Reliable equipment is critical.

Outline

- DeltaGuard Technology Validation
- Prototype Turnaround
- Service & Maintenance
- Capacity Planning
- Additional Products
Technology Validation
DeltaGuard® Pre-commercialization

Research and Testing: (in-house coker and prototype unheading device)
- Understanding of the serve-service nature of the delayed coking process
- Metallurgical testing analysis
- Selection of materials of construction
- Selection of material hard surfacing
- Coke bond/shear strength
- Actuator/drive train thrust requirements

Technology Validation
DeltaGuard® Commercialization

- Compliance to ASME Sec. VIII, Div. I (Calculations)
- Compliance to ASME Sec. VIII, Div. II (FEA)
- Compliance with National/International regulations

- Field data from multiple refineries verifies compliance
Technology Validation
DeltaGuard® 5 Year Review

In excess of 100,000 cycles
- Reduced safety related incidents
- Reduced maintenance
- Reduced downtime
- Increased reliability
- Increased throughput
- Increased refinery profitability

Technology Validation
Market Update

<table>
<thead>
<tr>
<th>Installations</th>
<th>Units in Production</th>
<th>Total Units</th>
</tr>
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<tbody>
<tr>
<td>Bottom Valves:</td>
<td>129</td>
<td>Bottom Valves: 200</td>
</tr>
<tr>
<td>Top Valves:</td>
<td>34</td>
<td>Top Valves: 96</td>
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</tr>
</tbody>
</table>

As of August 2007
Service & Maintenance

Manager
Ty Henderson

- Site Audits
- Sales/Contracts
- Engineering
- Project Management
- Site Supervision
- Labor Pool

Service & Maintenance

Support by geographic market
- Installations/start-up/commissioning
- Turnaround planning support
- Site audits to assist with turnaround timing
- Delta Valve supervisors on-site
- Authorized local technicians
- On call 24 hours a day
Capacity Planning
Additional Products

Drill Stem Guide
Containment Device

US Patents
5656714
5654727
5686031
4843889

Top Unheading

Additional Products

Patent Pending

Isolation Valve
Additional Products

Auto-Switch
Coke Cutting Tool

Additional Products
Remote Cutting Mode Indication
Additional Products
Remote Cutting Mode Indication