## CV629 - Adjustable Cartridge Valve

The CV629 is a pneumatically operated valve designed for precision dispensing of many types of fluids, such as solvents, oils, silicones, glues, UV adhesives, inks, etc. The system can be integrated with an automatic dispensing robot or used as a bench-dispensing valve. Avoid clean-up and maintenance by simply replacing the removable cartridge.

## 3-Way Valve Operation

The valve is opened by air pressure and closed by a return spring when air pressure is released. Applying a minimum of 70 psi (5 bar) air pressure to the air inlet will open the valve. Fluid is supplied to the material inlet through a 1/8 BSPP port.

Shot sizes may be fine tuned by the adjustment screw at the top of the valve; hence the CV629 valve is recommended for applications where micro deposits are required. Shot size and flow rate are controlled by the tip size, fluid pressure and the duration that the valve is open.

The model DSP501N is a suitable controller for the CV629 valve.

## Model

| | |
|---|---|
| CV629 | Cartridge valve |

## Accessories

| | |
|---|---|
| DSP501N | 3-way controller 110/220V CE |

## Features

Aligned air and material inlets for side-by-side mounting

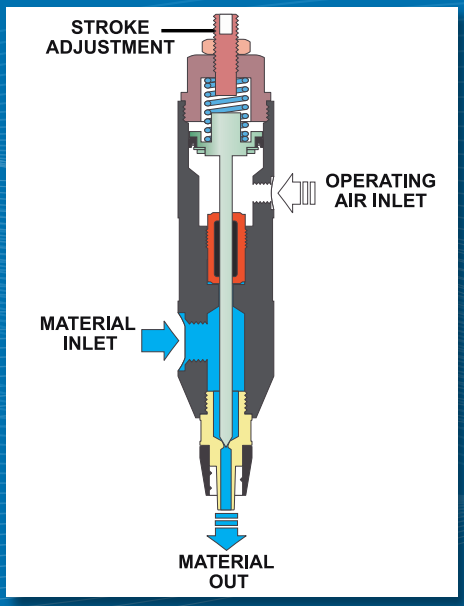
Stroke adjustment to fine tune shot size

Replaceable cartridge

Microshot deposits

## Specifications

| | |
|---|---|
| Operating air pressure: | 70 to 85 psi (4.8 to 5.9 bar) |
| Material delivery pressure: | MAX 300 psi (20.7 bar) |
| *Connecting Ports:* | |
| Operating air input: | M5 thread with push-in fitting for ø6 O.D. tube |
| Material inlet: | 1/8" BSPP with push-in fitting for ø6 O.D. tube |
| Material outlet: | Luer lock adapter |
| Weight: | 135g |



# VD510
Diaphragm Valve

## VD510 - Min. Shot Size 0.001cc - Adjustable

The VD510 is a diaphragm valve designed for precise flow control of low to medium viscosity materials. The diaphragm separates the wetted parts from the moving parts and, therefore, the valve is ideal for dispensing cyanoacrylates, reagents, electrolytes, glues, solvents, paints, alcohol and other volatile substances.

The model DSP501N is a suitable controller for the VD510 valve.

## 3-Way Valve Operation

When air pressure is applied to the VD510 valve, the valve will open and the material will be dispensed. At the end of the dispense cycle a spring assists the diaphragm to return quickly to its closed state for immediate shut-off.

Shot sizes may be fine tuned by turning the stroke adjustment at the top of the valve.


## Model

| | |
|---|---|
| VD510 | High-pressure constant-bead valve |
| VD510-SS | Stainless steel diaphragm valve |
| VD510-UV | UV suitable diaphragm valve |

## Accessories

| | |
|---|---|
| DSP501N | 3-way controller 110/220V CE |

## Features

Stroke adjustment to fine tune shot size

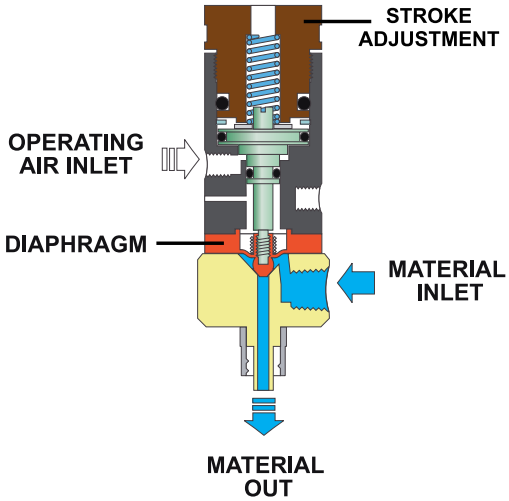
Separated wetted parts

Suitable for robot integration

Suitable for anaerobic fluids

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-85PSI (4.1-5.9 bar) |
| Material delivery pressure: | 71PSI (4.9 bar) |
| Flow rate: | MAX 0.3 l/min |
| Minimum shot size: | 0.001cc (material dependent) |
| *Driving part materials:* | |
| Body: | AL (hard coated, black) |
| Piston: | SUS303 |
| Piston Seal: | NBR |
| Wetted part materials: | UHMW-PE |
| *Connecting Ports:* | |
| Operating air input: | M5xP0.8 |
| Material inlet: | 1/8" NPT |
| Material outlet: | Luer lock |
| Weight: | 76g |



## VMS400 - Min. Shot Size 0.1cc - Adjustable

The VMS400 is a mini-spool type pneumatic valve designed for dispensing low viscosity to high viscosity materials.

## 3-Way & 4-Way Valve Operation

When air pressure is applied to the air inlet of the VMS400 valve, the spool will be forced forward and fluid will be dispensed. The VMS400 valve has a suck-back effect that eliminates lumping at the end of the needle after dispensing. Turning the adjustment control at the top of the valve regulates the amount of suck-back.

Shot size and flow rate are controlled by the tip size, fluid pressure and the duration that the valve is open.

The model DSP501N is a suitable controller for the VMS400 valve. For faster actuation, the 4-way VC1195N valve controller is recommended.

## Model

| | |
|---|---|
| VMS400 | Mini spool valve |

## Accessories

| | |
|---|---|
| DSP501N | 3-way controller 110/220V CE |
| VC1195N | 4-way controller 110/220V CE |

## Features

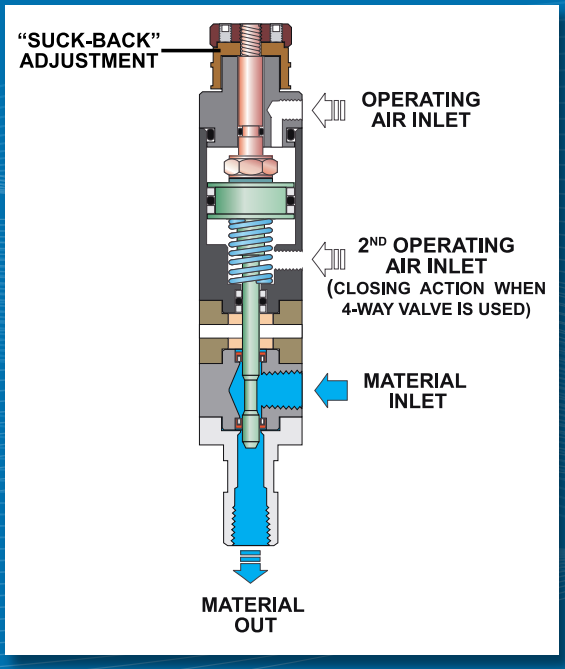
High-pressure fluid input up to 700 psi

Adjustable "suck-back" effect

Suitable for high viscosity fluids

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-85PSI (4.1-5.9 bar) |
| Material delivery pressure: | 711PSI (49 bar) |
| Flow rate: | MAX 5.0 l/min |
| Minimum shot size: | 0.1cc |
| *Driving Part Materials:* | |
| Body, Piston: | SUS303 |
| Spool: | SUS420 |
| CAP: | AL (hard coated) |
| *Wetted Part Materials:* | |
| Chamber, Chamber Cap: | SUS303 |
| Seal: | UHMW-PE lip seal |
| *Connecting Ports:* | |
| Operating air inlet: | M5xP0.8 |
| Exhausting outlet: | M5xP0.8 |
| Material inlet, outlet: | 1/8" NPT |
| Weight: | 255g |



# VP300

Poppet Valve

## VP300 - Min. Shot Size 0.05cc - Adjustable

The VP300 is a multipurpose, poppet-type pneumatic valve designed for dispensing low to mid-high viscosity materials, such as silicones, RTV, epoxy, rubber adhesives, grease, liquids containing filler, etc.
A diaphragm located between driving parts and wetted parts increases the valve life and reduces valve maintenance.

