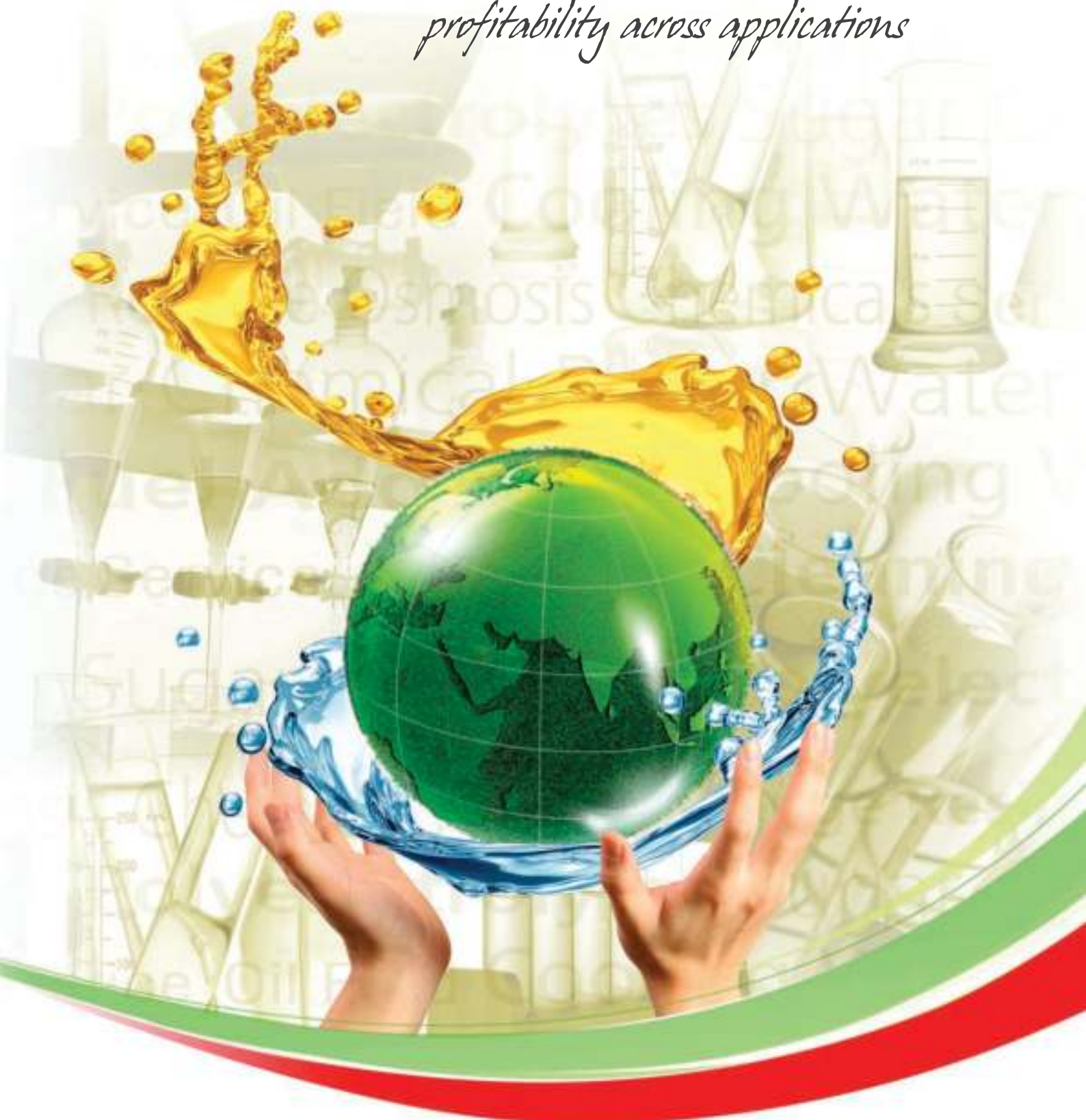


*Enhancing process efficiency and
profitability across applications*



Vision

To be a globally respected high performance organization offering sustainable solutions in energy and environment

Energy & Environment Offerings



Integrated Energy-Environment solutions for industry

Thermax Limited, a billion dollar engineering major provides solutions in the areas of energy and environment. In over 75 countries around the world clients make use of Thermax's business - to - business solutions for energy efficient and eco-friendly operations: heating and cooling equipment, solar energy, turnkey power plants, systems for water & waste water management, air pollution control and performance improving chemicals.

