

TMCBV
Trunnion-Mounted Control Ball Valve
for Pipeline Regulation



Introduction

The TMCBV is manufactured in Milan, Italy as a joint venture between Flowserve and Valbart known as Flowserve/Valbart Flow Control Srl. The TMCBV merges the robust, proven Valbart trunnion-guided pipeline valve design with advanced Flowserve technologies for characterized control and noise attenuation. We designed the TMCBV to be a more compact, less expensive choice in services in which it had been previously necessary to use a larger, more expensive valve style.

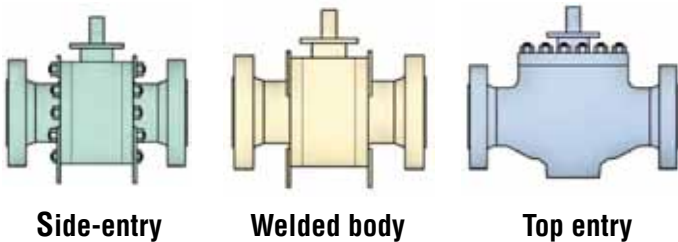
The TMCBV is designed to operate at high pressures while minimizing the torque needed to operate the valve. The seats are spring-preloaded and process energized for Class IV or Class V shutoff at any pressure. The TMCBV's capacity is greater than that of a comparable globe valve - allowing the customer to use a smaller TMCBV. The customer receives cascading savings from using a smaller, lighter valve. It requires a smaller, less expensive actuator and lighter, less expensive pipe supports. Delivery charges are reduced, and the smaller valve is easier to install in tight piping runs.

Rotary seals, precision machining, and accurate trunnion guiding, all contribute to zero external leakage, ensuring that the TMCBV meets all environmental standards.

Product Range

Application	ANSI Pressure Class	Size Range
Control ball valves for normal throttling	150 – 600	6" – 56"
	900 – 1500	6" – 48"
	2500	6" – 24"
Control ball valves for severe service	150 and above	6" – 48"

Body Styles



Side-entry

Welded body

Top entry

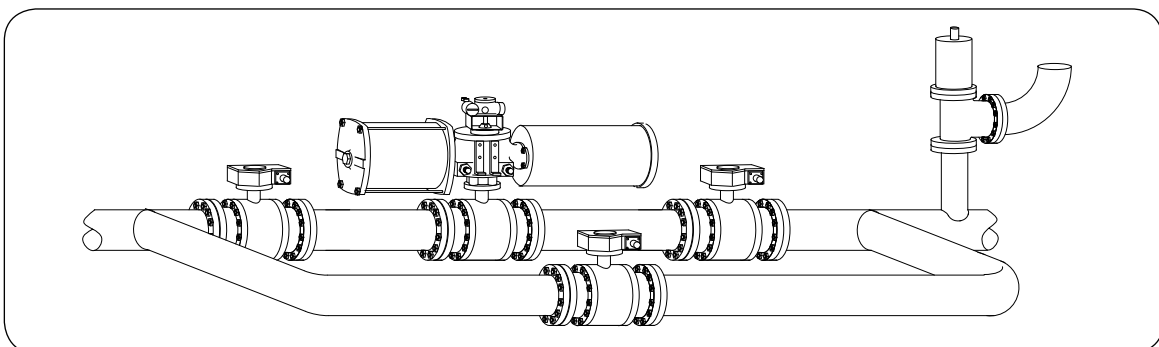
Difference in cost and weight

To achieve a Cv of 9,000 in a Class 300 valve body

	Line Size	Weight	Cost
Globe Valve	36"	23,148 lbs	\$200,000
TMCBV	24"	8,377 lbs	\$99,600

Materials

The TMCBV is offered in many alloys. Steels, Stainless, Duplex, Super Duplex or Nickel alloys are among the many available choices. Specify your material requirements in your inquiry.

