

# CASE STUDY

A major refinery in Western India



## Problem

Major Steam Loss  
Frequent failure of steam traps  
Water hammering  
Frequent shutdown  
Noise pollution

## Objective

To achieve a sustainable zero leak steam system by implementing a steam trap management system

## Solution

Steam Trap System Management - audit, rectification and sustenance by Forbes Marshall

### Phase 1

Total steam traps population : 12,000  
Steam trap performance rate: 29.72%  
Steam loss identified: 23 Ton/hr

### Phase 2

Supervision of the steam trap system rectification by Forbes Marshall and replacement with Forbes Marshall products  
Improved steam trap performance rate : 97.6%  
Steam savings achieved: 21Ton/hr

### Phase 3

Sustain the achieved performance for next 30 Months  
Steam trap performance rate : 98%  
Steam savings achieved further: 4.39 Ton/hr

## Benefits

Reduction in steam losses  
Increased steam system reliability  
No water hammering  
Increased steam trap life  
Savings in fuel consumption  
Reduced noise pollution  
Improved steam leak factor from 0.96 Kg/MT (2017) to 0.37Kg/MT (2019) - CHT audit