## 3-Way & 4-Way Valve Operation

When air pressure is applied to the valve, the valve seat will open and the material will be dispensed. Shot sizes may be fine tuned by turning the control knob at the top of the valve.

The VP300 valve has a suck-back effect that eliminates lumping at the end of the needle after dispensing. The suck-back effect occurs when the valve is closed because of the change in the volume of the material area as the poppet moves up in the valve.

The model DSP501N is a suitable controller for the VP300 valve. For faster actuation, the 4-way VC1195N valve controller is recommended.


## Features

Stroke adjustment to fine tune shot size

"Suck-back" effect

Separated wetted parts

Suitable for filled material

## Model

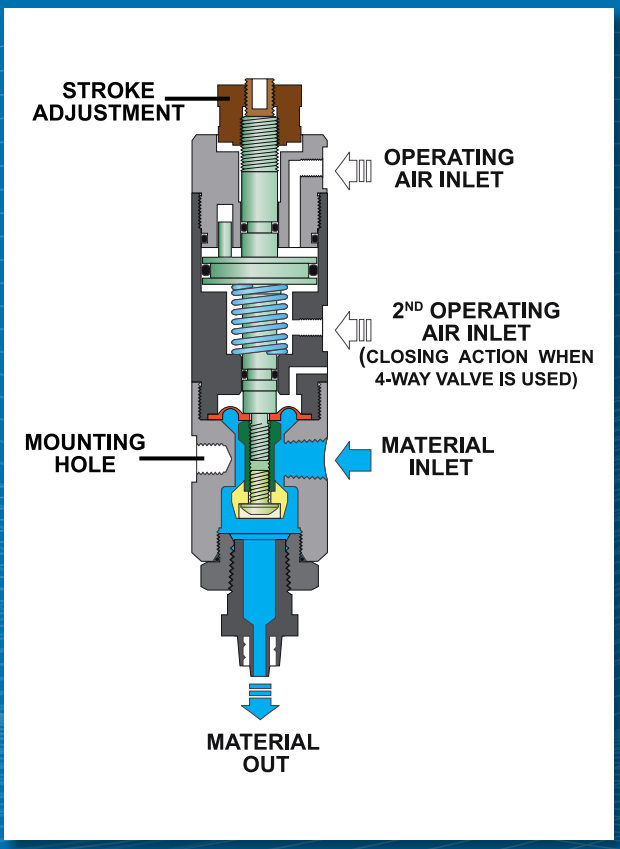
| | |
|---|---|
| VP300 | Poppet valve |

## Accessories

| | |
|---|---|
| DSP501N | 3-way controller 110/220V CE |
| VC1195N | 4-way controller 110/220V CE |

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-85PSI (4.1-5.9 bar) |
| Material delivery pressure: | 85PSI (5.9 bar) |
| Flow rate: | MAX 2.4l/min |
| Minimum shot size: | 0.05cc |
| *Driving part materials:* | |
| Body: | AL (hard anodizing, black) |
| Piston: | SUS303 |
| Piston Seal: | NBR |
| *Wetted part materials:* | |
| Chamber, CAP: | AL (hard anodizing, black) |
| Diaphragm, Valve Seat: | UHMW-PE |
| O-Ring (CAP): | Viton |
| **Option**: | The Chamber, CAP, and wetted parts can be replaced with SUS303, AL, PPEK, Acteal. |
| *Connecting Ports:* | |
| Operating air input: | M5xP0.8 |
| Material inlet: | 1/8" NPT |
| Material outlet: | 1/4" NPT, Luer lock |
| Mounting Hole: | M5xP0.8 |
| Weight: | 258g |



## VMP30H - Min. 0.01cc - Adjustable

The VMP30H is a multipurpose, mini-poppet pneumatic valve designed for dispensing low to mid-high viscosity materials, such as silicones, RTV, epoxy, rubber adhesives, grease and filled materials. The poppet design minimizes surface area and friction between the valve piston and the material, making it ideal for filled materials and extending the life of the valve seals.

A diaphragm located between driving parts and wetted parts increases the valve life and reduces valve maintenance.

## 3-Way & 4-Way Valve Operation

When air pressure is applied to the valve, the valve seat will open and the material will be dispensed. Shot sizes may be fine tuned by turning the control knob at the top of the valve.

The VMP30H valve has a suck-back effect, which draws material back into the fluid body at the end of the dispensing cycle. This eliminates lumping at the end of the needle after dispensing.

The model DSP501N is a suitable controller for the VMP30H valve. For faster actuation, the 4-way VC1195N valve controller is recommended.


## Features

Stroke adjustment to fine tune shot size

"Suck-back" effect

Separated wetted parts

Suitable for filled material

## Model

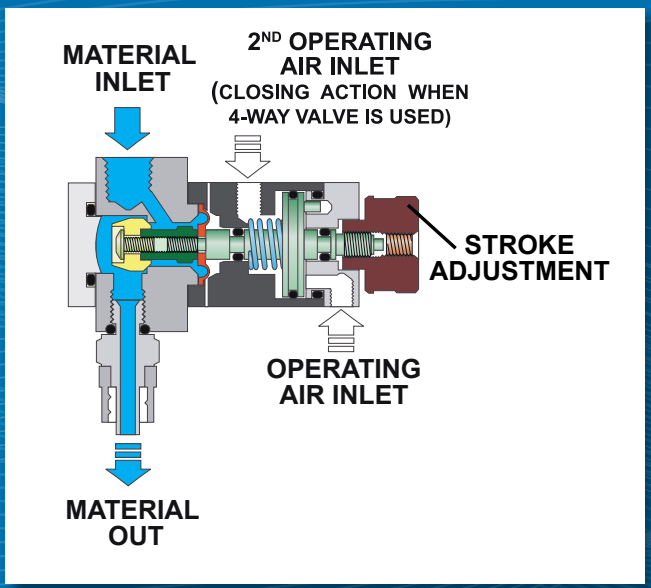
| | |
|---|---|
| VMP30H | Mini poppet valve |

## Accessories

| | |
|---|---|
| DSP501N | 3-way controller 110/220V CE |
| VC1195N | 4-way controller 110/220V CE |

## Specifications

| | |
|---|---|
| Operating air pressure: | 50-85PSI (3.4-5.9 bar) |
| Material delivery pressure: | Max 85PSI (5.9 bar) |
| Flow rate: | MAX 1.2l/min |
| Minimum shot size: | 0.01cc (material dependent) |
| *Driving part materials:* | |
| Body: | AL (hard anodizing, black) |
| Piston: | SUS303 |
| Piston Seal: | NBR |
| *Wetted part materials:* | |
| Chamber, CAP: | SUS303 |
| Diaphragm, Valve Seat: | UHMW-PE |
| O-Ring (CAP): | Viton |
| **Option**: | The Chamber, CAP, and wetted parts can be replaced with SUS303, AL, PPEK, Acteal. |
| *Connecting Ports:* | |
| Operating air input: | M5xP0.8 |
| Material inlet: | 1/8" NPT |
| Material outlet: | Luer lock |
| Weight: | 162g |



# 710PT-LF

Pinch Tube Valve

## 710PT-LF - Pinch Tube Valve

Engineered for precise control of semi-viscous liquids including mixed two-part component fluids and cyanoacrylate. The only part of the valve making contact with the fluid being dispensed is the disposable pinch tube assembly.

