

CERAMIC ANGLE VALVE

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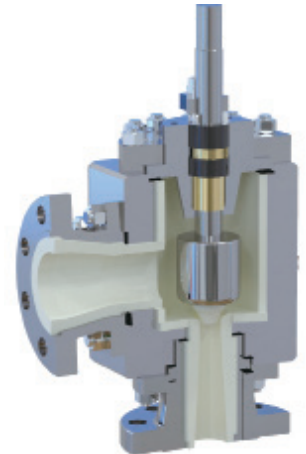
FCAV CERAMIC ANGLE VALVE

The main sealing pair and the fixed circular plate seat of the ceramic angle valve are made of high-performance structural ceramic materials, providing excellent wear resistance, corrosion resistance, and erosion resistance, significantly extending the valve's service life. With a simple and compact structure, the valve features low operating torque, is not prone to jamming, and has a self-cleaning function. There is no high-frequency vibration between the valve core and the seat, effectively avoiding the high-frequency vibration noise issue found in traditional linear stroke plunger angle valves, as well as preventing scratching and sticking between the valve core and the sealing seat.

Structural characteristics

- Both the valve core and seat have flow channels, creating a planar seal at the edges of the valve core and seat flow channel holes. The valve core rotates relative to the seat to achieve throttling, opening, and closing of the fluid.
- The valve is quarter-turn, allowing for direct installation of quarter-turn actuators. This significantly reduces the overall dimensions compared to linear actuators, thereby reducing the valve's installation space.
- Each valve seat and valve core are paired and ground to ensure the valve's sealing performance.
- The valve core and seat are always in close contact, preventing high-frequency vibration and avoiding valve core fracture due to such vibrations.
- The valve core and seat are made of structural ceramics, and the remaining flow channels are lined with ceramics, providing excellent corrosion, wear, and erosion resistance, greatly extending the valve's service life.
- A wide spiral wound gasket is set within the mortise and tenon seal structure, ensuring zero leakage of the casing under pipeline stress or cyclic thermal stress.

The packing box is equipped with a "live load" that maintains a constant load even under high wear conditions, ensuring long-lasting packing life.



Main technical parameters

Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN25~DN400(1"~16")
Nominal pressure	≤900Lb
Service temperature	-40°C~456°C

Main Applications

Media with both flashing and corrosive properties are particularly troublesome. Reducing the speed of erosive fluids and selecting valves with minimal changes in fluid direction can minimize particle impact. Ceramic angle valves have excellent erosion resistance, corrosion resistance, and cavitation resistance, enhancing valve service life and ensuring long-term stable operation.

Coal Chemical Industry: Black water angle valve

Hydrometallurgy: Discharge pipeline from high-pressure leaching autoclave to flash tank; exhaust pipeline from high-pressure leaching autoclave; pipeline from flash tank to adjustment tank.

