## Process Automation

IMI Remosa Diverter Valves





Breakthrough engineering for a better world



# Fluid Catalytic Cracking

## Diverter Valves

IMI Diverter Valves are specifically designed and manufactured to divert the flue gas to the CO boiler or the bypass stack in the FCC unit flue gas lines.

**Custom designed:** They can be adapted to customer specifications without requiring significant structural modifications.

**Reliable:** With hundreds of installations worldwide, their design has been extensively tested and proven.

**Approved by all FCC proccess licensors:** This ensures their quality and compliance.

Easy to maintain: All internal components can be easily replaced.

**Finite Element Analysis:** The valve body undergoes advanced analysis to ensure maximum strength and durability.

**Computational Fluid Dynamics:** to maximise valve performance and to ensure the long-lasting plant service, in terms of flow-dynamic behavior and erosion resistance of the valve, for both single-phase and two-phases flows.

**High-Quality Materials:** Critical components are made from materials highly resistant to erosion and high temperatures.

#### **Product specifications**

IMI currently designs and manufactures 3 types of two-port diverter valves:

- 1. Linear
- 2. Pendulum
- 3. Flip-Flop

Temperature: Up to 960°C (1760°F)

**Optional Seat Purging**: The valves allow for purging injection along the seating ring, which is essential for blocking leaks of process gas when the CO-Boiler line is bypassed.

Floating Cones Design: Valve outlet cones accomodate different thermal expansions between two seats, ensuring smooth operation under varying conditions.

Stainless steel internal components: These components enhance durability and resistance to high temperatures. Available in both cold wall and hot wall designs.

#### Full package solution

IMI's engineering experts have developed integrated packages that combine valves, actuators, and hydraulic power control units. These packages are tailored to meet customer needs for high-temperature and erosive applications. The goal is to provide a comprehensive solution that ensures optimal performance and reliability in demanding process conditions.



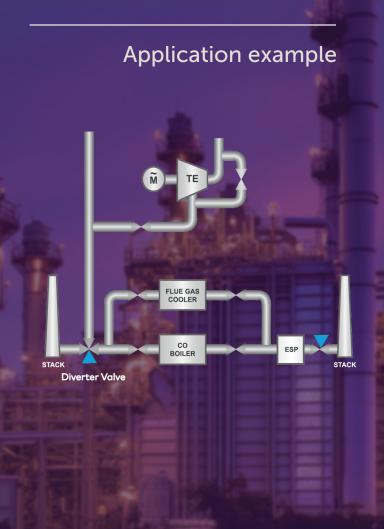
#### Benefits

IMI Diverter Valves play a critical role in enhancing safety within the fluid catalytic cracking (FCC) process.

Reliable Flow Control: Diverter valves ensure precise control over the flow of flue gas within FCC units. By directing the gas to downstream equipment or the bypass stack, they prevent unexpected pressure fluctuations or backflows that could compromise safety.

Emergency Shutdown Capability: in emergency situations, IMI Diverter Valves can quickly divert flue gas away from critical components or equipment. High-Temperature Resistance: valves are designed to withstand extreme temperatures (up to 960°C). This resilience ensures that they continue to function reliaby even under intense heat, reducing the risk of valve failure or leakage.

In-House Refractory Testing: IMI performs refractory installation and testing in-house. This ensures that the valves are properly insulated and can withstand high temperatures without compromising safety.



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