

CERAMIC SLIDE VALVE

The valve core moves up and down in a linear motion on the valve seat, creating a planar seal with the edge of the seat flow passage hole, minimizing erosion on the sealing surfaces by the medium. When the medium flows through the valve, there are no sharp turns or stagnation points, greatly reducing flow resistance and erosion.



FCSV CERAMIC SLIDE VALVE



The flow passage holes of the valve and the pipeline are intentionally separated to reduce erosion on the sealing surfaces by the medium. The sealing of the valve is achieved through a planar seal with a slider corresponding to the shape of the valve flow passage hole, sealing along the edge of the flow passage hole. This design can be used as a shut-off valve or a control valve, suitable for conditions with many impurities and severe erosion. In terms of valve structure, the flat-type valve core fits against the fixed valve seat to create a seal, with the highest sealing level being unidirectional Class IV. Each valve is designed with the optimal structural type and material combination based on the specific working conditions.

Main technical parameters

Flange standard	ASME B16.5/HG/DIN/JIS
Nominal Path	DN50~DN400
Nominal pressure	PN10~PN150/150Lb~900Lb
Service temperature	-29°C~456°C

Structural characteristics

- The valve core moves linearly on the valve seat, creating a planar seal at the edge of the valve seat flow passage hole, allowing throttling, opening, and closing.
- The design minimizes flow resistance and erosion, with no sharp turns or stagnation points.
- The valve core is embedded in a metal mounting plate with ceramic to prevent breakage from clogging.
- Each valve seat and valve core are pair-ground to ensure sealing.
- The metal mounting plate has a T-slot that connects with the valve stem's T-slot, keeping the valve core floating and improving sealing performance.
- Both valve core and seat are made of structural ceramic, with ceramic-lined flow passages at the flanges for wear, corrosion, and erosion resistance.
- The valve's design significantly extends its service life (interior valve body currently cannot be lined with ceramic).
- Equipped with a "live load" that maintains a constant load under significant wear, ensuring packing longevity.

Main Applications

Ceramic slide valves can achieve cut-off and regulation for various slurries, gas-solid particle media, and gas-solid-liquid three-phase media, especially in severely erosive conditions. They ensure no stalling or clogging, maintain long-term effective sealing, improve valve service life, and ensure long-term stable operation of the device.

Coal Chemical Industry: Quenching water control valve; black and grey water flow control valve.

Salt Chemical Industry: Lime milk flow control valve in soda ash production.

Petrochemical Industry: Catalyst particle transportation control valve.

Ore Metallurgy: Tailings backfill, ore transportation, ore feeding, copper mine on-off and control valves.

Waste Incineration Power Plants: Limestone slurry atomization flow control valve.

