

CASE STUDY

A detergent manufacturing plant in Egypt



Problem

- High boiler fuel bill
- Excess water consumption

Objective

To improve condensate recovery factor and bring down energy costs in the plant

Solution

The Forbes Marshall team conducted a detailed survey of the steam system at the plant. Opportunities were identified and following changes were made for savings in the steam and condensate circuit.

- Leaking / faulty traps were replaced with right size and type of traps
 - Compact Module Twin Orifice Steam Traps for process trapping
 - Compact Module Thermodynamic Steam Trap with IsoTub for mainline trapping
- SteaMon steam flow meter was installed for accurate steam flow measurement
- Conventional condensate tank replaced with flash vessel and steam operated pressure powered pump
- Automation of the heating and cooling cycles of the bleacher and hot water generation for farm tanks area.

Benefits

- No steam loss through traps
- Flash Steam returned to process; direct steam injection reduced
- Reduction in chemicals consumed
- 20% reduction in boiler's annual natural gas bill
- 40% reduction in annual water bill for steam boilers