

Our Products



Water and Waste Solutions

Sustainable Solutions in Energy & Environment

Thermax is a USD 750 million engineering major providing sustainable solutions in the areas of energy and environment. Spanning over 86 countries, clients make use of Thermax's business-to-business solutions for heating, cooling, power and cogeneration plants; waste heat recovery units; systems for water & wastewater management and air pollution control; performance improving chemicals.

Thermax's operations are supported by ongoing Research & Development, tie-ups with global technology majors, an international sales & service network spread over 27 countries and state-of-the-art manufacturing facilities in 14 locations including India, China, Poland Indonesia, Denmark and Germany.

Thermax: Water & Waste Solutions

More than 45 years of industry expertise in providing innovative solutions and best customer experience in meeting water and waste water treatment needs through our solutions, products and services.

Over 20,000 installations across various Industries like Food & Beverages, Textile, Pharma, Automobile, Steel, Power, Chemical, Fertilizer, Oil & Gas, Petrochemical and Urban sector.



Sewage Treatment Products

- Modular, plug & play systems
- Low height STP ideal for basement installations
- Quick Delivery with less civil/site work



Water Treatment Products

- Filters & softeners
- Standard RO Plants
- USP grade treatment plants



Solid Waste Management

- Incinerator
- Kitchen waste to energy



Klarimax

Klarimax is specially developed to reduce suspended solids from surface waters. The design is based on settling and rising rates of suspended impurities under various conditions.

Advantages

- Low power consumption
- Requires less space
- Minimal civil works (only foundation)
- Standardized, hence quicker delivery

Standard Capacities

- 0-4, 4-8, 8-16, 16-24, 24-32, 32-40, 40-48, 48-64 m³/hr



Filters

Filtration is the most effective process to remove suspended impurities using a fine physical barrier. Wide ranges of filters catering to specific customer needs are being offered.

Activated Carbon Filters

- Contains activated carbon as media
- Used to remove free residual chlorine, color, odor, oil & organics

Dual Media Filters

- Consists of "Sand and Anthracite" as filtering medium
- Used to filter out suspended solids

Iron Removal Filters

- Specially designed to remove iron from water
- IRF contains manganese dioxide layer, working as catalyst converting iron to ferric form, which can be easily precipitated and filtered out

Garnet Filters

- Garnet Filters are used as polishing filter where the outlet turbidity quality requirement is stringent.

Pressure Sand Filters

- Reduces turbidity
- Fine mesh sand used as the filtering media





Softeners

Softening is a widely used process for reducing hardness forming cations (Ca & Mg) which precipitate and scale at very low temperatures and pressures. Softening is a reversible ion exchange process wherein specific ions are exchanged with sodium ions present in the resin group.

Standard Capacities

- 0.1 – 25, 3.5 – 35, 0.3 – 25, 3.5 – 230 m³/hr
- Upto 500 m³/hr available on request

Unique Features

- Available in FRP/ GRP vessels upto 42" diameter
- Sleek design in MS with single-valve operation
- Rugged packed bed design in up-flow operation
- Flexibility in resin volumes



Demineralisation (DM) Plants

Demineralization is a proven & reliable technology used in water treatment to remove minerals, using the principles of ion exchange, de-gasification and polishing. It is used to produce mineral-free water. Considering your inlet water quality and capacity parameters, customized solutions can be offered based on inlet water quality, capacity and requirements.

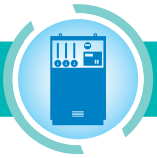
Salient Features

- Resins with high resistance, longer life, high exchange capacities & lower chemical consumption
- Low maintenance & easy installation
- Cost effective standard models
- Advanced software used for optimal selection and configuration

Technical Specifications

Model	Capacity (m ³ /hr)	Unique features
DFX	0.1 -14	Available in FRP/ GRP vessels upto 42" diameter
EZ DU	3.5-14	DM plants with MSRL vessels with single valve operation
TDU	0.3-50	Rugged packed bed in up-flow operation
TDD	3.5-70	DM range with flexibility in resin volumes





LoFlo RO

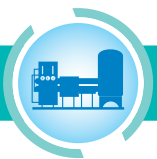
LoFlo RO has been designed and standardised to produce drinking water at smaller flowrates. It could be used for requirements industrial or commercial establishments and for residential use.

Standard Capacities

- 200, 300, 500, 750, 1000, 2000, and 3000 LPH

Advantages

- Compact & modular
- Easy installation, operation and servicing
- Online product water quality monitoring
- Automation options available



SIRO

Reverse Osmosis separates dissolved solids and minerals from water. We offer and ensure the right solution from our wide range of combinations with our customized software, SIROSOFT.

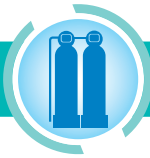
Advantages

- Online product water quality monitoring
- Compact & modular
- Multistage centrifugal pump with appropriate MOC
- Membrane & pump protection system

Capacities

- 1 m³/hr to 40 m³/hr
- 40 to 200 m³/hr available on request





PuriSmart

Purismart is a fully automatic skid mounted filter & softener plant. It removes hardness from water by using ion exchange technology. It has a sleek designed especially for bungalows and societies.