## 3-Way Valve Operation

The 710PT-LF pinch tube valve provides an infinite degree of control for continuous micro-shot applications of low-to semi-viscous materials.

Automatically opening and pinching a molded polyethylene tube assembly achieves the "on/off" control.

The shot size or flow rate is determined by the degree of adjustment in releasing the closed (pinched) tube and by the valve control timer.

## Model

| | |
|---|---|
| 710PT-LF | Pinch tube valve |

## Accessories

| | |
|---|---|
| DSP501N | 3-way controller 110/220V CE |

## Parts *(included)*

| Part # | Qty | Description |
|---|---|---|
| 580033-LF | 1 | Mounting rod 0.5" O.D. |
| 580037A | 3 | Dispense tube 0.10" I.D. |
| 580038A | 3 | Dispense tube 0.07" I.D. |
| 5601257 | 5 | Teflon lined tips |
| 5601225 | 5 | Blunt end tips 23 gauge |
| 5601390 | 1 | Tip adapter |

## Features

Throwaway valve and feed tubes

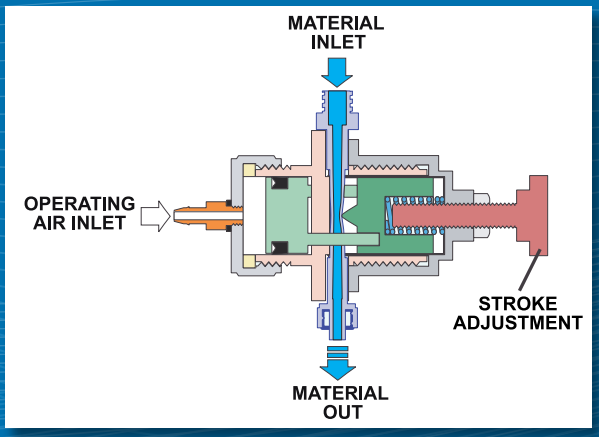
Suitable for low viscosity fluids

Ideal for two-part epoxies and cyanoacrylate

Simple to use and maintain

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-75 psi (4.1-5.1 bar) |
| Material delivery pressure: | Max 100 psi |
| *Driving part materials:* | |
| Body: | Plastic |
| Piston: | Plastic |
| Wetted part materials: | Polyethylene |
| *Connecting Ports:* | |
| Operating air input: | 1/4" tube adapter |
| Material inlet: | Luer lock |
| Material outlet: | Luer lock |



# 790HP-LF

High Volume Valve

## 790HP-LF - High Volume - Spool Action

The 790HP-LF series high-pressure dispense valve is an economic solution when dispensing high viscosity materials such as silicones, RTV, sealant and grease. The 790HP-LF provides a snap-release shut off after dispensing, resulting in a suck-back at the fluid outlet, preventing any drip or post extrusion.

## 3-Way & 4-Way Valve Operation

The 790HP-LF is a balanced type "on/off" segmented high-pressure spool valve. Applying a minimum of 50 psi to the air inlet will force the spool forward, under tension from an internal return spring, dispensing the material.

Releasing the air pressure results in the internal spring snapping back into position and closing the valve.

790HP-LF valves can be used with a 3-way air valve controller DSP501N. Should the operation require automation, a faster closing action can be achieved using the 4-way valve controller VC1195N.


## Features

High-pressure fluid input up to 2500 psi

Suitable for very high viscosity fluids

Replaceable seals

## Model

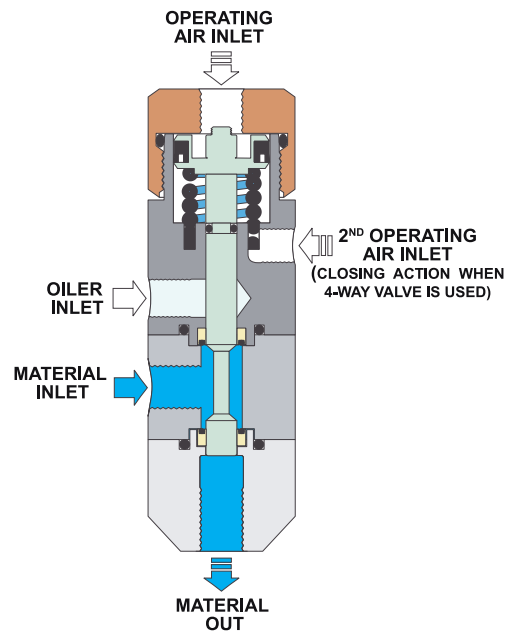
| | |
|---|---|
| 790HP-LF | High-pressure valve aluminum |
| 790HPSS-LF | High-pressure valve stainless steel |

## Accessories

| | |
|---|---|
| DSP501N | 3-way controller 110/220V CE |
| VC1195N | 4-way controller 110/220V CE |
| 580018-LF | Repair kit without valve spool |
| 580017-LF | Repair kit with valve spool |
| IJ934K | Air & fluid I/O accessory kit |
| 5601390 | Tip adapter (Pk/3) |
| 913 | 3/8” material tube fitting |
| 914 | 3/8” material tube elbow |

## Specifications

| | |
|---|---|
| Material input pressure: | MAX 2500PSI (172.4 bar) |
| Air pressure required: | Minimum 60PSI (4.1 bar) |
| *Valve body:* | |
| 790HP-LF | Aluminum |
| 790HPSS-LF | Stainless steel |
| *Connecting Ports:* | |
| Operating air input: | ¼" NPT |
| Material inlet: | ¼" NPT |
| Material outlet: | ¼" NPT |
| Seals: | O-ring - viton, seats are glass filled Teflon |



# HP600

High Pressure Needle Valve

## HP600S - small shot, HP600L - large shot

The HP600S and HP600L high-pressure dispense valves are a robust long-life solution for dispensing high viscosity materials such as silicone, RTV, sealant and grease. Both valves are adjustable for shot size.

## 4-Way Valve Operation

The HP600S & HP600L are balanced type "on/off" segmented high-pressure needle valves, which require a model VC1195N 4-way valve controller. Applying a minimum of 56 psi to the air inlet will retract the needle allowing material to flow. Switching the air signal on the controller will return the needle to its seated position closing the valve.

## Model

| | |
|---|---|
| HP600S | High-pressure valve small shot |
| HP600L | High-pressure valve large shot |

## Accessories

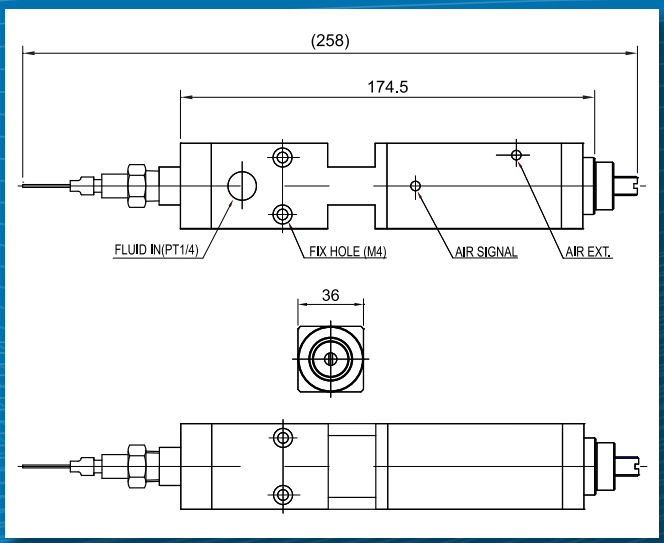
| | |
|---|---|
| VC1195N | 4-way controller 110/220V CE |
| 5601390 | Tip adapter |
| 913 | 3/8” material tube fitting |
| 914 | 3/8” material tube elbow |

