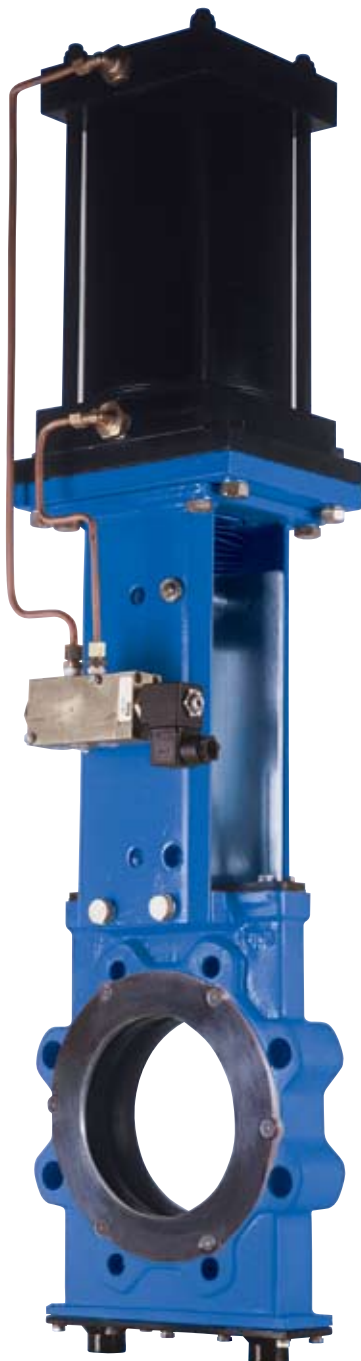


## WS Series Specifications

**The WS wafer style slurry knife gate valve is specifically designed for tough, abrasive and corrosive applications.**



### Features

- Unibody design and heavy duty construction ensures long service life
- Two-piece sleeves are easily replaced without disassembling the valve and are available in a wide range of elastomers
- Replaceable packingless upper seal is adjustment free and self-lubricating
- Bi-directional 100% bubble tight shut-off
- Full port design reduces pressure drop and minimizes turbulence
- Open bottom allows for purging of large solids and solids in high concentrations
- Wafer style is light weight and saves pipeline space

### General Applications

- Mining
- Power utilities
- Pulp and paper
- General industrial
- General chemical
- Cement
- Sand and gravel
- Coal
- Phosphate
- Soda ash

### Size Range

Available in sizes 2" through 24"

### Maximum Working Pressure

Sizes 2" through 16": 150 psi

Sizes 18" through 24": 90 psi

### Standard Materials

Body: Cast ductile Iron

Gate: 316 stainless steel

Sleeves: Natural rubber

# Isogate WS series wafer style slurry knife gate valve

## Available Sleeve Materials

**Natural rubber:** Best abrasion resistance for long life when good chemical compatibility is achieved (ph 2-14). Black natural rubber is the standard series WS sleeve offering. Affected by hydrocarbons, oils, fats and solvents. The maximum recommended high temperature is 180°F. Minimum low temperature -60°F.

**EPDM:** General resistance to most moderate chemicals, alcohol, ozone and organic acids. Affected by strong acids, solvents, most hydrocarbons, chloroform and aromatic solvents. The maximum recommended high temperature is 300°F. Minimum low temperature -60°F.

**Fluro Rubber:** (Viton) Recommended for general chemical applications at elevated temperatures. Affected by solvents, strong caustic, and ketones. The maximum recommended high temperature is 400°F. Minimum low temperature is -50°F.

**Neoprene:** General resistance to moderate chemicals, salt water, oil, fats, grease, and a number of hydrocarbons and solvents. Affected by strong oxidizing acids, acetic acids, ketones and esters, chlorinated and nitrohydrocarbons. The maximum recommended high temperature is 210°F. Minimum low temperature -40°F.

## Available Gate Materials

**316 stainless steel:** Austenitic stainless steel with a good combination of strength and corrosion resistance. 316 stainless steel is the standard series WS gate offering. Resists sea water and corrosive pitting type chemicals.

**17-4 PH stainless steel:** Heat treatable stainless steel whose corrosion and oxidation resistance compares to standard stainless steel but exhibits superior strength.

**Hastelloy C-276:** Highly versatile corrosion resistant alloy. Excellent resistance to oxidizing corrosives, acids, and chlorine-contaminated hydrocarbons.

**Alloy 2205:** A duplex stainless steel that combines the favorable qualities of a ferritic alloy with those of an austenitic alloy. Good general corrosion resistance suited for chemical, pulp mill digesters, and flue gas desulfurization equipment.

**AL6XN:** A high nickel content, 6% molybdenum alloy with very good corrosion resistance. Suited for chemical, pulp mill digesters, and flue gas desulfurization equipment.

## Recommended specifications for Isogate WS series slurry knife gate valves

Wafer style, slurry knife gate valve shall be designed specifically for highly abrasive or corrosive applications and made of heavy duty materials. The valve shall be bi-directional with no internal obstructions and provide 100% bubble tight shut-off in the closed position. The valve's sealing surface is to be between two thick elastomer sleeves of a material suitable for the intended application. The sleeves will be molded with an integral stiffener ring that locates the sleeve in the valve housing and shall be replaceable without disassembling the valve. The valve shall include load distribution rings suitable for a wide variety of flange configurations to evenly compress the sealing element in the valve sleeves. The valve shall be designed with no gate or stem packing and have an open bottom to allow for purging of larger solids and solids in high concentrations. The upper

seal shall feature a rechargeable self-lubricating system and be field replaceable. The valve gate shall be made of 316 stainless steel or an alloy material suitable for the intended application and shall be completely withdrawn from the process flow when in the open position. The gate should be removable for inspection or replacement while the valve body remains in service. The valve body should be of a unibody design standard drilled and tapped to ANSI B16.5 with other optional configurations available as required. The valve shall be equipped with a heavy steel fabricated hand wheel yoke which can be converted to bevel gear or cylinder operator in the field without welding. All exterior surfaces shall be painted to factory standard.

Specify **Isogate WS series wafer style slurry knife gate valves.**



**ISOGATE®**

*WS series wafer style slurry knife gate valve*

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