In the energy space, Thermax offers a range of boilers and thermal oil heaters, energy efficient chillers and customized products such as waste heat and exhaust gas boilers. It builds utility and captive power plants.

In the environment area, Thermax offers waste management expertise for solid, liquid and air pollution. Water and wastewater treatment help reduce the hazardous impact on environment and by recovering resources improve revenues. Hi-grade Ion Exchange

Resins along with fuel and water treatment chemicals from Thermax are used for specialized applications across the globe.

The company has a robust and innovative R&D setup, involved in technology development and adaptation for various industrial applications. Over the years, the company has formed technology partnerships with global majors including Babcock & Wilcox, SPX technologies, Balcke Durr, Georgia Pacific, Kawasaki Thermal Engineering, GE, Eco-Tech, Wehrle, Lambion & Tecnochem.

Thermax manufactures to international standards at its facilities in India, China, Denmark and Germany. The company has an extensive sales & service network. With headquarters in Pune (Western India), Its international offices are located in South East Asia, Middle East, Africa, Russia, UK, Denmark, Germany, USA and South America.

Thermax Chemical Division



35+ Years Of Enriched Experience

A global entity engaged in manufacture and application of specialty chemicals which improve customer's processes and product performance

Thermax Chemical division manufactures and markets a wide range of specialty chemicals that help to improve processes and product performance across a spectrum of industries.

"Asia's leading manufacturer & exporter of **TULSION**® brand **Ion Exchange Resins** and a pioneer in the field of **Fuel & Water treatment chemicals**, Thermax also supplies **Paper** Chemicals, **Oilfield** Chemicals and **Construction** Chemicals.

Powered by technological expertise and capabilities honed over 4 decades and backed by a strong dealer network, the Chemical division serves customers across the globe and supports the entire range of Thermax's energy and environment businesses.

Backed by extensive R & D experience and equipped with modern research and state-of-the-art manufacturing facilities the business has built a client base in USA, Japan, South East Asia, India & Middle East.

Our business is about 'effective customer solutions' through innovations and development, service and co-operation. Our dynamic teams focus their energy and resources to offer the very best solutions to customers needs.

Key Strengths

- Expertise in industrial applications and technical services.
- Specialized facility for product development.
- State of the art well equipped quality control laboratory
- Well equipped & automated manufacturing plant
- Quality assured manufacturing processes.

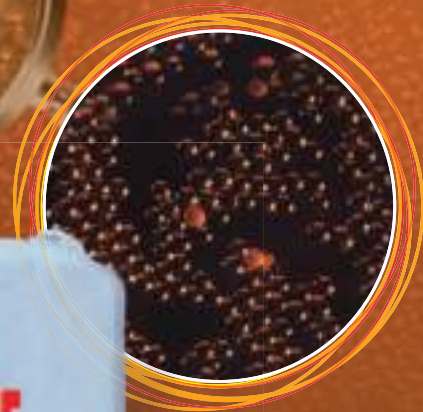
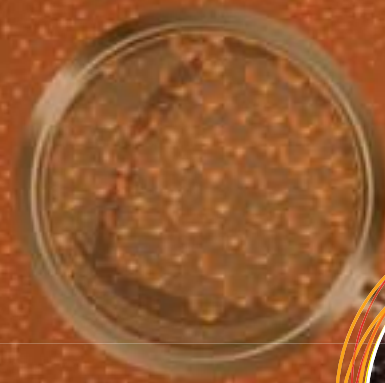
High Quality Manufacturing

Thermax Chemicals manufactures its world class products in state-of-the-art manufacturing plants at Paudh (Maharashtra) & Jhagadia (Gujarat). Total quality management is a way of life at Thermax Chemicals and we take special care to ensure consistency in quality.