## Features

- High-pressure fluid input
- 4-way operation - quick shut off
- Adjustable for shot size
- Suitable for very high viscosity fluids
- Replaceable seals

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-71PSI (4.1-4.9 bar) |
| Fluid delivery pressure | |
| HP600S: | 2,133PSI (147 bar) |
| HP600L: | 1,565PSI (107.9 bar) |
| *Minimum shot size:* | |
| HP600S: | 0.01cc |
| HP600L: | 0.2cc |
| Valve type: | Needle |
| *Driving part materials:* | |
| Cylinder body, CAP: | AL hard anodized |
| Piston, Check body: | STS303 |
| *Wetted part materials:* | |
| Chamber: | SUS303 |
| CAP, CV Body: | AL (hard coated) |
| Seals: | Acetal Teflon |
| *Connecting Ports:* | |
| Operating air input: | M5xP0.8 , 4mm fitting ø6 OD Air hose |
| Material inlet: | 1/4" NPT |
| Material outlet: | 1/4" NPT Luer lock (male) |
| Weight: | 950g |



# HPN200

High Pressure Needle Valve

## HPN200 - Adjustable - High Pressure Needle Valve

The HPN200 is a high-pressure needle valve suitable for high viscosity materials at fluid pressures up to 1,700 psi. It also features a shot size stroke adjustment, which can easily fine tune the front closing needle for precise deposits.

## 3-Way & 4-Way Valve Operation

The valve is opened and closed by applying pressure to the ports. The valve may be operated with 56 psi.

Material is supplied to the stainless steel body through a 1/4" NPT female port. Fluid pressure may be as high as 1,700 psi.

Shot size and flow rate are controlled by the tip size, fluid pressure and the duration that the valve is open.

The model DSP501N is a suitable 3-way controller for the HPN200. For faster actuation, the 4-way VC1195N valve controller is recommended.

## Model

| | |
|---|---|
| HPN200 | High-pressure front closing valve |

## Accessories

| | |
|---|---|
| DSP501N | 3-way controller 110/220V CE |
| VC1195N | 4-way controller 110/220V CE |

## Features

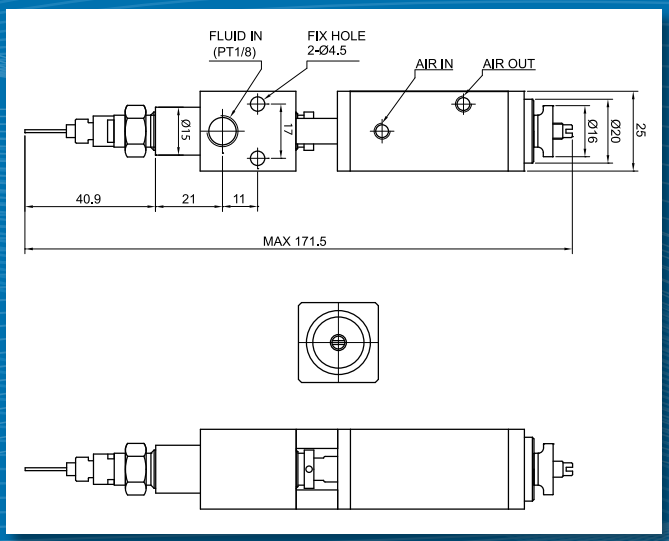
Stainless steel fluid body

High-pressure fluids up to 1,700 PSI

Stroke adjustment to fine tune shot size

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-71PSI (4.1-4.9 bar) |
| Fluid delivery pressure: | Max 120kgf/cm² (1,700 PSI) |
| Cycle rate: | 120 cycles/min |
| Minimum shot size: | 0.005cc |
| Maximum shot size: | 0.15cc/cycle |
| Valve type: | Needle |
| *Driving part materials:* | |
| Cylinder body: | AL hard anodized |
| Cap: | AL hard anodized |
| Piston: | STS303 |
| Check body: | STS303 |
| *Wetted part materials:* | |
| Chamber: | SUS303 |
| CAP, CV body: | AL (hard coated) |
| Seals: | Acetal Teflon |
| *Connecting Ports:* | |
| Operating air input: | M5xP0.8 , 4mm fitting ø6 OD Air hose |
| Material inlet: | Material inlet: 1/8" NPT |
| Material outlet: | 1/8" NPT, Luer lock |
| Weight: | 350g |



# 800RV
Constant Bead Valve

## 800RV - High Pressure

The 800RV is a constant-bead, dispense valve. Designed to deliver a uniform bead dimension irrespective of any air pressure build-up at the opening of the valve and at the start of the bead. This neutralizing pressure feature ensures a perfect bead with a clean cut-off of the material at the end of the bead path.

Suitable for medium to high viscosity materials such as silicones, RTV, sealants and greases. The valve is available as model 800RV-LL with a Luer lock fluid outlet and as 800RV-N with ¼" NPT fluid outlet.

## 4-Way Valve Operation

The 800RV is a two-stage pressure isolation valve. Applying a minimum of 60 psi to the air inlet will cause the valve to open and dispense the material.

The valve is controlled by a 4-way valve controller - VC1195N, which will control the opening and closing of the valve.


## Model

| | |
|---|---|
| 800RV-LL | High-pressure constant-bead valve Luer lock |
| 800RV-N | High-pressure constant-bead valve ¼" NPT |

## Accessories

| | |
|---|---|
| VC1195N | 4-Way valve controller 110/220V CE |

## Features

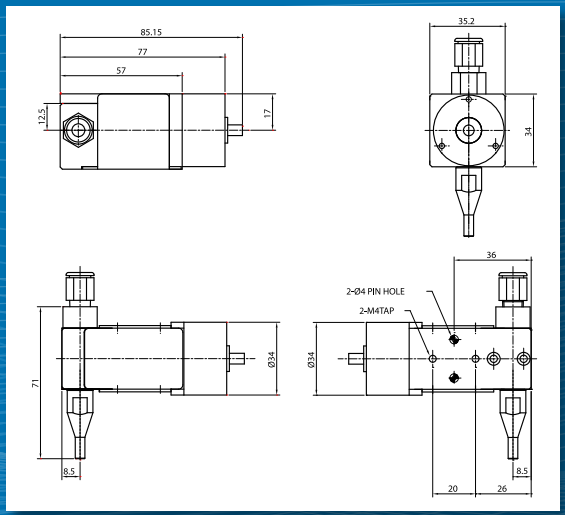
Suitable for high viscosity fluids

Constant uniform bead dispensing

Close tolerance

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-71 PSI (4.1-4.9 bar) |
| Fluid delivery pressure: | 60kgf/cm² (853 PSI) |
| Valve type: | Rotary |
| *Driving part materials:* | |
| Cylinder body, CAP: | AL hard anodized |
| Material body: | STS303 |
| Wetted part materials: | Packing -Teflon, Urethane |
| *Connecting Ports:* | |
| Operating air input: | M3xP0.8 - ø4 air hose |
| Exhaust air output: | M3xP0.8 - ø4 air hose |
| 800RV-LL - Material inlet: | 1/4" NPT |
| Material outlet: | Luer lock |
| 800RV-N - Material inlet: | 1/4" NPT |
| Material outlet: | 1/4" NPT |
| Weight: | 300g |



# 700RV

High Pressure Constant Bead Valve

## 700RV - high volume - heavy duty

The 700RV is a high-pressure, constant-bead, dispense valve. Designed for heavy duty production environments. Will deliver a uniform bead dimension irrespective of any air pressure build-up at the opening of the valve and at the start of the bead. This neutralizing pressure feature ensures a perfect bead with a clean cut-off of the material at the end of the bead path.

Suitable for high viscosity materials such as silicones, RTV, sealants and greases.


