

Model 400 Handheld Needle Valve Dispensing Systems

The Dymax Model 400 pneumatic, normally closed needle valve is designed to deliver precise dots or very fine beads of low- to medium-viscosity fluids. The valve's design is compact and lightweight, making it easy and comfortable to handle. Air pressure retracts the valve's needle assembly from the seat allowing fluid to flow from the valve fluid inlet to the dispensing tip. When the air pressure is eliminated, the spring returns the needle back to its position, closing the fluid path and ending the dispense cycle. Accurate, repeatable dispensing can be achieved by utilizing the valve's material flow adjustment to control the shot volume.

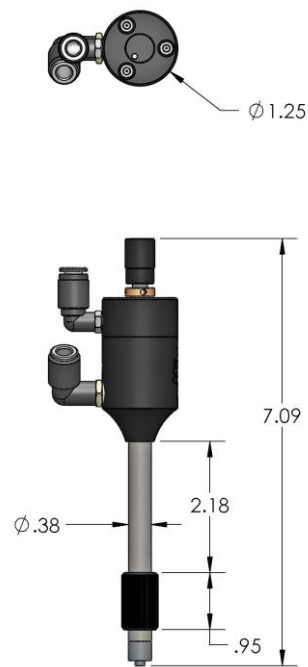
The Model 400 is available in several system packages, paired with the Dymax DVC-345 bench-top valve controller and material reservoirs of various styles and sizes. Additional accessories, like a valve stand and various style dispense tips, are also available for this system.



FEATURES	BENEFITS
Material flow adjustment on valve for precise control over dispensing volumes	■ Shot-to-shot consistency (when used with the DVC-345 controller)
Lightweight, wand-style valve body	■ Easy and comfortable to handle
Able to dispense from pressurized cartridges, bottles, and pails (requires appropriate reservoir hardware)	■ Compatible with most standard fluid packages and delivery systems

Specifications

Valve Type	Pneumatic needle valve, normally closed
Valve Construction Materials, Wetted Parts	SS, Delrin®, Teflon®, Silicone
Operating Air Pressure	80-100 psi (5.5 – 6.9 bar)
Activation	DVC-345 valve controller or 2-position, 4-way solenoid valve
Maximum Fluid Pressure	80 psi (5.5 bar)
Electrical Supply (Controller)	110/220 VAC
Valve Air Inlet Thread	10-32
Valve Fluid Inlet Tread	1/8" (3.2 mm) NPT
Valve Dimensions (H x D)	7.09" x 1.25" (3.22 cm x 0.57 cm)
Valve Weight	0.35 lbs (0.16 kg)
Valve Warranty	1 year from purchase



Available System Packages

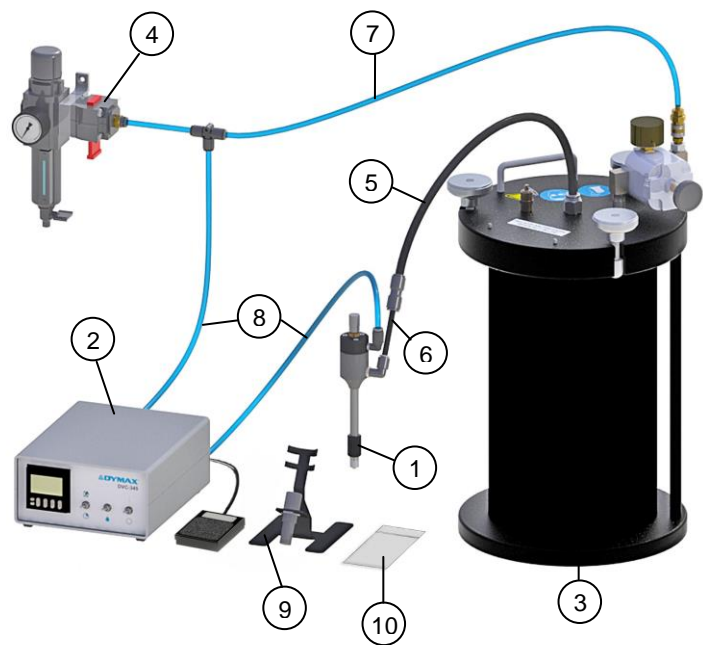
Systems Include:

- Model 400 Handheld Needle Valve
- Selected Reservoir for Fluid Package Used
- DVC-345 Digital Valve Controller
- Air Filter/Regulator - 0-100 psi (0-6.9 bar)
- Controller Air Line Kit
- Fluid Line Kit - 6 ft of Black 1/4" (6.3 mm) OD tubing and 3/8" - 1/4" (9.5 mm - 6.3 mm) reducer and two 3/8" - 1/4" (9.5 mm - 6.3 mm) stem fitting inserts
- Valve Stand
- Reservoir Air Line Kit
- Fluid Line Kit - 6 ft of black 3/8" (9.5 mm) OD tubing
- Dispensing Tip Kit for Low Viscosity Fluids
- Air Precision Regulator - Includes three pressure gauges:
 - 0-30 psi (0-2 bar) for very low- to medium-viscosity materials
 - 0-60 psi (0-4.1 bar) for medium-viscosity materials
 - 0-100 psi (0-6.9 bar) for high-viscosity materials

