ADCV
Decoking Control Valve

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Agenda

• Purpose
• Features and Benefits
• Flow and Pressure
Purpose

Why a new Decoking Valve?

- Game changing compact solution
- Reduce maintenance costs
- Cavitationless design
- Extend life time and increase MTBR
- Use latest world class severe service philosophy from Multi-Z
- Upgrading existing decoking systems
- Same dimensions than current valve type, fully interchangeable for easy change.
Features & Benefits

- Advanced design – uses Multi-Z sizing philosophy
- Hardened plug and seat surfaces
- All seats can be replaced
- Easy maintenance due to modular concept
- Removeable stack of multi-hole discs for bypass and operating plug for easy replacement
- Pilot plug operated design
- Compact valve design – less weight, less space
- Interchangeable with current valve dimensions
- Handles solids in the process up to 3mm in size
Using Multi-Z Technology

- Large solids capability
- Sizing for same xF values per stage

New Multi-Z design
xF is constant in every stage

"Standard multi stage design"
delta p is constant
ADCV Trim Technology

Main Plug

Bypass stack
# Specification

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
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<tbody>
<tr>
<td>Size</td>
<td>6“ x 6“ x 3“</td>
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<td>8“ x 8“ x 4“</td>
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<tr>
<td>Pressure Class</td>
<td>CL 1500</td>
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<td>Valve Type</td>
<td>3 –way</td>
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<td>Bypass / Pre-fill / Decoking</td>
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</table>
Features & Benefit

- Removeable Bypass stack
- Pilot plug operated
- Easy maintenance
- Removeable Plug stack
- Hardened plug & seat surface
- Removeable seat rings
- Compact design
Flow & Pressure

Bypass

First sequence

- Provides minimum flow bypass for the jet pump
- Always open to prevent deadheading pump
- Always be in this mode to start the jet pump

Experience In Motion
Flow & Pressure

Pre-fill

Second sequence

- Provides low pressure pre-fill sequence until system filled
- Allows the system to start without water hammer effects
Flow & Pressure

Decoking

Third sequence

- Initiated any time after the decoking line is completely filled with water and all air expelled
- Allows full pressure to the cutting tool with minimal pressure drop
- To stop full flow, go back into the by-pass mode

Experience In Motion
Actuator Options

- Flowserve Actuator Options
  - Limitorque Electric Actuator
  - VL Cylinder Actuator

- Other suppliers
  - Electric Actuators
  - Hydraulic Actuators

- Positioners
  - Logix Digital Positioner Series