Capacities

- 2000 LPH

Features

- Removes hardness to commercial zero level
- Automated operation
- Compact; skid mounted



Digilite

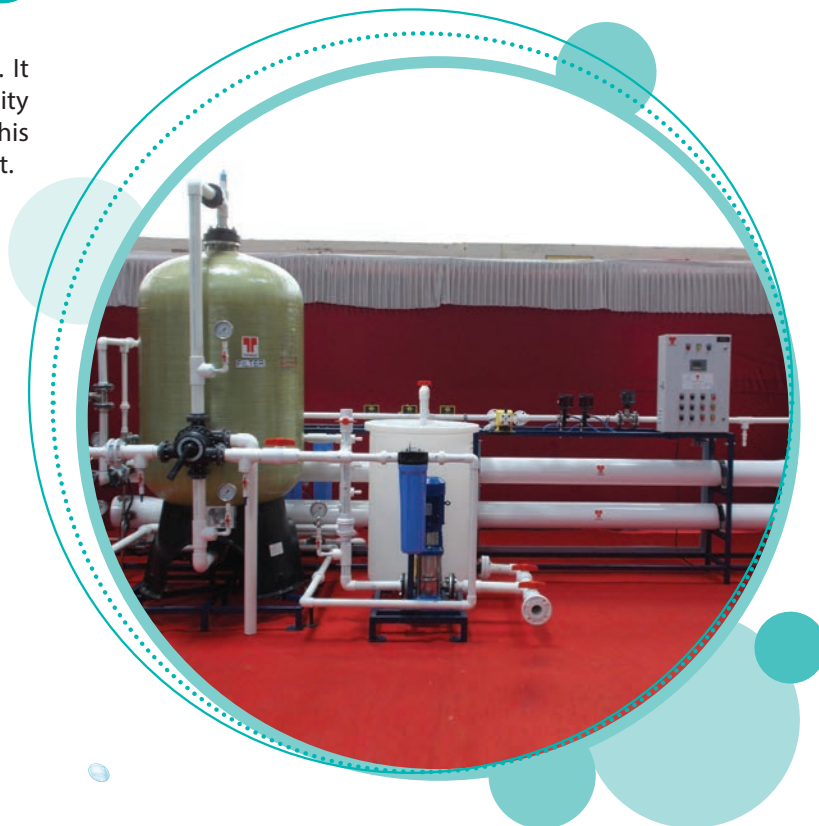
Digilite is fully automatic skid mounted RO plant. It provides all the information related to water quality and can be accessed from your mobile phone. This technology helps the remote operation of the plant.

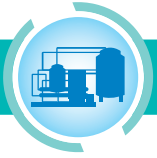
Capacities

- Available in 4" and 8" RO Models available for 2000, 4000 and 6000 TDS
- Capacity Ranges 4"- Digilite : 1000 , 1500, 2000 and 2500 LPH
- Capacity Ranges 8"- Digilite : 3000, 3500, 4000, 4500, 5000, 6000, 7000, 8000, 9000, 9500, 10000, 12000 LPH

Features

- Compact; skid mounted
- Programmable
- Data-logging possible





GenmaX

GenmaX is a complete skid mounted plug and play system to generate high purity water. These systems are used to meet requirements & specifications of water with USP grade.

Standard Capacities

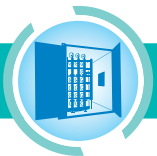
- 500 LPH to 6000 LPH

Salient Features

- PLC based fully automated system
- VFD controlled flow rates during operations & sanitization
- Uniform & comprehensive documentation, DQ, IQ & OQ
- Configured to minimize microbial growth

Inlet & Outlet Design Parameters

Inlet Parameters		Outlet Parameters	
TDS	< 100 mg/l	pH	5.0 - 7.0
Total Hardness as CaCO ₃	< 5 mg/l	Conductivity	< 1.3 u mhos/cm
Silica	< 2 mg/l	Microbial Count	< 100 CFU/ML
SDI	< 1	TOC	< 500 ppb
TSS	Nil		
Turbidity	Nil		
pH	7.5 - 8.5		



Containerised Plants

Thermax offers the mobile water treatment plant, encased in a robust steel container that makes it easy to transport. Each unit has plug & play type connections which can be integrated with level controls.

Salient Features

- Pure mobility
- Quick Installation
- PLC mounted panel for auto operation
- Minimal Site/ Civil Work
- Compact, neat installation





BioCask

BioCask is a state-of-the-art technology for domestic wastewater treatment by Thermax. The innovative design of the BioCask has overcome the limitations of a conventional wastewater treatment system. The BioCask uses the first-of-its-kind unidirectional fluidization pattern. This pattern used oxygen efficiently which is required for degradation of organic impurities.

