

# HI-FLOW™ CONTROL VALVES

Globe Valves, Ideal for Steam and Water Flow Control, 1/2" to 2-1/2" Sizes, 2-Way or 3-Way



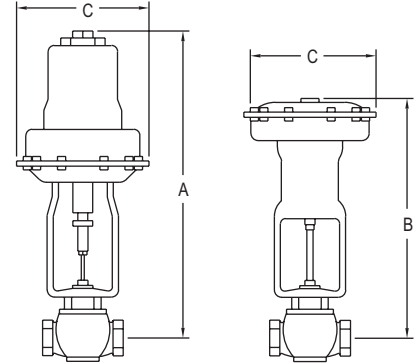
2-way with positioner



2-way with air-to-close actuator



2-way with air-to-open actuator



**HI-FLOW™** control valves are single seated, top or cage guided globe valves - probably the simplest, from a construction standpoint, yet most versatile control valve in use. The Hi-Flow™ valve can fit applications with a smaller size valve since the valve has a greater flow capacity than most conventional valves of the same size. Coupled with the high flow capacity, the Hi-Flow™ valve maintains a wide rangeability of 50:1 to insure precise control. Heavy duty Hi-Flow™ valves are ruggedly constructed of the highest quality materials, precision machined, and performance tested to assure years of trouble free service. Standard packing consists of PTFE V-rings and wiper to minimize friction without leakage at high operating pressures. Available in brass, iron, or 316 SS body, trim is 316 SS with all welded plug construction to provide superior durability and corrosion resistance.

#### FEATURES/BENEFITS

- Wide rangeability of 50:1
- Exceptional shut-off and leak rate that meets ANSI/FCI 70-2 Class IV (0.01% of Cv in the closed position)
- Selectable fail safe condition with Air-to-Raise or Air-to-Lower actuators and Push-to-Open or Push-to-Close valve bodies
- Linear or equal percentage flow characteristics
- Low flow options of restricted trim or needle plug
- Removable and replaceable seat ring

#### APPLICATIONS

- Flow control, mixing, or diverting service
- Perfect for steam, water or compatible glycol solutions

#### HOW TO ORDER

Select model number from model chart or standard product chart and supply maximum upstream pressure, USP.

#### SPECIFICATIONS

##### VALVE BODY

**Service:** Compatible liquids, gases, and steam.

**Line Size:** 1/2" to 2".

**Body Style:** 2-way or 3-way globe.

**End Connections:** 1/2" to 2" female NPT.

**Pressure Limit:** Iron and bronze body: 250 psi (17.2 bar); 316 SS body: 300 psi (20.7 bar).

**Wetted Materials:** Body material: Iron, bronze, or 316 SS; Trim: 316 SS.

**Packing:** PTFE.

**Temperature Limits:** 20 to 400°F (-7 to 204.4°C).

##### ACTUATOR

**Type:** Pneumatic spring/diaphragm.

**Control Signal:** 3 to 15 psi (0.21 to 1.0 bar) standard. Custom ranges available.

**Maximum Supply Pressure:** 220, 222, and 230: 100 psi (6.89 bar). 221, 223, 231, and 233: 50 psi (3.45 bar).

**Air Connection:** 1/4" female NPT.

**Temperature Limit:** 150°F (66°C).

**Note:** Positioners and current-to-pressure transducers available factory mounted.



**Caution:** Use of an actuator supply gas other than air can create a hazardous environment because a small amount of gas continuously vents to atmosphere.

USA: California Proposition 65

⚠ WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

● Positioners: See page 478 (Series 165)  
 ● Transducers: See page 476 (Series 2800)  
 See page 477 (Series 2900)

# HI-FLOW™ CONTROL VALVES

Globe Valves, Ideal for Steam and Water Flow Control, 1/2" to 2-1/2" Sizes, 2-Way or 3-Way

Use the chart below to aid in the selection of Hi-Flow™ Control Valve. As long as the maximum upstream pressure (USP) is less than, or equal to, the value listed, the model shown can be manufactured and calibrated to your specific requirements. Specify maximum upstream pressure, USP, when ordering.