## 4-Way Valve Operation

The 700RV is a two-stage pressure isolation high viscosity valve. Applying a minimum of 56 psi to the air inlet will cause the valve to open and dispense the material.

The valve is controlled by a 4-way valve controller - VC1195N, which will control the opening and closing of the valve.

## Model

| | |
|---|---|
| 700RV | High-pressure constant-bead valve |

## Features

High-pressure fluid input up to 900 PSI

Suitable for very high viscosity fluids

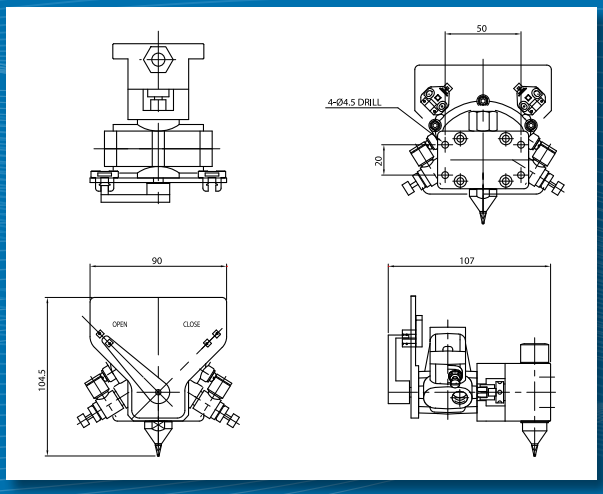
Close tolerance

## Accessories

| | |
|---|---|
| VC1195N | 4-Way valve controller 110/220V CE |

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-71 PSI (4.1-4.9 bar) |
| Fluid delivery pressure: | 70kgf/cm² (995 PSI) |
| Valve type: | Rotary |
| *Driving part materials:* | |
| Cylinder body, CAP: | AL hard anodized |
| Material body: | STS303 |
| Wetted part materials: | Packing -Teflon, Urethane |
| *Connecting Ports:* | |
| Operating air input: | PT 1/8" check valve - ø6 air hose |
| Exhaust air output: | PT 1/8" check valve - ø6 air hose |
| Material inlet: | ¼" NPT |
| Material outlet: | ¼" NPT |
| Weight: | 1300g |



# MV-0180LF

Mini Valve

## MV-0180LF - Adjustable Micro-shot mini valve

Designed for precision dispensing of all types of fluids in minute to moderate shot sizes. Its lightweight pencil-type grip makes the valve suitable for either hand-held or automatic applications. Shot sizes may be fine tuned by turning the adjustment knob at the top.

## 3-Way & 4-Way Valve Operation

The valve is opened and closed by applying pressure to the air input port. The valve may be operated between 60 and 90 psi.

Shot size and flow rate are controlled by the tip size, fluid pressure and the duration that the valve is open. Shot sizes may be fine tuned by turning the adjustment knob at the top of the valve.

The MV-0180-PLF contains a plastic fluid body for anaerobic materials.

The model DSP501N is a suitable controller but for faster actuation, the 4-way VC1195N valve controller can be used.

## Model

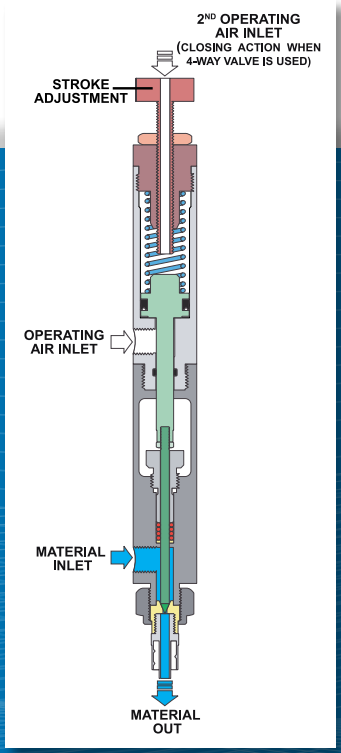
| | |
|---|---|
| MV-0180LF | Valve, aluminum body |
| MV-0180SS | Valve, 303 stainless steel body |
| MV-0180-PLF | Valve, plastic fluid body (suitable for anaerobic fluids) |

## Accessories

| | |
|---|---|
| DSP501N | 3-way controller 110/220V CE |
| VC1195N | 4-way controller 110/220V CE |
| 561716 | pistol grip for valve |

## Features

- Stainless and plastic fluid body options
- Stroke adjustment to fine-tune shot size
- Comfortable lightweight design
- Positive shut-off
- Microshot deposits




## Specifications

| | |
|---|---|
| Operating air pressure: | 60-85 PSI (4.1-5.9 bar) |
| Material delivery pressure: | Max 120 psi |
| Minimum shot size: | Micro dots |
| *Driving part materials:* | |
| Body: | AL, SS, Plastic |
| Piston: | AL, SS, Plastic |
| Piston Seal: | Teflon |
| Wetted part materials: | AL, SS, Plastic |
| *Connecting Ports:* | |
| Operating air input: | 1/8" NPT |
| Material inlet: | 1/8" NPT |
| Material outlet: | 1/4"-28 / Luer lock |
| Weight: | 172.4g |

## VBP117 - Volatile Fluids - Adjustable

The VBP117 is designed for positive displacement dispensing and filling of volatile low viscosity fluids, such as battery electrolytes reagents and acids. The VBP117 is also suitable for lubrication applications. Operation is by a frictionless bellows. Teflon materials provide excellent resistance to chemical compositions.

An optional model VBP117-16 is available for heavier viscosity battery gel type fluids. An adjuster controls a volumetric range of between 1 and 7cc.

The model VC1195N is a suitable 4-way valve controller for the VBP117 double acting metering valve.

## 4-Way Valve Operation

The valve is cycled by applying air pressure to the air ports. Low fluid pressure is required for low to medium viscosity materials.

Shot sizes may be fine tuned by turning an adjustment control on the valve.


## Model

| | |
|---|---|
| VBP117 | Volumetric bellows valve |
| VBP117-16 | Volumetric bellows valve high viscosity |

## Accessories

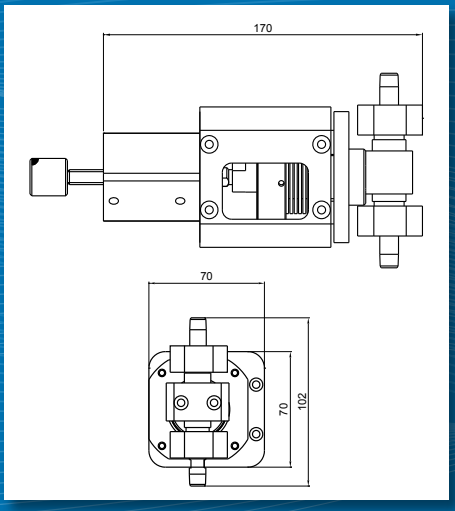
| | |
|---|---|
| VC1195N | 4-way controller 110/220V CE |

## Features

Positive displacement metering
Integral inlet/outlet check valves
Stroke adjustment 1cc - 7cc
Ideal for volatile materials
Heavy duty performance

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-71 PSI (4.1-4.9 bar) |
| Material delivery pressure: | Frictionless bellows - gravity fed |
| Minimum shot size: | 1.0cc |
| Maximum shot size: | 7.0cc |
| Measuring type: | Precision cavity |
| *Driving part materials:* | |
| Cylinder Body, CAP: | AL hard anodized |
| Material body: | STS303, STS16 (special order) |
| Wetted part materials: | Packing - Teflon |
| *Connecting Ports:* | |
| Operating air input: | M5xP0.8 - ø4 air hose |
| Material inlet: | 1/8" NPT |
| Material outlet: | 1/8" NPT |
| Weight: | 1430g |



# VDP150

Positive Displacement Valve

## VDP150 - Volumetric Valve - Adjustable, 0.005 - 0.15cc

The VDP150 plunger pump is a pneumatically operated positive displacement valve designed for dispensing constant volume shots of low to medium viscosity materials within 1%. The VDP150 has two integral check valves to control the flow of material.

