

Knife Gate Valve Supplier in Dubai



UAE Valves are the topmost [Knife Gate Valve supplier in Dubai](#). A knife gate valve is a specific type of industrial valve designed for on-off and isolation applications involving the control of fluids, slurries, or powders. This valve derives its name from the thin, sharp-edged disc or gate that operates as a closure element. Unlike traditional gate valves, knife gate valves are specially designed for applications where a straight-line flow of fluid with minimal restriction is required, and they excel in handling media containing suspended solids, such as slurries.

How Does a Knife Gate Valve Work?

A knife gate valve operates by using a sharp-edged gate or blade to control the flow of fluids, slurries, or powders in industrial applications. The valve consists of a compact body with a through-going port and a gate, which is typically shaped like a knife. In the open position, the gate allows unobstructed flow, and in the closed position, it seats against the valve's body, forming a tight seal to stop the flow. The gate is actuated either manually or through automated means such as electric, pneumatic, or hydraulic actuators.

This design is particularly effective in applications involving slurries and solids, where the knife gate valve can cut through and isolate the fluid flow, making it well-suited for

tasks like wastewater treatment, mining, and pulp and paper processing. The minimal pressure drop across the valve and the bidirectional sealing capability contribute to its efficiency in on-off and isolation functions within various industrial settings.

Parts of a Knife Gate Valve:

- Body: The main structure that houses all other components.
- Gate or Blade: The thin, sharp-edged disc that controls flow.
- Stem: Connects the gate to the actuation mechanism.
- Actuation Mechanism: Can be manual (handwheel) or automated (electric, pneumatic, hydraulic).
- Bonnet: The part that covers the valve body and provides a seal.
- Yoke: The structure that supports the actuation mechanism and stem.
- Packing or Sealing System: Ensures a tight seal around the stem to prevent leaks.

As [Knife Gate Valve supplier in Dubai](#), we supply the following types:

1. Through Conduit Knife Gate Valve
2. Bi-Directional Knife Gate Valve
3. Slurry Knife Gate Valve
4. Uni-Directional Knife Gate Valve

Benefits:

Knife gate valves provide efficient flow control and are particularly suitable for handling slurries and solids. The sharp-edged gate design allows the valve to cut through thick media, preventing clogging and ensuring a clear passage for the fluid or slurry.

This is especially beneficial in industries like mining, wastewater treatment, and pulp and paper, where suspended solids are prevalent. Additionally, knife gate valves have a minimal pressure drop across the valve when open, ensuring efficient flow with little resistance.

The bidirectional sealing capability allows the valve to stop flow from both directions, providing greater flexibility in system design and operation. Another significant

advantage is their compact design, which requires less installation space compared to traditional gate valves, making them ideal for applications with space constraints.

Knife gate valves also offer quick opening and closing, enhancing operational efficiency and reducing downtime. Their straightforward construction with fewer moving parts simplifies maintenance and reduces costs. Moreover, these valves are typically made from corrosion-resistant materials, ensuring longevity and reliable performance in harsh industrial environments.

The ability to automate knife gate valves further enhances their utility, allowing integration into automated control systems for improved precision and convenience in managing fluid flow.

Industries Application:

- Mining Industry
- Wastewater Treatment
- Pulp and Paper Industry
- Chemical Industry
- Power Generation
- Steel and Metal Industry
- Marine Industry
- Cement Industry
- Oil and Gas Industry
- Petrochemical Industry
- Automotive Industry
- Textile Industry

Description:

1. Available Materials: WCB, WC6, WCC, LCB, LCC, Cast Iron, Ductile Iron, SS316, SS304
2. Size: 1/2"-64"
3. Class: 150 to 2500
4. Nominal Pressure: PN10 to PN450
5. Operation: Hand Wheel, Gear Operated, Electric and Pneumatic Actuated
6. Ends: Flanged, Wafer, Lug

Our Website: <https://www.uaevalves.com/product-category/knife-gate-valve/>

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