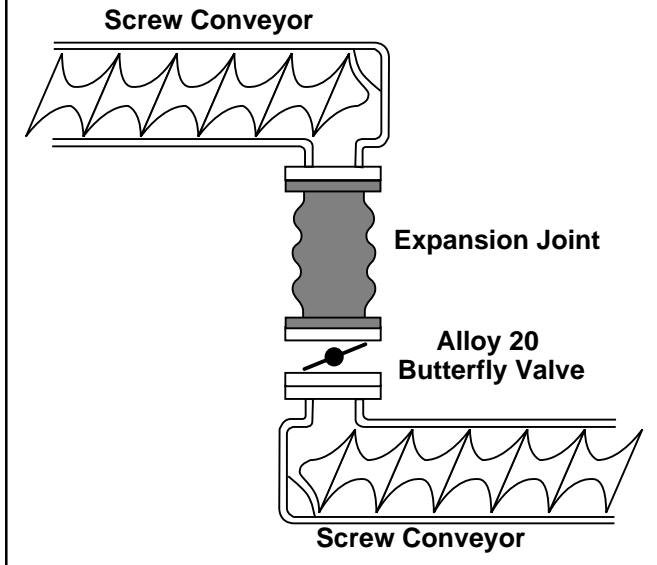


Application Data

Chemical ♦ Flourspar Conveyance ♦ Control Valve



Original Screw Conveyor System with Butterfly Valve and Expansion Joint



A major chemical company in the south selected Red Valve's Series 5300 Open Frame Control Valve to replace the alloy 20 butterfly valve and the expansion joint that was used to control the flow of flourspar between the two screw conveyors. The butterfly valves would not provide a tight shut off when needed causing a backflow of the hydrofluoric gas.

During normal conditions, the valve remains open. During process upset conditions, the valve closes to prevent further conveyance of flourspar, and to prevent backflow through the screw of 96% to 98% HF (hydrofluoric acid) gas at 350°-400°F.

Flow Conditions

Dry Flourspar

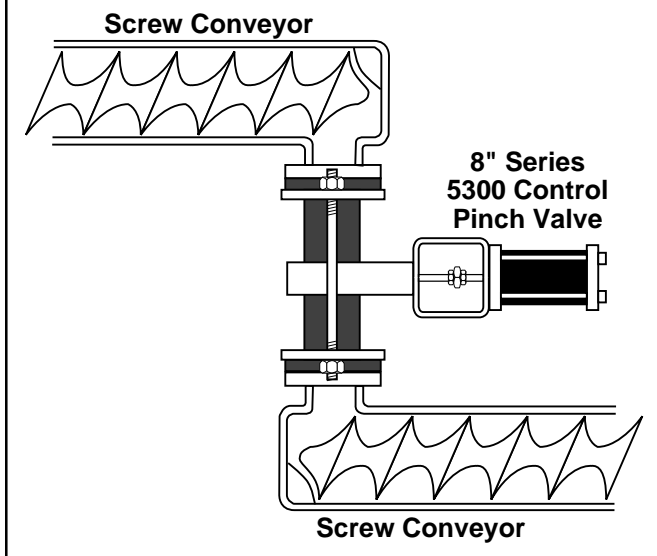
Particle Size: 75% minimum

Normal Flow: 4" water @ 150°F

Upset Flow: 30" water @ 400°F

Abrasive

Screw Conveyor System Retrofitted with Series 5300 Open-Frame Control Valve



The Series 5300, with a Viton (GF) Kevlar reinforced sleeve, was chosen for the temperature requirements along with Class VI shut off. The valve also had a special face-to-face to eliminate both the butterfly valve and the expansion joint. The rubber sleeve eliminates the vibration in the system. The valve has been in service for two years with no problems. The customer is planning on installing three more on identical systems.

