



Air Pollution Control



Greener Technologies for Cleaner Air

Effective solutions for abatement of
particulate and gaseous pollutants



Conserving Resources, Preserving the Future.

Thermax provides systems and solutions in the critical domains of energy and environment. The products and services developed by Thermax help industries achieve better resource productivity and improved bottom lines, while maintaining cleanest environment. Our vision for the future is firmly anchored in the belief that, to stay competitive, business houses need to adopt sustainable practices.

Thermax's product portfolio covers heating, cooling, water and waste management, and specialty chemicals. The company also designs, builds and commissions large boilers for steam and power generation, turnkey power plants, waste-to-energy/ systems and air pollution control projects.

Air Pollution Control Business of Thermax

For more than four decades, the Air Pollution Control (APC) business of Thermax has been a focal point entity for all industrial and utility sectors concerned to control particulate and gaseous emissions. Our range of solutions offers multifold benefits to various industries like power, cement, steel, sugar, refinery & petrochemicals, paper, chemical, food, textiles, fertilizer, etc., helping them to improve the quality of air and also comply with stipulated emission norms.

Our resources include a dedicated manufacturing facility accredited with IMS certification (ISO 9001:2015, ISO 14001:2015, ISO 45001:2018) which complies with the health, safety, and environmental policy; and state-of-the-art research and development centre for continuous product improvement.



Business Offerings



Products and Services

Electrostatic Precipitators (ESP)

- Dry and wet type
- Captures 100+ types of particulate matters
- Continuous operation with minimal maintenance requirement
- Fully automatic DSP based controller with power optimisation
- Double spiked rigid discharge electrodes
- Specially designed self-stiffened collecting electrodes
- Top rapping system - Thermax Impulse Gravity Impact (TIGI), and Bottom rapping system - tumbling hammer design



Fabric Filters

- Pulse jet fabric filters online and offline design offerings with patented pulsing technology
- Low compressed air pressure and consumption
- Low range of operating differential pressure
- Varied bag length available from 1 - 12 metres
- Suit to site design
- Design compliance to NFPA guidelines



Combofilters (ESP + Fabric Filters)

- Enables system upgrade that ensures compliance to revised emission norms without the need for additional space requirement
- Low compressed air pressure and consumption
- Lower differential pressure across the system
- Ensures optimum use of the allied system



Scrubbers

- High collection efficiency for small and sub-micronic particles
- Custom built units capable of handling high gas volumes
- Designed to handle high pressure drops
- High system tolerance for fluctuating gas volumes
- Uniform water distribution, avoiding hotspots and reducing abrasion



Products and Services

Flue Gas Desulphurisation (FGD) System

Our FGD system is majorly available in three variants, each with distinctive capabilities for emission control.

Wet Flue Gas Desulphurisation (WFGD)

Higher removal efficiency of acid gases, especially $\text{SO}_2 > 95\%$

- Facilitates use of multiple reagents
- Produces gypsum as a by-product which is commercially saleable

Dry Sorbent Injection (DSI)

- Higher removal efficiency of acid gases, especially SO_2 up to 94%
- Facilitates use of multiple reagents

Spray Dryer Absorber (SDA)

- Higher removal efficiency of acid gases, especially SO_2 up to 94%
- Effective management of reagent through distinctive control loop mechanism



Multi Pollutant Flue Gas Cleaning System

- Single stop solution for the treatment of HF, HCL, SO_2 , dioxins and furons, heavy metals like mercury, cadmium, lead, etc., and VOCs from flue gases
- State-of-the-art reactor design to handle multiple pollutants



Modernisation, Renovation, and Upgradation of Existing Systems

- Optimum solution to keep capital investment low
- Efficient utilisation of the existing equipment
- Ensures improved performance for aging equipment
- Design validation to cater to the future requirement of alternate fuels



Spares and Value Added Services

- Operations and maintenance (O&M) services
- Conditional assessment / health check-up and troubleshooting of Air Pollution Control (APC) equipment
- Engineering services for efficient gas distribution
- Spare parts management for Thermax as well as non-Thermax APC equipment
- Onsite training



