



CURTIS WRIGHT
Flow Control Company
DeltaValve

Coking.com - Calgary, Canada - September 13-16, 2010

Delayed Coking Isolation Valves

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Refining Community
SulfurUnit.com
CatCracking.com
Coking.com
More Production - Less Risk

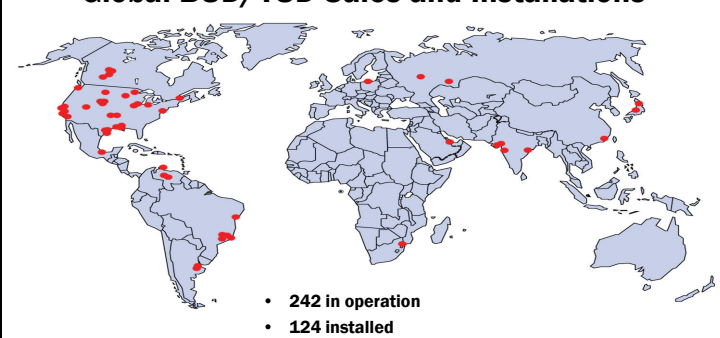




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Global BUD/TUD Sales and Installations



- 242 in operation
- 124 installed
- 90 more in production

2

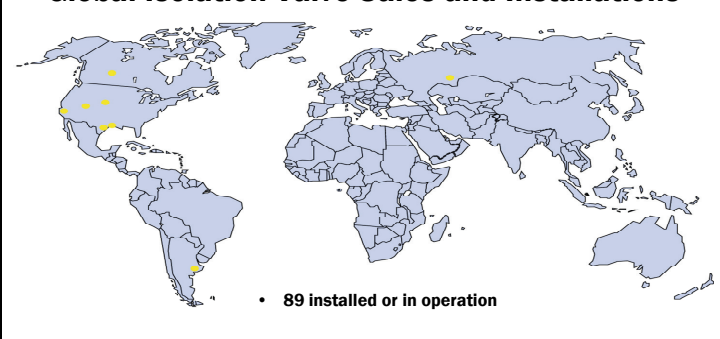




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Global Isolation Valve Sales and Installations



- 89 installed or in operation

3







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Delayed Coking Isolation Valves

- Clean & Anti-fouling applications
- Live loaded, self cleaning seats
- Double block & purge
- Low steam consumption
- Valve condition diagnostics
- In-line serviceable
- Three different actuator options available
- Sizes range: 3" - 48"



4







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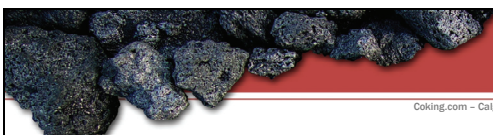
Isolation Valve Models

- GV851 (Clean Service)**
 - For use in;
 - Steam, water
 - Clean hydrocarbon liquids below coking temperature
 - Clean hydrocarbon vapor streams

- GV852 (Anti-Fouling Design)**
 - For use in;
 - Hydrocarbon liquids near coking temperature
 - Solids laden hydrocarbon liquids
 - Dirty hydrocarbon vapor streams

5







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Isolation Valve Models

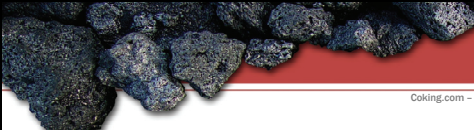
By Delayed Coker Service

- GV851**
 - Coke drum vapor discharge
 - Utility team
 - Quench water
 - Atmospheric vent valve
 - Quench oil

- GV852**
 - OH Vapor to blow down
 - OH Vapor to fractionators
 - Coke condensate
 - Drain to coke pad
 - Manifold isolation valve
 - Wax tailings / steam
 - HC liquids / vapor bypass to fractionator

6





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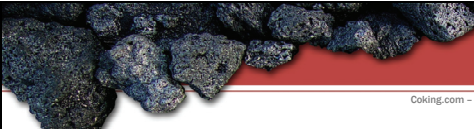
GV851