Ion Exchange Resins

Thermax Chemicals is one of the world's major leading manufacturer of a gamut of TULSION® brand Ion Exchange Resins for over 35 years. TULSION® is a premium brand and enjoys a global reputation in the field of water treatment and process application technologies, based on Ion Exchange Resins.

Our business is about 'effective customer solutions' through innovations and development, service and co-operation. Our dynamic teams focus their energy and resources to offer the very best solutions to customers needs.



Industrial Water Treatment Resins

Water treatment is traditional and one of the largest application fields of Ion Exchange Resins. Constantly growing demands on water quality require increasing sophistication of both the Ion Exchange Resins and the related application technologies. Tulsion® Ion Exchange Resins are particularly designed

to meet these demands and offer numerous advantages to our customers.

We have specialized in tailor made solutions for DM system upgradation / capacity enhancement through our value added products.

PRODUCT	APPLICATION
Tulsion® T-40 / T-42 Na / T-52 Na	Tulsion Resins for water softening
Tulsion® T-42H / T-52 H / T-5202	Tulsion Resins for demineralisation
Tulsion® A-23 / A-32 / A-36 / A-2332 / A-27 MP	Tulsion Resins for demineralisation
Tulsion® CXO-9 / CXO-12 / CXO-12 MP	Tulsion Resins for dealkalisation
Tulsion® MB-106 / MB-110 / MB-115 / T-46 H	Tulsion Resins for mixed bed polishing
Tulsion® T-48 / T-50 / T-52 / A-21 / A-29	Tulsion Resins for condensate polishing

Cooling Water Treatment Chemicals

Cooling water for industries, if untreated, can cause severe problems of corrosion and scaling in coolers, condensers and other equipment on the cooling water side. This often results in equipment failure, unscheduled shut downs and production losses.

You can control corrosion and scaling and thereby achieve maximum cooling system efficiency and reduce unnecessary shutdowns by treating cooling water with the right chemicals.

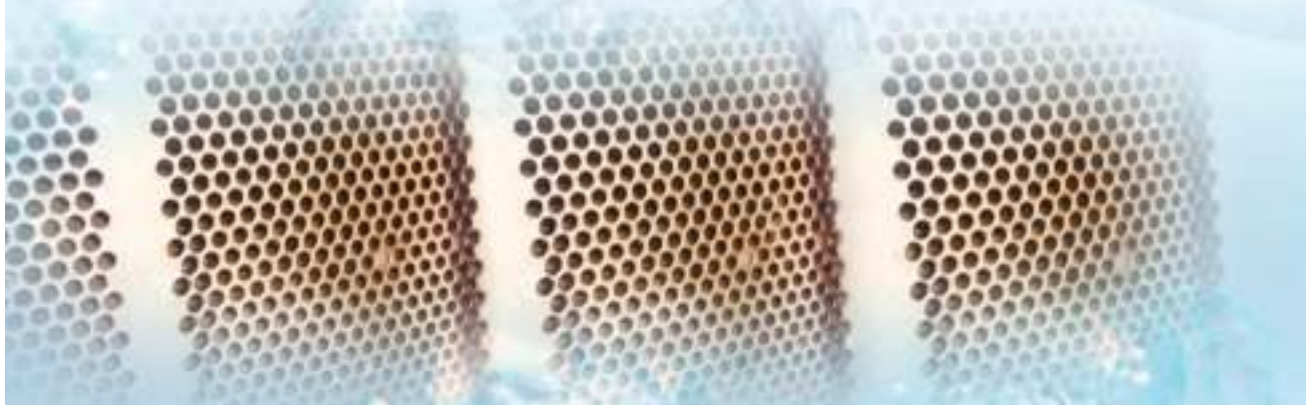
Thermax Chemicals offers you a comprehensive range of MAXTREAT® cooling water treatment chemicals that treat cooling water effectively.