MODEL CHART - 2-WAY SIMPLIFIED SELECTION GUIDE WITH STANDARD PRODUCTS												
Pipe Size	Cv 100%	Body Material	Air-To-Open Model	Price	Max USP psi [bar] 3-15 [.21-1.0]	A in [mm]	C in [mm]	Air-To-Close Model	Price	Max USP psi [bar] 3-15 [.21-1.0]	B in [mm]	C in [mm]
1/2"	6.45	Bronze	2000VA32-230	\$1199.00 <sup>Ⓟ</sup>	250 [17.2]	19-3/4 [501.7]	7-3/4 [196.9]	2000VA32-220	\$1199.00 <sup>Ⓟ</sup>	250 [17.2]	18-7/16 [468.3]	7-3/4 [196.9]
1/2"	6.45	316SS	2000VA42-230	1842.00 <sup>Ⓟ</sup>	300 [20.7]	19-3/4 [501.7]	7-3/4 [196.9]	2000VA42-220	1842.00 <sup>Ⓟ</sup>	300 [20.7]	18-7/16 [468.3]	7-3/4 [196.9]
3/4"	10.75	Bronze	2001VA32-230	1243.00 <sup>Ⓟ</sup>	250 [17.2]	19-3/4 [501.7]	7-3/4 [196.9]	2001VA32-220	1243.00 <sup>Ⓟ</sup>	250 [17.2]	18-7/16 [468.3]	7-3/4 [196.9]
3/4"	10.75	Bronze	2001VA32-231	1375.00 <sup>Ⓟ</sup>	250 [17.2]	20-3/8 [517.5]	10-5/8 [269.9]	2001VA32-221	1375.00 <sup>Ⓟ</sup>	250 [17.2]	19-1/8 [485.8]	10-5/8 [269.9]
3/4"	10.75	316SS	2001VA42-230	2051.00 <sup>Ⓟ</sup>	285 [19.7]	19-3/4 [501.7]	7-3/4 [196.9]	2001VA42-220	2051.00 <sup>Ⓟ</sup>	300 [20.7]	18-7/16 [468.3]	7-3/4 [196.9]
3/4"	10.75	316SS	2001VA42-231	2183.00 <sup>Ⓟ</sup>	300 [20.7]	20-3/8 [517.5]	10-5/8 [269.9]	2001VA42-221	2183.00 <sup>Ⓟ</sup>	300 [20.7]	19-1/8 [485.8]	10-5/8 [269.9]
1"	17.42	Bronze	2002VA32-230	1342.00 <sup>Ⓟ</sup>	166 [11.4]	20-3/16 [512.8]	7-3/4 [196.9]	2002VA32-220	1342.00 <sup>Ⓟ</sup>	192 [13.2]	18-7/8 [479.4]	7-3/4 [196.9]
1"	17.42	Bronze	2002VA32-231	1474.00 <sup>Ⓟ</sup>	250 [17.2]	20-13/16 [528.6]	10-5/8 [269.9]	2002VA32-221	1474.00 <sup>Ⓟ</sup>	250 [17.2]	19-9/16 [496.9]	10-5/8 [269.9]
1"	17.42	316SS	2002VA42-230	2178.00 <sup>Ⓟ</sup>	166 [11.4]	20-3/16 [512.8]	7-3/4 [196.9]	2002VA42-220	2178.00 <sup>Ⓟ</sup>	192 [13.2]	18-7/8 [479.4]	7-3/4 [196.9]
1"	17.42	316SS	2002VA42-231	2310.00 <sup>Ⓟ</sup>	300 [20.7]	20-13/16 [528.6]	10-5/8 [269.9]	2002VA42-221	2310.00 <sup>Ⓟ</sup>	300 [20.7]	19-9/16 [496.9]	10-5/8 [269.9]
1-1/4"	25.30	Bronze	2003VA32-230	1436.00 <sup>Ⓟ</sup>	98 [6.8]	20-5/16 [515.9]	7-3/4 [196.9]	2003VA32-220	1436.00 <sup>Ⓟ</sup>	115 [7.9]	19 [482.6]	7-3/4 [196.9]
1-1/4"	25.30	Bronze	2003VA32-231	1568.00 <sup>Ⓟ</sup>	245 [16.9]	20-15/16 [531.8]	10-5/8 [269.9]	2003VA32-221	1568.00 <sup>Ⓟ</sup>	250 [17.2]	19-11/16 [500.1]	10-5/8 [269.9]
1-1/4"	25.30	Bronze	2003VA32-233	2034.00 <sup>Ⓟ</sup>	250 [17.2]	25-13/32 [645.3]	13-3/8 [339.7]	2003VA32-223	2034.00 <sup>Ⓟ</sup>	250 [17.2]	23-1/8 [587.4]	13-3/8 [339.7]