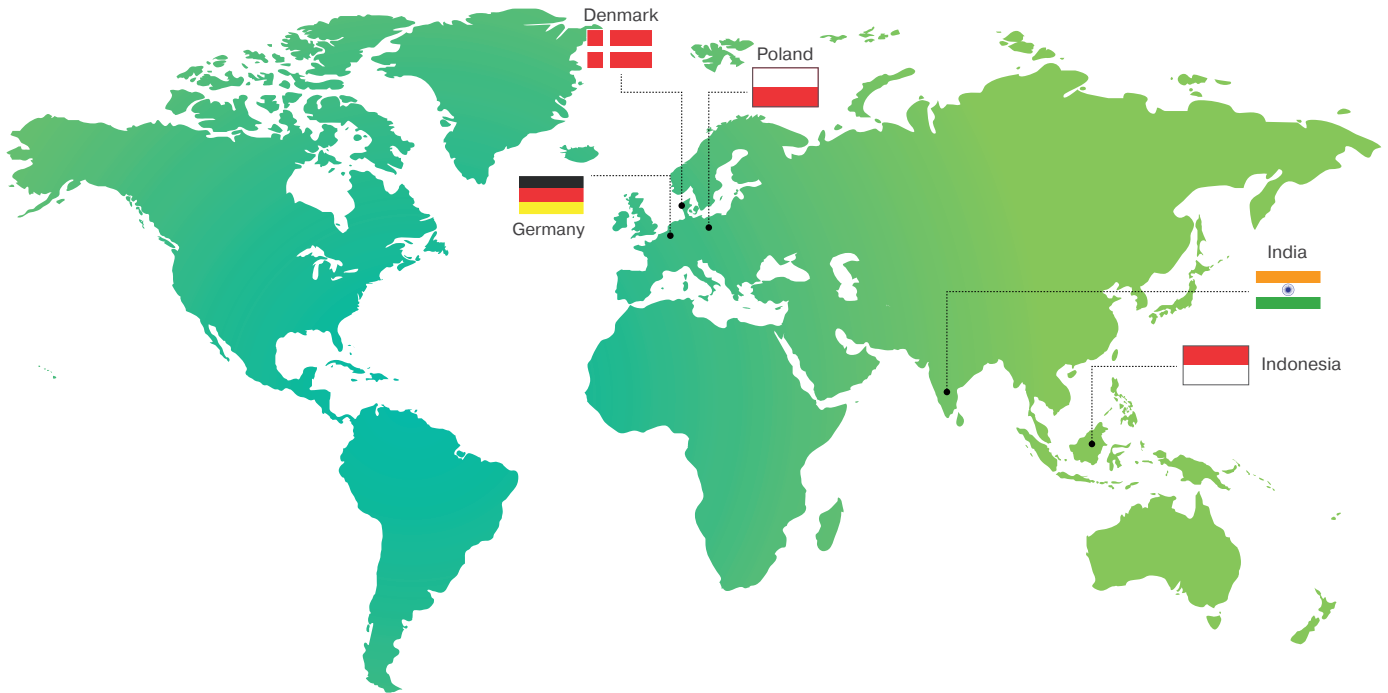
Global Network

90+
Countries

Head Office
India

Manufacturing Units

- India (10)
- Indonesia
- Denmark
- Germany
- Poland



International Subsidiaries, Sales & Service

- Bangladesh
- Brazil
- Canada
- Denmark
- Egypt
- Germany
- Indonesia
- Italy

- Kenya
- Malaysia
- Mauritius
- Myanmar
- Netherlands
- Nigeria
- Philippines
- Poland

- Russia
- Saudi Arabia
- Senegal
- Singapore
- Sri Lanka
- Tanzania
- Thailand
- Turkey

- U.K.
- U.S.A.
- UAE
- Vietnam
- Zambia

90+

Countries

14

Facilities

213

Channel Partners
in and around India

85

International
Channel Partners

Global Clientele

Metal

- ArcelorMittal
- Welspun
- TATA Steel, India
- Steel Authority of India (SAIL), India
- JSW Steel, India
- Hindalco, India
- Vale Oman Pelletizing Company
- Konkola Copper Mines Plc, Zambia



Palm Oil

- Natural Palm Oil Company Limited, Thailand
- Wilmar Group, Malaysia
- IOI Plantation, Malaysia
- FELCRA Berhad Plantation, Malaysia



Pharma

- Cipla, India
- Sun Pharma, India
- Zydus Cadila, India
- Lupin, India
- Mylan, India



Cement

- LafargeHolcim
- HeidelbergCement
- UltraTech, India
- Ambuja Cement, India
- Sharjah Cement Factory, UAE
- Dangote Cement Plc, Nigeria
- National Cement Company, Kenya



Sugar

- Incauca Sugars, Colombia
- Consorcio Azucarero De Empresas Industriales (CAEI), Dominican Republic
- Busia Sugar, Kenya
- Mitr Phol Group, Thailand
- Cristalla Co. Ltd., Thailand
- Universal Robina Corporation (URC), Philippines





Chemical

- Phillip Carbon, India
- Sterlite, India
- Reliance, India
- Grasim, India
- Thai Carbon Black, Thailand
- Ansell Co. Ltd., Thailand
- Dipped Products Co., Ltd., Thailand
- W.A. Rubbermate Co., Ltd.



