
- > Lubrication of electro-mechanic parts, also dividing the volume in more points.

FEATURES:

- > Volumetric dosing, reliable and constant
- > Dosing independent of viscosity, pressure and temperature of the lubricant
- > Pressure control system not necessary
- > Dosing objectified with a sensor
- > Quantity dispensed easily adjustable and that can't be changed accidentally using the block screw
- > Can be mounted out of the working area.

The metering valve **DAV 800** is designed to dispense with the highest accuracy and repeatability greases and lubricants to NLGI 3 (1,000,000 mPa s).

The chamber has a volumetric capacity adjustable from 10 to 133 cm³ and with a special sensor is possible to check the emptying of the dosing chamber, for the highest control of the assembly process.

So it's ideal in case of filling processes or big metering applications.

TECHNICAL DATA

Model	DAV 800
Operation mode	Double Acting
Weight	6 Kg
Fluid pressure inlet	Min 20 bar - Max 200 bar
Quantity dispensable	10 cm ³ - 133 cm ³
Actuating air pressure	5 - 7 bar
Inlet air	1/8 gas
Inlet fluid thread	3/8 gas
Outlet fluid	3/8 female
Fixing	4 holes M8 threaded
Adjusting the amount dosed	Micrometric with block screw
Used materials	Stainless steel, anodized aluminum
Fluids to be dispensed	Greases and lubricants up to NLGI 3-1.000.000 mPa s



METERING VALVES WITH
HAND-GRIP

DAV 100 DAV 200 MAN

The metering valves **DAV 100 MAN** and **DAV 200 MAN** are designed to dispense manually, but with the highest accuracy and repeatability greases and lubricants up to NLGI 3 (until 1,000,000 mPa s).

The ergonomic hand-grip make the valve simple to keep in hand and operate. The volumetric chamber of the valve DAV 100 MAN has a capacity adjustable from 1 to 20 mm³ (0.001 to 0.02 cc) and the valve DAV MAN 200 from 10 to 200 mm³ (0.01 to 0.2 cc), by checking a sensor their emptying, the dosage is objectivable occurred in a simple and certain.

TECHNICAL DATA

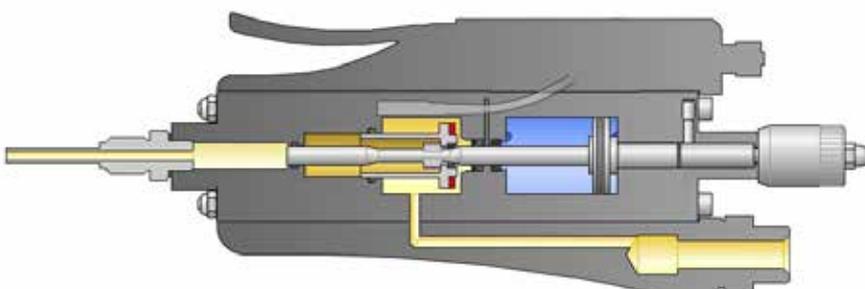
Model	DAV 100 MAN - DAV 200 MAN
Operation mode	Double Acting
Weight	230 g
Fluid pressure inlet	20 bar Min - Max 200 bar (low pressure version available)
Quantity dispensable	DAV 100 MAN: 1 mm ³ - 20 mm ³ (0,001 cc - 0,020 cc) DAV 200 MAN: 10 mm ³ - 200 mm ³ (0,01 cc - 0,20 cc)
Actuating air pressure	5 - 7 bar
Inlet air	ø 4mm hose
Inlet fluid thread	1/8 BSP
Outlet fluid	M5 threaded with luer lock holder or fitting 1/8 BSP female
Speed	Up to 60 cycles/min
Adjusting the amount dosed	Micrometric with block screw
Used materials	Stainless steel, anodized aluminum
Fluids to be dispensed	Greases and lubricants up to NLGI 3-1000000 mPa s

FIELDS OF APPLICATION:

- > Greases manual metering
- > Lubricants manual metering

FEATURES:

- > Volumetric dosing, reliable and constant
- > Dosing independent of viscosity, pressure and temperature of the lubricant
- > Ergonomic, compact and lightweight (230 g)
- > Dosing objectivable with a sensor
- > Quantity dispensed easily adjustable and that can't be changed accidentally using the block screw
- > Integrated pneumatic valve in the hand-grip
- > Available on request in version for low feed pressure.





METERING VALVES WITH
HAND-GRIP

DAV 300 DAV 400 MAN



FIELDS OF APPLICATION:

- > Greases manual metering
- > Lubricants manual metering

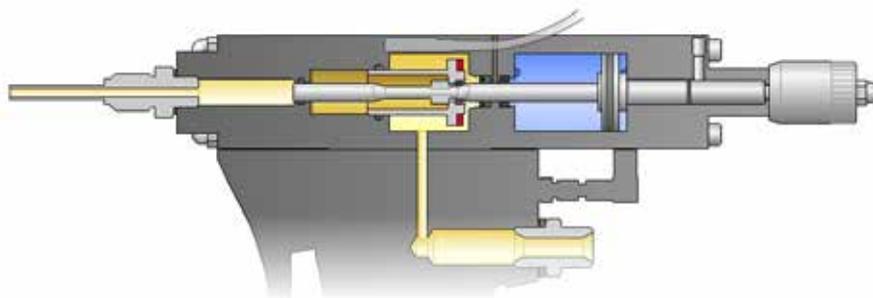
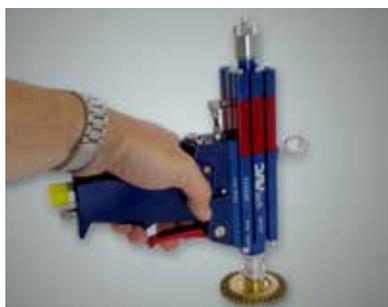
FEATURES:

- > Volumetric dosing, reliable and constant
- > Dosing independent of viscosity, pressure and temperature of the lubricant
- > Ergonomic, compact and lightweight
- > Chance to get with the hoses in the handle from under or behind (ver. MAN-O)
- > Dosing objectivable with a sensor
- > Quantity dispensed easily adjustable and that can't be changed accidentally using the block screw
- > Integrated pneumatic valve in the hand-grip
- > Is possible to hang up the valve with the supplied hook.

The metering valves **DAV 300 MAN** and **DAV 400 MAN** are designed to dispense manually, but with the highest accuracy and repeatability greases and lubricants up to NLGI 3 (until 1,000,000 mPa s). DAV 300 MAN can dispense from 0.1 to 2.0 cc for any shot, DAV 400 MAN can dispense from 1 to 6 cc for any shot. The ergonomic hand-grip ensures that the valves are easy to handle and operate. They are available in a version with a horizontal grip (DAV 300 MAN-O and DAV 400 MAN-O) and in the vertical grip (DAV 300 MAN-V and DAV 400 MAN-V).

TECHNICAL DATA

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





METERING SPRAY VALVE

DAVS 100

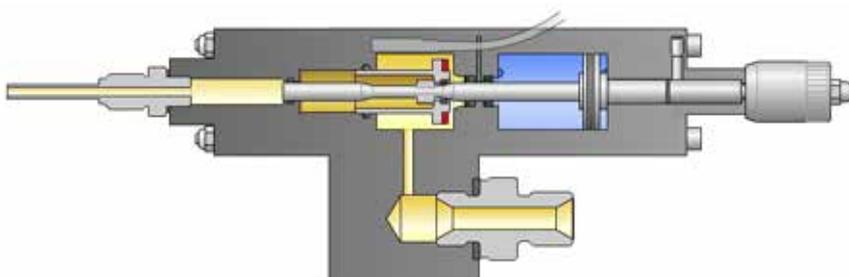
DAVS 200

The metering spray valves **DAVS 100** and **DAVS 200** are designed to spray with the highest accuracy and repeatability greases and lubricants to NLGI 2. The result is the covering, with a thin film of lubricating, of a well defined area, with a real grease coating.

The volumetric chamber of DAVS 100 has a capacity adjustable from 1 to 20 mm³ (0,001 to 0,020 cc) and DAVS 200 from 10 to 200 mm³ (cc 0,01-0,2), and with a special sensor is possible to check the emptying of the dosing chamber, for the highest control of the assembly process.

TECHNICAL DATA

Model	DAV 100 Spray - DAV 200 Spray
Operation mode	Double Acting
Weight	280 g
Fluid pressure inlet	Min 20 bar - Max 200 bar (low pressure version available)
Quantity dispensable	DAVS 100: 1 - 20 mm ³ (0,001 - 0,020 cc) DAVS 200: 10 - 200 mm ³ (0,01 - 0,20 cc)
Actuating air pressure	5 - 7 bar
Additional air pressure	0,1 - 5 bar
Inlet air	M2,5 fittings for Ø 4mm hose
Inlet additional air	M5 fitting for Ø 4 mm hose
Inlet fluid thread	1/8 gas
Outlet fluid thread	M5 for luer lock nozzles or 1/8 gas female thread
Speed	Up to 60 cycles/min
Adjusting the amount dosed	Micrometric with block screw
Used materials	Stainless steel, anodized aluminum
Fluids to be dispensed	Greases and lubricants up to NLGI 2



FIELDS OF APPLICATION:

- > Grease spray metering
- > Lubricants spray metering

FEATURES:

- > Volumetric dosing, reliable and constant
- > Accurate grease coating
- > Dosing independent of viscosity, pressure and temperature of the lubricant
- > Pressure control system not necessary
- > Dosing objectivable with a sensor
- > Quantity dispensed easily adjustable
- > Quantity dispensed easily adjustable
- > Available on request in version for low feed pressure.