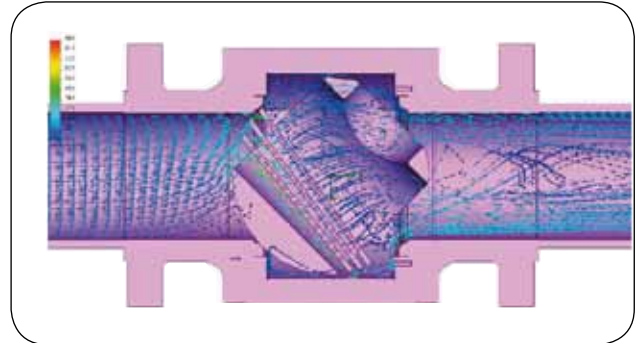


Pressure Regulation

Trims

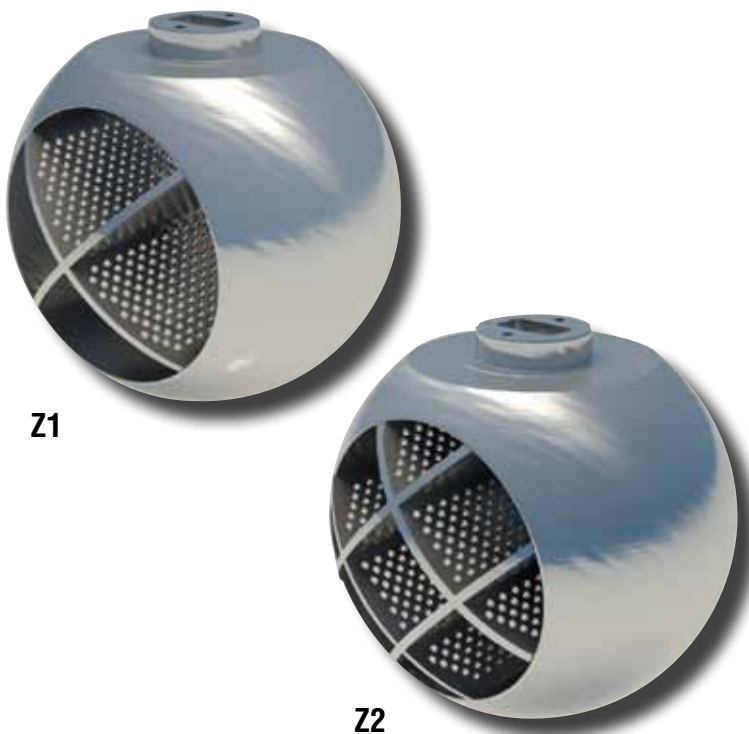
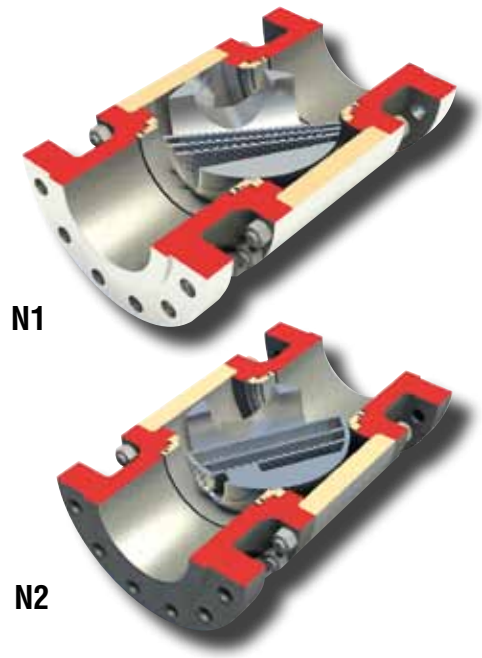
Flowserve has been the industry leader in noise attenuation technology for over 30 years. Now we have merged advanced Flowserve technologies with the robust, industry-leading, Valbart trunnion-mounted ball valve.

We offer trims based upon Valtek's proven globe-valve trim design principles. These trim designs are widely known for effectiveness and innovation. These concepts are further optimized and refined for rotary application through extensive CFD analysis and laboratory testing.



Noise-control trims are based on Valtek's Megastream technology.

The **N1** trim controls velocity as it stages the pressure drop across flat plates in the bore of the ball, progressively decreasing the resistance as the flow encounters fewer plates as the valve is opened. 10-20 dB attenuation can be expected. The **N2** trim is more advanced and uses multiple baffles to absorb pressure drops in steps and to acoustically prevent noise by wave-front cancellation as well as tuned resonance in high, less-audible frequencies. Attenuation of up to 30dB may be realized.

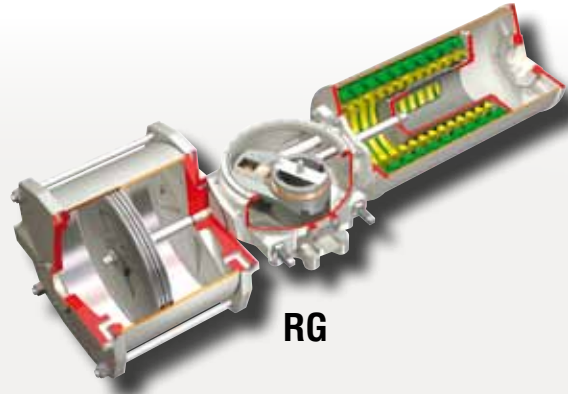


The **Z1** and **Z2** trims use angled plates to give a progressive, continuous characteristic while forcing the flow through multiple self-cleaning stages. Z-trims serve for cavitation control prevention and for noise attenuation up to 20dB.

The TMCBV system offers more trim choices than any other valve in the industry. Let us optimize your application with our technology.

Automation Systems

Flowserve/Valbart's TMCBV system includes matched Flowserve automation to meet your needs and your specifications. For pneumatic actuation, we use the RG Series scotch yoke actuator. When Electric actuation is required we offer the Flowserve Limitorque MX. Custom actuation is available to meet your specifications. All of these actuators will be supplied with the appropriate precision analog or digital Flowserve positioner. Flowserve Logix digital positioners are gas-compatible. A piped vent gives zero emission. Unlike "pilot" controllers, Logix positioners may use Flowserve's ValveSight® continuous monitoring system, and are capable of being commanded to perform safety or other control functions. All components are manufactured by Flowserve/Valbart. All are selected to complement each other, and Flowserve/Valbart provides single-source support.

**RG****Limitorque****Logix 3000 series**

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