

# Fisher® Control-Disk™ Valve Reduces Process Variability at Cabot China

## RESULTS

- Improved product quality and consistency
- Reduced process variability of combustion air feed control resulted in higher plant performance
- Improved valve performance provided tighter control of the process set point
- Plant became the best performing facility among Cabot global manufacturing sites after the valve improvement



## APPLICATION

Combustion Air Feed Control

## CUSTOMER

Cabot Bluestar Chemical (Jiangxi) Co. Ltd., located in Tianjin, China, is a joint venture company specializing in the manufacturing of fumed silica. Established in early 2012, this innovative fumed silica facility has a production capacity of approximately 15,000 metric tons per year, incorporating the most advanced manufacturing technologies to produce silicone parts for a variety of automotive and industrial applications.

## CHALLENGE

The control valve controlling the combustion air feed for the Fumed Silica production was showing high variability compared to the valves in the raw material and hydrogen feed lines. Poor valve performance could lead to problems such as material wastage, off-specification production and loss of revenue. The higher process variability impacted the product quality and consistency. Fumed Silica has a strong thickening effect and is often used as a light abrasive or an anticaking agent.

*The Control-Disk valve offers the wide control range of a segmented ball and provides equal or better control performance.*



## SOLUTION

Tightening control valve performance reduces process variability and provides the opportunity for set point change, hence, increasing profitability. Emerson offered the Fisher® Control-Disk™ valve with FIELDVUE™ DVC6020PD to improve the valve performance. The Control-Disk valve offers excellent throttling performance, which allows control closer to the set point. Designed for 1 million cycles under load conditions, the Control-Disk valve has undergone extensive laboratory verification to optimize performance.

Paired with the FIELDVUE digital valve controller, the assembly was intelligent and designed to provide on-line performance diagnostics of the valve health conditions.



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