MAXTREAT® Microbiocides

Product	Application
Maxtreat® 606	Powerful microbiocide in liquid form
Maxtreat® 608	Broad spectrum microbiocide in liquid form
Maxtreat® 635	Effective microbiocide
Maxtreat® 652	Bromine- Isothiazolin based biocide
Maxtreat® 7961	Oxidising biocides
Maxtreat® 651	Effective microbiocide

Post Treatment Condenser Tubes



Action & Benefits

- Protects Against Corrosion**
 MAXTREAT® range of cooling water chemicals contains a synergistic blend of corrosion inhibitors. Regular and correct use of MAXTREAT® keeps the corrosion rate under control to eliminate corrosion related failure and unscheduled shutdowns.
- Flexible Dosage Control**
 MAXTREAT® cooling water chemicals are formulated to suit the requirement of makeup water quality. This formulation provides wide flexibility in dosage levels giving you sufficient room for operational fluctuations.
- Cleans Existing Deposits**
 MAXTREAT® range of cooling water chemicals contains powerful dispersants and penetrants that loosen and remove existing deposits from the system keeping the cooling water circuit clean.
- Easy to Use Liquid**
 All MAXTREAT® cooling water chemical formulations are available as easy to use liquids which enable easy dosing.
- Non-Polluting**
 MAXTREAT® chemicals are bio-degradable and acceptable for discharge in streams after dilution. MAXTREAT® does not pose any serious problems of pollution.
- Easy to Monitor**
 Since MAXTREAT® cooling water chemicals offer flexibility of dosage, it is easy to monitor. All the required active ingredients are available in one form, enabling ease of monitoring.
- Technical Service**
 MAXTREAT® range of cooling water chemicals is backed by Thermax Chemicals' technical service to ensure optimum performance.

MAXTREAT® Cooling Water Treatment Chemicals

Product	Application
Maxtreat® 801	Corrosion inhibitor for acid descaling
Maxtreat® 204/7500	Organic corrosion inhibitor
Maxtreat® 2901 / 2925	Corrosion inhibitor
Maxtreat® 2902	Corrosion inhibitor
Maxtreat® 7770	Scale inhibitor
Maxtreat® 7700	Scale & corrosion inhibitor
Maxtreat® 1000N / 1000M	Dispersant
Maxtreat® 2515	Dispersant, organic corrosion inhibitor and bio-dispersant
Maxtreat® 2002	Bio-dispersant
Maxtreat® 7200 D	Dispersant
Maxtreat® 2730	All in one scale & corrosion inhibitor and antifoulant
Maxgreen® 1202	Scale & corrosion inhibitor
Maxgreen® 7003	Effective bio & organic dispersant
Maxgreen® 6500	Microbiocide

*Customised formulations as per requirement are also available

Reverse Osmosis Chemicals

Thermax offers a complete range of Reverse Osmosis Chemicals, which includes antiscalants, inorganic & organic cleaning chemicals in powder and liquid form, biodispersants and biocides.

Even with the best pretreatment based on feed water characteristics, reverse osmosis membrane continues to face several problems associated with scaling, fouling, biological growth along with operational problems.

As Thermax is water treatment equipment supplier, we have in-house chemical manufacturing facilities and thus we have strong competence on equipment and chemical performance. We also carry out in-house membrane autopsy studies.

Antiscalants

Our MAXTREAT® range of antiscalants reduces membrane scaling, fouling. It also disperses silt, colloidal particles and fouling tendencies thereby giving sustained performance for a longer time and reduces unscheduled shutdown and cleaning costs.

