

CASE STUDY REF: 016

CONTINUOUS SERVICE AND ROBUST DESIGN

JASH SLIDE GATE VALVE, MODEL VEG FOR BOILER FEED APPLICATION



Damaged Isolation Valve at Customer's End.

Project Details	
Customer	ISGEC Heavy Engineering Limited
Project	DSCL Sugars Limited
Location	Hardoi, Uttar Pradesh
Product	Fabricated Slide Gate Valve
Model	VEG
Series	C-531
Size	Sq. 500
Application	Boiler Feed

Material Parameters	
Opr. Temp	560 - 950°C
Opr. Press	1.0 Bar
Material Comp	Coal, bagasse, Husk
Particle Sizing	Maximum up to 5 mm



Background:

DSCL Sugars Limited, one of the major players in the sugar industry in India, has installed a fabricated type side gate valve for boiler feed application in their captive power plant. The valves are supplied by one of our competitors and they failed within 1.5 years of installation. Following issues have been reported by the customer -

- Frequent jamming of the valve.
- Bending of the gate.
- Malfunctioning of manual override.
- Wearing of housing tending to leakages.

Solution Provided:

Applying our deep understanding of the customer's challenge, Jash's engineering team developed a tailored solution and suggested our valve model VEG – C531. This valve with superior design and material selection correctly supported the gate and provided an extended service life even under this harsh application.

- Movement of gate assisted by robustly designed roller for smooth opening and closing.
- Specially designed gate to withstand high temperature and a static overhead load of material.
- Manual override provided with engagement and lock lever to avoid any malfunctioning.
- Inclusion of deflection cone to prevent wear and tear of housing.
- Robust construction and 5 years of replacement interval.

Application trials at Customers end:

DSCL has considered our slide gate valve for installation in five inlet hoppers of boilers. Two valves are installed in line per hopper for isolation. The supply was on time keeping in mind the criticality of the need as the customer's shutdown was pre planned. Our service engineer has assisted the customer in dismantling the previously installed valves and in installation of Jash slide gate valves. All the ten valves are installed and trials has been conducted for 18 hours each for consecutive three days. Valve is running smooth without any glitches and now the customer is able to start his captive power plant once again.

Continuous Service and Robust Design!

The customer was so impressed with the valve's ability to withstand the harsh coal fines, they commenced replacing other installed valves in the same application. Not surprising, the Jash Fabricated Slide Gate Valve has become the clear choice for extended life performance and value in highly abrasive and continuous feed / discharge applications.

Soon after installation, it was clear that the Jash Fabricated slide gate valves were an improvement over the competitor valves as they operated with zero leakage, keeping the surrounding area clean from coal and other feeds.

Unplanned maintenance due to valve choking have been eliminated. The competitor valves had previously jammed and become unreliable after three to six months. Whereas Jash fabricated slide gate valves have now been in operation in the harsh conditions for approximately 24 months with no maintenance or damage to the knife gate and body. The cost of spare parts and labour has also been reduced.

Installation Photographs



Installed Jash Fabricated Slide Gate Valve, Model VEG, Series C 531

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