

Globe Valve Selection Guide




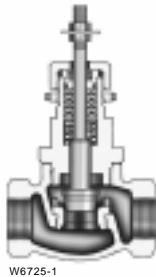
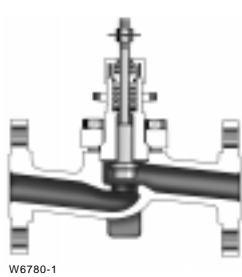
- These straight-pattern (globe), angle-pattern, and three-way valves offer a broad range of types, sizes, and materials--from 1/4-inch low-flow valves to DN 500 and larger for demanding high-pressure steam and hydrocarbon service
- FIELDVUE[®] digital valve controllers offer digital control and remote diagnostics. The traditional proven line of Fisher Controls positioners, controllers, transmitters, and switches also is available
- ENVIRO-SEAL[®] and HIGH-SEAL[™] packing systems are available on many designs to ensure compliance with environmental emissions requirements
- Whisper Trim[®] and Cavitrol[®] anti-noise and anti-cavitation trims are available for most designs
- FloVue[™] final control system, spring-return pneumatic diaphragm, double-acting piston, electrohydraulic, or electric actuators
- These products deliver superior dynamic performance to minimize process variability, providing opportunities to improve your financial performance



FISHER-ROSEMOUNT™ Managing The Process Better.™

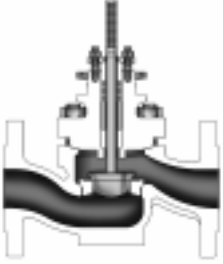
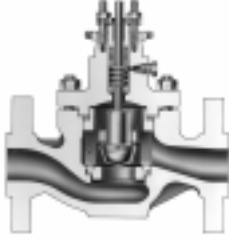
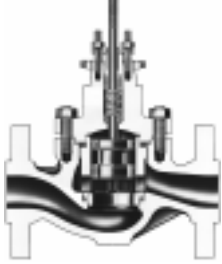
Product Flier PF51.1:010

Low-Flow and Utility Valves

 W6967 H.D. Baumann 51000 SERIES	 W6725-1 H.D. Baumann 24000 SERIES Little Scotty	 W6780-1 H.D. Baumann 24000S SERIES
Applications		
Throttling control of high-pressure low flow rates	Bronze utility valve for pressure, flow, or temperature service in the textile, pharmaceutical, semiconductor, heating, air conditioning, and other industries	Stainless steel version of the H.D. Baumann Little Scotty valve for corrosive service.
Style		
Single-seated, stem-guided globe valve Unbalanced	Single-seated, stem-guided globe valve Unbalanced Screwed-in seat ring Metal or soft seats	Single-seated, stem-guided globe valve Unbalanced Screwed-in seat ring Metal or soft seats
Sizes		
1/4 and 1/2 inches	1/2 through 2 inches	1/2 through 3 inches
Ratings		
207 Bar (3000 psig)	ANSI B16.24	ANSI Class 300 (Class 150 for 3-inch size)
End Connections		
Threaded G (metric) or NPT female	Screwed NPT female	24000S: Screwed NPT (can be installed between pipeline flanges) 24000SF: ANSI Class 150 or 300 raised-face flanges (3 inch is Class 150 only)
Body Materials		
CF8M (316 stainless steel)	ASTM B62 bronze	316 stainless steel
Valve Plug and Seat Ring (Trim) Materials		
316 stainless steel with PTFE seat	316 Stainless steel Soft seat is PTFE	316 Stainless steel Soft seat is PTFE
Flow Characteristics and Maximum Flow Coefficients		
Modified equal percentage Maximum C_v from 0.00013 to 2.5	Linear or equal percentage Maximum C_v from 0.200 to 50.0	Linear or equal percentage Maximum C_v from 0.005 to 61.0
Shutoff Class (IEC 534-4 and ANSI/FCI 70-2-1991)		
Class IV or VI	Class IV (standard with metal seats), Class V (optional with metal seats), or Class VI (with optional soft seats)	Class IV (standard with metal seats), Class V (optional with metal seats), Class VI (with optional soft seats)
Available Actuator Types (Refer to Pages 8 and 9)		
H.D. Baumann 6in ² , or 16in ² pneumatic actuator	H.D. Baumann 32in ² , 54in ² , or 70in ² spring and diaphragm	H.D. Baumann 32in ² , 54in ² , or 70in ² spring and diaphragm


