



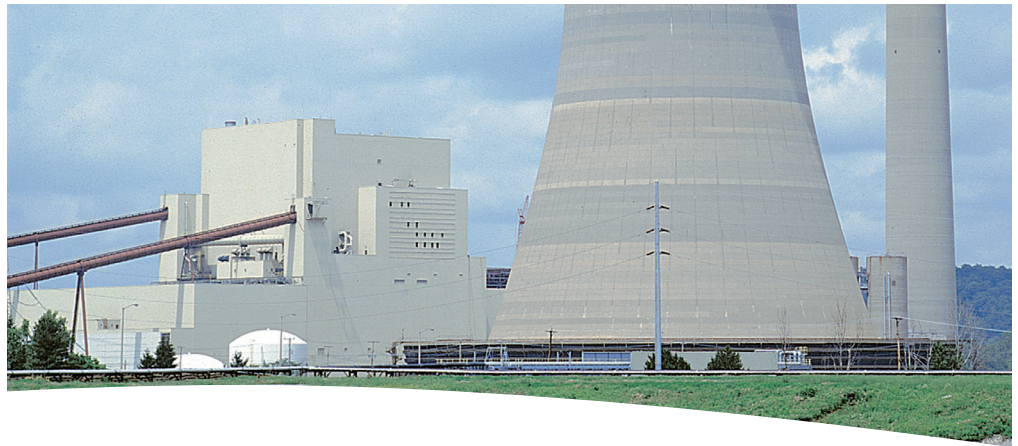
# *Edward Valves Flow Control Solutions*

World's leading supplier of gate, globe and check valves

*Proven leading supplier of  
critical application valves for  
power generation plants*



*Experience In Motion*



## *A History of Firsts*

Feature	Benefit
Body-guided disks on globe and angle valves	Minimizes wear and ensure alignment for tight sealing
Integral Stellite hard-faced seats in globe and angle valves	Permits compact design and resist erosion
Hermetically sealed globe valves with seal-welded diaphragms	Prevents stem leakage in critical nuclear plant applications
Equalizers for large check and stop-check valves	Ensures full lift at moderate flow rates, and prevent damage due to instability
Compact pressure-seal bonnet joints	Eliminates massive bolted flanges on large, high-pressure valves
Qualified stored-energy actuators	Allows quick-closing valves in safety-related nuclear plant applications
Qualified valve-actuator combinations	Used in main steam and feed-water service throughout the world
Stainless steel spacer rings on gate valves, fitted between wedge halves	Simplifies service; damaged valve seats can be restored to factory fit by in-line replacement with slightly thicker ring
Unique two-piece, flexible wedges on gate valves	Automatically adjusts to any angular distortion of body seats; shape provides greater flexibility; ensures dependable sealing and prevents sticking
Impactor handwheels and handles	Allows workers to generate several thousand foot-pounds of torque, thus ensuring tight shutoff of manually operated globe and angle valves
Inclined-bonnet globe valves with streamlined flow passages	Minimizes pressure drop due to flow
Globe valves available with both vertical and inclined stems	Provides stem designs suited to any installation
Live-loaded pressure energized PressurSeat® for globe valves	Globe valve design for high pressure drain and vent service

**100 years of  
Reliability**



## **High Performance for Critical Service**

Temperatures that can exceed 1000°F. Pressures surpassing 10 000 psi. In critical service conditions, you can't take chances. You don't just meet standards, you exceed them. That's how Flowserve Edward forged and cast steel valves have become the specified choice for power plants, process facilities, and other high-temperature, high-pressure services.

### **Conservative Design**

Flowserve Edward Valves takes a conservative approach to valve design. We meet all applicable codes and standards, but we go beyond that with finite element stress analysis of critical areas and rigorous proof testing. Edward valves are built to take punishment! And our extensive testing has also allowed us to develop extremely high flow efficiencies in all our valves. You'll find other unique design advantages with our varied product lines, such as our Equiwedge® gate valves with a two-piece wedge gate assembly that adjusts automatically to any angular distortion of the body seats. And many other design features, now considered "industry standard," started on the drawing boards at Flowserve.

