

Masoneilan™ 77003 Series High-Pressure Labyrinth Trim Control Valve

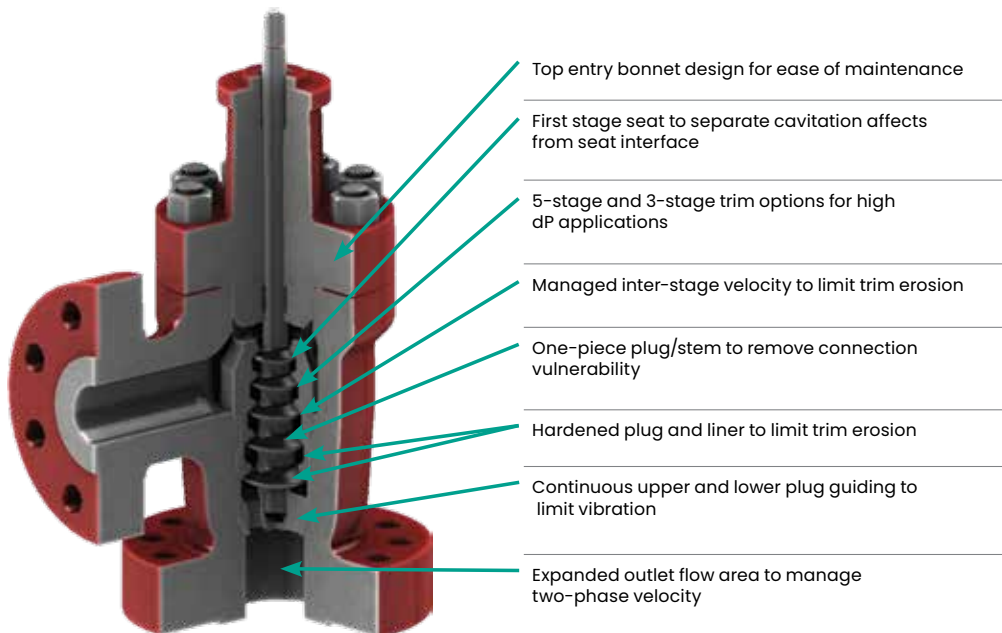
High pressure, compressible fluid control without the erosion, vibration and high noise associated with conventional control valves.

Baker Hughes Masoneilan 77003 Series multi-stage axial flow valves provide high pressure, compressible fluid control without the erosion, vibration and high noise associated with conventional control valves.

Energy Management Trim

The tortuous path trim design dissipates gas and fluid energy via multiple stages along an axial flow path. Each stage has an expanding capacity characteristic that is suited for flashing or outgassing applications. The flow area of the trim is gradually increased at the later stages to compensate for the volumetric expansion of the gas caused by pressure reduction. This ensures nearly constant fluid velocity throughout the complete throttling process and eliminates the damaging effects of high energy spikes within the trim.

77003 Differentiating Features



Cavitation Control

The valve's multi-stage trim design reduces the pressure drop in small increments without allowing the local pressure at each stage to drop below the fluid vapor pressure. All stages are actively controlled by throttling in unison to avoid the adverse affects of an exaggerated reduction across any single stage.

Debris Tolerance

Wide flow paths in the trim allow for passage of large particles entrained in the flow stream that would otherwise cause damage or loss of capacity. This ensures continuous and efficient operation by eliminating concerns of potential clogging due to debris in the flow stream.

Specifications

Design Standard:

ASME B16.34

ASME Ratings:

CI1500 & CI2500 (lower ratings use CI1500 casting)

Body:

Top Entry Angle, 5 Base/Trim Sizes: 2", 3", 4", 6", 8"

Inlet nominal size matches trim size

Outlet size is one nominal size larger than inlet size

End Connections:

RFF, RTJ, BWE

Body Materials:

Carbon Steel, Stainless Steel, Alloy Steel

Trim Type:

Multi-stage axial, flow-to-close

5-Stage partial balanced (Trim X)

3-Stage unbalanced (Trim Y)

Removable quick change

Trim Materials:

Hardened SST

Seat Leakage Class:

Class V

Packing Leakage Class:

ISO 15848-1 Class A

Actuation:

Spring and diaphragm and piston