VOLUMETRIC PUMPS PCP



FIELD OF APPLICATION:

- > Silicone dispensing
- > Grease dispensing
- > Resin dispensing
- > Adhesive dispensing
- > Low to high viscosity fluid dispensing

FEATURES:

- > Many sizes to allow the perfect choice for any application
- > Dispensing not affected by temperature and viscosity changes
- > Simple maintenance due to the design of the pump
- > Possibility to have special features such as body in PEEK, rotor in Ceramic, stator in PA etc.
- > Possibility to dispense filled materials without wearing problems
- > Suck back function to prevent any dripping



The **PCP** volumetric pumps is the state of art in the micro-dispensing world.

The pumps are driven by a gearmotor with encoder and allow volumetric dispensing in strips, drops, or fill a determined volume with the highest accuracy, without be affected from inlet fluid pressure, viscosity and temperature of the media etc.

The motor, driven in one direction dispense the fluid, and if driven in the other direction suck back the fluid, preventing dripping and levelling the pressure on the nozzle.

TECHNICAL DATA

Item	PCP-005	PCP-015	PCP-050	PCP-150	PCP-500	PCP-1000	PCP-1500	PCP-2000
Dimensions	27xL230xØ27mm	27xL230xØ27mm	27xL230xØ27mm	29xL280xØ29mm	29xL280xØ29mm	29xL312xØ29mm	45xL430xØ45mm	60xL580xØ60mm
Weight	360 g	360 g	374 g	532 g	530 g	700 g	2,5 kg	3,5 kg
Input pressure	0~6 bar							
Max. Dosing pressure	20 bar	20 bar	20 bar	20 bar	15 bar	20 bar	20 bar	20 bar
Viscosity	0~500,000 cPs							
Dosing Volume/ Rev.	≈0.005 ml	≈0.015 ml	≈0.05 ml	≈0.15 ml	≈0.5 ml	≈1.0 ml	≈1.5 ml	≈2.0 ml
Motor Speed (rpm)	1~120 rpm	1~150 rpm	1~150 rpm					
Dosing Flow Rate (Max.)	≈0.6 ml/min	≈1.8 ml/min	≈6.0 ml/min	≈18 ml/min	≈60 ml/min	≈120 ml/min	≈180 ml/min	≈280 ml/min
Accuracy of dosing	±1%	±1%	±1%	±1%	±1%	±1%	±1%	±1%
Stator Material	Inert Elastomer							
Material Inlet Port	G 1/4" ¹	G 3/8" ¹	G 3/8" ¹					
Material Outlet Port	Luer Lock ²	PT 3/8" (STD)						
Wetting Part Material	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³
Operating Condition	10~40°C							

1. Different inlet, such as syringe fitting, possible upon request - 2. Different outlet possible upon request - 3. Different materials possible upon request.





CONTROLLER VOLUMETRIC PUMPS PCP

The unit is microprocessor-controlled.

Really simple to set-up and operate, has 2,5" TFT LCD touch display.

All the settings can be easily done through the controller using the various menu. The controller can be driven externally through a PLC using I/O signals to change automatically programs.

TECHNICAL DATA

ITEM	CONTROL 100
Dimensions	230(W)x90(H)x200(D)
Weight	1.8 Kg
Power In/Output	AC100V - 240V,50/60Hz, DC24V (max.)
Consumption Rating	200VA
Air-in Port	Ø6 Air Hose, Max. 7bar
Air-out Port	Auto Jointer
Pressure Regulator	0~7 bar
Operating Mode	Time / Steady / Metering
Display	2.5" TFT LCD, Touch
Motor Control	1 EA
Liquid Indicator Sensor	OK
External Control	OK
Channel Memory	16 CH
Input Signal	Contact Input or NPN open Collector Tr
Dosing End Signal	NPN open Collector Tr
Operating Temperature	10~40°C

FUNCTIONS EXAMPLES:



FIELD OF APPLICATION:

- > Control and driving of DAV Tech PCP metering pumps
- > Tank or syringe pressure control

FEATURES:

- > 2,5 TFT LCD Touch display for status checking and simple operating
- > Physical buttons for easier programming
- > I/O to be driven by an external PLC
- > Check of the motor rotation through encoder
- > Internal SMC precision pressure regulator with switch to check inlet pressure from tanks / syringes

BACK





2K VOLUMETRIC PUMPS

PDP



FIELD OF APPLICATION:

- > 2K fluid dispensing

OPTIONS:

- > Pressure check system on pump outlet to monitor unwanted catalization in the mixing area.
- > Possibility to use pumps of different size together to be close to the requested ratio.

FEATURES:

- > Many sizes to allow the perfect choice for any application
- > Dispensing not affected by temperature and viscosity changes
- > Simple maintenance due to the design of the pump
- > Possibility to have special features such as body in PEEK, rotor in Ceramic, stator in PA etc.
- > Possibility to dispense filled materials without wearing problems
- > Suck back function to prevent any dripping



The **PDP** volumetric pumps are a innovative, compact, versatile, precise and reliable 2k dispensing systems.

The specially designed rotary auger pump allow high performances dispensing for 2k material. The system provide an efficient and consistent dispensing more than any other piston or gear pump system.

Mix ratio and dispensing volume can be easily adjusted through the controller, changing speed and rotation of the rotor. The pumps are driven by a gearmotor with encoder and allow volumetric dispensing in strips, drops, or filling a determined volume with the highest accuracy, without be affected from inlet fluid pressure, viscosity and temperature of the media.

TECHNICAL DATA

ITEM	PDP-015	PDP-050	PDP-150	PDP-500	PDP-1000
Dimensions	60xL260xØ30mm	60xL260xØ30mm	67xL310xØ35mm	67xL310xØ35mm	67xL340xØ35mm
Weight	1.12 Kg	1.12 Kg	1.66 Kg	1.66 Kg	1.85 Kg
Input pressure	0~6 bar				
Max. Dosing pressure	20 bar	20 bar	20 bar	15 bar	15 bar
Viscosity	0~500,000 cPs				
Dosing Volume/Rev.	≈0.03 ml	≈0.1 ml	≈0.3 ml	≈1.0 ml	≈2.0 ml
Motor Speed (rpm)	1~120 rpm				
Min Dosing Volume	0.0003 ml	0.001 ml	0.003 ml	0.009 ml	0.009 ml
Dosing Flow Rate (Max.)	≈ 3.6 mil/min (0.06 mil/sec)	≈ 12 mil/min (0.2 mil/sec)	≈ 36 mil/min (0.6 mil/sec)	≈ 120 mil/min (2.0 mil/sec)	≈ 240 mil/min (2.0 mil/sec)
Accuracy of dosing	±1%	±1%	±1%	±1%	±1%
Mixing Ratio	1:1 ~ 10:1	1:1 ~ 10:1	1:1 ~ 10:1	1:1 ~ 10:1	1:1 ~ 10:1
Stator Material	Inert Elastomer				
Material Inlet Port	G 1/4" (STD) ¹				
Material Outlet Port	Luer Lock ²				
Wetting Part Material	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³	SUS / UHMW - PE / FKM ³
Operating Condition	10~40°C	10~40°C	10~40°C	10~40°C	10~40°C

1. Different inlet, such as syringe fitting, possible upon request - 2. Different outlet possible upon request - 3. Different materials possible upon request.





2K VOLUMETRIC PUMPS

PDP

The unit is microprocessor-controlled. Really simple to set-up and operate, has 4,5" TFT LCD touch display.

All the settings can be easily done through the controller using the various menu. The controller can be driven externally through a PLC using I/O signals to change automatically programs.

TECHNICAL DATA

ITEM	PDC 100
Dimensions	240(W)x116(H)x230(D) mm
Weight	3.6 Kg
Power In/Output	AC 220V, 50/60Hz, (1 Phase)
Consumption Rating	Max. 200VA
Air-in Port	Ø6 Air Hose, Max. 7bar
Air-out Port	Auto Jointer (PH-H4)
Pressure Regulator	0~7 bar
Operating Mode	Time / Continuous / Interval
Display	4.5" TFT LCD, Touch
Motor Control	2 EA
Liquid Indicator Sensor	OK
External Control	OK
Channel Memory	15 CH
Input Signal	Input NPN open Collector
Dosing End Signal	NPN or PNP
Operating Temperature	5~45°C

FUNCTIONS EXAMPLES:



FIELD OF APPLICATION:

- > Control and driving of DAV Tech PCP metering pumps

FEATURES:

- > 4,5 TFT LCD Touch display for status checking and simple operating
- > Touch Screen for easier programming
- > I/O to be driven by an external PLC
- > Check of the motor rotation through encoder
- > Internal SMC precision pressure regulator with switch to check inlet pressure from tanks / syringes

BACK





DISPENSING SYSTEMS FOR 2K FLUIDS



FIELDS OF APPLICATION:

- > Volumetric dosing of 2k resins, with variable ratio between 1:100 to 100:1.