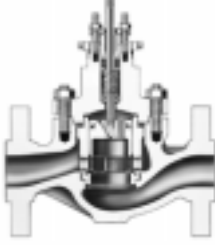
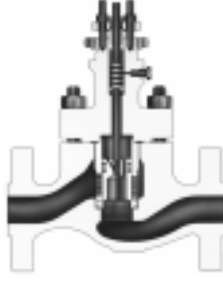
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General-Service and Heavy-Duty Valves

 <small>W6570</small> DESIGN 1018S	 <small>W2966B</small> DESIGN EZ	 <small>W3421-3</small> DESIGN ES
Applications		
General service	Heavy-duty general service for controlling liquids and gases, including viscous and other hard-to-handle fluids. UOP applications.	Heavy-duty, general-service valve for clean liquids and gases . Positive shutoff at seat.
Style		
Single-seated, stem-guided globe valve Unbalanced Screwed-in seat ring Metal or soft seats	Single-seated, post-guided globe or angle valve Unbalanced Seat ring retained by spacer Metal or soft seats	Cage-guided globe or angle valve Unbalanced Cage-retained seat
Sizes		
DN 15 through 100 and 1/2 through 4 inches	DN 15 through 100 and 1/2 through 4 inches	DN 15 through 200 and 1/2 through 8 (ES) DN 100 x 50 through 600 x 500 and 4 x 2 through 24 x 20 inches (EWS)
Ratings		
DIN PN 16, 25, or 40 and ANSI Class 150 or 300	DIN PN 16, 25, 40, 64 and 100 and ANSI Class 125, 300, and 600	DIN PN 10, 16, 25, 40, 64, or 100 and ANSI Class 150, 300, or 600
End Connections		
Raised-face flanged or raised-face flanged with groove	Screwed NPT female, flat- or raised-face flanged, ring-type joint, socket-weld, and butt welding ends	Screwed NPT female, flat- or raised-face flanged, ring-type joint, socket-weld and butt welding ends
Body Materials		
Steel and stainless steel (to DIN, ASME, or ASTM specifications)	Cast iron, steel, alloy steel, stainless steel (to DIN, ASME, or ASTM specifications)	Cast iron, steel, alloy steel, stainless steel (to DIN, ASME, or ASTM specifications)
Valve Plug and Seat Ring (Trim) Materials		
DIN 1.4571 stainless steel with or without alloy 6 on seating surfaces Soft seat is PTFE	Stainless steel with or without alloy 6 on seat or seat and guide Soft seat is PTFE	Stainless steel with or without alloy 6 on seat or seat and guide Soft seat is PTFE
Flow Characteristics and Maximum Flow Coefficients		
Linear or equal percentage Maximum C_v from 1.3 to 185	Quick opening, linear, or equal percentage Maximum C_v from 4.47 to 190	Quick opening, linear, or equal percentage Maximum C_v from 6.53 to 1110
Shutoff Class (IEC 534-4 and ANSI/FCI 70-2-1991)		
Class IV (standard with metal seats), Class V (optional with metal seats), or Class VI (with optional soft seats)	Class IV (standard with metal seats), Class V (optional with metal seats), or Class VI (with optional soft seats)	Class IV (standard with metal seats), Class V (optional with metal seats), or Class VI (with optional soft seats)
Available Actuator Types (Refer to Pages 8 and 9)		
Type 3024S, Type 657, or Type 667 spring and diaphragm; System 9000 FloVue™ final control system	Type 657 or Type 667 spring and diaphragm; Type 585C or 585CR piston; System 9000 FloVue final control system	Type 657 or Type 667 spring and diaphragm; Type 585C or 585CR piston; System 9000 FloVue final control system




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Heavy-Duty and Severe-Service Valves

