The Model 126 is designed to be used on deep well pumps where the pump design permits starting against an open valve.

**SERIES FEATURES**

- Eliminates surges associated with starting and stopping the pump
- Eliminates air and debris from the pump column
- Operates in conjunction with pump check valve to smoothly transition flow to and from main line
- Pump starts against an open valve that then gradually closes at a controlled rate
- Valve gradually opens at a controlled rate while pump continues to run
- Pump stops when valve is fully open
- Dual chamber design allows valve to be fully open when pump is off
- Separate adjustable opening and closing speeds
- Can be maintained without removal from the line
- Factory tested

**OPERATION**

The 126 is controlled by an electrical 4-way solenoid which is energized at pump start. This pressurizes the upper diaphragm chamber while simultaneously venting the lower chamber, causing the valve to close at an adjustable, controlled rate, smoothly transitioning flow into the system through the pump check valve. At shut-down, the solenoid is de-energized, pressurizing the lower diaphragm chamber while simultaneously venting the upper chamber, causing the valve to open at an adjustable controlled rate while the pump (held on by the valve limit switch) continues to run. When the valve is fully open, the pump is finally shut off.

**COMPONENTS**

The Model 126 consists of the following components, arranged as shown on the schematic diagram:

1. Model 66 Basic Power-Actuated Valve
2. Model 453 Four-way Solenoid Pilot
3. Model 141-3 Flow Control Valves
4. Model 141-1 Check Valve
5. Model 159 Y-Strainers
   - Protects pilot system from dirt/debris
6. Model 141-4 Isolation Ball Valves
7. Model 31 Limit Switch Assembly

**TYPICAL WIRING DIAGRAM**

**SIZING**

Definitive sizing information can be found in the OCV Catalog, Series 125 section. Consult the factory for assistance or visit our website.

**RECOMMENDED INSTALLATION**

OCV recommends that all Model 126 valves are installed horizontally, bonnet "up." The Model 126 exhausts its diaphragm chamber to atmosphere, the volume varying according to valve size, as shown below. Provisions should be made to drain or otherwise dispose of this water.

<table>
<thead>
<tr>
<th>Size</th>
<th>Volume Water</th>
<th>Size</th>
<th>Volume Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ¼”</td>
<td>0.02 gallons</td>
<td>8”</td>
<td>1.0 gallon</td>
</tr>
<tr>
<td>2”</td>
<td>0.05 gallons</td>
<td>10”</td>
<td>2.5 gallons</td>
</tr>
<tr>
<td>2 ½”</td>
<td>0.06 gallons</td>
<td>12”</td>
<td>4.0 gallons</td>
</tr>
<tr>
<td>3”</td>
<td>0.1 gallons</td>
<td>14”</td>
<td>6.5 gallons</td>
</tr>
<tr>
<td>4”</td>
<td>0.2 gallons</td>
<td>16”</td>
<td>9.6 gallons</td>
</tr>
<tr>
<td>6”</td>
<td>0.6 gallons</td>
<td>24”</td>
<td>28.0 gallons</td>
</tr>
</tbody>
</table>

TOLL FREE 1.888.628.8258 • phone: (918)627.1942 • fax: (918)622.8916 • 7400 East 42nd Place, Tulsa, Ok 74145
email: sales@controlvalves.com • website: www.controlvalves.com

Global performance. Personal touch.
SIZES GLOBE/ANGLE
Screwed Ends - 1 1/4" - 3"
Grooved Ends - 1 1/2" - 6" (globe); 1 1/2" - 4" (angle)
Flanged Ends - 1 1/4" - 24" (globe); 1 1/4" - 16" (angle)

MAX. PRESSURE
250 psi (Pressure is limited by the solenoid for pressures up to 400 psi, consider Model 126P)

FLUID OPERATING TEMPERATURE RANGE
(Vaule Elastomers)
EPDM 32°F - 230°F*

MATERIALS
- Consult factory for others.

Body/Bonnet:
Ductile Iron (epoxy coated), Carbon Steel (epoxy coated), Stainless Steel, low-lead Bronze, Others available (consult factory)

Seal Ring:
low-lead Bronze, Stainless Steel

Stem:
Stainless Steel, Monel

Spring:
Stainless Steel

Diaphragm:
EPDM*

Seat Disc:
EPDM*

Pilot:
low-lead Bronze, Stainless Steel

Other pilots system components:
low-lead Bronze/Brass, All Stainless Steel

Tubing & Fittings:
Copper/Brass, Stainless Steel

Solenoid:
4-way type**

Enclosure:
Weatherproof NEMA 4; Explosion Proof NEMA 4, 6P, 7, 9

Voltages:
24, 120, 240, 480 VAC; 12, 24 VDC

Contacts:
SPDT (std)/DPDT (opt)

*Others available upon request.
**Consult factory for NSF 372 listed Model 126 valves.

DESIGN
The pump control valve shall function to eliminate the surges from starting and stopping the pump by working in conjunction with the pump check valve. It shall also function to eliminate air and debris from the pump column. The valve shall be open when the pump is started. It shall then close slowly, gradually introducing flow into the line. When the pump is signaled to stop, the pump control valve shall slow down while the pump continues to run. As the valve approaches the full open position, the valve stem shall trip a limit switch mounted on the valve. The limit switch shall then shut off the pump. Opening and closing speeds shall be independently adjustable.

ACCEPTABLE PRODUCTS
The pump control valve shall be a <size> Model 126, <globe pattern, angle pattern>, with <150# flanged, 300# flanged, threaded, grooved> end connections, as manufactured by OCV Control Valves, Tulsa, Oklahoma, USA.

OPERATING CONDITIONS
The pump control valve shall be suitable for a flow of <X> gpm and a maximum pump shutoff pressure of <X> psig.

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- Specifications
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- Operating Conditions
- How to order your Model 126 valve
- TOLL FREE 1.888.628.8258