FEATURES:

- > Ratio adjustable between 1:100 and 100:1 via software, without any mechanical setup
- > Accuracy until +/- 0,3%
- > Possible auto-calibration system and cleaning system
- > Integration on 6axis of Cartesian robots
- > Easy interface with existing PLC with any kind of communication protocol.

2K VOLUMETRIC DISPENSING SYSTEMS are made from 2 dispensing systems, feeded by follower plate pumps or by pressurized tanks which come in PCP cavity or gear pumps, chosen in the best size for the dispensed amount, the cycle time, the fluids viscosity.

This pump, driven by an electronic system, allow to have the right proportioning between the 2 components, with an infinite adjusting (also by remote) without any needed setup by the operator.

An auto tuning/calibration system cause the following of the correct mixing ratio, also with different viscosity fluids.

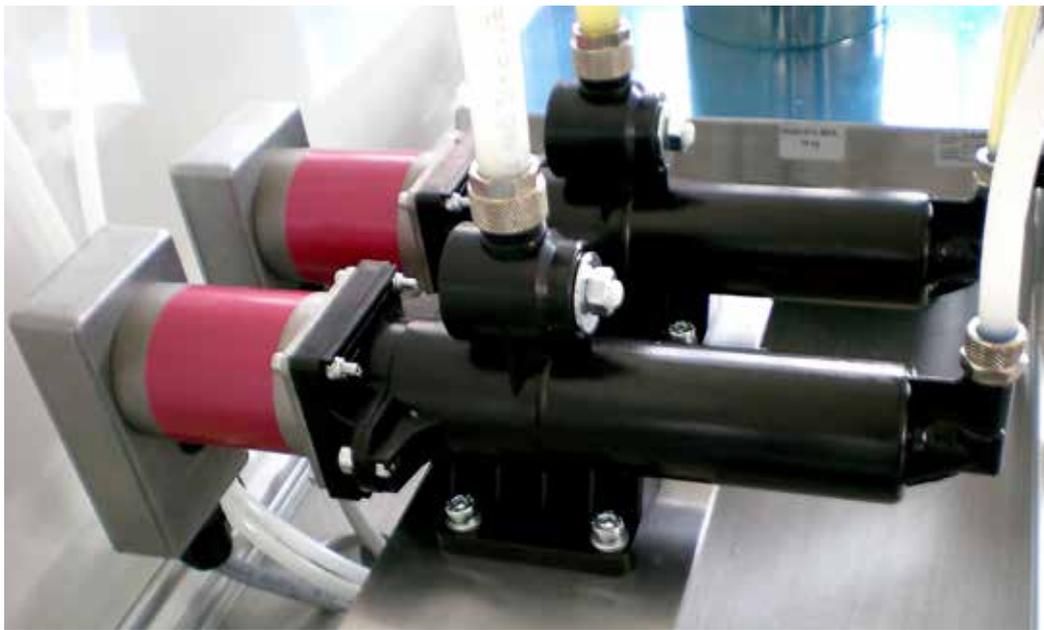
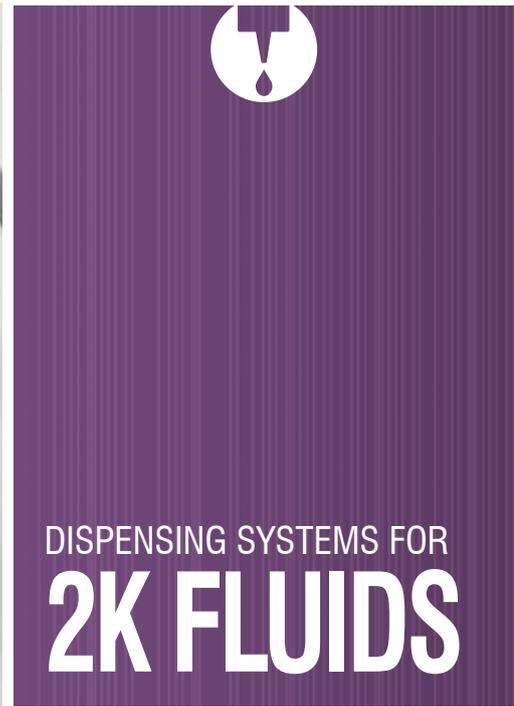
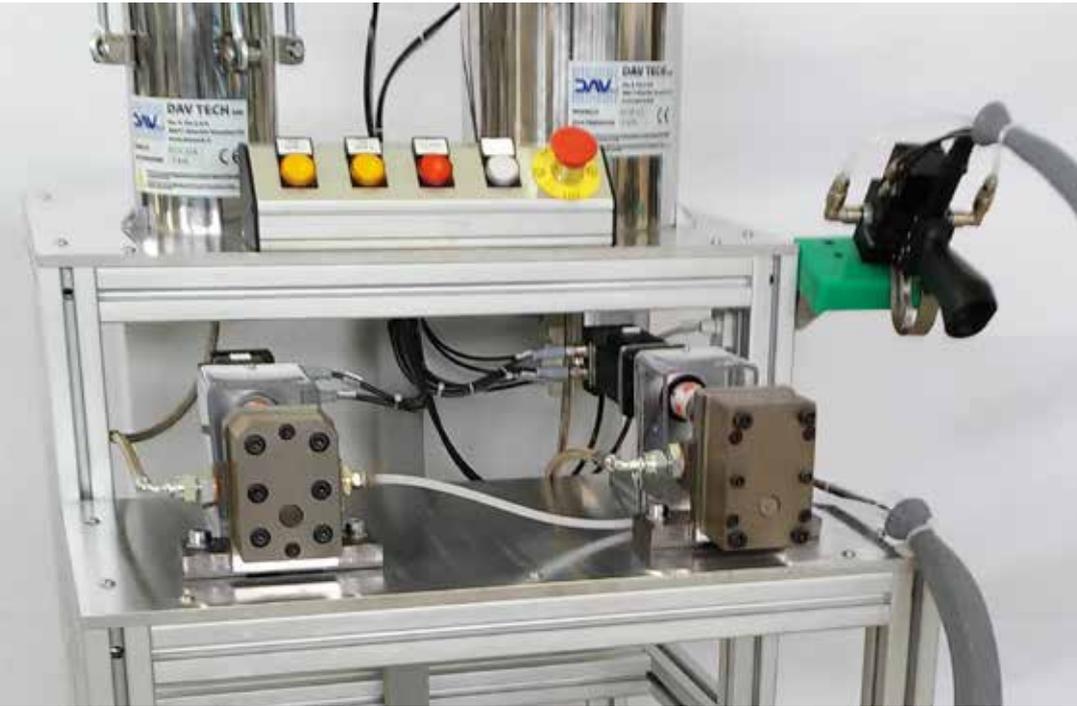
With this systems is possible to dispense drops, beads or make fillings, without any refilling time.

The dispensing systems can be moved manually, with the operator that handle an ergonomic gun with mixer, or can be fixed with the part that is approached by the operator.

Otherwise the systems can be inserted in robotic cells and mounted on robots and so on.

Pressure switch, mixing blocks and mixers complete the systems that are tailor made on the customer needs, and if requested, installed by DAV Tech technician.

