



## DELAYED COKING OEM Parts and Service

# INNOVATIVE TECHNOLOGY





Largest global installed base of automated unheading equipment

### **Leadership and Experience**

DeltaValve created the fully enclosed coke drum unheading valve market in 2001, with its innovative sliding gate unheading valve design. This new valve technology revolutionized coke drum unheading by replacing traditionally unsafe and unreliable manual or semi-automated unheading equipment, with a fully enclosed and automated system. The result has been a safer working environment, reduced downtime, and increased productivity.

Since 2001, the company has continued to innovate and bring revolutionary new technologies to the delayed

coking market; these include the top unheading system, Planetary Roller-Screw electric actuator, delayed coker isolation valve, and the CenterFeed<sup>™</sup> injection device.

In addition to offering best-in-class equipment for the industry, DeltaValve offers a full line of Original Equipment Manufacturer (OEM) spare parts and services to ensure delayed cokers across the globe operate safely and at peak efficiency.

In 2016, DeltaValve was acquired by CIRCOR and is a key brand within its energy group.





World-class technical support

### **Pre-Installation and Installation Services**



#### **On-Site Training**

DeltaValve offers a variety of maintenance and operations related training courses for refinery engineers and unit operators. The training is focused on maximizing equipment reliability throughout the unit. Our trainers bring the experience and perspective of having been involved in the installation of DeltaValve equipment in over 100 different refineries around the world over the past 18 years.





#### Site Acceptance Testing

DeltaValve participates actively in Site Acceptance Testing (SAT) activities to ensure that all equipment and controls are integrated properly and functioning as specified. Our team is staffed with qualified technicians with expertise and experience in a wide variety of mechanical, instrumentation/electrical (I/E), and hydraulic equipment.

#### Installation Assistance

DeltaValve has extensive experience installing various types of delayed coker equipment in a variety of different unit configurations. We have the technical resources in-house to provide turn-key installation services, including all related trade labor. We also provide supervision services if the refinery requires the installation be completed by an imbedded contractor.

#### DELAYED COKING OEM PARTS AND SERVICE



### Asset Life-Cycle Management

#### **On-Site Equipment Audits**

DeltaValve has a team of technical experts qualified to perform on-site equipment audits. As each delayed coker is configured and operated in a slightly different manner, periodically evaluating the equipment and supporting utilities is critical to monitoring system health and to planning future repairs or upgrades.

#### **Turnaround Planning**

Effective planning is the key to successful turnarounds. DeltaValve's experienced project team works with each refinery turnaround planning group to ensure accurate schedules are created and managed, and refinery downtime is minimized.

#### Timeline Management

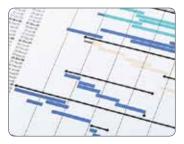
DeltaValve has built a reputation over the years as an organization that understands the critical nature of turnaround work and the cost of downtime. Our project management and operations teams work closely together to manage schedules and resources to ensure we deliver on time and with exceptional quality.

#### Spare Parts Inventory and Management

On-site spare parts storage and inventory management is challenging for many refineries. DeltaValve offers services which include storing customer owned spare parts at one of our facilities until required. We also offer special packaging for parts being stored on-site for an extended period of time and periodically inspect these parts during on-site audits.











World-wide service support

### Service







#### Field Service

DeltaValve has created a mobile team of qualified technicians that are routinely deployed to refinery locations around the world to perform a variety of services. This team has expertise in rigging and lifting, maintenance and repair of mechanical and hydraulic equipment, as well as control system programming and maintenance.

#### Shop Service

DeltaValve's in-shop service team has extensive experience in all aspects of valve maintenance and repair. This includes disassembly, blasting, Non-Destructive Examination (NDE), weld repair, machining, painting, assembly and testing, etc. The team is certified to maintain and repair all types of hydraulic and electric actuation, and is mobile and ready to perform work throughout the world as required.

#### **Global Service Centers**

DeltaValve has developed a strategy for maximizing customer service worldwide. This includes developing regional service centers in every major market around the world. As a brand of CIRCOR Energy, we have access to a global footprint of facilities. We currently have existing service centers in the US, Canada, India and the UK, with future plans to bring on-line another six facilities in Latin America, the Middle East, Russia, and the Pacific Rim.



### **Service Agreements / Proposals**

#### Long-Term Service Agreements

Long-Term Service Agreements (LTSA) optimize operational reliability by ensuring preventative maintenance is performed. Agreements include periodic site audits by DeltaValve technicians to review and inspect equipment, and to participate in turnaround planning activities. These agreements typically include pre-negotiated rates.

#### Master Service Agreements

Master Service Agreements (MSA) are an efficient and effective way for DeltaValve and its customers to manage their relationships. These agreements include pre-negotiated terms and conditions, labor rates, safety certifications, etc. We have many of these agreements in place, some of which are for individual refineries and some are corporate level agreements covering numerous facilities. MSA's streamline the process of working together to ensures seamless support throughout critical phases of work execution.

#### Proposals

DeltaValve provides detailed proposals for all parts and service quotations. This documentation package is created specifically for each opportunity and can include firm project schedules, equipment bills of material, inspection and test plans, pricing for parts, labor rates by trade, etc.









### **Installation Services**

By managing the engineering, procurement, and construction work associated with the installation of our unheading valves and other equipment, we provide strategic value added services to our clients.

DeltaValve partners with engineering and construction companies who specialize in coker revamps. Together we have successfully managed numerous projects. Please contact us for references.



We offer the following:

- Project management
- Detailed engineering management
- Installation engineering management
- Procurement management
- Construction management
- Commissioning supervision
- Training



Quality control, quality assurance

### Quality

DeltaValve complies with all aspects of the ISO 9001:2015 certified quality management system, and provides customers with the highest level of quality.

#### **DeltaValve Design Standards**

Unheading valves

• ASME and BPVC, Section VIII Div. I and II Isolation valves

- ASME B16.34, API 598 and API 600 Center feed devices
  - ASME B31.3

DeltaValve maintains the following stamps and design certifications:

- ASME
- "U" Stamp, Division I
- "R" Stamp
- National Board Registration
- Pressure Equipment Directive (PED) (2014/68/EU)

DeltaValve manufactures to the following certifications per international requirements:

- Canadian Registration Number (CRN)
- TR CU (formerly GOST-R)
- KHK
- Others as required

### **Final Assembly and Testing**

Our equipment is assembled and tested at our facilities in Houston, Texas, Salt Lake City, Utah, and Coimbatore, India. As part of our quality control protocol, each critical component is inspected and reviewed before installation for proper functionality and product quality.

DeltaValve has experience installing equipment in flameproof/explosion proof, non-incendiary, intrinsically-safe hazardous areas utilizing the following standards:

- IECEx InMetro NEMA PESO TIIS
  - UL
- ATEX KOSHA
- TR CU NEPSI • JIS
- DeltaValve complies with international

certifications and standards, and has unheading valves installed in over 100 refineries and in more than 20 countries around the world.

CSA

#### Quality Assurance Documentation

- ISO 9001:2015 certificate
- Quality assurance manual
- Additional international certifications as required.





NOTES:







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#### Sales

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