

Duplex steel valve suppliers in Saudi Arabia

Middleeast valve is the prime [Duplex steel valve suppliers in Saudi Arabia](#). We supply to cities like Ras Al Khaimah, Kalba, Jebel Ali, and Ruwais.

Duplex steel refers to a type of stainless steel that has a dual-phase microstructure composed of roughly equal amounts of austenitic and ferritic phases. This combination of phases gives duplex stainless steel its unique properties, such as increased strength, excellent corrosion resistance, and improved toughness compared to other stainless steel grades. Duplex steel valves are valves made from this material and are designed to provide reliable performance in demanding conditions.

The primary function of duplex steel valves is to control the flow of fluids (liquids or gases) through a pipeline or system. These valves can start, stop, or regulate the flow, and they are used to prevent backflow, control pressure, and direct the flow of materials. Duplex steel valves are particularly useful in applications where corrosion and erosion resistance are critical due to the aggressive nature of the fluids being transported.

Middleeast valve is the best [Duplex steel valve suppliers in Saudi Arabia](#) and are highly durable and resistant to corrosion, making them suitable for demanding environments where exposure to harsh chemicals or high-pressure conditions is common.

The working of duplex steel valves is similar to that of other types of valves, with the key difference being the material used. Here's a general overview of how valves work:

- **Opening and Closing:** Valves have an internal mechanism, often a disk or a plug, that can be moved to open or close the passage for fluid flow.
- **Flow Control:** Valves can also be used to regulate the flow rate of fluids. By adjusting the position of the internal mechanism, operators can control how much fluid passes through the valve.
- **Check Valve Functionality:** Some duplex steel valves are designed as check valves, which allow fluid to flow in only one direction.
- **Pressure Relief and Safety:** In some applications, valves are used as safety devices to relieve excess pressure from a system.

Description:

Body Material: Duplex Steel (F51, F53, 4A, 5A), ASTM A995, A890

Class: 150 to 2500.

Pressure: PN25 to PN450.

Size: ½" to 24".

Operations: Lever operated, Handwheel operated, Pneumatic actuated, Electric actuated.

Types of Duplex Steel Valves:

- Duplex Ball Valves
- Duplex Gate Valves
- Duplex Globe Valves
- Duplex Check Valves

Advantages of duplex steel valve:

- Good weldability
- Large thermal conductivity
- Good corrosion resistance
- Better mechanical properties
- High durability

Industries of duplex steel valve:

- Oil and Gas
- Petrochemical
- Chemical
- Power Generation
- Marine and Offshore
- Mining
- Water and Wastewater Treatment

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