Paper

- Bataan 2020, Philippines
- RGE Group, Singapore
- JK Paper, India
- Ballarpur Industries Limited (BILT), India



Textile

- Arvind, India
- Reliance, India
- JCT, India
- Grasim, India



Independent Power Plant

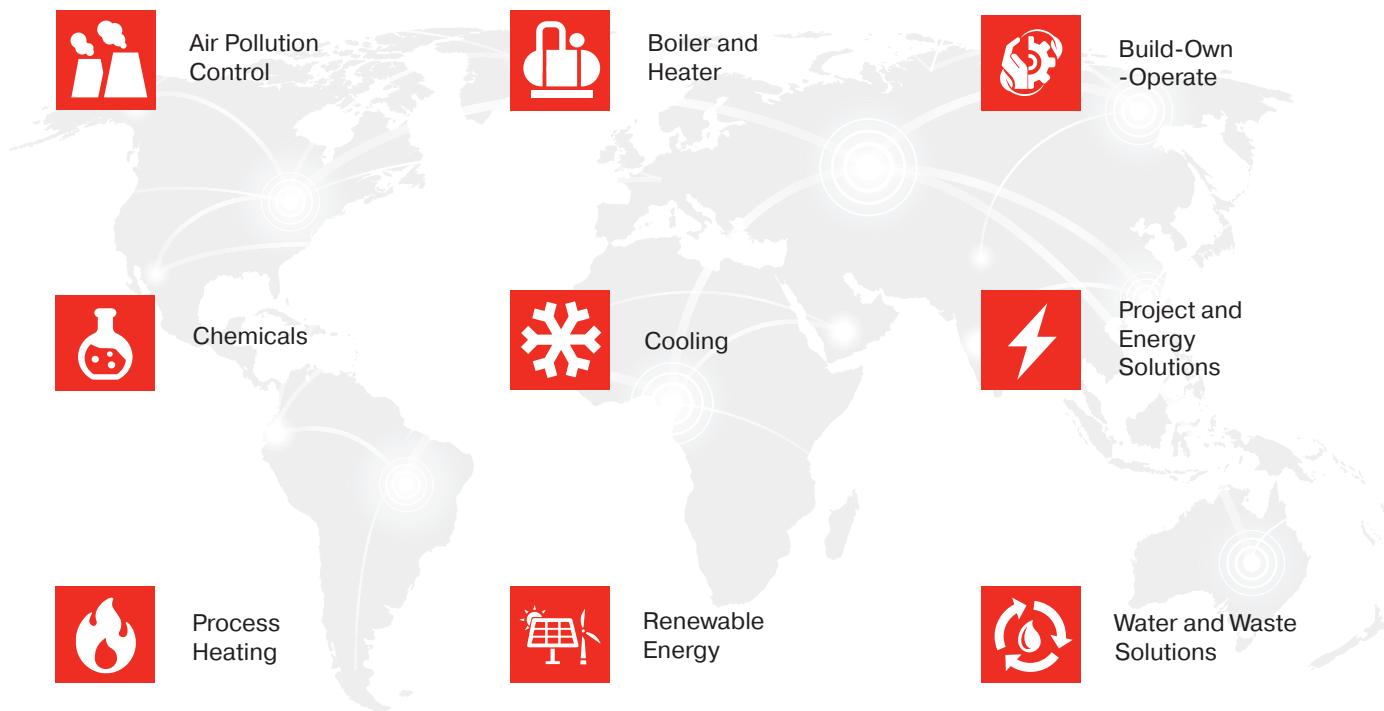
- NTPC, India
- TATA Power, India
- Reliance, India
- Narayan Energy, India



Captive Power Plant

- Omnicane Thermal Energy Operations (La Baraque) Ltd., Mauritius
- JGC Corporation, Philippines
- KPN Green Energy Solution Public Company Limited, Thailand
- SBANG Corporation Ltd., Thailand
- DP Cleantech (Thailand) Co., Ltd., Thailand

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Registered Office

Thermax Limited
D-13, MIDC Industrial Area, R D Aga Road,
Chinchwad, Pune 411019. India.
Email: enquiry@thermaxglobal.com
Customer Care: 1800-209-0115

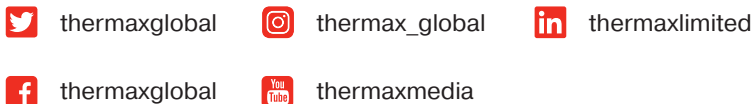
Corporate Office

Thermax House,
14 Mumbai-Pune Road,
Wakdevadi, Pune 411 003
+91-20-66051200/25542122
+91-20-25541226

Business Office

Environment House, Plot No. 90-92, BG
Block, MIDC Bhosari, Pune 411026,
Maharashtra, India.
Email: enviro.apcs@thermaxglobal.com

www.thermaxglobal.com



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