The model VC1195N is a suitable 4-way valve controller for the VDP150 double acting metering valve.

## 4-Way Valve Operation

The valve is cycled by applying air pressure to the air ports. For low viscosity materials (less than 5,000cps) no fluid pressure is required, as the material is drawn into the displacement chamber by the plunger. Low fluid pressure is required for medium viscosity materials of 5,000 - 20,000cps.

Shot sizes may be fine tuned by turning an adjustment control at the top of the valve.

## Model

| | |
|---|---|
| VDP150 | Positive displacement valve |

## Accessories

| | |
|---|---|
| VC1195N | 4-way controller 110/220V CE |

## Features

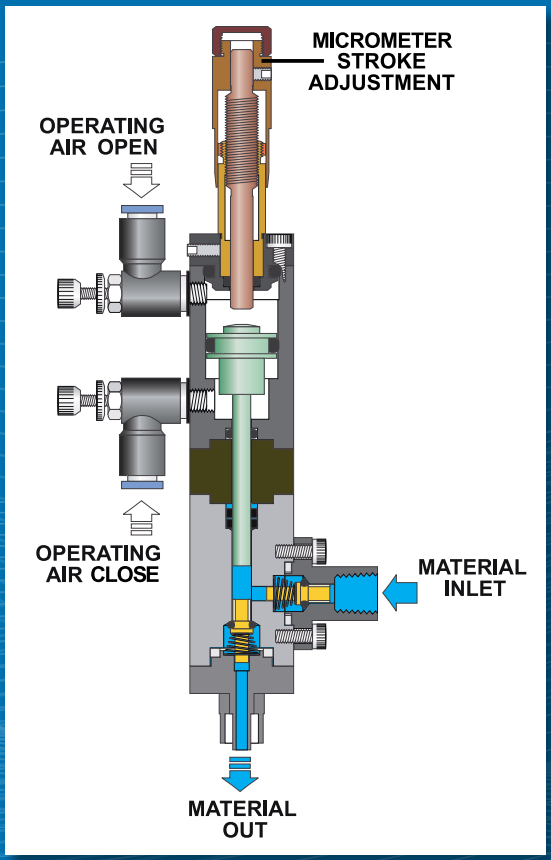
Positive displacement metering

Integral inlet/outlet check valves

Micrometer stroke adjustment to fine tune shot size

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-85 PSI (4.1-5.9 bar) |
| *Delivery pressure:* | |
| Spring wire diameter: | ø0.3mm - Max 0.3kgf/cm² |
| Spring wire diameter: | ø0.5mm - Max 1.2kgf/cm² |
| Cycle rate: | 120 cycles/min (full stroke) |
| Minimum shot size: | 0.005cc |
| Maximum shot size: | 0.15cc/cycle |
| Measuring type: | Plunger |
| *Driving part materials:* | |
| Cylinder Body, CAP: | AL hard anodized (black) |
| Piston: | SUS303 |
| Check body: | SUS303, RULON |
| *Wetted part materials:* | |
| Chamber, CAP, CV body: | SUS303 |
| Plunger: | SUS420 (tin coating) |
| Check valve: | PEEK |
| O-Ring: | Purfluore |
| *Connecting Ports:* | |
| Operating air input: | M5xP0.8, 4mm O.D. hose |
| Material inlet: | 1/8" NPT |
| Material outlet: | Luer lock |
| Weight: | 320g |



# VDP100

Positive Displacement Valve

## VDP100 - Volumetric Valve - Adjustable, 0.1 - 0.9cc

The VDP100 is an adjustable pneumatically operated positive displacement valve designed for dispensing constant volume shots of low to medium viscosity materials within 1%, such as oil and grease. The VDP100 valve has a range up to 0.9cc.

The model VC1195N is a suitable 4-way valve controller for the VDP100 double acting metering valve.

## 4-Way Valve Operation

The valve is cycled by applying air pressure to the air ports. Low fluid pressure is required for low to medium viscosity materials.

Shot sizes may be fine tuned by turning an adjustment control at the side of the valve.

## Model

| | |
|---|---|
| VDP100 | Positive displacement valve |

## Features

Positive displacement metering

Integral inlet/outlet check valves

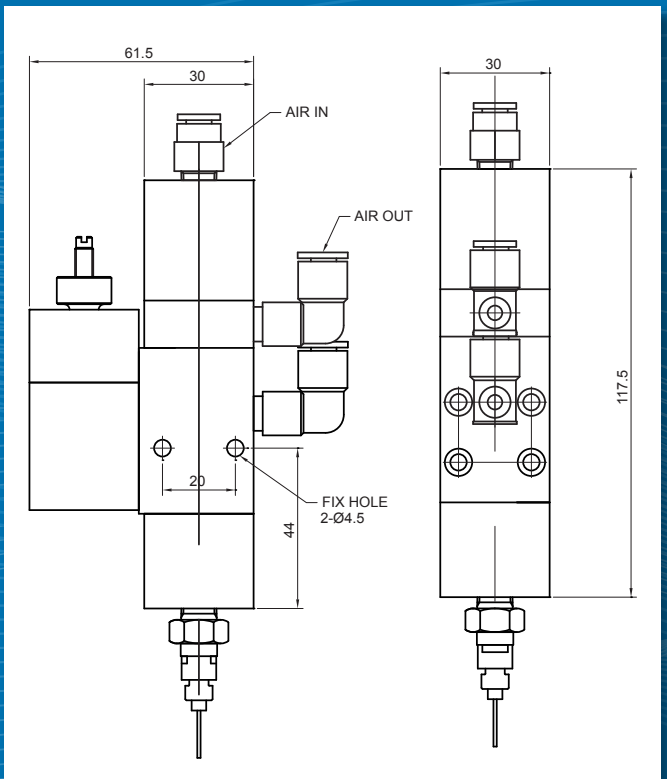
Stroke adjustment 0.1cc - 0.9cc

## Accessories

| | |
|---|---|
| VC1195N | 4-way controller 110/220V CE |

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-71 PSI (4.1-4.9 bar) |
| Material delivery pressure: | 80 kgf/cm Max 1,138 PSI |
| Minimum shot size: | 0.1cc |
| Maximum shot size: | 0.9cc |
| Measuring type: | Precision cavity |
| *Driving part materials:* | |
| Cylinder Body: | AL hard anodized |
| Cap: | AL hard anodized |
| Wetted part materials: | Packing - O-ring (Viton), PS ring |
| *Connecting Ports:* | |
| Operating air input: | M5xP0.8 - ø6 air hose |
| Material inlet: | 1/8" NPT |
| Material outlet: | 1/8" NPT, Luer lock |
| Weight: | 450g |



# VDP305

Positive Displacement Valve

## VDP305 - High Pressure - Adjustable, 0.5 - 5cc

The VDP305 is an adjustable pneumatically operated positive displacement valve designed for dispensing constant volume shots of low to high viscosity materials within 1%, such as oil and grease. The VDP305 valve has a range from 0.5cc up to 5cc.

The model VC1195N is a suitable 4-way valve controller for the VDP305 double acting metering valve.

## 4-Way Valve Operation

The valve is cycled by applying air pressure to the air ports. Low fluid pressure is required for low to medium viscosity materials.

Shot sizes may be fine tuned by turning an adjustment control at the side of the valve.