### **Precision Manufacturing**

Edward Valves also exceeds industry standards on the factory floor. Our forged valves are produced on a fully automated line, with CNC machining centers providing precise process control. And we maximize cast steel quality by producing our valve body castings using a directional solidification process from patterns designed by our own technicians.

This process ensures high-strength, void-free castings for uncompromised quality. Even with the most advanced equipment, we feel our people make the real difference. Our production personnel have an average of 20 years in the industry, and 15 years with Flowserve! This exceptional experience allows us to achieve an extra degree of precision that can make a very real difference in the field.

In addition to our people, our procedures for quality assurance and lot-traceability have earned Flowserve Edward Valves the ASME N stamp and certification of our Raleigh, North Carolina, manufacturing facility for nuclear service valve production.

### **Lower Total Costs**

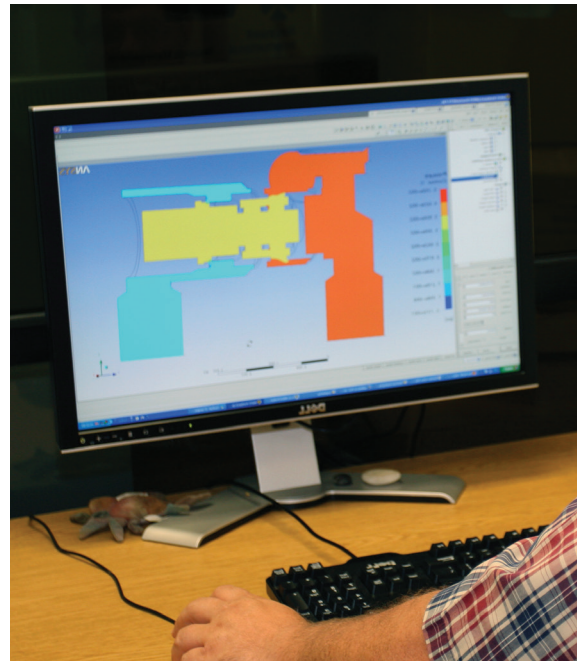
Those tough standards have carried over into every valve we manufacture. We design and build our valves to last at least 40 years. That means not only are they tough, but they are designed with easy maintenance in mind. Considering the cost of valve failure, Flowserve Edward Valves quality is clearly worth specifying. That's been true since 1904, when the first Edward valve was made.

Today, as industrial companies become increasingly aware that operating expenses are part of total cost, the choice becomes more clear and critical than ever.



## *Flowserve Facts*

- The company has maintained technical leadership in the power generation industry by continually updating equipment designs to meet every new regulation and operational requirement.
- In a field where valuable experience is in short supply, Flowserve valve and actuator engineering groups offer more than 1000 years of combined experience in power generation applications.
- We offer 24/7/365 support, including on-site mechanical services from highly experienced, factory-trained Flowserve field service technicians.



*Global Service  
and Technical  
Support*



## ***Best Product/Best Customer Support***

*In today's fast-paced environment, it is not enough to have the best products. Today's applications demand the most experienced people, too. Flowserve products are supported by some of the industry's most highly experienced and skilled teams.*

**The Flowserve engineering teams have vast product and design experience** in developing and adapting valve and actuator products for both general and specific critical applications of commercial nuclear power generation plants.

**Flowserve application engineers are trained by original equipment design engineers** to properly apply Flowserve designs to your application.

**Our technical group has extensive commercial nuclear experience** and is skilled at properly applying the company's products to solve end-users' problems.

**Customers have direct access to Flowserve inside sales representatives and application engineers.** This results in rapid, effective response to the customers' commercial or technical issues and the best customer-supplier interactions.

