

C&H SERVICES SBU



Energy Audit for cost optimization & utilization

Improving your business is our business

Thermax offers products, systems and solutions in energy and environment engineering to industrial and commercial establishments around the world. Its business expertise covers heating, cooling, waste heat recovery, captive power, water treatment & recycling, air pollution control & waste management and performance chemicals. Thermax brings to customers extensive experience in industrial applications, and expertise through technology partnerships and strategic alliances.

Operating from its headquarters in Pune (Western India), Thermax has built an international sales & service network spread over South East Asia, Middle East, Africa, Russia, UK and the US. It has a full fledged manufacturing set up that is certified for ISO 9001:2000, ISO 14001 and safety management according to OSHAS (ISO 18000).

In process heating, Thermax offers a wide range of steam boilers, thermal oil heaters and hot water generators. It has expertise in a wide range of fuels - oil, gas, solid and agro-waste/ biomass. Supporting a broad array of industries in generating, transferring and conserving heat across a host of applications, Thermax process heat products and systems are exported to North and South America, South East Asia, Middle East, Africa, Europe, CIS, Australia, Antarctica and SAARC.

Introduction

Around the world, energy cost forms a significant part of operational costs, as high as 30% in process industries. Technological changes have also forced organizations to re-look at energy management. Today, with increasing overheads and shrinking profit margins, there is an urgency to optimize energy cost and utilization.

At Thermax, we have a full-fledged utility cost reduction team of experts from diverse disciplines equipped with technical and instrumental resources to undertake total plant audits. The team can optimize operational costs through innovative energy efficient solutions that offer quick paybacks. We have the expertise to implement energy conservation solutions on a turnkey basis. We also undertake system and process study to improve productivity and bring down product costs.

Thermax is BEE accredited energy service company. We offer energy efficiency services like energy audit in the following areas:

- Steam
- Thermic Fluid
- Compressed Air
- Refrigeration
- Condensate
- Electricity
- Water
- Cooling Tower

Comprehensive Energy Audit Service



iConserve focuses on complete utility performance assessment of a plant. This covers plants, boilers, heaters, chillers, cooling tower, compressor, DG sets, electricals, etc. The focus is more on consolidated energy conservation.

Steam Audit Service



Steam is commonly used utility in any industrial heating process. Due to this the opportunities available for conserving heat energy is huge. To identify these opportunities "OptiSteam" focus on boiler efficiency estimation and optimisation, waste heat recovery within boiler house, validation of steam distribution, steam flow monitoring and control, steam trap management and condensate recovery.

■ Thermic Fluid Audit Service



Thermic fluid is also one utility which finds its place equal to steam in industrial heating application. For getting high process temp. choice next to steam is thermic fluid. To identify saving potential by estimating efficiency of TF heater, Optimisation of fuel consumption, distribution system validation estimation of equipment heat loads, heat balancing are some of the key feature of Auditherm.

■ Power Audit Service



Power plant consisting of power boiler and steam turbine are focused for energy optimisation in this audit service. Any specific areas which will have impact on improving efficiency of complete system as a whole are studied and reported with possible measures of improvement.

■ Compressed Air Audit Service



Compressed air is an expensive utility due to high electricity cost. Optimisation of air consumption in a plant can have significant effect an energy consumption of plant. Compressor performance assessment and leakage estimation are key features of Comp AirCon

■ Water Audit Service

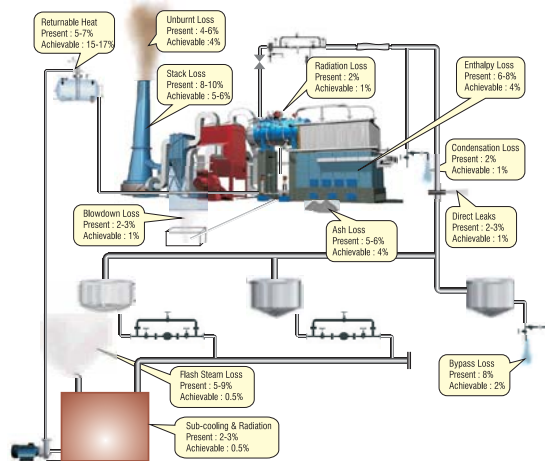


Max Aquacon focuses on the industrial water usage, for boiler and process use. This service focus on quality checks on different kinds of water usages such as raw water, feed water, process water, blowdown water, and the optimisation of their usage in respective areas by way of analysis and flow monitoring.

■ Methodology

- Preliminary data collection through standard questionnaire
- Field study by dedicated team of experts
- Analysis of data collected during audit
- Identification of Energy Conservation measures
- Submission of detailed energy audit report covering following aspects
 - Audit recommendations with Short term, Long term proposals
 - Prioritising the projects based on payback
 - Basic engineering and product specifications
- Turnkey implementation if desired
- General awareness and Training of plant operators

■ Is your plant energy efficient?



* All the above values are from a typical Steam audit case study & may vary as per actual site conditions

■ Some of our valuable customers

TYRES	Apollo Tyres
REFINERY	Bharat Petroleum Corporation Limited
BEVERAGES	Hindustan Coca Cola, Pearl Drinks
TEXTILES	Himatsingka, JCT Fabrics, Mafatall
GLASS	Asahi Glass
PAPER	Bataan 2020, Megapack Container Corp.
INSULATORS	Bharat Heavy Electrical Ltd.
CONSUMER PRODUCTS	Colgate Palmolive
PACKAGING	Wad pack and Witco Products
CHEMICALS	Hindustan Polyamides, Kanoria Chemicals, Hindustan Zinc
FOOD	Alana Foods, Cadbury India, Liwayway, Unilever
BREWERY	United Breweries, Mohan Rocky
CONFECTIONARY	Seville Products, Perfetti, Cadbury, Nestle
GARMENT	Epic Designer Vietnam Limited, Gokaldas Images
PHARMA	Dr. Reddys' Laboratories, Fourrts Pharma
EDIBLE OIL	Ruchi Soya group of industries, K. N. Oil
PAINT	Asian Paints, Kansai Nerolac

For more information, please get in touch with your nearest Thermax Representative. You can also mail us at info.c&hservices@thermaxindia.com visit us at: www.thermaxindia.com

In view of our constant endeavour to improve the quality of our products, we reserve the right to alter or change specifications without prior notice. All photographs shown in this publication are representative in purpose, and to be used for reference only. For actual details and specifications, please refer to Thermax offer document.



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Sustainable Solutions in
Energy & Environment

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Thermax Business Portfolio

Boilers & Heaters

Absorption Cooling

Air Pollution Control

Captive Power

Chemicals

Water & Waste Solutions