

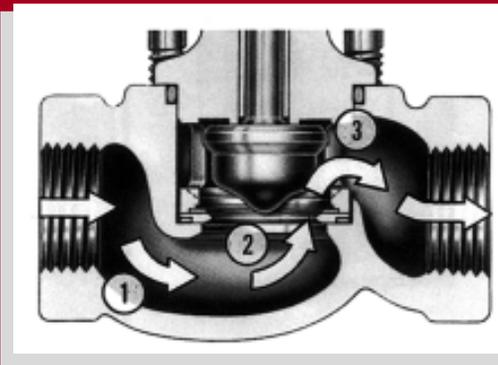
Sliding Gate Regulator & Control Valves



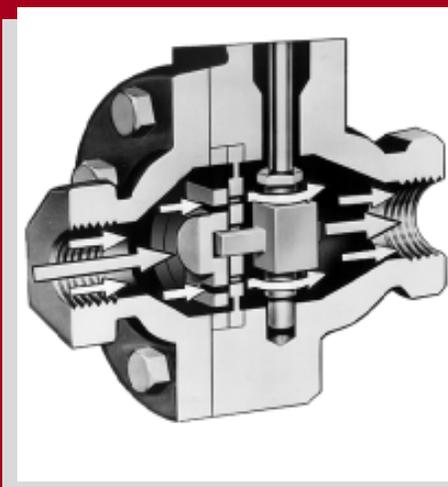
Jordan Valve



Sliding gate seats are made up of a disc and plate, both slotted with openings that align to allow the required flow to pass through the orifices.



In conventional rising stem globe style valves, the flow changes directions three times as it follows an "S" path. This leads to greater velocity, turbulence, noise and more wear on the seating components.



The straight-through flow path of a sliding gate valve reduces velocity and turbulence and leads to quiet operation and reduced wear.

Jordan's Sliding Gate Valve Seats... Simple Concept, Superior Performance

You'll notice something different in a Jordan valve... the unique sliding gate seat. A remarkably simple concept that offers sophisticated performance and benefits not found in traditional rising stem valves.

The sliding gate seat is made up of two primary parts: a movable slotted *Disc* and a stationary slotted *Plate*. Together, these two parts achieve levels of performance, reliability, and accuracy that are hard to find in other valve designs.

STRAIGHT-THROUGH FLOW

The disc is moved across the surface of the plate by the disc pin. When throttled open, the slots of the disc and plate align to allow the required flow through the seats. Since the flow path is straight through the slots, turbulence, noise, and wear are reduced. Another feature of this unique design is that the disc is supported from behind by the plate. This enables the seats to operate efficiently in the near closed position without being disturbed by the high, un-balanced forces a single seated globe valve would experience. This unique ability provides much higher rangeability than can be achieved with a globe style valve while maintaining tight shut-off.

When the valve is closed, the disc and plate form a solid barrier to flow. The upstream pressure and a retaining guide combine to keep the disc and plate in constant contact, which eliminates the noisy chattering often encountered during valve operation. This construction also minimizes the hunting commonly found in conventional rising stem globe style valves.

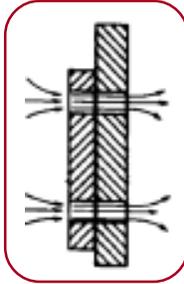
SHORT STROKE, FAST RESPONSE

The stroke of the sliding gate valve is just 1/3 that of a globe style valve. This translates into fast response, reduced droop, longer diaphragm life, and greater sensitivity. The disc requires very little travel to move from fully open to fully closed, and quickly corrects pressure or temperature deviations. The end result is faster response and more accurate control than provided with conventional seat designs.

QUIET OPERATION

The sliding gate valve is inherently quieter than other types of valves because:

- The disc and plate remain in constant contact, eliminating chatter.
- The straight-through flow passage minimizes turbulence, a prime cause of valve noise.
- The multiple orifices in the plate and disc divide the flow into smaller flow components.



Quiet operation is a standard feature of Jordan sliding gate valves. You won't find a premium price adder for "low-noise trim."

TIGHT SHUTOFF



Tight shutoff is an outstanding benefit of the sliding gate valve. When closed, the disc overlaps the orifices in the plate so that the seats actually move **beyond** the closed position. In addition, the seats are self-cleaning, with any leak-producing deposits being cleaned off by the sharp shearing action of the disc moving across the plate. The combination of the overlap, self-cleaning feature, upstream pressure, and flatness of the plate assures shutoff that actually exceeds the sliding gate valve's ANSI Class IV rating.