## Model

| | |
|---|---|
| VDP305 | Positive displacement valve |

## Accessories

| | |
|---|---|
| VC1195N | 4-way controller 110/220V CE |

## Features

Positive displacement metering

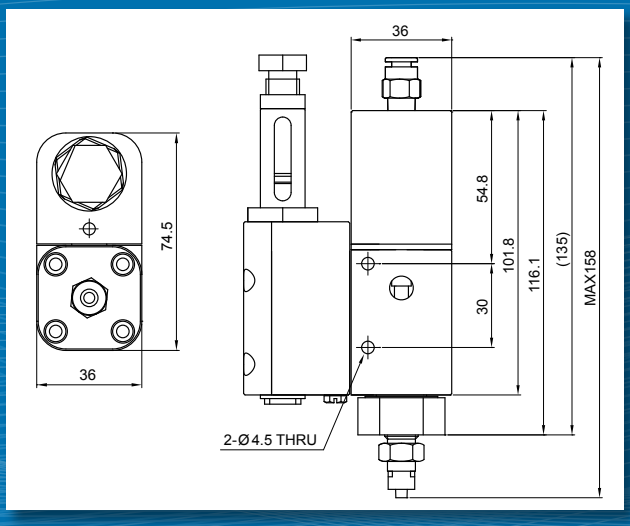
Integral inlet/outlet check valves

Stroke adjustment 0.5cc - 5cc

Ideal for high viscosity paste and grease

## Specifications

| | |
|---|---|
| Operating air pressure: | 60-71 PSI (4.1-4.9 bar) |
| Material delivery pressure: | 200 kgf/cm Max (2,845 PSI) |
| Minimum shot size: | 0.5cc |
| Maximum shot size: | 5cc |
| Measuring type: | Precision cavity |
| *Driving part materials:* | |
| Cylinder Body, CAP: | AL hard anodized |
| Check body: | SM45C |
| Wetted part materials: | Packing - Teflon, PS ring |
| *Connecting Ports:* | |
| Operating air input: | 1/8" NPT - ø6 air hose |
| Material inlet: | 1/8" NPT |
| Material outlet: | 1/4" NPT, Luer lock |
| Weight: | 1000g |



# RVC900N

## Positive Displacement Screw Valve Controller



The RVC900N controls the PDV-1000 series of Archimedes screw valves and the model RV5000DPM disposable cartridge screw valve. The controller is programmable for timed shots from a minimum of 0.01 seconds. Motor speed output is maintained and kept constant, compensating for any change in material viscosity.

An adjustable forward and reverse time/speed delivers a clean cut from the dispensing cycle.

The RVC900N supplies material pressure to the barrel, adjusted via a regulator and pressure gauge. The digital timer can accept time intervals from 0.01 seconds – 99.99 seconds. A reverse timer and speed control sets the amount of controlled suck-back at the end of the dispense cycle.

The controller delivers accurate and repeatable dots and beads for any application, whether automated or manually operated.


## Features

Simple to program

Eight stored programs

Auto or manual control

Constant motor speed

Adjustable forward and reverse speed

Adjustable forward and reverse time

## Model

| | |
|---|---|
| RVC900N | Rotary Valve Controller 110/220V CE |

## Specifications

| | |
|---|---|
| Size: | 9.05” x 8.26” x 2.76” (235 x 210 x 70mm) |
| Time range: | 0.01 – 99.99 seconds |
| Resolution: | 0.001 seconds |
| Voltage: | 100 - 240 VAC 50/60Hz |
| Storage: | 8 programs |
| Remote operation: | External +24VDC |
| Communication: | I/O |
| Output pressure: | 0 – 60 PSI 4 bar (regulated) |
| Manual operation: | Foot switch |
| Display: | 128 x 64 pixels |
| Voltage: | 85 - 264 VAC |
| Weight: | 3.63lb (1.65Kg) |

# RV5000DPM

Positive Displacement Rotary Valve

## RV5000DPM - Positive Displacement Rotary Valve - Filled Material

The RV5000DPM valve is designed for continuous operation where cleaning or refurbishment of a valve is not desirable. A disposable Delrin® auger screw is accessed through a hinged doorway and can be quickly replaced in seconds.

The RV5000DPM allows for easy maintenance and is suitable for abrasive materials and two-part fluids. Removing and replacing the auger maintains the valves accuracy and increases the life of the valve by providing less wear-and-tear on the motor. Three versions of the valve are available, 8, 16 and 32 pitch.

The model RV5000DPME is an encoder valve.


## Operation

The RV5000DPM has zero dead space within the valve and can deliver accurate and repeatable dots and beads for any application, whether automated or manually operated.

The RV5000DPM is used in conjunction with the RVC900N controller.

The replaceable Archimedes auger screw is manufactured from Delrin®.

## Model

| | |
|---|---|
| RV5000DPM | Rotary valve, disposable material path |
| RV5000DPME | Rotary valve, disposable material path, encoder model |

## Replacement Cartridge Sets

Pk. of 10

| Pitch | Disposable Cartridge Set | Rotating Luer Collar Set |
|---|---|---|
| 8 | DPM8-10 | DPM8R-10 |
| 16 | DPM16-10 | DPM16R-10 |
| 32 | DPM32-10 | DPM32R-10 |

## Features

- Solder paste dispensing
- Microshots 0.010" (0.254mm) 0.000015cc
- Abrasive (filled) materials
- Motor reverse capability
- No dead space - high repeatability
- Replaceable wetted feed path

## Specifications

| | |
|---|---|
| Size: | 1.45" x 3.6" x 5.88" (37 x 91 x 149mm) |
| Minimum shot size: | 0.020" (0.508mm) |
| Max fluid delivery pressure: | 30psi (2.1bar) |
| Motor voltage: | 24V |
| Motor: | 6-watt, 400 RPM (no load) |
| *Connecting Ports:* | |
| Fluid inlet: | Female Luer Lock |
| Fluid outlet: | Male Luer Lock |
| Wetted part materials: | Delrin®, Nylon, Viton® |
| Viscosity: | 30,000 - 1,300,000cps |
| Mounting: | 1" (25.4mm) body channel or valve bracket |
| Weight: | 0.75lbs (240g) |

# PDV-1000

Positive Displacement Rotary Valve

## PDV-1000 - Positive Displacement Rotary Valve - Filled Material

The PDV-1000 series of precision auger valves is suitable for all medium- to high-viscosity pastes, epoxies, solder pastes and other filled materials. Capable of dispensing a minimum shot size of 0.020" (0.508mm), the PDV-1000 uses an auger servo-motor-driven screw.

## Operation

The PDV-1000 has zero dead space within the valve and can deliver accurate and repeatable dots and beads for any application, whether automated or manually operated.

The PDV-1000 is used in conjunction with the RVC900N controller.

The auger screw is manufactured from hardened stainless steel.

## Specifications

| | |
|---|---|
| Motor voltage: | 24V |
| Motor: | 6-watt, 400 RPM (no load) |
| Auger material: | Stainless steel |
| Minimum material viscosity: | 35,000cps |
| Minimum shot size (filled materials): | 0.020" (0.508mm) |
| Gear box ratio: | 16:2 |
| Weight: | 9 oz. (255gm) |

## Features

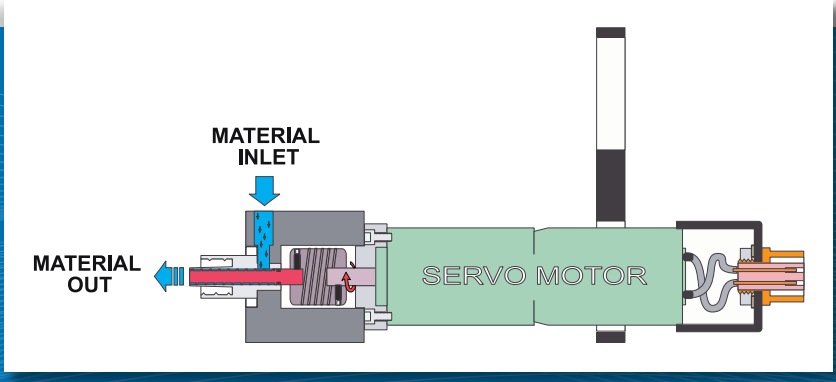
Solder paste dispensing

Microshots 0.020" (0.508mm) 0.00003cc

Abrasive materials

Flexible coupling from motor to screw

No dead space – high repeatability




## Models

Model numbers define the pitch of the screw and the barrel (syringe) size connected to the valve.

| Pitch | 3cc barrel | 5cc barrel | 10cc barrel | 30cc barrel |
|---|---|---|---|---|
| 8 pitch | PDV-1000-0308 | PDV-1000-0508 | PDV-1000-1008-LF | PDV-1000-3008-LF |
| 16 pitch | PDV-1000-0316 | PDV-1000-0516 | PDV-1000-1016-LF | PDV-1000-3016-LF |
| 32 pitch | PDV-1000-0332 | PDV-1000-0532 | PDV-1000-1032 | PDV-1000-3032-LF |

# SV2000N & SV1000SS

Adjustable No-clog Spray Valves

Fisnar spray valves provide close tolerance spray dispensing of fluids up to 1000 cps, including urethanes, flux and paints. The material is fed from a pressure reservoir. Each valve is actuated by air pressure sequenced by a controller. The operating air pressure opens a needle valve allowing material to flow; a separate air line creates pressure in the air cap, atomizing the fluid.

