

Fisher™ Vee-Ball™ with Whisper™ NXV Trim

Fisher Vee-Ball Series valves (V150, V200, and V300) with the Whisper Trim combines the efficiency of a rotary valve with the acoustical attenuation capability of Whisper technology to provide improved performance in applications where aerodynamic noise is a concern. The Fisher Whisper Trim can be utilized in gas and vapor service to reduce noise effects that cause pipeline vibration. See table 1 for a competitive comparison.

The noise reduction technology includes the Vee-Ball series splined drive shaft, which combines with a variety of power operated and manual actuators to provide reliable, high-performance throttling or on-off operation for many different applications in the process industries.

Unless otherwise noted, all NACE references are to NACE MR0175-2002.

Features

- **Whisper NXV Fabrication**—The additively manufactured attenuator features a rugged fabrication weld to provides structural integrity with the ball.
- **Whisper NXV Performance**—Up to -20 dBA acoustical attenuation is achievable depending on service conditions.
- **Excellent Flow Characteristic**—Precise contouring of the V-notch ball provides an approximately equal percentage flow characteristic.
- **Application Versatility**—The Vee-Ball valves are available as standard with ISA S75.04 face-to-face dimensions as well as ASME B16.10-short face-to-face dimensions for CL150 valves. IEC 60534-3-2 face-to-face dimensions are also available (60534-3-2 face-to-face dimensions are equivalent to S75.04).



Fisher Whisper NXV Trim

- **Long Service Life**—Solid HD metal seal construction (figure 1) provides long service life in demanding applications. The constant wiping action of the seal across the ball's sealing surface prevents scale and sludge buildup, and provides excellent service on steam, gases and vapors.
- **Smooth Valve Operation**—Precision machined parts and pressure balanced seal designs allow smooth, precise movement of the ball.
- **Improved Environmental Capabilities**—The optional ENVIRO-SEAL packing system is designed with very smooth shaft surfaces and live-loading provides improved sealing, guiding, and loading force transmission. The seal of the ENVIRO-SEAL™ system can control emissions to below the Environmental Protection Agency (EPA) limit of 100 parts per million (ppm) for valves.
- **Ease of Maintenance**—The Vee-Ball valve ball seals can be inspected simply by removing two screws on the valve body inlet. There is no need to remove the actuator or disassemble the valve. No special tools are required for valve maintenance procedures, such as removing the packing, ball seal, and shafts.

Specifications

Valve Sizes and End Connection Styles

NPS ■ 4, ■ 6, ■ 8, ■ 10, and ■ 12 valves that mate with CL150 through CL600 raised-face flanges

Maximum Inlet Pressures⁽¹⁾

Consistent with applicable pressure-temperature ratings, but do not exceed the material temperature capabilities and pressure drop limitations listed in Fisher Vee-Ball Bulletin ([D101363X012](#))

Maximum Shutoff Pressure/Temperature Ratings⁽¹⁾

Composition (TCM Plus or TCM Ultra) Seals, Flat Metal, HD (Heavy-Duty) and High Temperature HD Metal Ball Seals: See Vee-Ball Bulletin (D101363X012)
 Flow Ring Constructions: Contact your [Emerson sales office](#) for more information

Shutoff Classification

See Vee-Ball Bulletin (D101363X012)

Attenuator Ball Material

- Standard Whisper NXV material is S31603
- Compatible with CG8M, CF3M, and CF8M Vee-Balls
- For other valve parts, refer to the appropriate valve bulletin

Temperature Capabilities⁽¹⁾

Vee-Ball Bulletin (D101363X012)

Packing Constructions

Vee-Ball Bulletin (D101363X012)

Flow Coefficients

See Fisher Catalog 12

Flow Characteristic

Modified equal percentage (see figure 2)

Face-to-Face Dimensions

Vee-Ball Bulletin (D101363X012)

Standard Flow Direction

Forward flow direction is into the convex face of the V-notch ball. The valve with the attenuator must be placed in the forward flow direction for the attenuator to be effective

Maximum Ball Rotation

90 degrees

Options

Refer to Vee-Ball Bulletin (D101363X012) or contact your Emerson sales office

1. The pressure/temperature limits in this bulletin and any applicable standard or code limitation for valve should not be exceeded.