Jordan's sliding gate seats are pre-lapped at the factory and are self-lapping in operation. This maintains their tight shutoff characteristics over the long service life of the valve. You'll find that shutoff often improves over time as Jordan sliding gate valves actually "*wear in, instead of wearing out.*"

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SEAT COATINGS

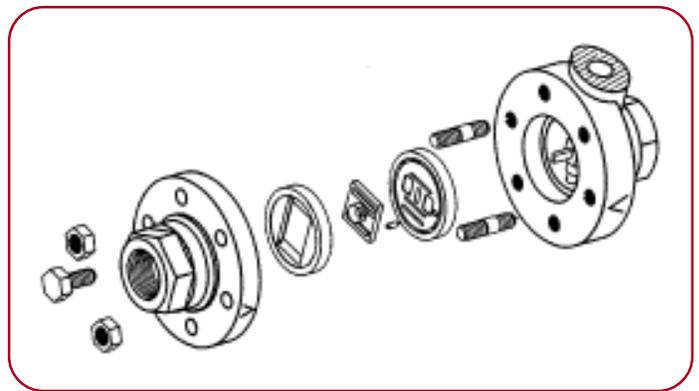
Jordan Valve offers several different coatings that can be applied to the Stainless Steel Sliding Gate seats for additional wear resistance and greater pressure drop capabilities. Below are the three most common configurations:

Jorcote is our standard coating material. It is a ceramic based composite material that is suitable for all temperatures from cryogenic to the maximum rating of the valve body with an extremely low coefficient of friction.

Jorcote/Jordanic - Jordanic is a ceramic spray coating that provides hardness equivalent to Stellite 6B, making the seat components extremely resistant to wear and high temperatures. A Jordanic plate combined with a Jorcote disc provides great friction properties with our most durable configuration for severe service applications.

Hard Chrome Plated Stainless Steel can be used for light duty service where pressure drops are small and the application does not call for heavy cycling. It is an economical option to our coated seats.

EASY TO MAINTAIN



The simple design of the sliding gate valve eliminates most maintenance problems, and those that may be required are easy to perform. Disassembly of the valve is very simple and, since the seats are not welded to the stem, they conveniently lift out of the body. Should your flow requirements change, interchangeable Cv's are available in flow coefficients as low as 0.0008 and as high as 395 (depending on body size).

In addition, on control valves, the action can be changed from reverse (air-to-open) to direct (air-to-close) by simply rotating the disc and plate 180°. No change is required inside the actuator. Furthermore, since the disc and plate operates in a continually lapping condition, you never need to pull the valves out of the line to lap the trim in order to ensure tight shutoff performance.

SIZE AND WEIGHT

As the line size increases, so too does the size and weight of the valve. Because of Jordan's short stroke length, a sliding gate valve is typically shorter and lighter weight than a globe-style valve. As an example, Jordan's 2" sliding gate control valve is less than 13" tall and weighs less than 35 pounds.

Choose from a wide range of sliding gate valves.

Pressure & Back Pressure Regulators

■ Self Operated



Choose from the MK60 Series Pressure Regulators or MK50 Series Back Pressure Regulators for use on steam, air, gas, liquid, and chemical services.

- Sizes from 1/4" to 4"
- Cv's from 0.0008 to 200.
- Set points from 1 psi to 450 psi
- Threaded or flanged ends (integral ANSI or DIN)

■ Pilot-Operated



Designed for your more critical applications, the MK62/67/52/57 Series piloted valves provide greater accuracy and lower offset than can be achieved with self-operated regulators.

- Internal or external pilots
- 1/2" to 6" sizes with threaded or flanged ends
- Turndown ratios up to 100:1

■ Differential Regulators



The MK63/53 Series differential regulators are used to maintain a constant difference in pressure between two sources. Operation is similar to self-operated pressure regulating valves but with two separate lines: one for the process fluid and one for the auxiliary fluid.

■ Vacuum Regulators



The MK65/55 Series offers accurate control and tight shutoff to maintain proper vacuum settings. They are used to break vacuums at predetermined settings or to regulate vacuums on evaporators, cookers, grinding fixtures, milking machines, altitude chambers, and other vacuum systems.

Electric Control Valves



The short stroke of the MK33/37 Series sliding gate control valves permits greater utilization of the motor torque output for improved response time and high pressure drop capabilities.

- For proportional, on-off, or 4-20 mA electronic control
- Sizes to 6", Cv's to 395
- NEMA 4, 7, 9 or 12 enclosures available

Pneumatic Control Valves



When accuracy is the primary criteria for valve selection, consider the MK70 Series sliding gate control valve with rangeabilities exceeding 100:1. Multi-spring actuators are available in three sizes to match the pressure drop requirements of your application.

- Sizes 1/4" to 6"
- Cv's from 0.0008 to 395
- Linear or equal percentage
- Bellows stem seals available up to 2"



■ Wafer-Style Control Valves

The Mark 75 is available with pneumatic, electric or piston-style actuators in sizes 1" through 6". The wafer-style valve is available in a variety of body materials and configurations to match your process needs.



■ Three Way Control Valves

The Mark 79 is a pneumatically operated control valve featuring a three way body design for use on diverting services as a bypass valve or for combining fluids as a mixing valve.

Temperature Regulators

■ Self-Operated



The MK80 and high flow MK801 temperature regulators provide accurate control on temperature-sensitive process applications with set points from -40°F to +450°F.

- Sizes from 1/4" to 2"
- Cv's from 0.0008 to 70
- No external power source required
- Also available as MK86 for ambient temperature control for steam tracing service.