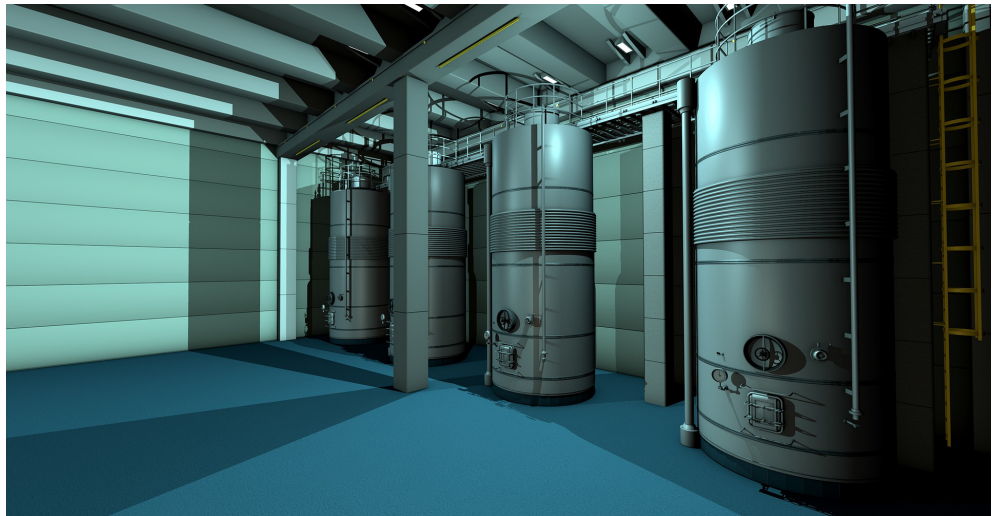


# BOILER FEED WATER CONTROL

## APPLICATION SHEET

### *APPLICATION OVERVIEW*

Boilers operate by heating water to create steam. The water which is converted to steam needs to be replaced at the rate in which it is being consumed. Input too much feed water into the drum and the tank will fill completely, causing equipment damage. Input too little feed water and the drum will run dry. To maintain the steam drum level, the feedwater in must be equal to the steam out on mass flow basis. As the boiler load changes, the feedwater flow rate must change accordingly to keep these levels in balance. This feedback can be given to the feedwater flow controller through level controls or flow meters.



### *KATES SOLUTION*

Kates Automatic Flow Controllers are self-contained units that respond to pressure changes up and downstream to maintain the optimized set flow. They are accurate to +/-1.5% of their setpoint, making them extremely precise. The Kates Flow Rate controller has a linear flow curve allowing it to be easily and accurately actuated. Once the signal is sent to the Kates to adjust the flow rate, the internal regulating valve self-adjusts to pressure fluctuations to maintain the set flow. Thus, Kates automatically adapts to pressure changes which is the primary cause of process variation. No oscillating or hunting of the valve occurs. Kates Flow Controllers are cost-effective and have a history of long service life; lasting decades in clean applications.

