

# Flow-Control Orifices & Iris-Style Valves

For information about orifices, see page 483. For information about pipe size, see pages 2-3.

## Pipe OD to Pipe Size Conversions

Pipe OD	3/8"	1/2"	5/8"	3/4"	1"	1 1/8"	1 1/2"	1 3/4"	2"	2 1/2"	3"
Pipe Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"

## Acetal Instant Tube-Fitting Orifices



- Maximum Pressure: Not rated
- Temperature Range: Not rated

Instant (push-to-connect) fittings seal on the outside of tubing for a quick connection. Use these orifices to control flow anywhere in your tubing system. Orifices have an acetal body with a brass insert. Release ring is acetal with stainless steel teeth. O-ring seal is Buna-N. Color is gray. **Connections:** See table.

**To Order:** Please specify orifice diameter: 0.016", 0.018", 0.020", 0.021", 0.023", 0.024", 0.025", 0.026", 0.028", 0.029", 0.032", 0.033", 0.035", 0.038", 0.040", 0.042", 0.047", 0.052", 0.055", or 0.063".

For Tube OD	Pipe Size	Each
<b>Tube x NPT Male</b>		
3/16"	1/8"	<b>6349T11</b> \$10.71
1/4"	1/8"	<b>6349T12</b> 10.71
1/4"	1/4"	<b>6349T13</b> 13.57
3/8"	1/4"	<b>6349T14</b> 11.29
3/8"	3/8"	<b>6349T15</b> 11.29
1/2"	3/8"	<b>6349T16</b> 11.29

For Tube OD	Pipe Size	Each
<b>Tube x Tube</b>		
1/2"	1/2"	<b>6349T17</b> \$11.29
3/16"	—	<b>6349T41</b> 10.71
1/4"	—	<b>6349T42</b> 10.71
3/8"	—	<b>6349T43</b> 11.29
1/2"	—	<b>6349T44</b> 11.29

## Acetal Check Valves with Instant Tube Connections



### Inline, Tube x Tube Connections

- Maximum Pressure: 145 psi @ 68° F
- Cracking Pressure: 0.29 psi
- Temperature Range: 34° to 159° F

### 90° Elbow, Tube x NPT Male Connections

- Maximum Pressure: 150 psi @ 70° F
- Cracking Pressure: Not rated
- Temperature Range: 32° to 125° F

Simply push your tubing into the end of these check valves and you're ready to go. Note: Cv factor is not rated.

**Inline valves with tube x tube connections** have an opaque white body, Type 302 stainless steel spring, and an acetal piston.

**90° elbow valves with tube x NPT male connections** have a black body, an adjustable screw, and an acetal seat. Mount in any position.

**Connections:** See table.

Connection Style	Connection Size	End-to-End Lg.	Each
Inline.....	1/4" Tube OD x 1/4" Tube OD	1 15/16"	<b>3208K14</b> \$12.21
Inline.....	3/16" Tube OD x 3/16" Tube OD	2"	<b>3208K16</b> 12.23
Inline.....	3/8" Tube OD x 3/8" Tube OD	2 5/8"	<b>3208K18</b> 12.50
90° Elbow.....	1/4" Tube OD x 1/8" NPT Male	1 1/2"	<b>3208K22</b> 14.74
90° Elbow.....	3/8" Tube OD x 1/4" NPT Male	1 9/16"	<b>3208K24</b> 16.57
90° Elbow.....	3/8" Tube OD x 1/4" NPT Male	1 1/2"	<b>3208K26</b> 16.57

## Nylon Plug Orifices



- Maximum Pressure: 100 psi @ 75° F
- Temperature Range: 40° to 120° F

Insert these orifices anywhere in your line that you need to vent, bleed, and purge your system to the atmosphere at a controlled rate. Orifices have a nylon body and a polysulfone insert, unless noted. **Connections:** See table.

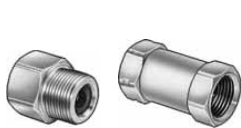
**Also Available:** Orifice diameters not listed. Please ask for **4926T999** and specify the connection style and orifice dia. desired.

Orifice Dia.	Color	Air Flow, scfm @ 40 psi	Water Flow, gpm @ 40 psi	10-32 Thread	1/8" NPT Male
0.004"	Purple	0.010	0.0022	<b>4926T32</b> \$7.26	<b>4926T12</b> \$8.87
0.005"	Lime Green	0.021	0.0039	<b>4926T33</b> 7.26	<b>4926T13</b> 8.87
0.006"	Red	0.031	0.0054	<b>4926T34</b> 7.26	<b>4926T14</b> 8.87
0.007"	Aqua	0.040	0.0076	<b>4926T35</b> 7.26	<b>4926T15</b> 8.87

★ Insert is polycarbonate.

