

CASE STUDY

A Textile Plant in South India



Problem

- Pressure drop in mainline
- Inconsistency in fabric moisture
- Increased batch time in jiggers.

Objective

- To ensure
- right pressure availability at equipment inlet
 - uniform moisture in fabric
 - optimum batch time

Solution

The equipments in the plant require a specific steam pressure at its inlet for achieving the required process parameters. Due to steam pressure drop in the mainline, the equipments are not achieving the required steam pressure and effectively the required process parameters.

Forbes Marshall optimized the steam consumption of all equipments and reduced the steam demand of the plant enabling right pressure availability at each equipment inlet.

The steam consumption in wash tanks is reduced by providing a temperature control valve. This brought down the temperature overshoot of 3-4 deg C.

Thermodynamic traps were replaced with float traps on jigger. This improved their batch time and reduced steam consumption.

In vertical drying ranges, fabric moisture control and steam pressure control in each stack was adjusted based on machine speed and GLM of fabric, reducing steam consumption.

Benefits

39% savings in annual fuel bill