**Flowserve quality assurance personnel are involved in the customer order process from day one** and oversee the development of the quality plan, as well as its implementation from raw material vendors to Flowserve manufacturing, inspection, assembly and test processes.

**Flowserve also has a highly experienced and trained technical service group** that is available 24 hours a day, seven days a week and 365 days a year.

**Flowserve actively supports** customers' needs to provide prompt, predictable progress during the administration of high-volume valve contracts.

**Flowserve provides the shortest lead times,** ensuring your project remains on time and within budget.

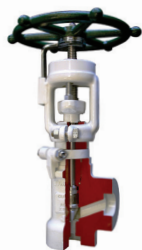




*Edward Y-Pattern  
Globe Univalve*



*Edward Y-Pattern  
Globe Blow-Off Valve*



*Edward Angle  
Globe Univalve*

**Edward Forged Steel, Globe, Angle and Check Valves**

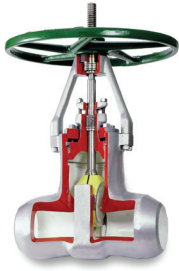
Description	Pressure Rating <sup>1</sup>	Size <sup>1</sup>	Ends
Globe Stop Valves	ASME 600(110)*	½(15) thru 2(50)	Flanged
	ASME 800(130)	¼(6) thru 2(50)	Threaded, Socket
	Series 1500	½(15) thru 2(50)	Threaded, Socket, Flanged
Univalve® Globe Stop Valves	ASME 1690(290)* ASME 2680(460)* ASME 4500(760)	½(15) thru 4(100)	Threaded, Socket, Butt welding
Hermavalve Globe Stop Valves	ASME to 1690(290)*	½(15) thru 2½(65)	Socket, Butt welding
Blow-Off Stop Valves	ASME 300(50), 400(68) & 600(110)	1½(40) thru 2½(65)	Socket, Flanged, Butt welding
	ASME 1500(250) & 2500(420)		Socket, Butt welding
Hydraulic Stop Valves	5000 PSI CWP 10 000 PSI CWP	¼(6) thru 2(50)	Threaded, Socket, Flanged
Globe Stop-Check Valves	ASME 600(110)*	½(15) thru 2(50)	Flanged
	ASME 800(130)	¼(6) thru 2(50)	Threaded, Socket
	Series 1500	½(15) thru 2(50)	Threaded, Socket, Flanged
Univalve Globe Stop-Check Valves	ASME 1690(290)* ASME 2680(460)* ASME 4500(760)	½(15) thru 4(100)	Threaded, Socket, Butt welding
Piston Check Valves	ASME 600(110)*	½(15) thru 2(50)	Flanged
	ASME 800(130)	¼(6) thru 2(50)	Threaded, Socket
	Series 1500	¼(6) thru 2(50)	Threaded, Socket, Flanged
PressurCombo	ASME 1690*, 2680* & 4500	½(15) thru 4(100)	Socket, Butt welding
Univalve Piston Check Valves	ASME 1690(290)* ASME 2680(460)* ASME 4500(760)	½(15) thru 4(100)	Threaded, Socket, Butt welding
Hydraulic Check Valves	5000 PSI CWP & 10 000 PSI CWP	¼(6) thru 2(50)	Threaded, Socket, Flanged
Ball Check Valves	ASME 800(130)	¼(6) thru 2(50)	Threaded, Socket
	Series 1500		
Strainers	ASME 800(130) & Series 1500	¼(6) thru 2(50)	Threaded, Socket
Flanged Univalve	Class 1500(260)	½(15) thru 2(50)	Flanged
Univalve Angle Stop, Stop-Check and Check Valves	ASME 1690(290)	½(15) thru 4(50)	Socket, Butt welding
	ASME 2680(460)		
Continuous Blowdown Valves	ASME 1925	1(25) thru 4(100)	Socket, Butt welding
Nuclear Valves	Thru ASME 2500(420)*	to Size 32(800)	Butt welding

\*These valves can be constructed and supplied for nuclear service.  
1. Metric equivalent values for ratings and sizes are in parentheses.