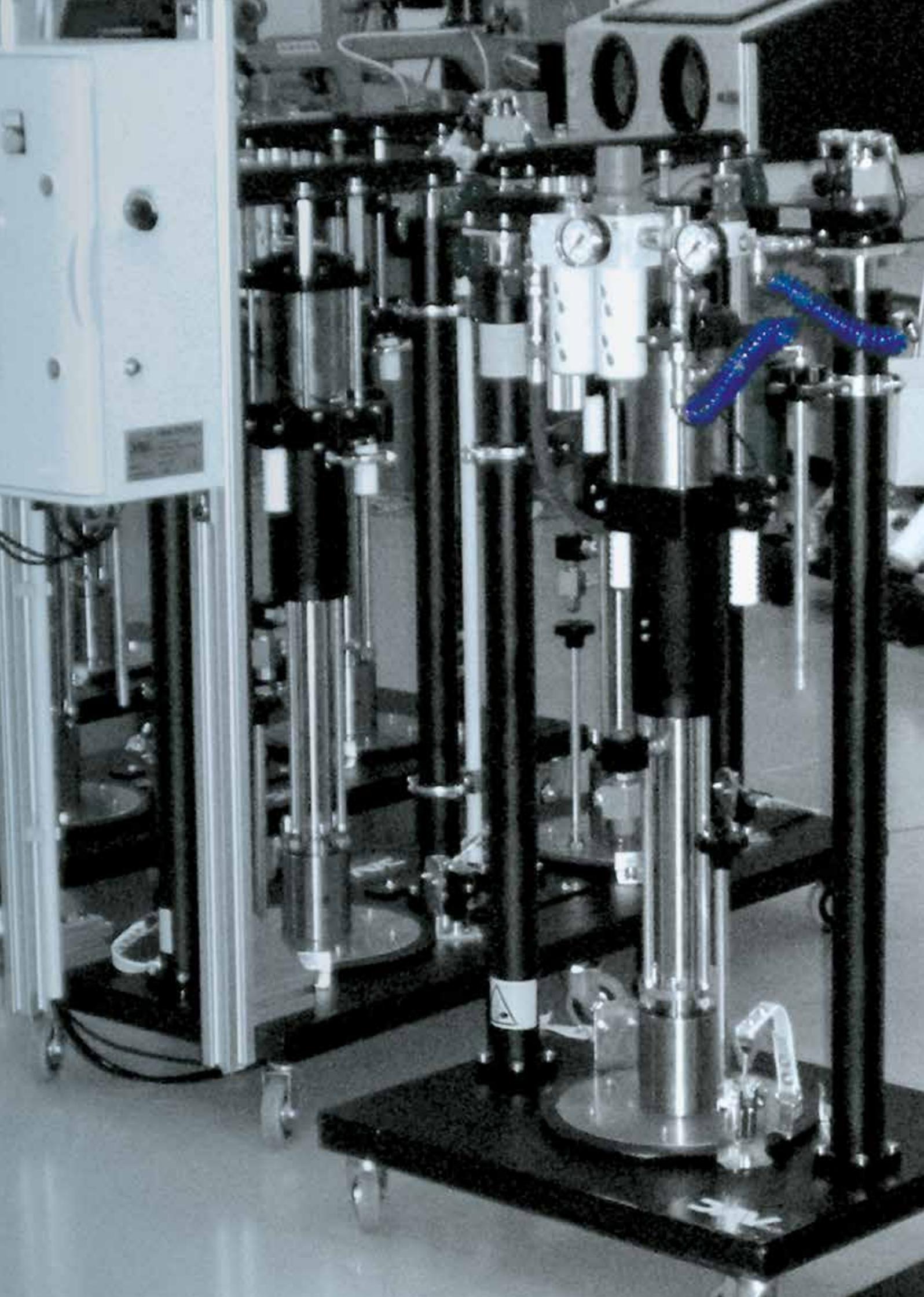






FLUID FEEDING SYSTEMS

To move any kind of fluid towards the dispensing valves, is important to be equipped with systems able to feed the fluid, with a constant pressure. Depending on the viscosity and of the size of the fluid drum, is possible to choose pressurized tanks or various size pumps, to allow a complete emptying of the drum, without unnecessary and expensive transfers.





PRESSURIZED TANKS



FIELDS OF APPLICATION:

- > Feeding of low to medium viscosity fluids.

The **PT** pressurized tanks are designed to feed with a constant, reliable and adjustable pressure low and medium viscosity fluids such as: oils, anaerobic and cyanoacrylic glues, 000-00-0 NLGI greases, self leveling resins etc.

The tanks are available in 3 sizes: 2 liters, 5 liters and 10 liters and could be equipped with low level sensor.

DAV Tech tanks comply the PED rules regarding pressurized pots and are CE marked.

FEATURES:

- > 3 mm thickness stainless steel pot
- > 15 mm Aluminium cap, sandblasted and painted
- > The pot's stainless steel is mirror polished outside and polished inside
- > Safety over-pressure valve, setted and certified at 5 bar
- > SMC pressure adjuster with gauge
- > Possibility to check the low level of the fluid.

TECHNICAL DATA

Features	PT2.0	PT5.0	PT10.0
Size	2 lt	5 lt	10 lt
Weight	3 Kg	5 Kg	7 Kg
Overall dimensions (max)	h. 300 mm, Ø 210 mm	h. 370 mm, Ø 270 mm	h. 415 mm, Ø 310 mm
Thickness of the pot	3 mm		
Thickness of the cap	15 mm		
Max feeding pressure	5 bar, the exceeding pressure is automatically discharged from the safety valve		
Used material	Stainless steel, aluminium		
Low level monitoring	Optional		
Other versions	Version for anaerobic fluids		
Special versions	Upon request is possible to equip the tanks with stirrer, heating system, and other options		





FOLLOWER PLATE PUMP PP1-5

The follower plate pump **PP1-5** is a simple and economic system to feed with pressure grease and lubricants to DAV Tech metering valves.

The telescopic structure can be equipped with stops for an easy tin change, while the follower plate is customized on the size of the tin.

The pneumatic pump is available with two ratio, 10:1 and 25:1, and when feeded with air is able to move across the tubes the grease to the DAV Tech valves.

TECHNICAL DATA

Ratio	10:1 o 25:1
Stroke	10 cc
Max diam. of the tin	225 mm
Max air feeding pressure	8 bar
Max outlet pressure	80 bar (10:1) 200 bar (25:1)
Weight	12 kg
Options	Electric or acoustic low level alarm, pump stopper, filter

FIELDS OF APPLICATION:

- > Pressure feeding of grease and lubricants until NLGI 2 class in 0,5 Kg to 5 Kg tins

FEATURES:

- > No need of decanting, the original tin will completely empty
- > Simple, strong and economic
- > Follower plate made for your right tin
- > Small to be placed anywhere
- > Available an acoustic or electric low level alarm with pump stop
- > Pressure regulator with gauge.





FOLLOWER PLATE PUMP PP1-10

- > **Pressure feeding of grease and lubricants until NLGI 3 class in 0,5 Kg to 10 Kg tins**

FEATURES:

- > No need of decanting, the original tin will completely empty
- > Simple, strong and economic
- > Follower plate made for your right tin
- > Small to be placed anywhere
- > Available an acoustic or electric low level alarm with pump stop
- > Pressure regulator with gauge for the pump and the hoist.



The follower plate pump **PP1-10** is mounted on a double pneumatic ram which lift and push down it when needed.

All the process is drive from a pneumatic valve mounted on the top of the structure. The pneumatic pump is available with two ratio, 10:1 and 25:1, and when feeded with air is able to move across the tubes the grease to the DAV Tech valves.

The follower plate is made according to the size of the Drum which you must take the grease, while the centering and belts (optional) make the simple and rapid replacement of the drum.

The pneumatic lift makes it suitable for all those lubricating paste for which in addition to the action of suction of the pump is required also a pressure which maintains the pump always primed.

TECHNICAL DATA

Type	Pneumatic pump mounted on pneumatic hoist	
Max drum sizes	Diam. 80-260 mm, Height 285 mm	
Ratio	10:1	25:1
Stroke	16 cc/cycle	
Used fluids	Grease, silicones and pasty products, also with high viscosity	
Air pressure	2-10 bar	
Fluid outlet pressure	20-100 bar	50-250 bar
Weight	25 Kg	25 Kg
Air fitting inlet	1/4 gas	
Fluid fitting outlet	1/4 gas	
Options	Electric or acoustic low level alarm, pump stopper, filter	



FOLLOWER PLATE PUMP PP-25

The follower plate pump **PP-25** is made from a base on which is fitted a pneumatic lift unit that raises and lowers the pump and the pressure plate.

All the movements is controlled by a manual pneumatic valve on top of the pump. The pneumatic pump is available 2 compression ratios, 30:1 and 38:1, and once fed with compressed air is able to suck and feed in pressure even very high viscosity products.

The pressure plate is made following the size of the drum (avoiding leakage from the sides of itself), while the centering straps make the substitution of the drum simple and fast. The extremely robust structure makes it suitable for applications even in the harshest environments.

The wheels carriage on which is mounted, allows easy movement when necessary.

TECHNICAL DATA

Type	Pneumatic pump mounted on pneumatic hoist	
Max drum sizes	Diam. max 360 mm, Height max 450 mm	
Ratio	30:1	38:1
Stroke	40 cc/cycle	15 cc/cycle
Used fluids	Grease, silicones and pasty products, also with high viscosity	
Air pressure	1-8 bar	
Fluid outlet pressure	30-240 bar	38-300 bar
Weight	45 Kg	35 Kg
Air fitting inlet	1/2 gas	1/4 gas
Fluid fitting outlet	3/8 gas	1/4 gas
Options	Low level alarm (electric or acoustic), Stop pump system, Filter, Heating drum system	

- > **High pressure feeding of grease, silicones and other high viscosity fluids from 25 Kg drums**

FEATURES:

- > No need for decanting, the drum original is completely emptied
- > Simple, rugged and with wheels for easy moving
- > Follower plate customized for size of the drum
- > Available on request with acoustic or electric alarm for minimum level
- > Pressure reducing valves with gauge to regulate the pressure at the pump and to the lifting cylinders
- > Screwed spindle simply delete the air present above the level of the product.





FOLLOWER PLATE PUMP PP-50



FIELDS OF APPLICATION:

- > High pressure feeding of grease, silicones and other high viscosity fluids from 50 Kg drums

FEATURES:

- > No need for decanting, the drum original is completely emptied
- > Simple, rugged and with wheels for easy moving
- > Follower plate customized for size of the drum
- > Available on request with acoustic or electric alarm for minimum level
- > Pressure reducing valves with gauge to regulate the pressure at the pump and to the lifting cylinders
- > Screwed spindle simply delete the air present above the level of the product.



The follower plate pump **PP-50** is made from a base on which is fitted a double pneumatic lift unit that raises and lowers the pump and the pressure plate.

All the movements is controlled by a manual pneumatic valve on top of the pump. The pneumatic pump is available 2 compression ratios, 30:1 and 38:1, and once fed with compressed air is able to suck and feed in pressure even very high viscosity products.

The pressure plate is made following the size of the drum (avoiding leakage from the sides of itself), while the centering straps make the substitution of the drum simple and fast. The extremely robust structure makes it suitable for applications even in the harshest environments.

The wheels carriage on which is mounted, allows easy movement when necessary.