 W3162-3 DESIGN ED	 W0451-1 DESIGN ET	 W5815-1 DESIGNS HP AND EH
Applications		
easy-e® heavy-duty, general- and severe-service valve for clean liquids and gases with higher pressure drops but where tight shutoff is not required.	easy-e® heavy-duty, general- and severe-service valve for tight shutoff with clean liquids and gases with higher pressure drops and temperatures to 232°C (to 316°C with optional seal materials)	For high-pressure and severe-service applications. Available with special trim to combat noise and cavitation. Often used in power generation applications.
Style		
Cage-guided globe or angle valve Balanced trim Cage-retained seat	Cage-guided globe or angle valve Balanced trim Cage-retained seat	Cage-guided globe or angle valve Balanced or unbalanced trim
Sizes		
DN 25 through 200 and 1/2 through 8 (ED) DN 100 x 50 through 600 x 500 and 4 x 2 through 24 x 20 inches (EWD)	DN 25 through 200 and 1/2 through 8 (ET) DN 100 x 50 through 600 x 500 and 4 x 2 through 24 x 20 inches (EWT)	DN 25 through 500 and 1 through 20 inches
Ratings		
DIN PN 10, 16, 25, 40, 64, or 100, and ANSI Class 150, 300, or 600	DIN PN 10, 16, 25, 40, 64, or 100 and ANSI Class 150, 300, or 600	DIN PN 160, 250, 420 and ANSI Class 900, 1500, 2500, or intermediate ANSI ratings
End Connections		
Screwed NPT female, flat- or raised-face flanged, ring-type joint, socket-weld and butt welding ends	Screwed NPT female, flat- or raised-face flanged, ring-type joint, socket-weld and butt welding ends	Raised-face flanged, ring-type joint, socket-weld and butt welding ends Expanded ends
Body Materials		
Cast iron, steel, alloy steel, stainless steel (to DIN, ASME, or ASTM specifications)	Cast iron, steel, alloy steel, stainless steel (to DIN, ASME, or ASTM specifications)	Cast iron, steel, alloy steel, stainless steel (to DIN, ASME, or ASTM specifications)
Valve Plug and Seat Ring (Trim) Materials		
Stainless steel with or without alloy 6 on seat or seat and guide	Stainless steel with or without alloy 6 on seat or seat and guide. Soft seat is PTFE	Stainless steel with or without alloy 6 on seat or seat and guide
Flow Characteristics and Maximum Flow Coefficients		
Quick opening, linear, or equal percentage Maximum C_v from 17.2 to 6500	Quick opening, linear, or equal percentage Maximum C_v from 17.2 to 6500	Linear, equal percentage, or characterized Maximum C_v from 0.354 to 2600
Shutoff Class (IEC 534-4 and ANSI/FCI 70-2-1991)		
Class II (standard) Class III or IV (optional depending on size)	Standard Air Test: 0.05 mL/min/psid/inch of port diameter (standard with soft seat) Class IV (standard with metal seats), Class V (optional with soft or metal seats)	Class II, III, IV or V (depending on size and construction)
Available Actuator Types (Refer to Pages 8 and 9)		
Type 657 or Type 667 spring and diaphragm; Type 585C or 585CR piston; System 9000 FloVue final control system	Type 657 or Type 667 spring and diaphragm; Type 585C or 585CR piston; System 9000 FloVue final control system	Type 657 or Type 667 spring and diaphragm; Type 470, 490, 585C, or 585CR piston

