



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

FISHER® FEEDWATER VALVE WITH Cavitrol® III TRIM PROVIDES MORE ACCURATE CONTROL FOR POWER PLANT

For years, a 120-megawatt power plant in the Midwest relied on an older 6-inch, double-ported valve to control drum level during filling and startup modes. During startup, this valve would be used to fill the boiler drum. The high pressure drop, coupled with the valve's lack of anti-cavitation trim, however, led to vibration, poor level control, and leakage issues.

After reviewing the application and the operating parameters, the Fisher Valve Division and its Severe Service group determined that a replacement 8-inch valve with characterized anti-cavitation trim would provide better control for both fill and startup conditions. Valves equipped with tighter shutoff capabilities have a lower risk of leakage-induced trim damage.

Characterized Cavitrol® III trim was designed to handle the high pressure drop experienced during filling of the boiler as well as the lower pressure drop, higher flow conditions during startup. Each of the Cavitrol III trim stages has successively larger flow areas, providing a staged pressure drop and more efficient operation. In fact, more than 85 percent of the overall pressure drop is taken in the earlier stages where there is little danger of cavitation formation. This allows a relatively low inlet pressure into the final stage and minimizes fluid energy exiting the trim. The ease of characterization increases the plant's turndown capability, improves startup control and ramp rate, and lowers the plant's low-load operating ability.



The Fisher® valve solution also incorporated a FIELDVUE® digital valve controller. This instrument allows the plant to set the minimum travel point of the valve and prevent low-lift erosion while ensuring maximum seat load when the valve is shut. The FIELDVUE positioner also enables plant operators to pull actual valve position into their database to facilitate valve tuning.

Since its installation, the Fisher feedwater valve has performed as desired, improving control during fill and startup operations while extending the service life of its internal trim components.

For more severe service solutions, see us at www.fishersevereservice.com.



Severe Service