

CERAMIC LINED SLIDING DISK VALVES CERAVALVE®



CERAVALVE® CERAMIC LINED SLIDING DISK VALVES



SSC NPS 1/2 to 3



SDL NPS 3/8



SVC NPS 2 to 12

FEATURES & BENEFITS

SOLID CERAMIC INTERNAL PARTS

- CERAVALVE[®] utilizes only solid ceramic internal valve parts (no coatings)
- Ceramic liners provide ultimate protection against abrasion to maximize valve life
- No metal parts are in contact with the process medium, making the valve suitable for highly corrosive applications

CERAVALVE® MODULAR DESIGN

- Several flange and body size combinations are available to meet specific application requirements
- A wide range of different Cv values are available to meet various control applications
- Simplified spare parts allow for easy on-site valve maintenance

DESIGN OPTIONS AVAILABLE

- Suitable for both isolation (on/off) and modulating (control) applications
- Various body and ceramic liner/disk material options
- Low emission stem sealing available for strict environmental requirements

SAMSON ACTUATORS AND ACCESSORIES

- SAMSON's field reversible multi-spring pneumatic actuators allow for simple, reliable, and precise control
- Also available with electric or electro-hydraulic actuation
- SAMSON's entire range of valve accessories such as positioners, solenoid valves, limit switches, volume boosters, pneumatic lock-up valves, etc. are available to meet any requirements



COMMON APPLICATIONS

Iron & Steel

Raw iron desulphurisation (supply of additives: CaC, Mg...), Rutilit injection at the blast furnace, individual lance control for coal injection

Chemical Industry

Flashing, dosing and expansion lines for aggressive media with solids

Pigments

TiO2 suspension, Ti3Cl4, H2SO4 + Ti02, FeCl2...

Polysilicon

Si3CI4, TCS, raw silicon, splitting of silicon with acids, conveying of silicon powder...

Waste Incineration Plants

HCI-prewashers, limestone suspension for pH regeneration, corrosive washing water (HF loaded)

Pulp & Paper/Dye Works

Kaolin, bentonite, fillers, dyes, bleachers, talcum...

Paper Machine

Pulp residue, lime suspension, Mg02, green liquor, wood particles in suspension...

Fertilizer

Ammonium nitrate slurry, phosphoric acid with solids (lime), dolomite, washing water with hydrofluoric acid content...

Biofuel

Mash dosage, XtL, etc...

Food

Toothpaste dosage, abrasive media with contamination risks



SSC Sliding disk valve with pneumatic SAMSON® actuator and positioner



SSC Sliding disk valve with electric actuator in a water treatment plant

CERAMIC MATERIALS

Hardness and Wear Resistance

Abrasion from entrained solids in liquid flows, high viscosity slurries, pneumatic conveying, and many other demanding services can drastically reduce the life of most traditional valve styles. Lined valves utilizing ceramic materials that exhibit hardness values substantially higher than most metals can maximize the service life of the valve.

Corrosion Resistance

Compared to other wear resistant materials, ceramic materials are much more corrosion resistant and can be used in a broad range of corrosive applications. Ceramics are completely resistant to most solvents, aqueous brines, and acids, even at relatively high temperatures.

Thermal Shock Resistance

Ceramic components maintain their shape and strength as well as physical characteristics up to extremely high temperatures. However, rapid changes in temperature (thermal shock) can prove challenging for ceramics.

CERAVALVE® ceramic sliding disk valves are available in several materials to handle even the most demanding applications.

Vickers Hardness 1 in GPa



SSiC	Silicon Carbide
Al ₂ O ₃	Aluminum Oxide
Si ₃ N ₄	Silicon Nitride
ZrOa	Zirconium Oxide



TECHNICAL DETAILS

SDL	
Valve Body Size	NPS 3/8
Pressure Rating	ANSI Class 600 to 1500
Flow Capacity	Cv 0.02 to 2.9
Temperature Range*	-22 to 590°F (-30 to 310°C)
SSC	
Flange Size	NPS ½ to 3
Valve Body Size	NPS 5/8 to 1 1/8
Pressure Rating	ANSI Class 150 and above
Flow Capacity	Cv 0.7 to 78
Temperature Range*	-22 to 590°F (-30 to 310°C)
SVC	
Flange Size	NPS 2 to 12
Valve Body Size	NPS 1 ½, 2 ½, 3, and 4
Pressure Rating	ANSI Class 150
Flow Capacity	Cv 114 to 914
Temperature Range*	-22 to 590°F (-30 to 310°C)

*See valve data sheet for permissible temperatures for each material and valve type

CERA SYSTEM is the leading technological pioneer in industrial valves and pipe components with ceramic linings. Conventional valve materials cannot meet the demands of all industrial applications. Where they fail, high-performance ceramic materials open up new opportunities. Ceramics prove to be beneficial wherever standard materials reach their limits with respect to wear resistance, corrosion, and high temperatures.



SAMSON Controls Inc.

4111 Cedar Blvd. Baytown, TX 77523-8588 USA Phone: +1 281-383-3677 · Fax: 281-383-3690



www.samsoncontrols.com

