



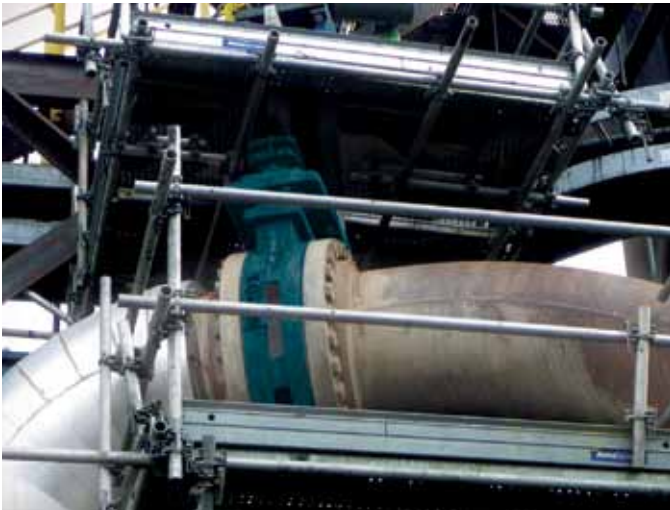
DeZURIK KSV SEVERE SERVICE KNIFE GATE VALVES



Design and Construction

The KSV Severe Service Knife Gate valve is specially designed to withstand high pressures and abrasive slurries – some of the toughest services in mining, (including oil sands processing), steel, power, chemical, municipal sludge, bio-fuels production, and paper industries.

Numerous features make this valve style ideal for isolation in high-pressure, high-density slurry lines. The rigid one-piece body, 100% diameter port, hard-faced gate and rotatable seat rings make this valve ideal for the most rigorous applications. KSV valves are pressure/temperature rated to ANSI B16.34 Class 150 and 300 and are available in sizes 3-60" (80-1500mm).



A Class 300 manual isolation KSV Knife Gate Valve handles coarse tailings at 350 psi at velocities of 13-14 ft. per second.

Rigid, One-Piece Body

Severe Service Knife Gate Valve bodies in cast carbon steel, 316 Stainless Steel or 2205 Duplex Stainless Steel meet demanding performance requirements. Raised face body has drilled and tapped flanges in accordance with ANSI B16.5 and B16.47. Purge-ports in the chest area as standard allow flushing of media from the valve interior. Lifting lugs cast into the packing chamber on all valve sizes (and additional cast and machined lugs in the body on larger sizes), make the KSV valve easy and safe to handle, install and maintain.

Robust Packing System

The robust packing system includes six rows of a superior expanded PTFE Fiber with Graphite braided packing or PTFE packing, a resilient o-ring to provide live loading and two copper wire or nickel chromium alloy scraper rings. The KSV valves have a rounded gate edge, rounded packing chamber and an adjustable packing gland. This live-loaded, multi-ring packing system minimizes any external leakage, extends packing life and reduces maintenance. The scraper rings prevent process media from entering the packing chamber.

100% Port Area

The valve port inside diameter (ID) for ANSI Class 150 valves matches standard pipe ID, and ANSI Class 300 valves match extra-strong pipe ID per ASME B36.10. The KSV valve's 100% port area reduces turbulence, wear and pressure loss across the valve.





Hardened Gate

The beveled, knife-like gate edge cuts through solids in the flow stream. Gates with a hardened nickel-based non-stick overlay and Tungsten bevel provide extra protection against abrasion.

Interchangeable, Rotatable, Configurable Hardened Seat Rings

The KSV Severe Service Valves also feature a “dual wear ring design.” The hardened seat rings are identical so that they can be interchanged, rotated or replaced in the field to achieve maximum service life. In addition, the seats on the KSV valves can be provided with v-orifice, diamond port or square ports. In addition, Tungsten Carbide or Chrome Carbide overlays, in either 6mm or 13mm thicknesses, are available for high velocity applications.

Bi-Directional Shutoff

The KSV valve’s mechanically retained seats provide bi-directional, dead-end service without a mating flange. Resilient seats provide bi-directional, drip-tight shutoff. Resilient seats are available in a variety of materials for services up to 400°F (204°C) as standard. Metal seated KSV valves conform to MSS-SP-135 shutoff requirements for metal seated high pressure knife gate valves.

360° Gate Guiding & Support

For maximum sealing performance, the seat rings work together to provide 360° guiding for the gate. The gate is fully supported and properly aligned within the machined packing chamber of the bolt-on packing box.



Full-Force Lockout System

The KSV lockout system is designed to hold the full actuator force, plus a safety factor. This ultimate lockout system is available on either manual or powered actuators.

Actuator & Accessory Options

As standard, valves are available with Bevel Gear Handwheel Actuators or Hydraulic Cylinder Actuators, with other actuators available on application. A full complement of accessories is also available.



Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

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