Facilitates Maximum Recovery

Provide optimum control of feed water with concentrate LSI up to + 3.0

Safe For Use In Potable Water

Certified under  ANSI/NSF standards



Membrane Cleaning Chemicals

Our MAXTREAT® range of liquid and powder cleaning chemicals (Inorganic & Organic) are specially formulated blend of cleaner for the inorganic scale & organic compounds and also biological slime.

Benefits

- Liquid / powder cleaner which allows shorter mixing time.
- Low foaming formulation.
- Cost effective program for carbonate or sulfate scale and also for organic compound & slime.

Biocides

MAXTREAT® range of non- oxidizing biocide works speedily and provide effective response even in heavily contaminated waters.

Benefits

- Biocide activity spans over a spectrum of microorganisms.
- Liquid formulation.
- Heavy slime deposit can be eliminated or controlled by regular use of biocide in heavily infected reverse osmosis system

MAXTREAT® Reverse Osmosis Treatment Chemicals

Product	Application
(Antiscalants)	
Maxtreat® 9001	Antiscalant
Maxtreat® 9002	Silica antiscalant
Maxtreat® 9007	Antiscalant
Maxtreat® 9005	Antiscalant for hardness & biofouling
Maxtreat® 9115	Antiscalant
Maxtreat® 9118	High silica antiscalant
Maxtreat® 9900RC	Antiscalant / Antifoulant for disc type membranes
(Powder Cleaning Chemicals)	
Maxtreat® 9822	For hardness and Iron
Maxtreat® 9311	For general purpose, organics
(Cleaning chemicals)	
Maxtreat® 9201	Inorganic cleaner
Maxtreat® 9202	Inorganic cleaner
Maxtreat® 9203	Inorganic cleaner for SO4
Maxtreat® 9204	Inorganic cleaner for Ca, Mg
Maxtreat® 9206	Organic cleaner
Maxtreat® 9771 UF	Ultrafiltration cleaner
Maxtreat® 9772 UF	Ultrafiltration cleaner
Maxtreat® 9773 UF	Ultrafiltration cleaner

Boiler Water Chemicals

MAXTREAT® range of boiler water treatment chemicals is a combination of polymers and organo-inorganic chemical treatment programmes. The range of MAXTREAT® Boiler Water Chemicals includes oxygen scavengers, scale, deposit and corrosion inhibitors, sludge conditioner, anti-foaming agents, alkalinity controllers and also an all organic single product boiler water treatment chemical & condensate corrosion control treatment.



MAXCLEAN® Descaling Compounds

Product	Application
Maxclean® - 05	Descaling compound
Maxclean® - 06	Descaling compound
Maxclean® - 07	Boil out chemical



Action & Benefits

- Protects Oxygen Pitting**
 Catalysed oxygen scavengers remove oxygen instantly thereby controlling oxygen related corrosion.
- Corrosion Inhibition**
 Powerful corrosion inhibitors help protect against acidic corrosion to reduce coil tube failures and unscheduled shutdowns.
- Scale Prevention**
 Highly effective anti-scalants prevent scale formation improving heat transfer, reducing failures and unscheduled shutdowns.
- Energy Saving**
 The anti-scalant and dispersant action of MAXTREAT® keeps your boiler clean and at the peak of heat transfer efficiency thereby reducing energy losses.
- Easy to Use**
 MAXTREAT® range of Boiler Water Chemicals is easy to dose liquids which provide wide flexibility with regards to dosage levels and sufficient room for operational errors.
- De-Scaling**
 MAXTREAT® de-scaling compounds are useful in removal of hardness and corrosion products from boilers, heat exchangers and cooling systems, etc

