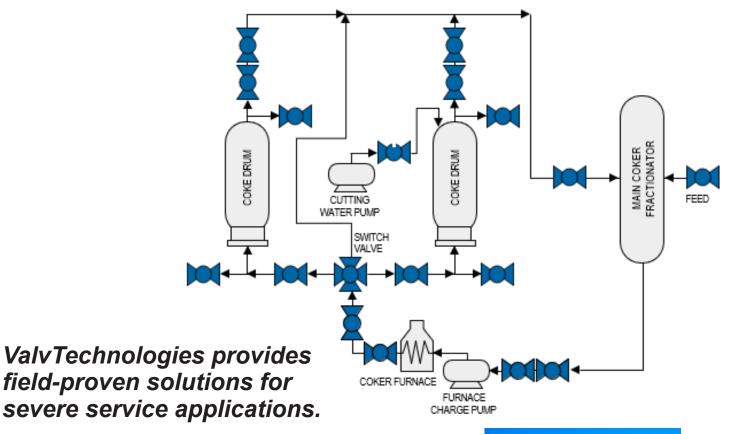
# **VALV**TECHNOLOGIES

### **Coker** Isolation Valves for Coking Service

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## **Refinery Coking**

The delayed coker process is a batch process, one of the most hostile environments in a refinery – due to the abrasive and erosive properties of the coke by-product – and crucial to a refinery's profitability. Valves are cycled frequently and failure can lead to a complete shutdown of a unit, resulting in large process and financial costs. Optimizing valve life-cycle is critical to operational efficiency.



#### Applications

ValvTechnologies' coker valves are built to withstand the most severe applications. High-pressure, high-temperature, high-cycle, abrasive, corrosive and caustic media have all been considered in the design of our product line.

#### Improved Availability

- The quality of design reduces failure rates and increases reliability
- High reliability run factors
- Most effective coker valve technology
- Continuous purging design prevents "coking up"
- Lowest life-cycle costs



#### **Refinery Coking**

- Switch valve
- Drum overhead vapor line
- · Feed and withdrawal lines
- Drum blowdown
- Heater isolation
- Cutting water isolation
- Switch valve isolation
- Safety relief valves isolation lines
- Drain and vent valves
- Fractionator isolation valves

### **Isolation Valves for Coking Service**

Improve up-time, avoid unscheduled downtime and lost production with ValvTechnologies' coking solution.

- Reliability and longevity
- Operational and personal safety reliability of tight isolation
- · Most effective technological purging systems to prevent locking or coking up
- · Low cost-of-ownership due to excellent run time and low-cost of repair

Size: 1 – 42" Class: ANSI 300 – 2500 Standard materials:

For steam purged valves: A217 Gr. C12, A217 Gr. C5

For heater isolation valves: A217 Gr. C12, Incoloy® 800 H, 317SS



Sealing: ValvTechnologies tests coker valves to zero-leakage

Stem packing: Belleville® loaded low emission tested Garfoil® packing ISO 15848 Rate B and API 624

**Purge connections:** Single customer connection, continuous, per application and specification



#### The Benefits of Coker Solution

ValvTechnologies' coker valves are the premier solution where isolation is required for critical and severe service applications, providing increased safety and reliability, while reducing emissions, contributing to a cleaner environment.

Features	Benefits
Integral seat	<ul> <li>Most effective technology for thermal cycling and solids containing processes. Design extends drum switching isolation for scheduled production operations and goals.</li> </ul>
Inconel forged Belleville® spring	<ul> <li>Delivers high reliable process isolation due to consistent ball and seat loading, especially for solids conditions. Thin profile spring design eliminates resid buildup in crevices like other type springs.</li> </ul>
HVOF RiTech® hard coatings	<ul> <li>State-of-the-art computerized applied hard coatings on ball and seat extending isolation capabilities for expected operational performance goals and repair cost reductions. 35% less repair cost than other type ball valves.</li> </ul>
Continuous purge design	<ul> <li>Ensures consistent torques for drum operations to meet production run times. Provides consistent valve operation due to effective flushing of hot resid and fines collection. 40% less steam costs than other ball designs.</li> </ul>
Reduced steam consumption	<ul> <li>Reduces total cost-of-ownership versus other ball valve designs in reducing yearly steam costs</li> </ul>
Bi-directional sealing option	<ul> <li>Provides isolation of process in both flow directions due to fluctuating pressures</li> </ul>
Spring loaded low emission packing design	<ul> <li>Keeps hydrocarbon in containment and meets 100 PPM requirements</li> </ul>
ValvTechnologies' repair services	<ul> <li>Capabilities to service/repair ValvTechnologies' coker valves on-site or at our manufacturing facility in Houston</li> </ul>

Additional options per customer specification:

- Automation electric, hydraulic, pneumatic
- Interlock control capabilities

# Zero-leakage Valve Solutions

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