

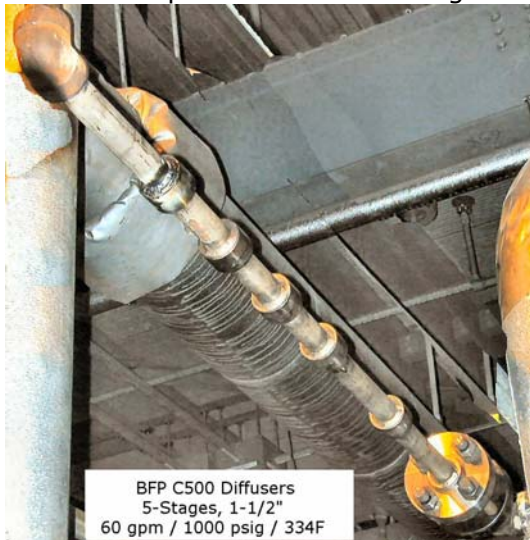
ELIMINATE

Boiler Feed Pump Recirculation & Warmup Problems

Slotted-cage valves with tortuous paths are normally specified for use in Boiler Feed Pump Recirculation and warm-up systems. These valves require frequent, expensive maintenance because they incur flashing and cavitation. In addition such valves are prone to plugging because of their numerous, narrow, tortuous paths. Such a device caused a serious plugging incident recently at a nuclear station. (One vendor maintains an ultra high-pressure facility to unplug his valves.)

Now there is a better way to control BFP recirculation and warm-up. Used in combination with a much less expensive severe-service ball valve, a diffusion system, consisting of multi-hole, multi-plates placed downstream of the valve eliminates all of the problems normally associated with BFP recirculation systems.

- The pressure energy is dissipated by linearly accelerating and decelerating the fluid through tightly controlled stages instead of impinging the fluid against metal surfaces. This method of energy dissipation prevents eroding the surfaces.
- Each stage is designed for a different pressure loss. Four different criteria are evaluated for each stage to ensure that incipient cavitation is prevented at each stage.



- Use of multiple holes shifts the frequency of the throttling noise upward thus greatly reducing the potential of a damaging vibration response of the piping system.
- The noise level is reduced by 8-10 dba.
- Unlike slotted-cage valves, the orifices are sized to reduce the probability of plugging.
- Highest grade boiler code 316 SS is used to ensure trouble free service
- The system is guaranteed for five years to be maintenance and trouble free.
- The diffusers are available for socket-welding (Model C500 & B400), flanging (Model C600) or butt-welding (Model C700)