GV852

Open

Closed

7



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Live Loaded, Self Cleaning Metal Seats

- Double live loaded, 9 Cr Nitrided seats
- Seal tightness not sensitive to body deflection
- Valve torque / thrust / operation not sensitive to body deflection
- No change in seal performance from turnaround to turnaround

8



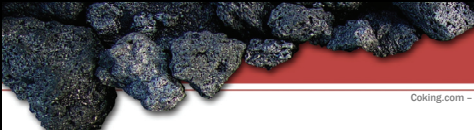
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Double-Block and Purge

- "API 6D defines a double-block and bleed valve (DBB) as a 'single valve with two seating surfaces that, in the closed position, provides a seal against pressure from both ends of the valve with a means of venting/bleeding the cavity between the seating surfaces.'" —Valve Magazine, Summer 2010, Vol. 22.

9



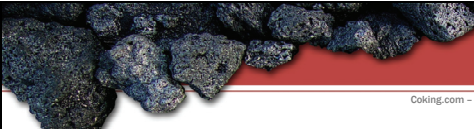
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Purge Steam Consumption Rates

Size	Factory Test Results	Steam Header Sizing Recommendations
10"	.3 lb/hr	150 lb/hr
12"	.36 lb/hr	180 lb/hr
18"	.54 lb/hr	270 lb/hr
24"	.72 lb/hr	360 lb/hr
30"	.9 lb/hr	450 lb/hr
36"	1.1 lb/hr	540 lb/hr





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Valve Condition Diagnostics

- **Static Steam Pressurized Body and Bonnets**
 - GV851, low purge steam in open or closed positions
 - GV852, low purge steam at all times
 - Header sizing guideline (10 lbs/hr/inch of port diameter/valve)
- **Steam Pressure and Flow Sensors**
 - Real time verification of positive isolation
 - Positive confirmation of seat /gate condition

11





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Top Entry / In-Line Serviceable

- All internal parts accessible while installed
- Simple disassembly and re-assembly
- No special tools or equipment
- Optional maintenance jib available

12

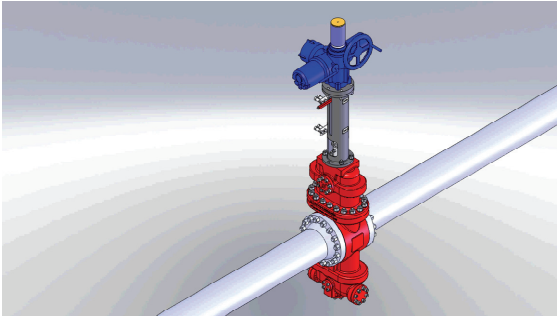




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Top Entry / In-Line Serviceable



13

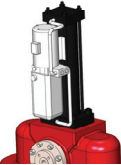


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Actuation Options

- Electric actuation
- Electro hydraulic (continuous position indication)
- Hydraulic actuation
- Manual actuation (optional)



Electric Electro-Hydraulic Hydraulic

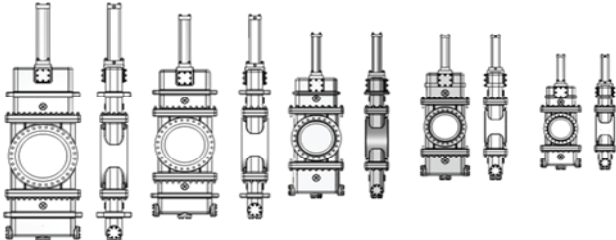
14



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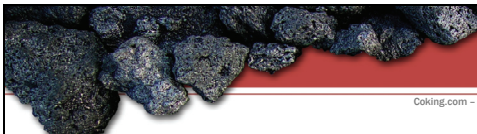
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Sizes/End Connections



- Sizes: 3" to 48"
- ANSI Class 150, 300, 600
- FF, RF, RTJ, Weld Ends

15





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Questions

16
