



For *Severe Service* Control Solutions, Turn to Fisher Technology & Innovation

Control Valve Case History

Industry: Oil Sands
Application: Diluted Bitumen Furnace Feed Valves

Overview:

An Oil Sands producer in Alberta was experiencing erosion problems with two Diluted Bitumen Furnace Charge valves. Diluted Bitumen is first heated through this furnace. The original valves selected were 6" Fisher ET control valves. The process was causing excessive trim erosion resulting in unplanned maintenance. The customer asked Spartan Controls for a solution that would increase the trim life, minimize the frequency of turnarounds, and improve process uptime.

Process Conditions:

Fluid	Diluted Bitumen			
Flow	312	625	750	USGPM
P1	336.8	285.4	263	PSIG
P2	85.3	191.9	252.2	PSIG
Temp	524.4	541.4		Deg F
SG	0.797			
Viscosity	1.533 cP			
Pv	71.2 PSIA			

Solution:

A full review of the process conditions was conducted, and alternative valves were recommended. The customer purchased and installed 6" Fisher V500 control valves with hardened trim and internal bore overlay.

Customer Benefits:

With the new V500 valves, the customer has significantly improved process controllability and reduced maintenance costs. Currently, the valves are inspected during scheduled furnace outages, which occur every 12 to 14 months.

The customer is saving money from reduced maintenance expenses, and has increased revenue due to increased process uptime.



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CH2 Bitumen Feed to Coker Furnace V500.doc