MAXTREAT® Boiler Water Treatment Chemicals

Product	Application
Maxgreen™ 3001	Online sludge conditioner
Maxgreen™ 3002	Online descalant for hardness & Iron scale
Maxtreat® 3003	Defoamer
Maxtreat® 3004	Alkalinity builder
Maxtreat® 3005	Alkalinity controller / reducer
Maxgreen™ 3006	Alkalinity builder
Maxgreen™ 3100	Catalysed oxygen scavenger in powder form for low and medium pressure boiler
Maxtreat® 3200	Catalysed oxygen scavenger in liquid for high pressure boiler
Maxtreat® 3220	Scale & corrosion inhibitor for oil type boiler
Maxgreen™ 3221	Corrosion and scale inhibitor in liquid form for low and medium pressure boiler
Maxgreen™ 3222	Corrosion and scale inhibitor
Maxtreat® 3330	All organic complete
Maxtreat® 3311	Condensate line corrosion inhibitor
Maxtreat® 3334	Condensate corrosion inhibitor
Maxtreat® 3223 SR	Corrosion and scale inhibitor in powder form
Maxgreen™ 3226	Single product treatment for low pressure boiler

Fuel Additives

Thermax Chemical offers a range of fuel treatment chemicals. The THERMOSOL® range of products are designed to condition fuel for better performance and operation of the system.

Action & Benefits

- **Improves Combustion**

THERMOSOL® speeds up combustion reaction reducing formation of soot, tar and clinker ensuring complete combustion at lower excess air. This improves fuel utilisation and reduces stack losses increasing overall combustion efficiency.

- **Improves Atomisation**

Surface active agents included in THERMOSOL® reduce surface tension of oil and improve fuel oil atomisation by forming uniform, smaller droplets.

The ashless dispersants in THERMOSOL® inhibit formation of resin or coke at burner nozzle keeping it clean for fuel oil passage.

Other Benefits

- **Reduces high temp corrosion**
- **Prevents sludge formation**
- **Reduces acid smut emission**
- **Reduces low temp corrosion**
- **Prevents filter clogging**
- **Inhibits wax deposition**
- **Improves oil flow**



THERMOSOL® : Fuel Oil Treatment Chemicals

Product	Application
Thermosol® - I	Organo - metallic compound with detergent, surfactant and combustion catalyst
Thermosol® - S	Corrosion inhibitor, sludge dispersant for heavy fuel fired system
Thermosol® - L	Corrosion inhibitor, sludge dispersant and combustion catalyst for LSHS fired systems
Thermosol® - F	Multi-component, multi-purpose
Thermosol® - D	Diesel additive for internal combustion engines
Thermosol® - DG	For heavy fuel fired internal combustion engine
Thermosol® Optiva	Fuel conditioner for heavy fuel fired boiler / heater
Thermosol® SPM	For particulate matter reduction
Thermosol® - MG	Multi-function fuel additive for heavy fuel oil

*Customised solutions are available

Fireside Cleaning Compounds

Even under the best operating conditions, users can face several problems with fuels right from storage to post combustion such as dust nuisance, carbon rejection in ash, fouling and slagging of furnace, formation of clinker.

THERMOMIX®/ ECONOMIX® range of fireside treatment products from Thermax Chemicals

contain dust suppressants, combustion catalysts, slag modifiers and corrosion inhibitors that help improve overall combustion and system performance. This range of chemicals helps to increase the ash fusion temperature of deposits & improves heat transfer.

Action & Benefits

- Ease of operation**
 Improves combustion by reducing carbon rejection in ash, reduces fouling and slagging, increases ash fusion temperature and reduced clinker formation.
- Reduces corrosion and cleaning period**
 Reduces corrosion of boiler metallurgy caused by sodium and sulphur compounds, reduces refractory and tube failure problems as deposits can be easily removed during soot blowing and shutdowns .
- Efficient steam generation**
 Heating surfaces are kept clean to facilitate better heat transfer leading to efficient steam generation and complete boiler utilisation.