J436T03

Three-Way Valves, Cryogenic, and Lined Valve

 <p>W0665-3 DESIGNS YD AND YS</p>	 <p>W6396 DESIGN ET-C & EZ-C</p>	 <p>W4521-2 DESIGN RSS</p>
Applications		
Three-way valves for flow-mixing or flow-splitting service. The Design YS unbalanced, and the Design YD is balanced.	easy-e® stainless steel cryogenic valves for liquefied natural gas and other special chemical and hydrocarbon applications with temperatures to -198°C	Lined valve for severely corrosive or toxic process fluids. An economic alternative to alloy bodies. Limited in pressure and temperature.
Style		
Cage-guided three-way globe valves Balanced or unbalanced trim	Single-seated post-guided (EZ-C) or cage-guided (ET-C) globe valve Unbalanced (EZ-C) or balanced (ET-C) Metal seats	Fully lined, single-seated, unbalanced globe valve. Includes bellows stem seal
Sizes		
1/2 through 6 inches	DN 80 through 250 x 200 or 3 through 10 x 8 inches (ET-C) DN 15 through 100 or 1 through 4 inches (EZ-C)	1/2 through 4 inches (face-to-face dimensions to DIN or ANSI/ISA specifications)
Ratings		
Class 125, 150, 250, 300, or 600	DIN PN 10, 16, 25, 40, 64, 100 and Class 150, 300, 600	Class 150 or 300 (bellows ratings to DIN PN 10 or 16)
End Connections		
NPT female (through 2-inch), ANSI Class 125, 150, 250, 300, or 600 flat- or raised-face flanged, and ring-type joint	Raised-face flanges	Raised-face flanges
Body Materials		
Cast iron, steel, alloy steel, stainless steel (to ASME, or ASTM specifications)	Stainless steel (to ASME, or ASTM specifications)	Ductile iron, steel, or stainless steel with PFA liner
Valve Plug and Seat Ring (Trim) Materials		
Stainless steel	Stainless steel with or without alloy 6 hardfacing on seat.	Carbon-filled PTFE, glass-filled PTFE, PTFE bellows, or Hastelloy C276 bellows
Flow Characteristics and Maximum Flow Coefficients		
Linear Maximum C_v 8.42 to 567	Quick opening, linear, or equal percentage Maximum C_v from 13.2 to 924	Equal percentage Maximum C_v from 0.212 to 145
Shutoff Class (IEC 534-4 and ANSI/FCI 70-2-1991)		
Class II or IV (Design YD) Class IV or V (Design YS)	Class IV (standard) 0.05 mL/min/psid/inch of port diameter (optional for ET-C) or Class V (optional for EZ-C)	Class VI (soft seat)
Available Actuator Types (Refer to Pages 8 and 9)		
Type 657 or 667 spring and diaphragm; System 9000 FloVue final control system; and Type 585C and 585CR piston	Type 657 or 667 spring and diaphragm; System 9000 FloVue final control system; and Type 585C and 585CR piston	Type 657 or 667 spring and diaphragm; System 9000 FloVue final control system; and Type 585C and 585CR piston

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Other Valve Products

Cavitating Liquids... Cavitrol® trim is available in many of these valves and in other severe-service valves. Cavitrol trim can eliminate cavitation noise and damage in a properly sized valve.

Noisy Gases... Whisper Trim® cages can substantially reduce noise in gas, vapor, and steam

applications. Whisper Trim is available in several performance levels in many of these valves.

Materials for Sour Service... Fisher Controls offers materials and manufacturing procedures for compliance with NACE (National Association of Corrosion Engineers) standard MR0175.

Protection Against Process Fluid Emissions... Optional ENVIRO-SEAL® and HIGH-SEAL™ packing systems provide a superior stem seal to prevent the loss of valuable or hazardous process fluids. These live-loaded systems provide longer packing life and reliability.



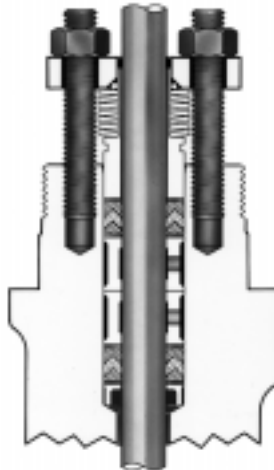
W3747

Cavitrol® Trim for Control of Liquid Cavitation



W2629

Whisper Trim® III Cage for Reduction of Noise in Gas and Vapor Applications



W5803-3

PTFE ENVIRO-SEAL® Packing System

Other Valve Products

Steam Conditioning

Service... CON-TEK[®] steam conditioning products accurately control steam for high efficiency in power generation, industrial processing, space heating, and

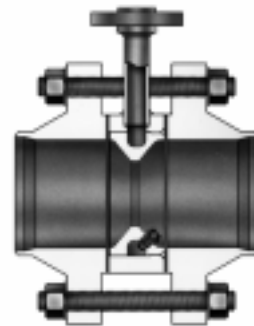
auxiliary steam applications. Steam conditioning valves, desuperheaters, and turbine bypass systems are available.

