

Pneumatic knife gate valve in Sharjah

Middleeast Valve is a well-known supplier of Pneumatic knife gate valve in Sharjah . We supplies different types of valves to different countries like Qatar, Kuwait, Oman.

A pneumatic knife gate valve is a type of industrial valve used to control the flow of various types of fluids, including liquids and solids in slurry form, by using compressed air or gas to operate the valve mechanism. It is particularly suited for applications involving dense or abrasive media that might clog or damage other types of valves.

Here are some key features and components of a pneumatic knife gate valve:

- **Gate Mechanism:** The gate in a knife gate valve is a flat or beveled plate that moves perpendicular to the direction of flow. It is called a "knife" because it often has a sharp edge that can cut through materials.
- **Actuation:** Pneumatic knife gate valves are operated using compressed air or gas. The pneumatic actuator controls the movement of the gate, allowing for quick and reliable operation.
- **Body Design:** The valve body is typically made of materials such as cast iron, stainless steel, or other alloys, depending on the specific application requirements. The body design is generally wafer or lug style.
- **Seating:** The valve often has a resilient seat or an elastomer lining to provide a tight seal when the valve is closed, preventing leakage.
- **Position Indicator:** Many pneumatic knife gate valves are equipped with position indicators to show whether the valve is open or closed.

How a pneumatic knife gate valve works:

Valve Closed Position:

- In the closed position, the gate of the valve is seated against the resilient seat or elastomer lining, forming a tight seal.
- The pneumatic actuator, powered by compressed air or gas, keeps the gate in the closed position.

Opening the Valve:

- When it's time to open the valve, compressed air is introduced into the pneumatic actuator.
- The actuator converts the input air pressure into mechanical motion, causing the actuator to move.
- This movement is transmitted to the stem of the valve, which, in turn, lifts or moves the gate away from the seat.

Fluid Flow:

- With the gate lifted, the fluid (liquid, gas, or slurry) can flow through the open passage of the valve.

Closing the Valve:

- To close the valve, the supply of compressed air to the actuator is either reduced or cut off.
- The actuator returns to its initial position, and the gate is forced back into the closed position by gravity or other means.

Sealing Mechanism:

- The resilient seat or elastomer lining helps create a tight seal between the gate and the body, preventing leakage when the valve is closed.

Control and Automation:

- Pneumatic knife gate valves are often used in automated systems where the opening and closing of valves are controlled by a central control system.
- The control system can receive signals from sensors, flow meters, or other devices to regulate when the valve should be opened or closed.

In Sharjah, Pneumatic Knife Gate Valve are adaptable for actuation through either single-acting or double-acting pneumatic actuators. These actuators utilize air pressure to control the movement of the valve's gate element. These valves come in various sizes and materials, catering to diverse applications and ensuring compatibility with different operational needs.

Description:

Available materials:WCB,WC6,WCC,LCB,LCC,cast iron, Ductile Iron,SS316,SS304

Size: 2”to 80”

Class: 150 to 300

Nominal pressure:PN6 to PN40

Operation: pneumatic knife gate valve

Ends: wafer, lug, flanged

Application:

1.Water treatment

2.Mining

3.Chemical processing

4. Power generation

5. Pulp and paper

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