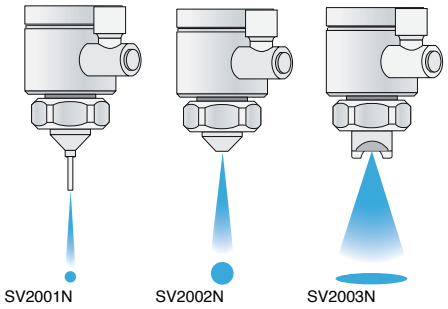
## SV2000N

### Specifications

| | |
|---|---|
| Weight: | 8.8 oz (250gm) |
| Operating air pressure: | 60 - 80 psi (4.1 - 5.5 bar) |
| Atomizing air pressure: | 1 - 30 psi (0.1 - 2 bar) |
| Fluid viscosity range: | up to 1000 cps |
| Fluid pressure: | 1 - 100 psi (0.1 - 7 bar) - depending on material viscosity |
| Spray angle at 40mm: | SV2001N - 20º, SV2002N - 30º, SV2003N - 37º |
| Spray pattern: | circular (conical spray) |


**Sample spray path character**

| | |
|---|---|
| SV2001N: | min. bead: 3mm, overspray: 0.5mm, z distance-off: 3mm, speed: 50mm/sec |
| SV2002N: | min. bead: 12mm, overspray: 5mm, z distance-off: 10mm, speed: 50mm/sec |
| SV2003N: | min. bead: 18mm, overspray: 10mm, z distance-off: 20mm, speed: 50mm/sec |
| Flow rate: | up to 2.4 l /min |
| Operating frequency: | over 200 cycles/min |
| Operating air inlet: | M5 * P0.8 thread with push-in fitting for ø4 urethane hose (included) |
| Atomizing air inlet: | M5 * P0.8 thread with push-in fitting for ø4 urethane hose (included) |
| Material inlet: | 1/8 NPT |




### Model

| | |
|---|---|
| SV2001N | Spray valve fine dot & bead |
| SV2002N | Spray valve medium pattern |
| SV2003N | Spray valve fan pattern |

## SV1000SS

### Specifications

| | |
|---|---|
| Weight: | 10.25 oz (290 gm) |
| Operating air pressure: | 70 - 100 psi (4.8 - 6.9 bar) |
| Atomizing air pressure: | 1 - 30 psi (0.1 - 2.1 bar) |
| Fluid viscosity range: | up to 1000 cps |
| Fluid pressure: | 1 - 100 psi (0.1 - 7 bar) *material dependant* |
| Nozzle diameter: | 0.028" (0.71 mm) |
| Flow rate: | up to 28 cc/sec |
| Operating frequency: | over 200 cycles/min |
| Spray angle: | 12º |
| Spray pattern: | circular (conical spray) |
| Operating air inlet: | 10-32 thread with push-in fitting for 1/4 tube |
| Atomizing air inlet: | 10-32 thread with push-in fitting for 1/4 tube |
| Material inlet: | 1/8 NPT with compression fitting for 1/4 tube |

### Operation

The valves are adjustable by turning the stroke-adjust control at the rear of the valve; this will tune the spray pattern.

Coating and flow rate are controlled by the fluid pressure, needle stroke, distance from the valve to the work and the duration the valve is open.

### Model

| | |
|---|---|
| SV1000SS | Spray valve fine dot & bead |

### Accessories

| | |
|---|---|
| SVC100-110 | Spray valve controller 110V |
| SVC100-220 | Spray valve controller 220V |

## SVC100 - Spray Valve Controller

The SVC100 is a programmable spray valve controller providing the adjustment controls necessary for a clean spray application. By controlling the relationship (time) between the fluid start signal and the atomizing signal, it is possible to open each independently.

This feature is critical in ensuring that the fluid air line pressure starts momentarily after the atomizing pressure opens and that the atomizing pressure stays on momentarily after the fluid cuts off. This ensures adequate cleaning of the nozzle after the full spray cycle.

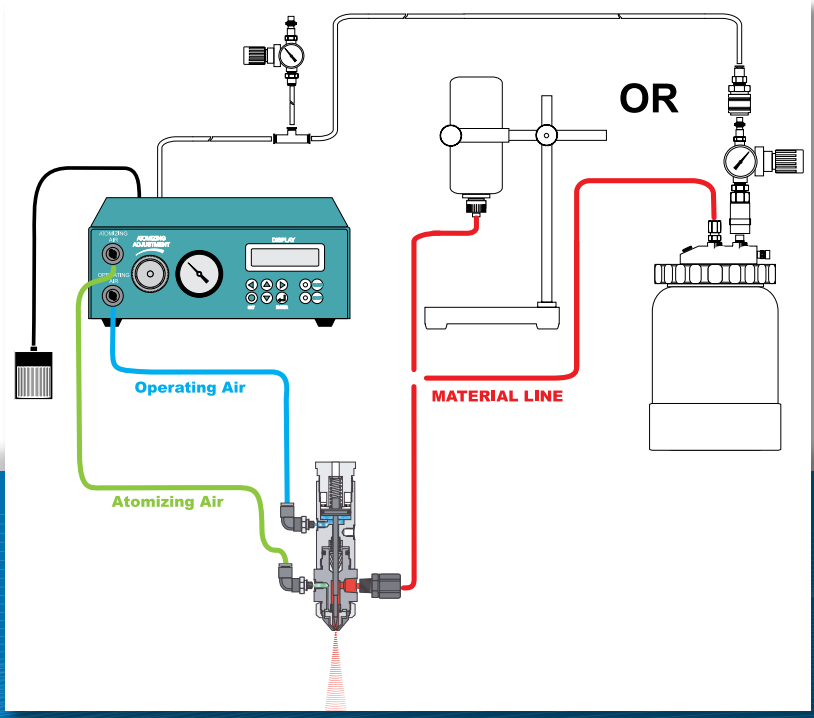
The SVC100 is suitable for all SV series spray valves.


### Model

| | |
|---|---|
| SVC100-110 | Spray valve controller 110V |
| SVC100-220 | Spray valve controller 220V CE |

### Valves

| | |
|---|---|
| SV1000SS | Spray valve stainless steel |
| SV2001N | Spray valve fine bead |
| SV2002N | Spray valve medium bead |
| SV2003N | Spray valve broad bead |




### Specifications

| | |
|---|---|
| Size: | 9.05" x 7.32" x 3.54" (22.99 x 18.6 x 8.99 cm) |
| *Power input:* | |
| SVC100-110: | AC 110V 50/60Hz |
| SVC100-220: | AC 220V 50/60Hz |
| Dispensing time: | 0.001 sec. - 99.99 sec. |
| Dispensing selection: | LCD digital display |
| Weight: | 6 lbs (2.73 kg) |