

CASE STUDY

A paper mill in North India



Problem

- Low productivity due to severe condensate evacuation issues
- Poor condensate recovery
- Very high back pressure (1.5 barg) in main common tank
- Frequent failures of S&C components and leakages
- High specific steam consumption (1.8-1.9)

Objective

To improve productivity and reduce energy consumption

Solution

Installation of an engineered thermal grouping cascade based system for effective utilisation of flash steam, alongwith with the following solutions

- [Fixed bend stationary siphon](#)
- [Steam flow meter](#) and condensate flow meter
- Pressure, differential and level control loops
- Glandless [piston valve](#)
- [Compact module thermodynamic traps](#)
- [Mini distributed control system](#)

Benefits

- Improved condensate removal at lower differential pressure
- Reduction of specific steam consumption by 1.1 ton per ton of paper
- Improvement in condensate recovery - from 55% to 85 %
- 5 % saving in fuel consumption