Figure 1. Fisher Vee-Ball Series Whisper NXV Construction

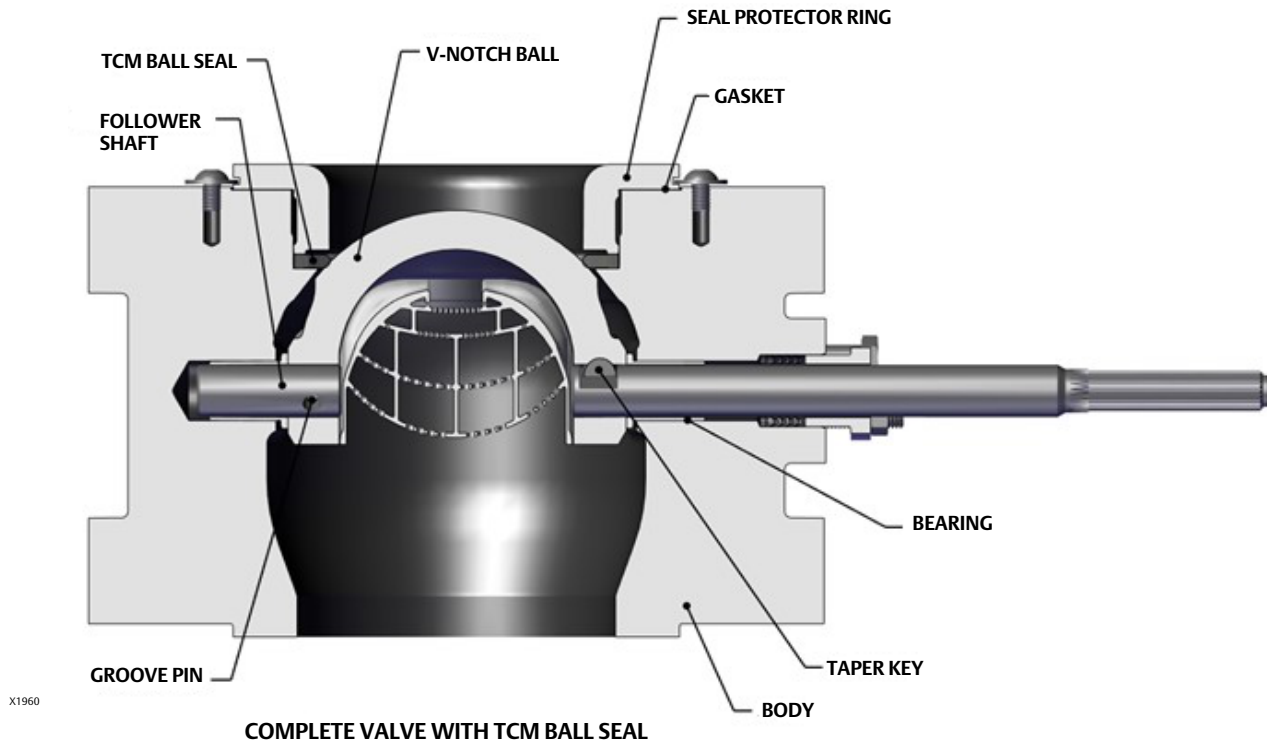


Table 1. Segmented Ball with Whisper NXV Benefits Analysis Comparison

Benefits	Typical Competitive Device	Fisher Whisper NXV ⁽¹⁾
Predictable Performance	No	Yes
-20 dBA Aerodynamic Noise Attenuation	No	Yes
Superior Attenuation Effect at Critical Opening Position	No	Yes
Maximum Pressure Drop Capability	No	Yes
Heavy Duty, Integrally Welded Attenuator/Ball Assembly	No	Yes
Valve Splined Shaft Connects to Clamped Actuator Lever to Minimize Lost Motion	No	Yes
Superior Soft Seats for Tight Shutoff	No	Yes
Trunnion Mounted Ball for Superior Wear Resistance	Yes	Yes
Heavy Duty Metal Seats for Demanding Applications	Yes	Yes

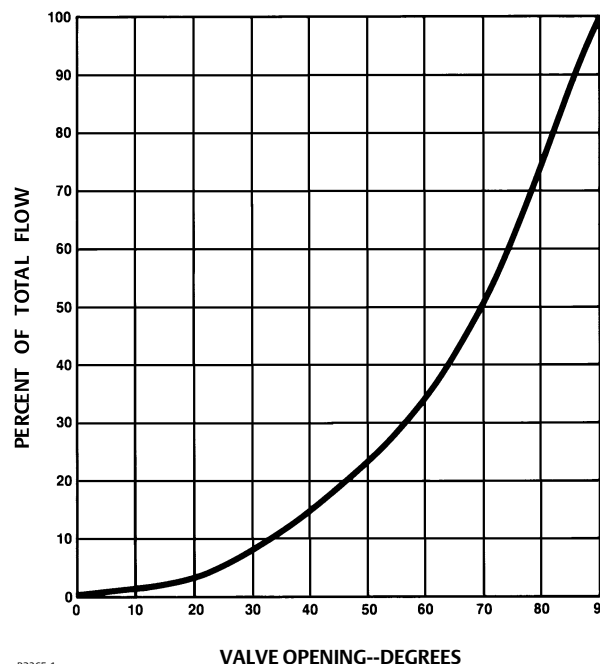
1. See figure 2 for valve characteristics.

Other Considerations

When a rotary noise attenuator is installed in a Vee-Ball valve, the V-notch is no longer a point of high-velocity erosion. As a result, the CoCr-A V-notch option is not required when a rotary noise attenuator is used. The rotary attenuator and CoCr-A V-notch options are not available together.

The Whisper NXV is not intended for liquid applications. If the process generates condensation that can induce water hammer, consult your [Emerson sales office](#).

Figure 2. Valve Characteristics



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