**Edward Cast Steel Gate, Globe, Angle and Check Valves**

See *Edward Cast Steel Valve Catalog* for detailed information (EVENCT0002)

Description	Pressure Rating <sup>1</sup>	Size <sup>1</sup>	Ends
<b>Bolted Bonnet Globe and Angle Valves, Stop and Stop-Check (Non-Return) and Bolted Cover Piston Check</b>	ASME 300(50)	2½(65) thru 12(300)	Buttwelding or Flanged
	ASME 600(110)*	2½(65) thru 69(150)	
<b>Pressure Seal Bonnet Globe and Angle Valves, Stop and Stop-Check (Non-Return)</b>	ASME 600(110)*	8(200) thru 14(350)	Buttwelding or Flanged
	ASME 900(150)*	3(80) thru 24(600)	
	ASME 1500(260)* & 2500(420)	2½(65) thru 24(600)	
<b>Pressure Seal Cover, Piston Check Valves</b>	ASME 600(110)*	8(200) thru 14(350)	Buttwelding or Flanged
	ASME 900(150)*	8(200) thru 24(600)	
	ASME 1500(260)* & 2500(420)	2½(65) thru 24(600)	
<b>Equiwedge® Gate Valves</b>	ASME 600(110)* & 900(150)*	2½(65) thru 32(800)	Buttwelding or Flanged
	ASME 1500(260)* & 2500(420)	2½(65) thru 24(600)	
	ASME 3600	16(400) thru 24(600)	Buttwelding
<b>Flite-Flow® Globe Valves, Stop and Stop-Check (Non-Return)</b>	ASME 300(50)	3(80) thru 16(400)	Buttwelding or Flanged
	ASME 400(68)	3(80) thru 4(100)	
	ASME 600(110)*	3(80) thru 32(800)	
	ASME 700(120)	6(150) thru 32(800)	
	ASME 900(150)*	6(150) thru 16(400)	
	ASME 1100(190)	3(80) thru 4(100)	
	ASME 1500(260)* & 2500(420)	3(80) thru 24(600)	
	ASME 1800(310) & 2900 (490)	3(80) thru 4(100)	
	ASME 2000(340)	12(300) thru 14(350)	Buttwelding
	ASME 3600	16(400) thru 24(600)	
	Series 4500	4(100) thru 10(250)	Buttwelding or Flanged
<b>Flite-Flow Piston Check Valves</b>	ASME 300(50)	2½(65) thru 16(400)	Buttwelding or Flanged
	ASME 400(68)	3(80) thru 4(100)	
	ASME 600(110)*	3(80) thru 32(800)	
	ASME 700(120)	3(80) thru 4(100)	
	ASME 900(150)*	3(80) thru 16(400)	
	ASME 1100(190)	3(80) thru 4(100)	
	ASME 1500(260)* & 2500(420)	3(80) thru 24(600)	
	ASME 1800(310) & 2900 (490)	3(80) thru 4(100)	
	ASME 2000(340)	12(300) thru 14(350)	Buttwelding
	ASME 3600	16(400) thru 24(600)	
	Series 4500	4(100) thru 10(250)	Buttwelding or Flanged
<b>Tilting Disk Check Valves</b>	ASME 600(110)*	6(150) thru 20(500)	Buttwelding
	ASME 900(150)*, 1500(260)* & 2500(420)	2½(65) thru 24(600)	
	Class 4500(760)	6(150) & 8(200)	
<b>Nuclear Valves</b>	Thru ASME 2500(420)*	to Size 32(800)	Buttwelding
<b>Special Application Valves</b>	Thru ASME 2500(420)	to Size 18(450)	As Required



**Equiwedge Gate Valve**



**Edward Flite-Flow Y-Pattern Globe Valve**



**Edward Flite-Flow Y-Pattern Piston Check Valve**



**Edward Tilting Disc Check Valve**

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