Model 826 Dispensing Systems

Systems User Guide
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Safety

Using Safe Operating Pressures

Pressurizing the components in the dispensing system beyond the maximum recommended pressure can result in the rupturing of components and serious personal injury. To minimize the risk of rupturing components and injury, do not exceed the maximum operating pressure of the components in your fluid dispensing system.

Operating Specifications

- Recommended compressed air supply pressure to air filter/regulator = 80 to 100 psi (5.5 to 6.9 bar)
- Recommended pressure setting at air filter/regulator = 75 psi (5.2 bar)
- Maximum pressure setting at air filter/regulator = 100 psi (6.9 bar)
- Power required = 100-240V, 50-60 Hz power receptacle (customer supplied)
Configuration Overview

1. **Controls**
   Dymax valves and digital controller provide precise and consistent actuation.
   - Pneumatic function
   - Footswitch, manual, or PLC controlled
   - Easy to operate
   - Manual or timed dispense mode

2. **Dispensing Valve & Accessories**
   Dymax dispensing valves for handheld and bench-top applications deliver precision solutions for low- to high-viscosity materials. Various style tips and accessories are also available.

3. **Reservoirs**
   Dymax carries a variety of material reservoirs to accommodate most dispensing applications.
   - Range of volumes from 6 oz. cartridges to 10-gallon pressure tanks
   - Easy change-over and control
Key System Connections

NOTE: Figures 1-4 apply to all systems.

Figure 1. Valve Air & Material Connections

Air in from controller
Fluid in from reservoir

Air in from controller

Figure 2. Controller Connections, Rear Panel

Air out to valve
Foot switch input
Power supply input
Air in from filter regulator

Air out to valve
Foot switch input
Power supply input
Air in from filter regulator

Figure 3. High-Precision Regulator Connections

Air out to reservoir
Air in from filter regulator

Air out to reservoir
Air in from filter regulator

Figure 4. Filter Regulator

Supply air in

Air to controller and high-precision regulator for reservoir
Dispensing Tips

A variety of both needle and taper dispense tips in various lengths, gauges, and shapes are available from Dymax. Tip selection is critical when precision is required and the length, shape, and size of the tip used will define the shape of the fluid deposit and the performance of your dispense system.

The following tips are included with this system, and are recommended for use with the Model 826 dispensing valve.

**P3424** Dispensing Tip Kit for Low-Viscosity Materials (<500 cP)

<table>
<thead>
<tr>
<th>Part #</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P3171</td>
<td>Purple</td>
<td>21 GA Needle Tip</td>
</tr>
<tr>
<td>P3172</td>
<td>Orange</td>
<td>23 GA Needle Tip</td>
</tr>
<tr>
<td>P3233</td>
<td>Pink</td>
<td>20 GA Tapered Tip</td>
</tr>
<tr>
<td>P3247</td>
<td>Red</td>
<td>25 GA Tapered Tip</td>
</tr>
</tbody>
</table>

**P3423** Dispensing Tip Kit for Medium- to High-Viscosity Materials (>500 cP)

<table>
<thead>
<tr>
<th>Part #</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P3169</td>
<td>Amber</td>
<td>15 GA Needle Tip</td>
</tr>
<tr>
<td>P3170</td>
<td>Green</td>
<td>18 GA Needle Tip</td>
</tr>
<tr>
<td>P3232</td>
<td>Green</td>
<td>18 GA Tapered Tip</td>
</tr>
<tr>
<td>P3247</td>
<td>Red</td>
<td>25 GA Tapered Tip</td>
</tr>
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For assistance in optimal tip selection, contact Dymax Application Engineering. Visit [www.dymax.com/dispensing_tips](http://www.dymax.com/dispensing_tips) to see Dymax’s dispensing tip selection.
System Configurations

A  Systems Using a Cartridge Retainer (p. 8-9)

B  Systems Using a Bottle Drop-In Tank (p. 10-12)

C  Systems Using a 10-Gallon Pressure Tank (p. 12-15)
A - Systems Using a Cartridge Retainer

Packaged Components
Assembled System

User-Supplied Items

<table>
<thead>
<tr>
<th>Item Description</th>
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<tbody>
<tr>
<td>80-100 psi air supply, ¼ NPT male fitting</td>
</tr>
<tr>
<td>100-240V power receptacle</td>
</tr>
</tbody>
</table>

Spare Parts

<table>
<thead>
<tr>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dispense tips</td>
</tr>
<tr>
<td>Fluid line kits</td>
</tr>
</tbody>
</table>
B - Systems Using a Bottle Drop-In Tank

Packaged Components

- **T16736** System User Guide
- **T17736** 1-Gallon Bottle Drop-In Tank
- **T1146** DVC-345 Controller
- **T17586** Model 826 Valve
- **T15451** Mounting Assembly
- **T16307** Filter Regulator
- **T16793** Fluid Line Kit, 1/4" OD
- **T16787** 3/8" OD Fluid Line Kit
- **T16789** Reservoir Air Line Kit
- **T15279** Lab Stand, 24"[61 cm]
- **T16786** Controller Air Line Kit
- **T16786** Filter Regulator
- **T16787** Reservoir Air Line Kit
- **T16789** Lab Stand, 24"[61 cm]
- **T16793** Fluid Line Kit, 1/4" OD
- **T16736** System User Guide
- **T1146** DVC-345 Controller
- **T17586** Model 826 Valve
- **T15451** Mounting Assembly
- **T16307** Filter Regulator
- **T16793** Fluid Line Kit, 1/4" OD
- **T16787** 3/8" OD Fluid Line Kit
- **T16789** Reservoir Air Line Kit
- **T15279** Lab Stand, 24"[61 cm]
Assembled System

<table>
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<th>Spare Parts</th>
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<td>80-100 psi air supply, ¾ NPT male fitting</td>
<td>Dispense tips</td>
</tr>
<tr>
<td>100-240V power receptacle</td>
<td>Fluid line kits</td>
</tr>
</tbody>
</table>
Installing the Fluid Line to the Reservoir

Tube length from top of fitting: 14.5"
End of tubing must be cut at an angle.

1-Liter Bottle

1-Gallon Bottle
C - Systems Using a 10-Gallon Pressure Tank

Packaged Components

- **T17736** System User Guide
- **T16787** 3/8" OD Fluid Line Kit
- **T16793** Fluid Line Kit, 1/4" OD
- **T16789** Reservoir Air Line Kit
- **T11146** DVC-345 Controller
- **T17586** Model 826 Valve
- **T17736** System User Guide
- **T16786** Controller Air Line Kit
- **T15279** Lab Stand, 24" [61 cm]
- **T16864** 10-Gallon Pressure Tank
- **T16307** Filter Regulator
- **T15451** Mounting Assembly
**User-Supplied Items**

- 80-100 psi air supply, ¼ NPT male fitting
- 100-240V power receptacle

**Spare Parts**

- Dispense tips
- Fluid line kits
Installing the Fluid Line to the Reservoir

15-Liter Pail

Tube to be flush with the bottom of the lid tube
Please note that most dispensing 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 standard Conditions of Sale published on our website. 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.