1-1/4"	25.30	316SS	2003VA42-230	2487.00 <sup>Ⓟ</sup>	98 [6.8]	20-5/16 [515.9]	7-3/4 [196.9]	2003VA42-220	2487.00 <sup>Ⓟ</sup>	115 [7.9]	19 [482.6]	7-3/4 [196.9]
1-1/4"	25.30	316SS	2003VA42-231	2619.00 <sup>Ⓟ</sup>	245 [17.0]	20-15/16 [531.8]	10-5/8 [269.9]	2003VA42-221	2619.00 <sup>Ⓟ</sup>	300 [20.7]	19-11/16 [500.1]	10-5/8 [269.9]
1-1/4"	25.30	316SS	2003VA42-233	3085.00 <sup>Ⓟ</sup>	300 [20.7]	25-13/32 [645.3]	13-3/8 [339.7]	2003VA42-223	3085.00 <sup>Ⓟ</sup>	300 [20.7]	23-1/8 [587.4]	13-3/8 [339.7]
1-1/2"	32.10	Bronze	2004VA32-230	1606.00 <sup>Ⓟ</sup>	65 [4.5]	20-11/16 [525.5]	7-3/4 [196.9]	2004VA32-220	1606.00 <sup>Ⓟ</sup>	80 [5.5]	19-3/8 [492.1]	7-3/4 [196.9]
1-1/2"	32.10	Bronze	2004VA32-231	1738.00 <sup>Ⓟ</sup>	168 [11.6]	21-5/16 [541.3]	10-5/8 [269.9]	2004VA32-221	1738.00 <sup>Ⓟ</sup>	235 [16.2]	20-1/16 [509.6]	10-5/8 [269.9]
1-1/2"	32.10	Bronze	2004VA32-233	2204.00 <sup>Ⓟ</sup>	250 [17.2]	25-25/32 [654.8]	13-3/8 [339.7]	2004VA32-223	2204.00 <sup>Ⓟ</sup>	250 [17.2]	23-1/2 [596.9]	13-3/8 [339.7]
1-1/2"	32.10	316SS	2004VA42-230	2739.00 <sup>Ⓟ</sup>	65 [4.5]	20-11/16 [525.5]	7-3/4 [196.9]	2004VA42-220	2739.00 <sup>Ⓟ</sup>	80 [5.5]	19-3/8 [492.1]	7-3/4 [196.9]
1-1/2"	32.10	316SS	2004VA42-231	2871.00 <sup>Ⓟ</sup>	168 [11.6]	21-5/16 [541.3]	10-5/8 [269.9]	2004VA42-221	2871.00 <sup>Ⓟ</sup>	235 [16.2]	20-1/16 [509.6]	10-5/8 [269.9]
1-1/2"	32.10	316SS	2004VA42-233	3337.00 <sup>Ⓟ</sup>	300 [20.7]	25-25/32 [654.8]	13-3/8 [339.7]	2004VA42-223	3337.00 <sup>Ⓟ</sup>	300 [20.7]	23-1/2 [596.9]	13-3/8 [339.7]
2"	50.30	Bronze	2005VA32-230	1751.00 <sup>Ⓟ</sup>	31 [2.1]	20-15/16 [531.8]	7-3/4 [196.9]	2005VA32-220	1751.00 <sup>Ⓟ</sup>	44 [3.0]	19-5/8 [498.5]	7-3/4 [196.9]
2"	50.30	Bronze	2005VA32-231	1883.00 <sup>Ⓟ</sup>	88 [6.1]	21-9/16 [547.7]	10-5/8 [269.9]	2005VA32-221	1883.00 <sup>Ⓟ</sup>	140 [9.7]	20-5/16 [515.9]	10-5/8 [269.9]
2"	50.30	Bronze	2005VA32-233	2349.00 <sup>Ⓟ</sup>	175 [12.1]	26-1/32 [661.2]	13-3/8 [339.7]	2005VA32-223	2349.00 <sup>Ⓟ</sup>	250 [17.2]	23-3/4 [603.3]	13-3/8 [339.7]
2"	50.30	316SS	2005VA42-230	3068.00 <sup>Ⓟ</sup>	31 [2.1]	20-15/16 [531.8]	7-3/4 [196.9]	2005VA42-220	3068.00 <sup>Ⓟ</sup>	44 [3.0]	19-5/8 [498.5]	7-3/4 [196.9]
2"	50.30	316SS	2005VA42-231	3200.00 <sup>Ⓟ</sup>	88 [6.1]	21-9/16 [547.7]	10-5/8 [269.9]	2005VA42-221	3200.00 <sup>Ⓟ</sup>	140 [9.7]	20-5/16 [515.9]	10-5/8 [269.9]
2"	50.30	316SS	2005VA42-233	3666.00 <sup>Ⓟ</sup>	175 [12.1]	26-1/32 [661.2]	13-3/8 [339.7]	2005VA42-223	3666.00 <sup>Ⓟ</sup>	272 [18.8]	23-3/4 [606.3]	13-3/8 [339.7]

