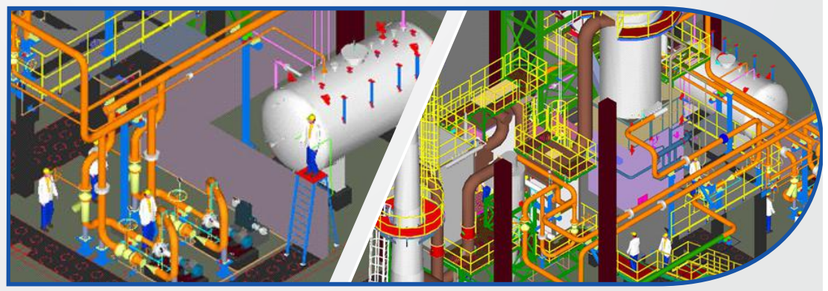
Utility Piping Consultancy

C&H Services SBU

Our Valuable Customers

PEPSICO, AUROBINDO, TATA, TATA COFFEE LIMITED, Vardhmān, EVYAP, Coca-Cola, UB GROUP UNITED SPIRITS, praj, BIKAJI Aslee Bikaneri, BIDCO AFRICA, ITC Limited, asianpaints, Jocil, JOHN DEERE, Raymond, DRDO, PERFETTI van Melle, Cipla, L&T

THERMAX



Thermax Utility Piping Consultancy team offers complete packaged solution from concept stage to engineering stage of utility piping project.

THERMAX
Sustainable Solutions in Energy & Environment

Registered Office

D-13, MIDC Industrial Area,
R D Aga Road, Chinchwad, Pune 411019, India

Tel : +91 20 66122999 / 1800 209 0115
Fax : +91 20 27472049

enquiry@thermaxglobal.com

www.thermaxglobal.com

Thermax Business Portfolio

- Heating
- Cooling
- Power Generation
- Air Pollution Control
- Chemicals
- Water and Wastewater Solutions
- Solar
- Specialised Services

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Introduction

Welcome to Thermax, an engineering company providing sustainable solutions in Energy & Environment. In the area of energy management, Thermax's expertise covers process heating, cooling, waste heat recovery, environmental management systems, utility system design, utility management and captive power. Its energy efficient and eco-friendly solutions help industry to achieve better resource utilization with the double benefits of improved profits and clean environment.

Utilities Covered

- Saturated steam (process piping)
- Superheated steam (power piping)
- Condensate recovery
- Thermic fluid system
- Hot water system
- Chilled water system
- Cooling water system
- Raw water system
- Compressed air system, N_2, Co_2
- Natural gas system

Right First Time: Guided by this operating principle, our utility consultancy helps business clients to design their systems on the best industry norms. It ensures optimum capital investment for expansion or for green field project requirements, and their timely completion. Our efficient reliable and cost effective design with integrated approach gives results in shifting from simple engineering solution to a complete utility packaged solution.

Our Value Added Deliverables

- Cost effective economic piping design
- P&ID preparation with all possible automation
- 2D/3D piping & equipment layout preparation using Cadworx software
- Stress analysis of piping system using CAESAR-II software
- Isometric drawing preparation
- Accessories BOQ with data sheets & required technical specifications
- Selection and sizing of capital equipment like Boilers, Heaters, Compressor, Chillers, Cooling Towers, Pumps
- Selection of pipes, pipe fittings, valves, monitoring equipment etc. with all technical specifications.
- Insulation details with technical specification.
- Bill Of Material / Bill Of Quantity
- Primary support drawing

Our Working Model

Site visit for collection of data & study of the existing or new piping system requirements

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Making of preliminary scheme based on collected data from client

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Closely interact with OEM & associates / customer for data & approval of scheme

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Preliminary P&ID and piping GA preparation and submitted to customer for approval

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After approval on P&ID & piping GA preliminary BOM is submitted for procurement

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Submission of stress analysis report with isometrics and final BOM

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Submission of final report

Industries We Cater

Advantages

- Proper sizing of entire piping network
- Accurate pipe thickness calculations are done as per standards to ensure total safety
- Optimized pressure drops for entire piping network by doing appropriate pressure drop calculations to ensure required temperature & pressure at the consumer inlet
- Best engineering methodologies are applied to optimize material & quantity. This helps reduce project cost to great extent
- Appropriate design & engineering ensures manpower safety
- Exact thermal load data generation by stress analysis to decide & size structural members
- Exact selection & spacing of supports by using universally accepted CAESAR-II stress analysis software.

Expertise we are in -

Saturated Steam Piping Network-
- Boiler sizing.
- Boiler house and process plant utility piping sizing.
- Pressure drop estimation
- Process automation.
- Blow down and waste heat recovery system design.
- Flexibility (Stress) analysis.
- Pipe support design.

Condensate Piping Network-
- Sizing and design of condensate recovery system.
- Pressure drop estimation.
- Trap sizing.

Thermic oil piping
- Heater sizing.
- Heater house piping.
- Process plant piping.
- Deaeration and expansion tank sizing.
- Booster pump sizing.
- Automation.
- Flexibility (Stress) analysis.
- Support design.

Chilled Water Piping
- Chiller sizing.
- Pumping system sizing.
- Hot well and cold well sizing.
- Utility house and process house piping.
- Insulation survey & selection.

Hot Water Piping Network
- Hot water heater sizing.
- Utility piping sizing.
- Pumping system and PHE / Heat exchanger sizing.
- Flexibility (Stress) analysis.
- Expansion tank and its automation.

Compressed Air Piping System.
- Air compressor sizing.
- Air receiver, dryer sizing.
- Compressor house and process plant piping.

Cooling Water Piping Network
- Cooling tower sizing.
- Cooling tower pump sizing.
- Cooling water piping sizing.

Raw Water Piping Network
- Pipe sizing and pressure drop estimation.
- Storage tank sizing.
- Automation and Instrumentation.

Natural Gas Piping Network
- From natural gas station to utility house piping sizing.
- Pressure drop calculations
- Substation sizing.
- Natural gas leakage detection system design.
- Natural gas piping supports design.

Nitrogen Gas Piping System.
- Nitrogen gas storage yard piping.
- Nitrogen house to process plant piping.

CO_2 Gas Piping System
- CO_2 storage yard piping.
- CO_2 house to process plant piping.

Power Piping Network
- Power boiler house steam piping network sizing.
- Pressure drop estimation.
- Pipe sizing across turbine.
- Spring support design.
- Flexibility analysis.
- Turbine LP steam piping.
- Pipe support design.
- Load data for civil design.

All green field, brown field and waste heat recovery projects.

For more details / any other utility, please write to Thermax at **utilityconsultancy@thermaxglobal.com**