Select System Based on Fluid Package Used					
No Reservoir (Valve Only)	Cartridge Drop-In			Large Bottle Drop-In	Pail Drop-In
	160 mL [6 oz]	300 mL [12 oz]	550 mL [20 oz]	Up to 1 Gallon	Up to 15 Liter Straight or Taper
Select system part number in red from table below.					
	T17384	T17704	T17705	T17706	T17707
Model 400 Dispensing System	T17708	T17709	T17710	T17711	T17712

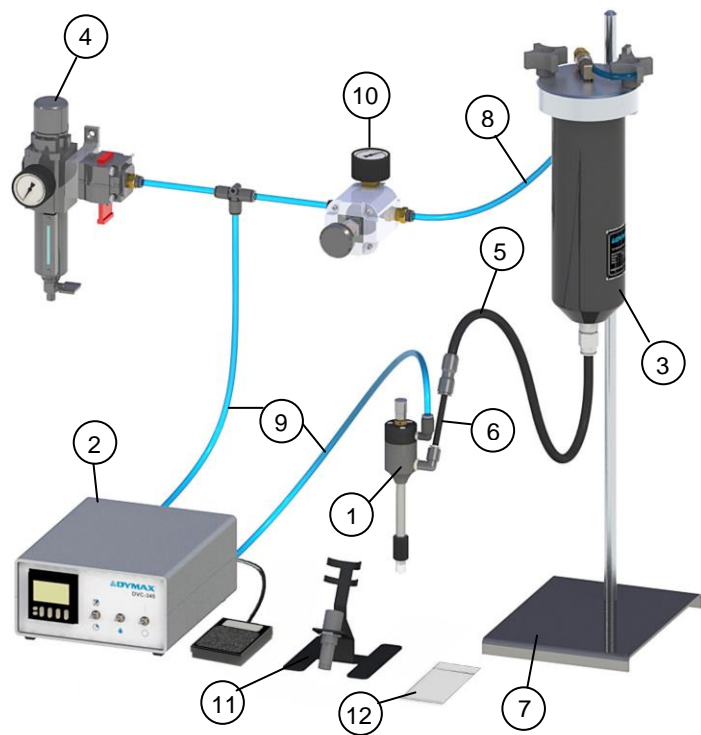
Representative Model 400 Dispensing Systems

T17707 Model 400 with Large Bottle Drop-In Reservoir



Item	Part Number	Description
1	T17384	Model 400 Needle Valve
2	T11146	Model 345 Valve Controller
3	T17004	Bottle Drop-In Tank Assembly with High-Precision Regulator
4	T16307	Filter Regulator with Air On/Off Toggle, 25 Micron
5	T16787	6 Ft of Fluid Line Kit - Black 3/8" (9.5 mm) OD PE
6	T16793	6 Ft of Fluid Line Kit - Black 1/4" (6.3 mm) OD PE
7	T16789	Reservoir Airline Kit
8	T16786	Controller Airline Kit
9	T15466	Valve Stand
10	P3424	Tip Kit for Low Viscosity Fluids

T17706 Model 400 with 20 oz Cartridge Reservoir



Item	Part Number	Description
1	T17384	Model 400 Needle Valve
2	T11146	DVC-345 Valve Controller
3	T15223	20 oz. Cartridge Retainer Assembly
4	T16307	Filter Regulator with Air On/Off Toggle, 25 Micron
5	T16787	6 Ft of Fluid Line Kit - Black 3/8" (9.5 mm) OD PE
6	T16793	6 Ft of Fluid Line Kit - Black 1/4" (6.3 mm) OD PE
7	T15279	24" Lab Stand
8	T16789	Reservoir Airline Kit
9	T16786	Controller Airline Kit
10	T16629	High-Precision Regular
11	T15466	Valve Stand
12	P3424	Tip Kit for Low Viscosity Fluids



In addition to our dispensing equipment, Dymax also offers high-performance oligomers, adhesives, and coatings as well as a variety of light-curing equipment. Our products are perfectly matched to work seamlessly with each other, providing design engineers with tools to dramatically improve manufacturing efficiency and reduce costs. Dymax is committed to providing the best chemistry, curing equipment, and dispensing systems that offer customers complete manufacturing solutions for their challenging applications.



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Please note that most dispensing and curing system applications are unique. Dymax does not warrant the fitness of the product for the intended application. Any warranty applicable to the product, its application and use is strictly limited to that contained in Dymax's standard Conditions of Sale. Dymax recommends that any intended application be evaluated and tested by the user to ensure that desired performance criteria are satisfied. Dymax is willing to assist users in their performance testing and evaluation. Data sheets are available for valve controllers or pressure pots upon request.

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Dymax Corporation
860.482.1010
info@dymax.com
www.dymax.com

Dymax Oligomers & Coatings
860.626.7006
oligomers&coatings@dymax.com
www.dymax-oc.com

Dymax Europe GmbH
+49 (0) 611.962.7900
info_de@dymax.com
www.dymax.de

Dymax UV Adhesives & Equipment (Shenzhen) Co Ltd
+86.755.83485759
dymaxasia@dymax.com
www.dymax.com.cn

Dymax UV Adhesives & Equipment (Shanghai) Co Ltd
+86.21.37285759
dymaxasia@dymax.com
www.dymax.com.cn

Dymax Asia (H.K.) Limited
+852.2460.7038
dymaxasia@dymax.com
www.dymax.com.cn

Dymax Korea LLC
82.2.784.3434
info@dymax.kr
www.dymax.co.kr