

Control Valve News

Featured Application: Turbine Steam Seal Letdown Valves

Minimizing Leakage in Steam Turbine Condensers

Oftentimes during start up and low-load conditions, the steam turbine's condensation from the inlet high-pressure (H.P.) end will leak from the outboard gland. And the low-pressure (L.P.) end of the turbine will be under the vacuum of the condenser. This vacuum may pull in cold atmospheric air through the seals along the shaft. Cold air could be detrimental to the hot metal of the shaft, posing the risk of equipment damage.

Controlling the Supply of Steam

To minimize these problems, a controlled supply of low pressure seal steam (about 2 psi), is piped to a common line feeding the glands of the turbine. This pressure prevents the ingress of air at the L.P. end and ensures a positive pressure at the H.P. end.



Avoiding Leakage with High-Load Conditions

When the turbine load is increased, the leakage of steam into the seal steam header will cause greater pressure than the seal steam supply and will begin to flow to the L.P. end seal. At this point, the seal steam supply can be shut down. The seal steam taken from the H.P. end can be manually maintained at 2 psi by venting the excess into the condenser. Even when the seal pressures are maintained at 2 psi, some leakage can still occur from both seals. This requires a leak steam recovery system.

DFT[®] HI-100 Control Valve http://www.dft-valves.com/control-valves/



DFT[®] Resources Interested in learning more about DFT Control Valves? www.dft-valves.com/literature



Maintaining Your Budget

Control valves can keep your maintenance budget in line for the upcoming year.

Learn how, visit DFT's blog post:

http://www.dft-valves.com/blog/



140 Sheree Blvd. P.O. Box 566 Exton, PA 19341-0566

e-mail: dft@dft-valves.com internet: www.dft-valves.com