

FLOWSERVE





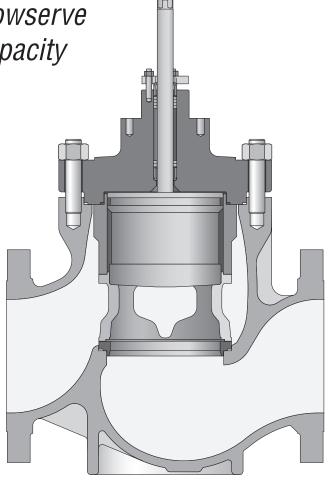
# Higher capacity in a smaller valve

Introducing the Flowserve Mark 100 Ultra-Capacity Control Valve

When an efficient, reliable and cost effective flow control solution is required, the new Mark 100 globe control valve delivers exceptional capacity, extra-fine control, and easy maintenance—all in a valve designed specifically for use with severe service trims. Based on proven Mark One technology and built for use in a broad range of industries, the Mark 100 is suited for the most demanding applications.

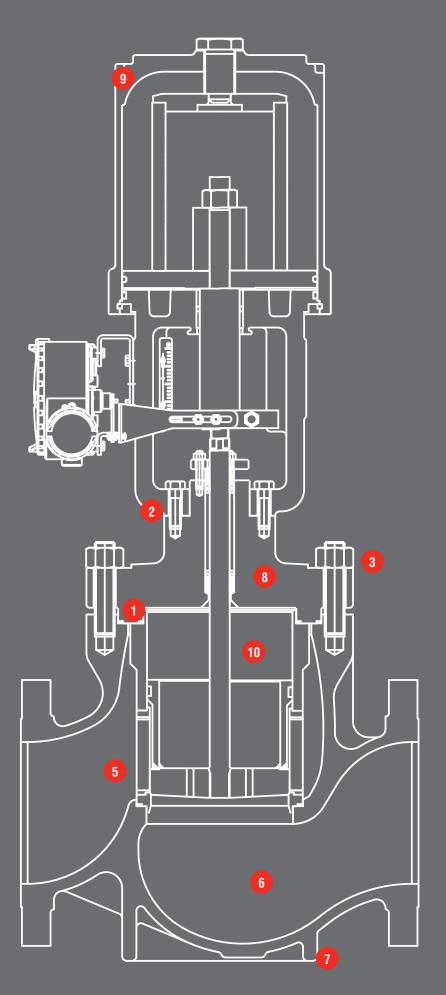
### Extra-fine Control

Since the design is specifically engineered to increase stroke length and precise guiding, the Mark 100 utilizes longer strokes than any standard globe valve. The long stroke combined with both double top stem guiding and cage guiding enables the Mark 100 to provide precision control—even under the most rigorous demands. Finer control means more precision in your process and that means less waste, better product, fewer upsets and more money in your pocket.



### Easy Maintenance and Rugged Design

With simple top-entry clamped seats, redundant guiding, the heaviest stems in the industry, and an integral body stand, the Mark 100 globe control valve is designed for durability and ease of maintenance. The Mark 100 saves you money by reducing critical downtime and minimizing maintenance workloads.



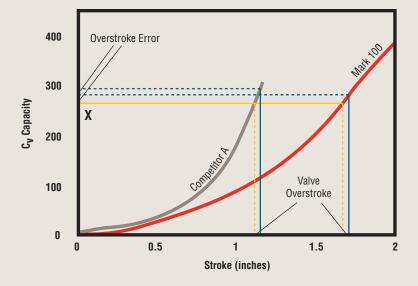
## Features and benefits

- 1 Integral cast bonnet and body flange
- 2 Actuator removal without removal of packing gland
- 3 Bonnet nuts fit both socket and end wrenches
- 4 Tapped lifting holes in most trim parts (not shown)
- 5 Designed for use with severe service cages
- 6 Streamlined gallery
- 7 Integral body stand
- 8 Double top stem guiding and cage guiding
- 9 Actuation options with decades of field experience
- 10 Pressure-balanced seals



### Short-term, long-term savings

Not only does the Mark 100 work in the most demanding processes, it saves money on the initial capital investment and provides incredible ROI. In addition to the high flow rates and the reduced maintenance cost savings, the cumulative effect of the increased precision delivered by the Mark 100 is measurable and significant—it's like earning interest on your initial savings. For more information on the Mark 100, visit www.flowserve.com or contact your local Flowserve representative.



### Maximum C<sub>v</sub>, Minimum Error

By streamlining the gallery, the Flowserve Mark 100 delivers higher capacities than other globe valves of the same size. Increases average 15 percent over competitors' valves, providing end-users significant cost savings by often allowing a drop in valve size while maintaining the needed flow rate—even when the

service becomes harsh. This also often eliminates the need to replace smaller valves with larger ones to accommodate process changes that require greater flow capacities.

As shown in the graph above, to achieve a given  $C_{\nu}$  capacity (X), Competitor A strokes to a little over 1" while the Mark 100 strokes to just

under 1.75". Say, due to the deadband inherent in every valve, each valve overstrokes some equal amount (indicated by the blue and green lines). Now look at the resulting  $C_{\rm v}$  errors from the equal overstrokes—it's obvious that, for the same amount of positioner error, the Mark 100 controls flow more precisely.

### The Flowserve Advantage

Flowserve is your source for complete flow control solutions. Like all Flowserve products, the Mark 100 is backed by the knowledge and experience of the entire Flowserve team, with years of experience in chemical, power, petrochemical, nuclear, refining, pulp and paper, municipal water systems, and other process industries. Flowserve assists you with asset management by documenting your installed base, tracking and archiving performance metrics, and creating solutions that eliminate weak links and failure points. From new installations to maintenance to system upgrades, Flowserve is ready to meet your needs.

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can (and often does) provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Operation Maintenance (IOM) instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

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For more information about Flowserve Corporation, visit www.flowserve.com or call USA 1 800 225 6989.

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