

Continuous Innovation of Products and Services

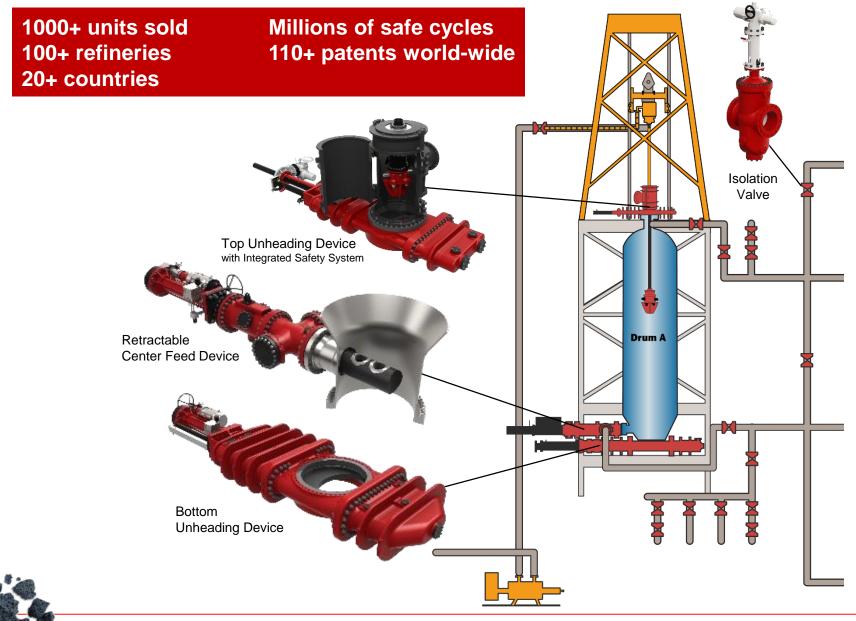


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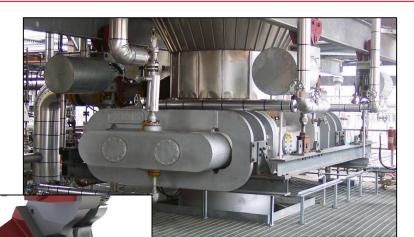
Innovation and Experience

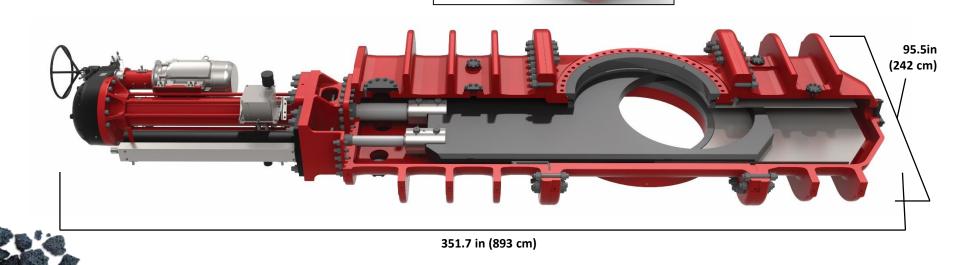
▲ DeltaValve



Bottom Unheading Device

- Technology proven since 2001
- Approximately 400 units sold world-wide
- Innovative Planetary Roller Screw (PRS) electric actuator (smallest, lightest, most efficient design)
- Ultra-low steam consumption





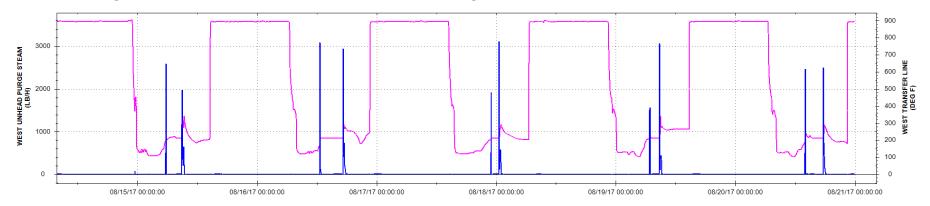
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Results from design improvements

900 800 4000 WEST UNHEAD PURGE STEAM (LB/H) 700 OC 009 TRANSFER LIN (DEG F) 3000 2000 400 300 1000 200 0 07/21/17 00:00:00 07/22/17 00:00:00 07/24/17 00:00:00 07/25/17 00:00:00 07/23/17 00:00:00

Utilizing Gen II welded bellows seat design

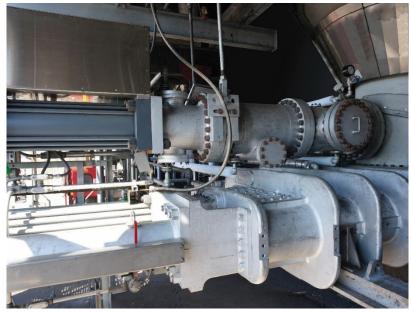


Utilizing previous seat design

Retractable Center Feed Device



- Technology proven since 2011
- 34 units sold / 50+ in negotiations
- Improved feed and quench channeling
- Reduced drum stresses
- Increased drum life





Top Unheading Device and Safety System



- Technology proven since 2006
- 250+ units sold
- Electric and hydraulic actuation options
- Built-in drill stem guide / blowout diverter





Isolation Valve

- Technology proven since 2008
- 100+ units sold
- Ultra-low steam consumption
- In-line maintainable
- Low operating costs

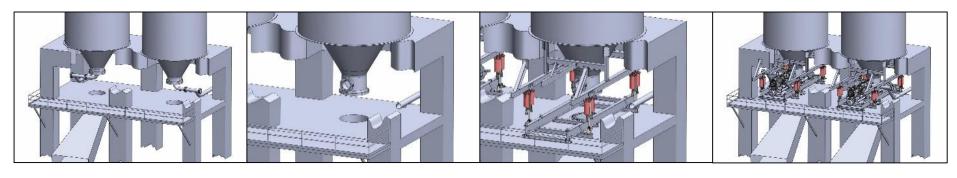






Installation Services (Revamp Projects)

- Leveraging lessons learned from over 100 installations
- In-house engineering, design, procurement, and construction management
- Work with your EPC or direct hire
- Goal: streamlined low-cost revamp installation







DeltaValve

Global Aftermarket Support (Service Centers) **A DeltaValve**







Salt Lake City, UT



Houston, TX



Barnsley, UK



Calgary, Canada



Coimbatore, India



- Experience
- Technological Innovation
- Product Quality/Certifications
- Global sourcing and delivery capability
- Global aftermarket service/support

- Experience (Lessons learned from 100+ installations)
 - Every Coker Unit is unique (Performance expectations are different)
 - Single unit 2 Drum, to Multi unit multi drum combination
 - Slow or fast cycle time
 - Small or large drums
 - Small or large diameter feed lines
 - Shot coke or anode grade coke
 - Different deck/structure constraints
 - Preference for electric or hydraulic actuation systems
 - Challenges of hot/humid or cold/dry climates
 - Cutting into pits, sluice ways, rail cars, etc. (capability to throttle)
 - Economic or safety driven projects
 - Turnaround planning and site audit expertise

DeltaValve



- Technological Innovation (Industry Firsts)
 - Fully automated Bottom Unheading Device
 - Fully automated Top Unheading Device
 - Center Feed Device
 - Ultra-low steam consumption Isolation Valve
- Product Quality/Certifications
 - ISO, ASME, U stamp, R stamp
 - PED, CRN, TR CU, KHK
- Global sourcing and delivery capability
- Global aftermarket service/support