TECHNICAL DATA

Type	Pneumatic pump mounted on pneumatic hoist	
Max drum sizes	Diam. max 395 mm, Height max 630 mm	
Ratio	30:1	38:1
Stroke	40 cc/cycle	15 cc/cycle
Used fluids	Grease, silicones and pasty products, also with high viscosity	
Air pressure	1-8 bar	
Fluid outlet pressure	30-240 bar	38-300 bar
Weight	55 Kg	45 Kg
Air fitting inlet	1/2 gas	1/4 gas
Fluid fitting outlet	3/8 gas	1/4 gas
Options	Low level alarm (electric or acoustic), Stop pump system, Filter, Heating drum system	



FOLLOWER PLATE PUMP PP-200

The follower plate pump **PP-200** is made from a base on which is fitted a double pneumatic lift unit that raises and lowers the pump and the pressure plate.

All the movements is controlled by a manual pneumatic valve on top of the pump. The pneumatic pump is available.

2 compression ratios, 30:1 and 65:1 (other upon request), and once fed with compressed air is able to suck and feed in pressure even very high viscosity products. The pressure plate is made following the size of the drum (avoiding leakage from the sides of itself), while the centering straps make the substitution of the drum simple and fast. The extremely robust structure makes it suitable for applications even in the harshest environments.

The wheels carriage on which is mounted, allows easy movement when necessary.

TECHNICAL DATA

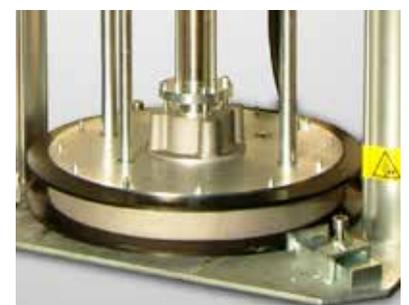
Type	Pneumatic pump mounted on pneumatic hoist
Max drum sizes	200 Kg
Ratio	30:1 (other upon request)
Stroke	40 cc/cycle
Used fluids	Grease, silicones and pasty products, also with high viscosity
Air pressure	1-8 bar
Fluid outlet pressure	30-240 bar
Weight	105 Kg
Air fitting inlet	1/2 gas 1/4 gas
Fluid fitting outlet	3/8 gas 1/4 gas
Options	Low level alarm (electric or acustic), Stop pump system, Filter, Heating drum system

FIELDS OF APPLICATION:

- > High pressure feeding of grease, silicones and other high viscosity fluids from 200 Kg drums

FEATURES:

- > No need for decanting, the drum original is completely emptied
- > Simple, rugged and with wheels for easy moving
- > Follower plate customized for size of the drum
- > Available on request with acustic or eletric alarm for minimum level
- > Pressure reducing valves with gauge to regulate the pressure at the pump and to the lifting cylinders
- > Screwed spindle simply delete the air present above the level of the product.





ELECTRIC FOLLOWER
PLATE PUMP
PPE



FIELDS OF APPLICATION:

- > **Drum emptying and feeding at constant pressure of greases, silicone, and pasty products in drums up to 50 kg.**

FEATURES:

- > No pressure peaks, the fluid pressure remain stable from the start to the end of the dispensing, both for small to high pressures.
- > The original drum is completely emptied
- > Analogic pressure sensor for the motor driving
- > Green, because electrically driven and not pneumatically
- > Simple, strong and with cart for fast moving
- > Follower plate tailor made on the drum size
- > Upon request acoustic or electric alarm for drum empty
- > Fast exhaust system to evacuate air bubbles.

A completely new concept, where instead of the classic pneumatic pump, an electric controlled motor drive a PCP cavity pump.

The result is a fluid feeding without any pressure peak, with the fluid which is not stressed with the higher pressures, preventing separation between the components etc.

The pump is driven by a servo cooled motor, which permit to change in any moment the rotation speed, in this way the pressure on the line remain constant, in any condition of the system.

This feature allow the most reliable dosing, without being affected from viscosity or temperature variations.

The pump is designed for 25 to 50 kgs drums, is equipped with a tailored made follower plate, and the centering bracket and a couple of belt make the drum changing easy and clean.

TECHNICAL DATA

Type	Follower plate electric feeding pump
Drum size	Max Diam 395 mm, Max Height 630 mm
Feeded volume	15 cc/rev
Fluids	Grease, silicone and pasty products
Pneumatic feeding pressure	6 bar
Outlet pressure fluid	Max 24 bar
Weight	120 Kg
Outlet fittings	3/8 gas 1/4 gas
Opzions	Low level alarm, pump stop system





HYDRAULIC PRESSURE REDUCER

DAV TECH PRESSURE REDUCER

When a pneumatic pump is used to feed a product is necessary to stabilize all the variations of pressure that the pump goes to create during its operation. The pressure regulator has a dual role in a dispensing system: on the one hand allows to reduce the pressure to a set value, on the other eliminates the pulse and pressure fluctuations.

The pressure regulator is supplied complete with mounting bracket and with a maximum inlet pressure of 300 bar allows (depending on the models) to obtain a stabilized output pressure between 10-60 bar, 20-120 or 30-180 bar bar. At the exit of the reducer you can install a pressure gauge or a digital pressure switch to set it easily and check the good functioning.

TECHNICAL DATA

Model	DAT090A	DAT090B	DAT090C
Weight		3,5 Kg	
Max inlet pressure		300 bar	
Outlet pressure range	10-60 bar	30-120 bar	40-180 bar
Threads		1/4 G	





PRESSURIZED CARTRIDGE HOLDER

FIELDS OF APPLICATION:

- > Feeding of sealants and fluids on 310-330 cc cartridges.

FEATURES:

- > Anodized aluminum body
- > Screwed cap for an easy load/unload of the cartridge
- > On request available with aluminum fixing with low level sensor
- > Adapters for M15-M21 cartridges available on stock
- > Special seal to avoid air leaking.



CARTRIDGE HOLDER

To use sealants or other products contained in cartridges of 310 or 330 cc you can insert the cartridge in the special **CARTRIDGE HOLDER** made in aluminum and pressurize it.

Special fittings are available from stock, designed to be mounted using the special threads of the most popular brands of sealants.

The **CARTRIDGE HOLDER** can then be equipped with a sensor that controls the consumption of the cartridge and sends an alarm once the consumption of product has passed a certain level.





GREASE DEGASSING SYSTEM

In many applications, the entrapment of air bubbles in the fluid can cause a dangerous non accuracy of the dispensing system.

The DAV Tech **DEGASSING SYSTEM** solve this problem, with a pre-processing of the grease, before its use on the assembly line, eliminating the air bubbles in the lubricant.

The system is supplied with a PLC that allow to adjust the mixing speed and the process time, checking the depression and all the other parameters.

The system is available in 2 sizes, for 1 to 5 kg tins and 25 to 50 kg drums.

All the operations are guided by an HMI display which give a fast recognition of the status of the system.

DAV Tech **DEGASSING SYSTEMS** are very useful in case is needed to transfer from a big drum to some smaller one the fluid, to remove the air bubbles that usually are created.

FIELDS OF APPLICATION:

- > Oils and greases degassing, for the highest dispensing accuracy
- > Re-homogenization of the fluid in case of parts separation

FEATURES:

- > Off-line process, so made in hide time
- > Available for drums between 1 and 50 kg
- > Adjusting processing time
- > Adjusting mixing speed.