Salient Features

- Perfect for basement installation, where height is less than 3 meters
- Reduced operating costs due to high oxygen transfer efficiency
- Minimal civil work
- BOD < 5 mg/l without ultrafiltration

Standard Capacities

- BioCask Mini : 10 KLD and above
- BioCask : 50, 100, 150, 200, 250 & 300 KLD (modular units for higher capacities)



FABx

This space and power saving technology is a better alternative to conventional waste water treatment plants. FAB (Fluidized Aerobic Bioreactor Technology) offers an effective solution to water situation with constraints such as scarcity of open space, network piping issues, high power and land cost.

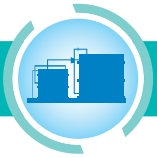
Standard Capacities

- Prefabricated : 50,75 & 100 KLD (modular for other capacities)
- On-Site Fabrication : 10 to 5000 KLD

Salient Features

- Skid Mounted; Quick & Easy Installation
- Odorless operation, with a self – regulating system
- Pre-engineered; Low Cost & Fast Delivery
- Achieves < 5 TSS mg/l without coagulant, flocculent
- Achieves < 5 BOD mg/l without UF membranes





SeqtreatT

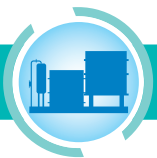
SeqtreatT (Sequential Batch Reactor Technology) is one of the most advanced technologies developed by Thermax for wastewater treatment. Especially for domestic wastewater, SeqtreatT achieves equalization, aeration and clarification in timed sequence batch mode - all in a single reactor basin. Also, the cycle time of treatment of batches can be optimized to suit variations in organic loads. Aerobic phase and controlled anoxic phase are used to reduce organic, nitrogen and phosphorus compounds.

Standard Capacities

- 10, 20, 30, 50, 100, 150, 200, 250, 300, 350, 400, 500 KLD
- Customized higher capacities available

Salient Features

- Novel decanting mechanism developed by Thermax
- Compact, easy to operate & scalable
- Nitrogen & Phosphorus removal capability
- Treated Sewage suitable for recycle & reuse



Biofilter

Biofilter is a skid-mounted sewage treatment plant, which combines attached and suspended growth processes.

Standard Capacities

- 10, 20 & 30 m³/day

Salient Features

- Perfect for basement installations, where height is less than 3.8 meters
- Suitable for wastewater recycling
- Minimum civil work
- Minimal sludge removal frequency, once in 30 days





Bioenergen

Bioenergen is one of the most advanced and highly efficient organic biodegradable waste processing plants to generate biogas. It is the most favored alternative to treat organic biodegradable waste to generate fuel and the residue nutrients-rich fertilizer.

Standard Capacities

- 250 & 500 kg/day
- Customized capacities available on request

Advantages

- High biogas yield
- High methane content
- Uninterrupted processing without frequent addition of bio-inoculant
- Residue can be used as manure



Terminator

Terminator is an established technology, which removes color from the waste waters. The treated wastewater could be reused further.

Standard Capacities

- 0-1.5, 1.6-2.5, 2.6-5.0, 5.0-10, 10-15, 15-20, 20-25, 25-30, 31-42 m³/hr

Salient Features

- Less space requirements
- Removes 100% color
- Minimal civil works (only foundation)
- Standardized, hence faster delivery & installation
- Low power requirement & capital investment
- Specially designed for textile industries





Incinerator

Thermax offers Destromat Pyrolytic Incinerators specifically designed to treat hazardous solid waste. Incinerators are designed to achieve the desired Destruction & Removal Efficiency (DRE) along with emission norms laid down by the Central Pollution Control Board.

Unique features

- Multi-chamber design
- Tested & certified by Central Pollution Control Board(CPCB)
- Technical registration with DGS&D
- Adequate instrumentation for safety & control

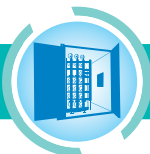


Technical Specifications

Type of Waste	Incinerator Burning Capacity(Kg/hr)							
	PGVS30	PGVS40	PGVS50	PGVS75	PGVS100	PGVS200	PGVS300	PGVS400
0	8	12	16	35	50	70	110	125
I	11	17	22	45	70	100	135	170
II	16	25	35	65	85	135	185	230
III	14	23	32	55	65	110	170	250
IV	12	17	22	35	50	55	80	110

Options Available

- Heat recovery system & Auto feeding mechanism version for the above range are also available
- Higher capacity units, in the range of 300-1500 kg/Hr
- VS-with venture scrubber



Rice Mill ETP

Thermax has developed highly efficient Effluent Treatment Plants to treat wastewater from Rice Mills.

Standard Capacities

- 25 KLD & above

Salient Features

- Minimum maintenance
- Low Chemical & Power Consumption
- Modular Design; Faster Delivery





THERMAX

Sustainable Solutions in
Energy & Environment

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Thermax Business Portfolio

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



This brochure presents only some of our products and we reserve the right to amend any product details without notice. The photographs used in the brochure are indicative and may not match the actual plant.

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