

## Model 485

### Needle Valve Dispensing Systems

- Ideal for low-to-high viscosity fluids
- Stroke adjustment for precise control over dispensing volumes
- Lightweight for easy handling and mounting in automated or bench-top systems
- Able to dispense from pressurized cartridges, bottles, and pails (requires appropriate reservoir hardware)
- Compatible with most standard fluid packages and delivery systems

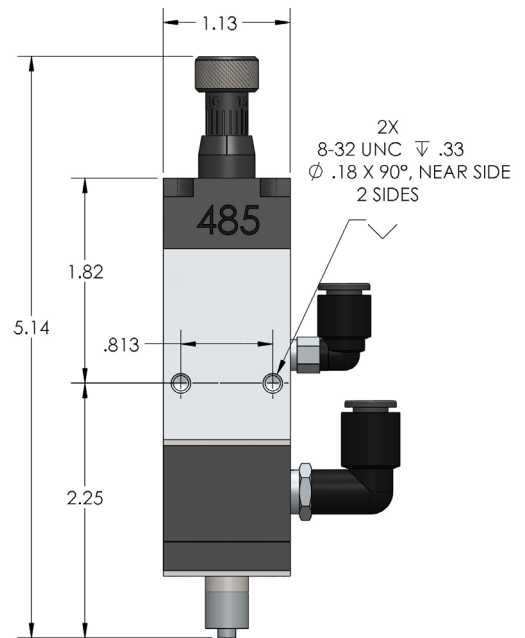
The Dymax Model 485 pneumatic, normally closed needle valve is designed to deliver precise dots or very fine beads of low- to high-viscosity fluids. The valve's stroke adjustment allows for fine-tuning of the dispense volume, ensuring precise and consistent deposits. Air pressure through the valve retracts the 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. The Model 485 is ideally suited for a wide range of applications including glob-top dispensing and dispensing UV light-curable adhesives in medical-device manufacturing.

The Model 485 needle valve is available by itself for mounting into automated systems or is also available in a bench-top configuration, paired with the Dymax DVC-345 bench-top valve controller and a material reservoir (various styles and sizes available).



# Specifications







|                                       |   |
|---------------------------------------|---|
| <b>Valve Type</b>                     | Pneumatic needle valve, normally closed   |
| <b>Valve Construction Materials</b>   | Body: SS, Anodized Aluminum<br>Wetted path: Acetal/SS<br>Wetted valve seals: Silicone |
| <b>Operating Air Pressure</b>         | 60-80 psi (4.1 - 5.5 bar)   |
| <b>Activation</b>                     | DVC-345 valve controller or 3-way solenoid valve                                      |
| <b>Maximum Fluid Pressure</b>         | 80 psi (5.5 bar)  |
| <b>Electrical Supply (Controller)</b> | 110/220 VAC   |
| <b>Valve Air Inlet Thread</b>         | 10-32   |
| <b>Valve Fluid Inlet Tread</b>        | 1/8" (3.2 mm) NPT   |
| <b>Valve Dimensions (W x H x D)</b>   | 1.13" x 5.14" x 1.13" (2.87 cm x 13.06 cm x 2.87 cm)                                  |
| <b>Valve Weight</b>                   | 7.2 oz (0.2 kg)   |
| <b>Valve Warranty</b>                 | 1 year from purchase  |



## Available System Packages

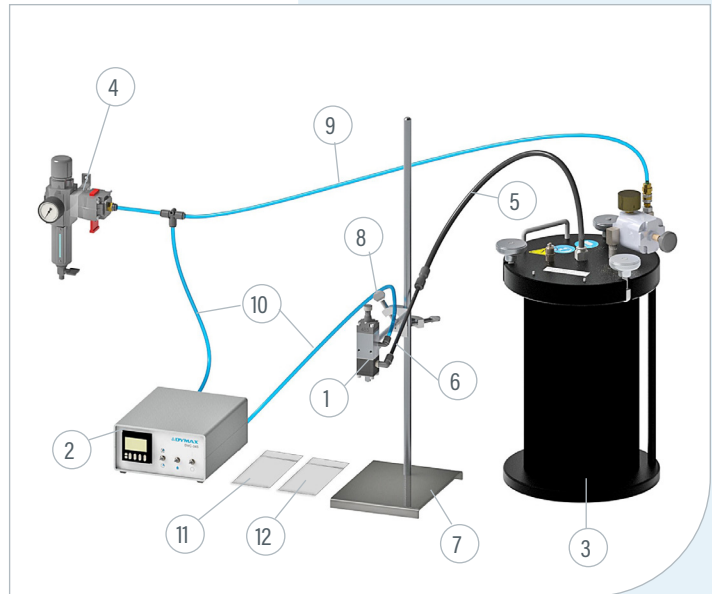
Systems Include:

- Model 485 Needle Valve
- Selected Reservoir for Fluid Package Used
- Dispensing Tip Kit for Low Viscosity Fluids
- 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 Mounting Assembly
- Reservoir Air Line Kit
- Fluid Line Kit - 6 ft of black 3/8" (9.5 mm) OD tubing
- Dispensing Tip Kit for Medium to High 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

| System Part Numbers Based on Fluid Package Used |                                   |   |   |   |   |   |   |
|---|-----------------------------------|---|---|---|---|---|---|
| Valve Only                                      | Complete System Without Reservoir | Cartridge Drop-In   |   |   | Large Bottle Drop-In  | Mini Ram Pump   | Pail Drop-In  |
|   |                                   | 6 oz [160 mL]   | 12 oz [300 mL]  | 20 oz [550 mL]  | Up to 1 Gallon  | Up to 3.8 Liters  | Up to 15 Liter Straight or Taper  |
|   |                                   |  |  |  |  |  |  |
| T17617  | T17832                            | T17731  | T17732  | T17733  | T17734  | T17837  | T17735  |

| Item | Part Number | Description  |
|------|-------------|--|
| 1    | T17617      | Model 485 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    | T15279      | 24" Lab Stand  |
| 8    | T16857      | Valve Mounting Assembly                                    |
| 9    | T16789      | Reservoir Airline Kit                                      |
| 10   | T16786      | Controller Airline Kit                                     |
| 11   | P3424       | Tip Kit for Low Viscosity Fluids                           |
| 12   | P3423       | Tip Kit for Medium to High Viscosity Fluids                |

Representative Model 485 Dispensing System (T17734 with Large Bottle Reservoir Shown Below)



| Item | Part Number | Description  |
|------|-------------|--|
| 1    | T17617      | Model 485 Needle Valve                             |
| 2    | T11146      | Model 345 Valve Controller                         |
| 3    | T15223      | 550 mL (20 oz) Reservoir                           |
| 4    | T16629      | High-Precision Regulator                           |
| 5    | T16307      | Filter Regulator with Air On/Off Toggle, 25 Micron |
| 6    | T16787      | 6 Ft of Fluid Line Kit - Black 3/8" (9.5 mm) OD PE |
| 7    | T16793      | 6 Ft of Fluid Line Kit - Black 1/4" (6.3 mm) OD PE |
| 8    | T15279      | 24" Lab Stand                                      |
| 9    | T16857      | Valve Mounting Assembly                            |
| 10   | T16789      | Reservoir Airline Kit                              |
| 11   | T16786      | Controller Airline Kit                             |
| 12   | P3424       | Tip Kit for Low Viscosity Fluids                   |
| 13   | P3423       | Tip Kit for Medium to High Viscosity Fluids        |

Representative Model 485 Dispensing System (T17733 with 20 oz Cartridge Reservoir Shown Below)