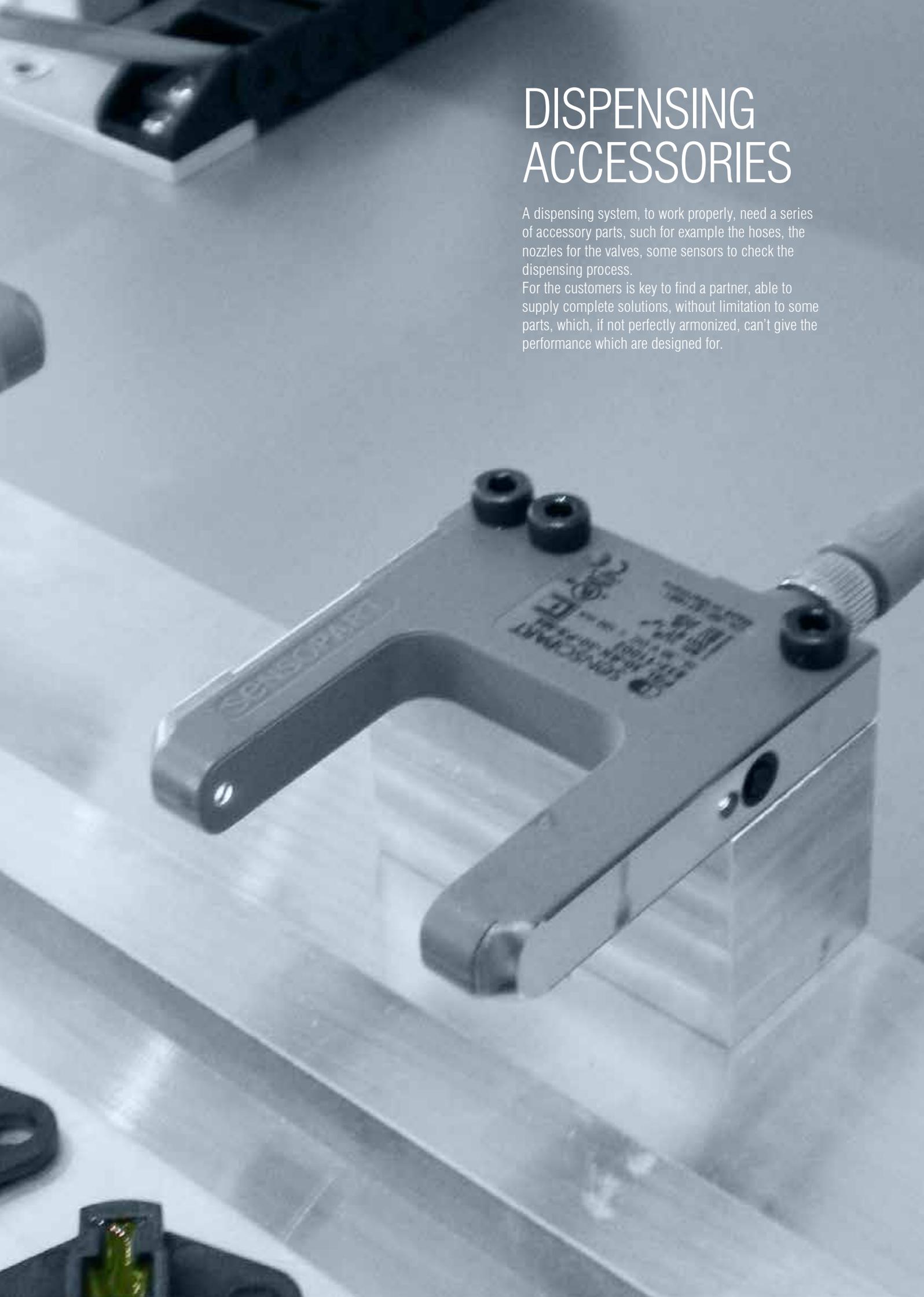




DISPENSING ACCESSORIES

A dispensing system, to work properly, need a series of accessory parts, such for example the hoses, the nozzles for the valves, some sensors to check the dispensing process.

For the customers is key to find a partner, able to supply complete solutions, without limitation to some parts, which, if not perfectly armonized, can't give the performance which are designed for.





FLUID DISPENSER DA 1000 T

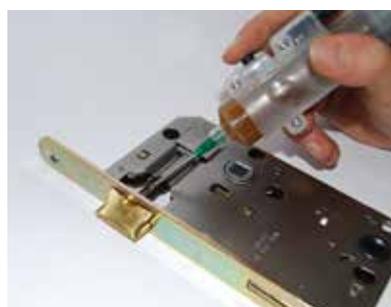


FIELDS OF APPLICATION:

- > **Manual dispensing of fluids or pasty products**

FEATURES:

- > More accurate results
- > Increased productivity
- > Less product waste
- > Maximum repeatability
- > Improved cleanliness and order of the working area
- > Less operator fatigue
- > Makes dots, beads and fills.



The dispenser **DA 1000 T** is created to perform manual dispensing with precision and repeatability.

These units allow, with a minimal investment, a rapid transition from the grease application with brushes or jars to a precise micro dosing.

The control units are versatile and can work with various types of product both in pasta that fluid, with a setup of a few seconds can pass from oil or grease dose to dose instant glues.

The vacuum function also prevents dripping of the syringe at rest, while the actuation of the control unit can be done either with the pedal supplied or with the finger switch on the handle of the syringe. The control DA 1000 T can also be modified as necessary and used for timing the metering valves DAV Tech when is not possible use a PLC.

TECHNICAL DATA

Dispense time display	Digital
Dispensing time range	0.001-9.999s
Air pressure inlet	3-7 bar
Air pressure outlet	0,1-7 bar
Repetability	0,00005 s
Minimum amount dispensed	0,001 cc
Max frequency	> 600 cycles/minute
Overall dimensions	250 mm x 150 mm x 70 mm
Weight <	3 Kg




DESKTOP SYSTEM FOR ANAEROBIC SEALANTS DISPENSING

The system is developed to have a compact, reliable and high performance solution for the application of anaerobic sealants on screws, pins, fittings etc.

The system is made by a stainless steel tank, designed to host, without pour off, the 250 ml bottles from Loctite or Loxeal, by an high precision diaphragm dispensing valve, and by an electro-pneumatic unit to control the system and to receive the presence signal from a sensor.

In this way is possible to have a reliable dispensing, a clean working area, without fluid waste and contamination, and a big time saving.

TECHNICAL DATA

Weight	8 Kg
Air feeding	Min 5 bar
Electric feeding	220 V
Fluid pressure	Adjustable since 0,1 to 5 bar
Dispensing time	Adjustable since 0,001 to 9,999 s
Min. dispensing quantity	About 0,005 cc (5 mm ³)
Used materials	Stainless steel, anodized aluminum and PTFE
Speed	Until 100 cycle/min

FIELDS OF APPLICATION:

- > **Dispensing of anaerobic glues (like Loctite, Loxeal, Permabond etc) on:**
 - **Screw from M4 to M20 and over**
 - **Pins**
 - **Fittings**
 - **Shafts**

FEATURES:

- > Adjustable and reliable dispensing
- > Immediate dispensing when the part is moved close to the sensor
- > Automatic start, no buttons to push
- > Clean and health safe dispensing
- > Work with many size without setup.





PROCESS SENSORS



FLOW SENSOR

DAV Tech offers the possibility to monitor the passage of liquid products, such as oil, using a special flow sensor. The signaling of the passage occurs via a reed switch activated by a magnet, located on a piston moved by the pressure of the fluid in transit. The sensor measures a minimum pass of 10 mm³.

Technical Data	Minimum flow rate reading	10 mm ³ /stroke
	Power	8-28 VDC
	Connector	M12x1
	Output signals	NPN 2A N.O. - PNP 0.7A N.O.
	Max Flow Pressure	7 bar
	Mediums	Oil 32-220 Cst
	Input / Output thread	1/8 BSP



AIR BUBBLES DETECTOR

The detector allows to highlight the presence of an air bubble inside a tube without contact between the detector and the liquid. Using the technology of ultrasound is possible to control this important parameter of the process even in presence of aggressive fluids such as primers, glue, thread lockers etc. The sensor is available in 2 sizes to accommodate various sizes of pipe.

Technical Data	Reading	Ultrasound Technology
	Air bubbles sensitivity	Reading with minimum size equal to 1/3 of the internal diameter of the tube
	Response time	Adjustable from 0.5 ms
	Pipe size	3-8 mm or 8-17 mm
	Connector	M12 3-wire
	Power supply	12...30 VDC
	Consumption	Max 50 mA



PRESSURE SENSOR FOR HIGH VISCOSITY FLUIDS

The pressure sensor with diaphragm allows you an accurate control of the pressure changes within the circuit, even when dispensing products with a high reactivity such as silicones. The sensor, depending the model chosen, can provide an output signal 0-10Vdc or 4-20mA and is supplied complete with connector. You can also choose the reading range, which is available in various sizes from 0-10 to 0-300 bar.

Technical Data	Housing material	Stainless steel AISI 304, Nylon 66F35V0
	Material wetted parts	Stainless steel 17-4PH
	Accuracy	+/- 0,5%
	Response time	< 1 ms
	Mounting position	Any
	Detectable pressure	Depending on the model from 0-10 bar to 0-300 bar





NOZZLES AND CONSUMABLE MATERIALS

TAPERED TIPS

The nozzles have a conical polypropylene body with a luer lock thread to be mounted on the dispensing valves. With their tapered shape are ideal to dispense fluids with medium to high viscosity such as resins, liquid gaskets and silicone.

Technical Data	Tapered tips (Overall length 1,25")			
	Code	Color		ø internal
	DAV TT 14	Salmon		1,61 mm
	DAV TT 16	Grey		1,22 mm
	DAV TT 18	Green		0,89 mm
	DAV TT 20	Pink		0,62 mm
	DAV TT 22	Blue		0,43 mm
	DAV TT 25	Orange		0,26 mm



NOZZLES WITH STAINLESS STEEL CANULA

The nozzles with plastic hub and stainless steel canula are available in 3 different lengths, 0,5" - 1" - 1,5". The nozzles are designed for many different application, especially to reach hard to find positions.

Technical Data	Nozzle with stainless steel (canula length 0,5" - 1" - 1,5")				
	Code	Color	ø internal	ø external	
	DAV TE 14	Green	1,77 mm	2,11 mm	
	DAV TE 15	Orange	1,51 mm	1,83 mm	
	DAV TE 16	Violet	1,35 mm	1,65 mm	
	DAV TE 18	Pink	0,99 mm	1,27 mm	
	DAV TE 19	Brown	0,79 mm	1,06 mm	
	DAV TE 20	Yellow	0,64 mm	0,91 mm	



STAINLESS STEEL NOZZLES

The stainless steel nozzles are a great compromise between price and quality and can be used with aggressive fluids. The nozzles are also available in huge passage versions (up to 3 mm) for the extrusion of high viscosity fluids.

Technical Data	Stainless steel nozzles		
	Code	ø internal	ø external
	DAV SS 10	2,95 mm	3,40 mm
	DAV SS 11	2,39 mm	3,05 mm
	DAV SS 12	2,16 mm	2,77 mm
	DAV SS 13	1,80 mm	2,41 mm
	DAV SS 14	1,60 mm	2,11 mm





NOZZLES AND CONSUMABLE MATERIALS



NOZZLES WITH FLEXIBLE POLYPROPYLENE CANULA

This nozzles avoid any damaging of the parts in case of contact.
The inner diameter can be 1,2 - 1,0 - 0,8 - 0,6 and 0,4 mm.



