Challenge: Short service life of a pressure-powered pump float assembly, early failure of inlet and outlet check valves, and water hammer (the banging heard in pumped condensate return lines).

Solution: Install a pressure reducing valve (PRV) station to control the motive steam or compressed air pressure to approximately 20 psig higher than the backpressure for smoother operation of the pressure powered pump.

A pre-assembled PRV station from Kadant Johnson includes a pressure reducing valve, drip trap, (2) pressure gauges, wye strainer with blow down valve, isolation valves, and a stainless steel reverse flow preventer.

Results: Regulating the motive pressure with a PRV station reduces the wear on the float assembly. The inlet and outlet check valves will not bang open and closed from excessively high motive pressures, and the service life of the check valves will be extended.

Highlights:
- The PRV station is preassembled for fast and easy installation.
- The PRV station is adjustable over a wide pressure range by a simple mechanical adjustment.
- The PRV station extends service life of the pressure powered pump components.