For a broad range of process control valves--beyond those mentioned here--contact your nearest sales office or sales representative.



W7012

CON-TEK[®] Steam Conditioning Valve






W6313

CON-TEK[®] Design DVI Desuperheater




Product Flier PF51.1:010

Globe Valve Actuators

 <p>W6663-1</p> <p>SYSTEM 9000 FloVue™ FINAL CONTROL SYSTEM</p>	 <p>W6571</p> <p>TYPE 3024S</p>	 <p>W6726-1</p> <p>H.D. BAUMANN 32IN², 54IN², OR 70IN² ACTUATOR</p>
Features		
<p>Compact actuator that allows digital two-way communication with the valve and actuator. Advanced valve diagnostics. Uses the FIELDVUE® digital valve controller or a pneumatic valve positioner</p>	<p>Compact, light-weight actuator designed for use with the Design 1018S valve</p>	<p>Compact, light-weight actuator designed for use with the 24000 Series valves</p>
Style		
<p>High-pressure, spring-return actuator with integrated controller and accessories</p>	<p>High-pressure, spring-return pneumatic diaphragm</p>	<p>Spring-return pneumatic diaphragm</p>
Typical Maximum Thrust, Newtons (Varies with Operating Pressure, Spring, and Construction)		
6500	16 000	3750
Accessories		
<p>Integrated limit switches or position transmitter, and exhaust valve, supply pressure filter-regulator; System 9000 actuator also is available with Type 4000 pneumatic valve positioner</p>	<p>Pneumatic or electro-pneumatic valve positioners, FIELDVUE® digital valve controller, limit switch box, supply pressure filter-regulator</p>	<p>Pneumatic or electro-pneumatic valve positioners, FIELDVUE® digital valve controller, limit switch box, supply pressure filter-regulator, handwheel for 54in² actuator</p>

H464T02

Globe Valve Actuators

 <small>W0363-1</small>	 <small>W6304-1</small>	 <small>W0341-1/L</small>
TYPES 657 AND 667	TYPE 585C, 585CR, 585, AND 585R	TYPE 470 and 490
Features		
Heavy-duty actuators	Heavy-duty actuators	Heavy-duty actuators for large valves and valves with long travel
Style		
Spring-return pneumatic diaphragm	Double-acting piston or spring-bias piston	Double-acting piston
Typical Maximum Thrust, Newtons (Varies with Operating Pressure, Spring, and Construction)		
169 000	70 300 at 10.3 bar operating pressure	100 000 at 8.6 bar operating pressure
Accessories		
Pneumatic or electro-pneumatic valve positioners, FIELDVUE® digital valve controller, limit switches, position transmitters, handwheels, travel stops, and supply pressure filter-regulator	Pneumatic or electro-pneumatic valve positioners, FIELDVUE® digital valve controller, limit switches, position transmitters, handwheels, travel stops, and supply pressure filter-regulator	Pneumatic valve positioners, limit switches, position transmitters, handwheels, travel stops, and supply pressure filter-regulator

H415T05

Other actuators available are...

- **Electrohydraulic actuator with or without integral pump and motor**
- **Ball float actuators**
- **Full range of self-operated control valves**
- **Manual handwheel actuator**

Valve Controllers and Positioners



W6701



W5401-3



W5500

FIELDVUE® Digital Valve Controller

FIELDVUE digital valve controllers are communicating, microprocessor-based controllers that convert a current signal to a pressure signal to operate the actuators. Through the HART® communications protocol, the controller gives easy access to critical actuator-valve information. ValveLink™ software allows easy access to valve information. It provides diagnostic information such as dynamic error band and step response on easy-to-interpret screens.

Pneumatic and Electro-Pneumatic Valve Positioners

Pneumatic and electro-pneumatic valve positioners are available. These and other electronic accessories are available with the CE Mark to EMC directive and with hazardous-area certifications.

Product Flier PF51.1:010

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