NOZZLES WITH PTFE CANULA

This nozzles have a PTFE canula, axially mounted on a stainless steel canula.
This configuration allow the dispense of reactive fluids such as anaerobics and cyano-acrylics.



BRUSH NOZZLES

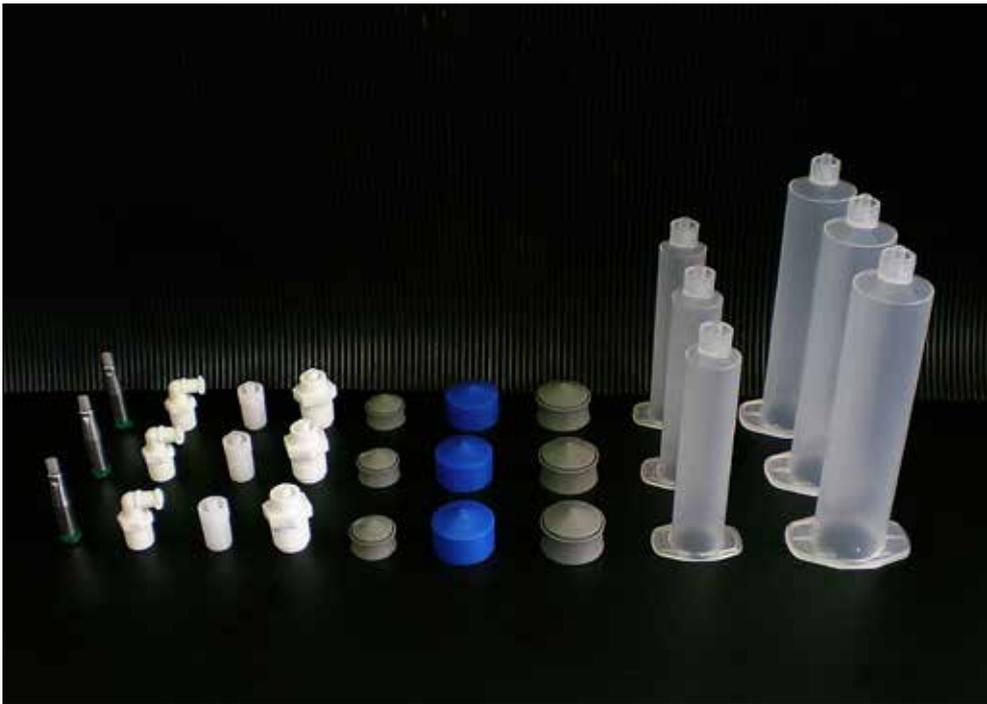
This luer lock nozzles have a brush (available in different sizes) mounted on their end.
Are ideal for example for spreading silconic oil on gaskets.



STATIC MIXERS

A wide range of static mixers allow to choose the better one for any single application o 2k fluid dispensing.





NOZZLES AND CONSUMABLE MATERIALS

SYRINGES

The syringes are available in 10, 30 and 55 cc version, equipped with various shape pistons.



SPECIAL NOZZLES

DAV Tech specializes in the design and construction of special nozzles. The shape and the material used are chosen with the customer during project studying.

The nozzles depending on the case are made of stainless steel, aluminum, brass, Delrin, Teflon, etc.



OTHER NOZZLES

DAV Tech can offer many other various nozzles:

- > Luer lock nozzles with brush, with different size for the tip and for the brush
- > Luer lock tips with PTFE canula, to dispense tread lockers or instant glues
- > Luer lock fittings with 1/4" or 1/8" treads
- > Static mixers for 2 component systems
- > Luer lock caps.





HOSES



ARMORED HOSES WITH PTFE TUBE

The DAV Tech armored hoses could be tailor made supplied, choosing the length, the size, the hydraulic fittings and its shape.

The armored textile increase the resistance and the inner tube, made in PTFE allow the greatest glide of the flow, and prevent any contact with moisture, very important for fluids such as silicones.



HIGH PRESSURE HOSES

The DAV Tech hoses can be produced with diameters and especially with fully configurable lengths. Under the rubber, steel braid protects and strengthens the inner tube, making it ideal for feeding of products such as greases and lubricants. The fittings of various sizes and shapes, are crimped and allow it to with stand pressures above 300 bar.



HEATED HOSES

The DAV Tech heated hoses contain a PTFE tube which is covered by a series of resistors, that can heat it between 20 and 200 ° C. an integrated PT100 probe signals the need to turn off or turn on the power electricity to keep the temperature constant. The heated hoses are available in various lengths in multiples of 600 mm and are supplied complete with connectors, power cords and CE marked.



PTFE PIPES

To feed aggressive and reactive products such as anaerobic glues or instant glues, the PTFE pipes are the best solution. The pipes are available with various size and length, if request also with PTFE fittings.





ACCESSORIES FOR DISPENSING SYSTEMS

MANIFOLDS AND FLOW REGULATORS

The manifolds and flow regulators allow to divide the fluid towards various directions.

The flow regulators especially are ideal when the fluid circuit is divided in various lengths tubes because it allows the adjusting of the fluid in different ways on each single outlet.



HIGH PRESSURE FILTERS

During the drum change operations is frequent the contamination of the grease or the silicon with powder, dirty particles or shavings.

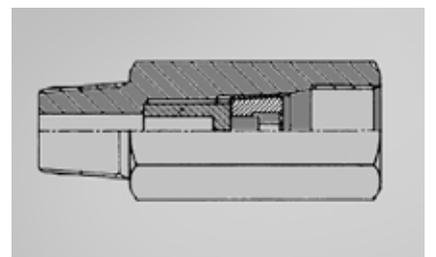
If this particles move to the dispensing valves it can damage or destroy it. For this reason a cartridge filter could be used to prevent this kind of problems. The cartridges could be easily changed to be cleaned or changed and are available with a passage size from 30 to 150 micron.



LOW PRESSURE FILTERS

The oil that have to be dispensed can be placed in contact with shavings or dirty parts that can damage or clog the dispensing valve.

A filter can be placed on the pressure tank outlet and prevent this kind of problems. The filters are available with various treads and passage sizes.

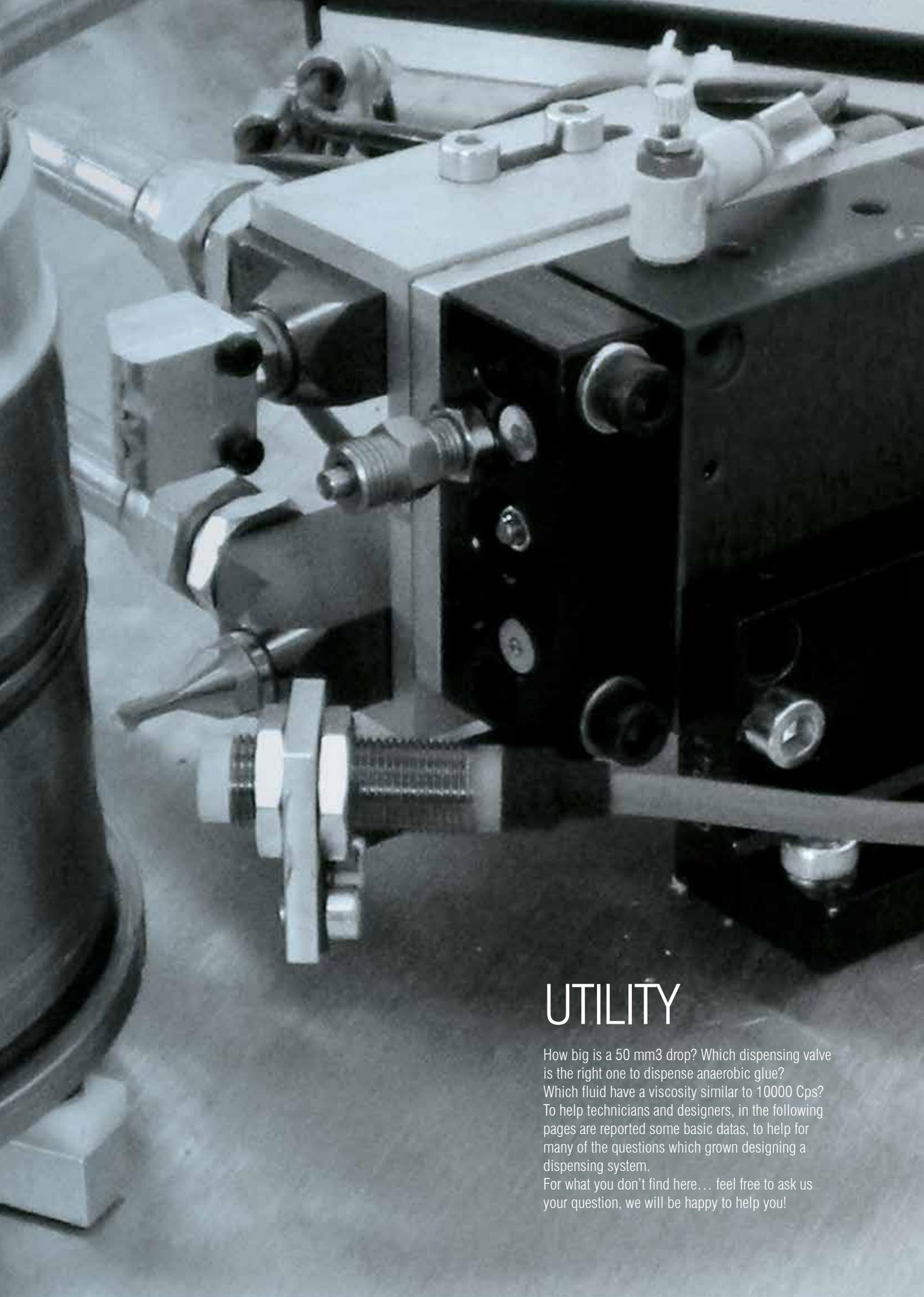


FITTINGS

For any kind of hydraulic or pneumatic circuit DAV Tech is able to supply all the necessary fittings, from a simple threaded connector to the most complex high pressures rotary fittings.







