# Super Duplex Check Valve Manufacturer in India



Speciality Valve proudly holds the position of a leading <u>Super Duplex Check Valve Manufacturer in India</u>, catering to regions including Uttar Pradesh, Haryana, Punjab, and Rajasthan. Crafted from robust super duplex stainless steel, these specialised check valves showcase superior corrosion resistance and mechanical strength, surpassing standard duplex stainless steels.

## What is a Super Duplex Check Valve?

A Super Duplex Check Valve is a type of valve used to allow fluid flow in one direction only. It prevents backflow, ensuring that once the fluid has moved forward, it cannot flow back.

#### Its working:

A <u>super duplex check valve</u> operates similarly to a standard check valve but is constructed from super duplex stainless steel, which offers enhanced corrosion resistance and mechanical properties. The working principle of a super duplex check valve involves allowing fluid flow in one direction while preventing backflow in the opposite direction.

When the fluid flows in the desired direction, the pressure of the fluid opens the valve, allowing it to pass through the valve freely. The valve's disc or flapper moves away from the valve seat, creating an unobstructed pathway for the fluid to flow. However, when there is a reversal in fluid flow or pressure, the valve automatically closes to prevent backflow. The pressure of the fluid against the closed valve presses the disc or flapper firmly against the valve seat, sealing off the passage and preventing any reverse flow.

Super Duplex Swing Check Valve: A hinged disc swings freely to allow forward flow and swiftly closes to prevent reverse flow, ideal for applications where uninterrupted flow is critical.

Super Duplex Dual Plate Check Valve: Two spring-loaded plates offer efficient flow control, providing a compact design and reduced pressure drop for various industrial settings.

Super Duplex Single Plate Check Valve: Featuring a single, efficient plate design, this check valve ensures reliable prevention of backflow in fluid systems with high corrosion resistance.

Super Duplex Lift Check Valve: Utilising a lifting mechanism, this valve allows fluid flow when lifted and prevents reverse flow when closed, suitable for applications with variable flow conditions.

These Super Duplex Check Valve types collectively offer versatile solutions for diverse industries, ensuring reliable, durable, and corrosion-resistant performance.

## Advantages:

- 1. Corrosion resistance
- 2. Strength and durability
- 3. Resistance to stress corrosion cracking
- 4. Abrasion resistance
- 5. Versatility
- 6. Reduced maintenance
- 7. Leakage prevention
- 8. Long service life

#### **Industries:**

- 1. Oil and Gas: Ensuring secure fluid flow in offshore oil extraction and refining processes.
- 2. Petrochemical Processing: Safeguarding against reverse flow in critical petrochemical production.
- 3. Chemical Processing: Reliable corrosion-resistant check valves for chemical industry applications.
- 4. Desalination Plants: Enhancing durability in desalination systems with superior check valve performance.
- 5. Marine Industry: Providing resilience against harsh conditions in marine fluid control systems.
- 6. Water and Wastewater Treatment\*: Contributing to efficient and reliable flow control in treatment processes.
- 7. Power Generation: Ensuring unidirectional fluid movement in power plant systems for enhanced reliability.
- 8. Mining: Withstanding challenging conditions and preventing backflow in mining operations.

- 9. Pulp and Paper: Reliable check valves for maintaining process integrity in paper manufacturing.
- 10. Aerospace: Supporting precision fluid control in aerospace applications with durable check valves.

Super Duplex check valves find valuable applications in sectors demanding robust corrosion resistance and durability, including offshore oil and gas production, petrochemical and chemical plants, desalination plants, marine environments, and more. The ability to handle harsh and corrosive fluids makes them ideal for challenging operating conditions.

#### **Description:**

1. Available Materials: SS2328, SAF 2507(UNS S32750, F53), S32760( F55), UNS

S32550, F61 2. Size: 1/8"- 24" 3. Class: 150 to 2500

4. Nominal Pressure: PN6 to PN300

5. Ends: Flanged, Socket weld, Butt weld, Wafer, Lug, Threaded

**Visit us:** <a href="https://www.specialityvalve.com/product-category/super-duplex-check-valve/">https://www.specialityvalve.com/product-category/super-duplex-check-valve/</a>

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