Ⓟ Items are subject to Schedule B discounts.

MODEL CHART - CONTROL VALVES - HI-FLOW™ SERIES, 2-WAY, STOCKED MODELS						
Pipe Size	Cv 100%	Body Material	Air-To-Open Model	Price	Set at USP psig [bar]	Adjustable USP Range psig [bar]
1/2"	6.45	Bronze	2000VA32-230-QS	\$1199.00 <sup>Ⓟ</sup>	125 [8.6]	96-200 [6.8-13.8]
3/4"	10.75	Bronze	2001VA32-230-QS	1243.00 <sup>Ⓟ</sup>	125 [8.6]	81-155 [5.6-10.7]
1"	17.42	Bronze	2002VA32-230-QS	1342.00 <sup>Ⓟ</sup>	125 [8.6]	123-166 [8.5-11.5]
1"	17.42	Bronze	2002VA32-231-QS	1474.00 <sup>Ⓟ</sup>	125 [8.6]	71-155 [4.9-10.7]
1-1/4"	25.30	Bronze	2003VA32-230-QS	1436.00 <sup>Ⓟ</sup>	98 [6.8]	66-98 [4.6-6.8]
1-1/4"	25.30	Bronze	2003VA32-231-QS	1568.00 <sup>Ⓟ</sup>	125 [8.6]	121-165 [8.3-11.4]
1-1/2"	32.10	Bronze	2004VA32-231-QS	1738.00 <sup>Ⓟ</sup>	125 [8.6]	104-137 [7.2-9.5]
2"	50.30	Bronze	2005VA32-231-QS	1883.00 <sup>Ⓟ</sup>	88 [6.1]	68-88 [4.7-6.1]
2"	50.30	Bronze	2005VA32-233-QS	2349.00 <sup>Ⓟ</sup>	125 [8.6]	116-145 [8.0-10.0]

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