UTILITY

How big is a 50 mm³ drop? Which dispensing valve is the right one to dispense anaerobic glue? Which fluid have a viscosity similar to 10000 Cps? To help technicians and designers, in the following pages are reported some basic datas, to help for many of the questions which grown designing a dispensing system. For what you don't find here... feel free to ask us your question, we will be happy to help you!

FLUIDS COMPATIBILITY WITH STANDARD DAV TECH VALVES

Using this tab is possible to check the compatibility of some of the most used industrial fluids with DAV Tech valves.

In case the fluid you have to dispense isn't in the tab, or in case of any doubt feel free to contact us, sending the technical datasheet of the fluid (TDS), and explaining your needs.

PRODUCT CODE	Anaerobic glue	Cyanoacrylic glue	RTV Silicones	Liquid gaskets	Low viscosity greases	High viscosity greases	Lubricating oil	Siliconic oil	Vinilic glue	2K products
DA 400	●	●	●	●	●	●	●	●	●	●
DA 400 EV	●	●	●	●	●	●	●	●	●	●
DA 400 Mini	●	●	●	●	●	●	●	●	●	●
DA 500	●	●	●	●	●	●	●	●	●	●
DA 250	●	●	●	●	●	●	●	●	●	●
DAS 30	●	●	●	●	●	●	●	●	●	●
DAS 50	●	●	●	●	●	●	●	●	●	●
DAS 90	●	●	●	●	●	●	●	●	●	●
DAS 100	●	●	●	●	●	●	●	●	●	●
DAS 100 EV	●	●	●	●	●	●	●	●	●	●
DAS 200 MAN	●	●	●	●	●	●	●	●	●	●
DAV 100	●	●	●	●	●	●	●	●	●	●
DAV 200	●	●	●	●	●	●	●	●	●	●
DAV 300	●	●	●	●	●	●	●	●	●	●
DAV 400	●	●	●	●	●	●	●	●	●	●
DAV 600	●	●	●	●	●	●	●	●	●	●
DAV 100 MAN	●	●	●	●	●	●	●	●	●	●
DAV 200 MAN	●	●	●	●	●	●	●	●	●	●
DAV 300 MAN	●	●	●	●	●	●	●	●	●	●
DAV 400 MAN	●	●	●	●	●	●	●	●	●	●
DAVS 100	●	●	●	●	●	●	●	●	●	●
DAVS 200	●	●	●	●	●	●	●	●	●	●
Series DAVM	●	●	●	●	●	●	●	●	●	●
Pressurized tanks series PT	●	●	●	●	●	●	●	●	●	●
Pneumatic pumps PP	●	●	●	●	●	●	●	●	●	●
Electric pump PP-E	●	●	●	●	●	●	●	●	●	●
Fluid dispenser DA 1000	●	●	●	●	●	●	●	●	●	●

● Ideal application

● Application to be evaluated

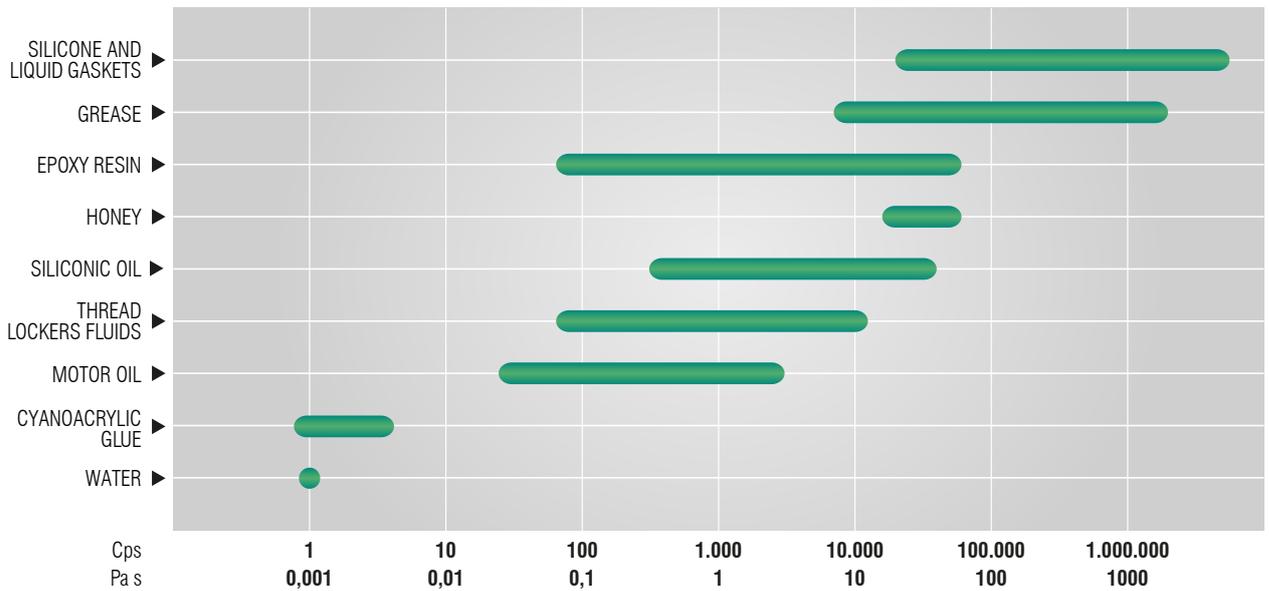
● Application not possible

UTILITIES

AVERAGE VISCOSITY OF SOME COMMONS FLUIDS

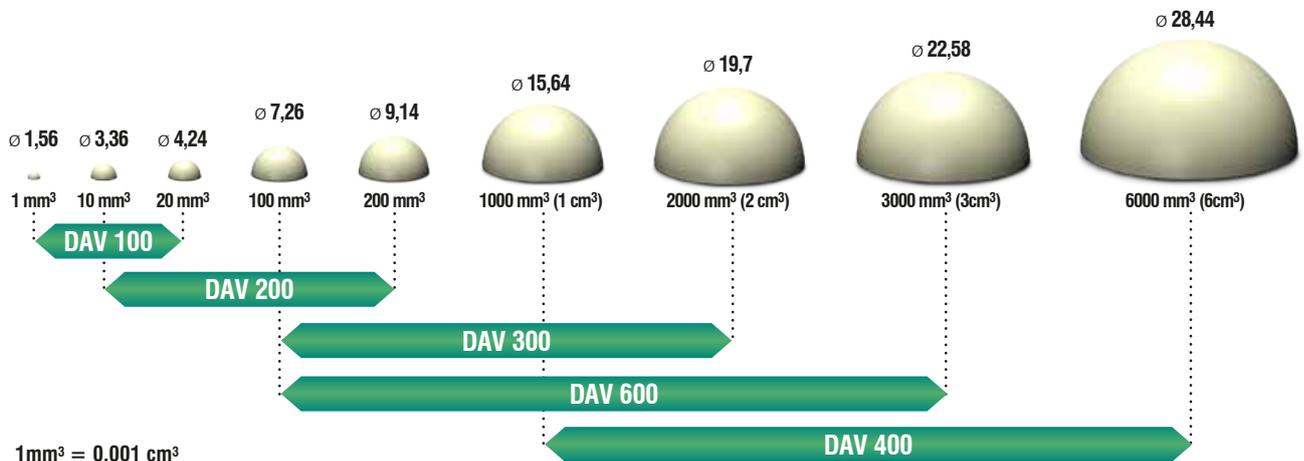
Here is shown some average values about the viscosity of some common fluids.

The viscosity is the value which describe the resistance of a fluid to move inside a tube. So it is very important to keep it in mind during the designing of a dispensing system.



GREASE DROP SIZE THAT IS POSSIBLE TO DISPENSE WITH DAV TECH METERING VALVES

The DAV metering valves allow an accurate dispensing of grease and similar fluids. Each model has a different range, designed to overlap in part the smaller and the bigger one model. Obviously the metered amount can be divided in many points by using special nozzles etc. For bigger volumes, PCP pumps or special nozzles don't wait to contact us.



DAV TECH SRL

Via Ravizza, 30
36075 Montecchio Maggiore (VI) - ITALY
Tel. 0039 0444 574510
Fax 0039 0444 574324

davtech@davtech.it
www.davtech.it

DAV TECH POLAND SP. Z O.O.

Ul. Na Grobli 1A
32-005 Niepołomice
POLAND
Tel. +48 501548694

davtech@davtech.pl
www.davtech.pl