THERMOMIX® / ECONOMIX® : Fire Side Cleaning Compounds

Product	Application
Thermomix® - BG	Slag modifier, corrosion inhibitor for bagasse and heavy oil applications.
Thermomix® - C	Slag conditioner, combustion improver for coal fired equipment.
Thermomix® - E	Low temperature deposit modification improves heat transfer
Thermomix® - BGL	Combustion improver, corrosion inhibitor, slag modifiers for heavy oil fired units
Economix® - HD / Thermomix® - HD	Complete removal of fireside deposits & corrosion inhibitors for heavy fuel oil fired units
Economix® - S	For removal of glass clinker for solid fuel fired units
Coalmix™	Additive for coal
Biomix™	Additive for biomass



Polyelectrolytes

Thermax has a wide range of Polyelectrolytes for raw water clarification, effluent treatment, colour removal, paint detackification & a range of process applications.

Action & Benefits

- **Coagulation & flocculation**
Solid liquid separations with faster sedimentation.
- **Dewatering**
Reduces moisture from centrifuge, RVDF & Belt press.
- **Faster separation**
Use of Polyelectrolytes results in faster separation of a solid from liquid & oil from liquid as a result of denser floc formation.
- **Cost effective**
Polyelectrolytes requirement is lower as compared to conventional coagulants like Alum, PAC etc and hence work out to be economical alternatives to conventional treatment.
- **Easy to use**
Polyelectrolytes are easier to dose. Custom made dosing equipments are available from Thermax. Solid, liquid varieties are available to suit your needs.
- Low to ultra high molecular weight solid, liquid & emulsion polyelectrolytes are available to suit your needs.



Maxfloc[®] : Polyelectrolytes for Raw water / ETP & Special Applications

Product	Application
Maxfloc [®] T	Removal of turbidity in raw water clarification
Maxfloc [®] 20	O/W separation, sludge dewatering, SS removal in primary and secondary treatment
Maxfloc [®] TG	Turbidity removal as filteraid, coal washery for colloidal SS removal, sedimentation of particulate matter in scrubbed water from blast furnace & basic oxygen furnace, ETP O/W separation
Maxfloc [®] 507	Colour removal & precipitation for textile mills
Maxfloc [®] C-11	Centrifuge, sedimentation of biological sludge, sludge dewatering and paper krofta
Maxfloc [®] C-22	Bio sludge sedimentation, dewatering, setting in primary & secondary ETP
Maxfloc [®] C -33	Bio sludge sedimentation and dewatering
Maxfloc [®] A-115	Sedimentation of SS in primary & secondary clarifier in ETP, thickening & centrifuge in coal washery
Maxfloc [®] A-107	Flocculation of sludge in primary, secondary industrial ETP furnace scrubbed suspended solids sedimentaiton
Maxfloc [®] 6110	Detackification of overspray paint in paint booths of automobile industry & ancillary units
Maxtreat [®] 6440	Detackification of HR grade paint overspray in paint booths

Customised solutions are available

Thermax Channel Associate – Closer To You Than You Thought

Reliable business support

Introducing Thermax channel associate (TCA), your single point source for solutions in utilities & services. from Thermax portfolio including: heating, cooling, water treatment, wastewater management, air pollution control systems & performance improving chemicals.

TCA helps you manage your business better by extending sustained support from a location nearer to your plant.

Improving your business is our business

TCA offers your business an edge over competition by providing customized solutions.

TCA helps you configure the right mix of products and services for growth.

