

A Dye and Pigment Manufacturing plant in Asia

The plant aimed to lower its steam fuel bill while addressing the gap between steam generation and consumption. Additionally, the objective was to reduce overall steam consumption and shut down one boiler that was maintained on hot standby for peak loads.

Forbes Marshall engineers conducted a thermal audit of the plant, which also focused on the Zero Liquid Discharge (ZLD) and Solvent Recovery Section (SRS), which together accounted for nearly 70% of the plant's steam usage. We optimized the temperature gradient, addressed excess steam consumption in the SRS columns, and enhanced the design of the condensate and flash recovery system. These improvements led to significant reductions in both fuel and water consumption across the steam system.



Benefits delivered

Fuel Saved	1150 tons/year
Water Saved	>9000 cubic meters/year
Feed Water Temperature	40°C improvement
Boiler Efficiency Improvement	67 to 71.5%
CO₂ Reduction	2000 tons/year