Orifice Dia.	Color	Air Flow, scfm @ 40 psi	Water Flow, gpm @ 40 psi	10-32 Thread	1/8" NPT Male
0.010"	Yellow	0.083	0.0158	<b>4926T36</b> \$7.26	<b>4926T16</b> \$8.87
0.012"	Black	0.113	0.0215	<b>4926T37</b> 7.26	<b>4926T17</b> 8.87
0.014"	Orange	0.136	0.0272	<b>4926T38</b> 7.26	<b>4926T18</b> 8.87
0.020"	Blue	0.283	0.0560	<b>4926T39</b> 7.26	<b>4926T19</b> 8.87

## Pressure-Compensating Orifices



Conserve drinking water and energy with these inline-mounted regulating control valves; they deliver consistent outlet flow over varying pressure conditions. **Brass body** and **nickel-plated brass body** orifices can be used with drinking (potable) water in all states except California and Vermont as of January 1, 2010. The control mechanism is a flexible orifice that varies its effective area inversely to the applied pressure. Maximum inlet pressure is 200 psi. Temp. range is 40° to 180° F.

**Brass Body**—Seal is Buna-N, except for 1 and 2 gpm valves, which have an EPR (ethylene propylene rubber) seal. **Nickel-Plated Brass and Type 316 Stainless Steel Bodies**—3/8" orifices have an EPR seal, unless noted. 1/2", 3/4", and 1" orifices have a Buna-N seal, unless noted. **Zinc-Plated Steel Body**—Seal is Buna-N, except for 1 and 2 gpm orifices, which have an EPR seal. **Connections:** NPT male and NPT female. See table.

**To Order:** Please specify outlet flow from those listed.

Pipe Size	Available Outlet Flow, gpm	O'all Lg.	Each
<b>Brass Body—Male Inlet x Female Outlet</b>			
3/4"	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1 1/2"	<b>8105K11</b> \$39.57
<b>Nickel-Plated Brass Body—Female Inlet x Female Outlet</b>			
3/8"	0.13, 0.19, 0.25, 0.35, 0.50, 0.75, 1	1 3/4"	<b>4762K41</b> 32.77
1/2"	1, 1.5, 2, 2.5, 3, 3.5, 4, 5, 6	1 15/16"	<b>4762K43</b> 36.49
3/4"	1, 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 9, 10	2 3/32"	<b>4762K45</b> 39.89
1"	1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30	2 9/16"	<b>4762K47</b> 80.74
<b>Zinc-Plated Steel Body—Male Inlet x Male Outlet</b>			
1 1/4"	1, 2, 3, 5, 6, 8, 10, 15, 30	3"	<b>8107K31</b> 81.91

• 1.5 gpm orifice has an EPR seal. ■ 1 and 2 gpm orifices have an EPR seal. ▲ 0.35 gpm orifice has a Buna-N seal.

Pipe Size	Available Outlet Flow, gpm	O'all Lg.	Each
<b>Zinc-Plated Steel Body—Male Inlet x Male Outlet (Cont.)</b>			
1 1/2"	1, 2, 3, 5, 6, 8, 10, 15, 30	3"	<b>8107K33</b> \$90.43
<b>Type 316 Stainless Steel Body—Female Inlet x Female Outlet</b>			
3/8"	0.13, 0.19, 0.25, 0.35, 0.50, 0.75, 1	1 3/4"	<b>4762K51</b> 156.38
1/2"	1, 1.5, 2, 2.5, 3, 3.5, 4, 5, 6	1 15/16"	<b>4762K53</b> 185.82
3/4"	1, 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 9, 10	2 3/32"	<b>4762K55</b> 246.88
1"	1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30	2 9/16"	<b>4762K57</b> 288.10

## Iris-Style Flow-Control Valves



Iris-style valves give you adjustable control and shut-off of free-flowing bulk materials such as packaging, powders, and grain. The handle rotates 180° to vary the size of the valve opening and twist-locks in any position. Body is aluminum and the control ring is bronze.

**Standard valves** have a nylon sleeve. Maximum temperature is 230° F. **FDA-compliant valves** have a urethane-coated nylon sleeve. Maximum temperature is 180° F.

Sleeve Dia.	Housing Dia. x Thick.	Standard Each	FDA Compliant Each
4"	6" x 1 1/4"	<b>8153K11</b> \$430.89	<b>8153K12</b> \$468.42
6"	9 1/8" x 1 3/8"	<b>8153K13</b> 493.26	<b>8153K14</b> 533.93
8"	11 1/8" x 1 3/8"	<b>8153K15</b> 601.58	<b>8153K16</b> 651.61

Sleeve Dia.	Housing Dia. x Thick.	Standard Each	FDA Compliant Each
10"	13 1/2" x 1 5/8"	<b>8153K17</b> \$837.94	<b>8153K18</b> \$903.33
12"	16" x 1 3/4"	<b>8153K19</b> 1,169.90	<b>8153K21</b> 1,230.13