Your knowledge partner

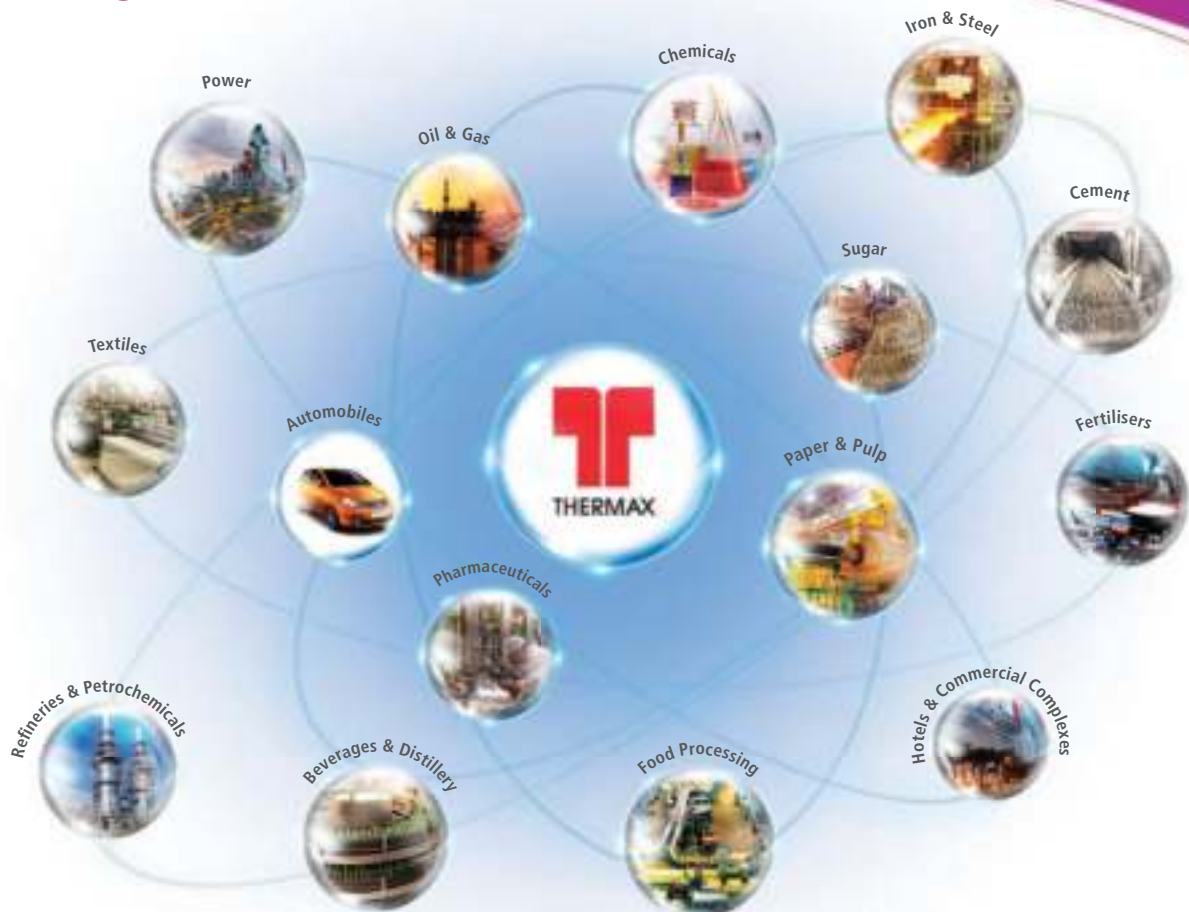
TCA's are able to troubleshoot and offer solutions specific to your needs since they are equipped with Thermax's extensive knowledge of applications gained from working with various industries worldwide.

TCA's shall also involve in systematic knowledge transfer through training sessions for customer personnel.

Recognitions for Thermax

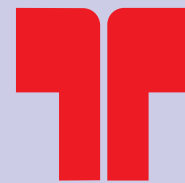
- Featured four times in the Forbes' list of Asia's 'best under a billion companies' (2005-'08)
- Listed among the top 100 of India's most valuable 500 companies (Business Today '07)
- Business standard 'CEO of the year' (2007-08) award for chairperson
- CNBC TV-18 India award for the "most promising entrant to the big league (2011-12)

Serving more than 44 sectors World-wide



*Please visit our website www.thermaxindia.com in "Industries" section and click on your industry to get the complete details of offerings by Thermax for your business enabling us to serve you better.

Our Global Network



THERMAX

Sustainable Solutions in
Energy & Environment

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Thermax Business Portfolio

Chemicals

Absorption Cooling

Air Pollution Control

Boilers & Heaters

Power

Water & Waste Solutions

Solar