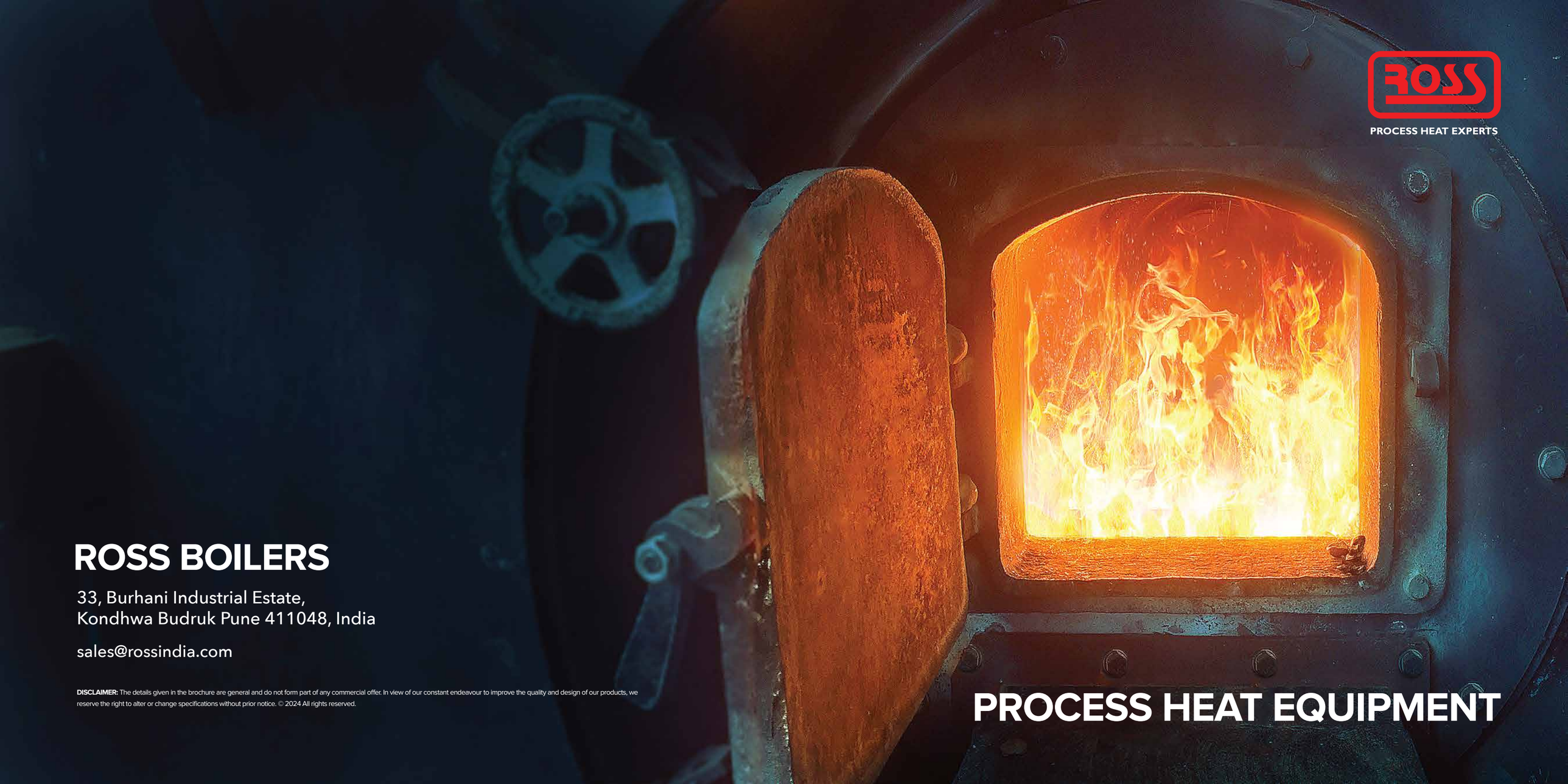


PROCESS HEAT EXPERTS

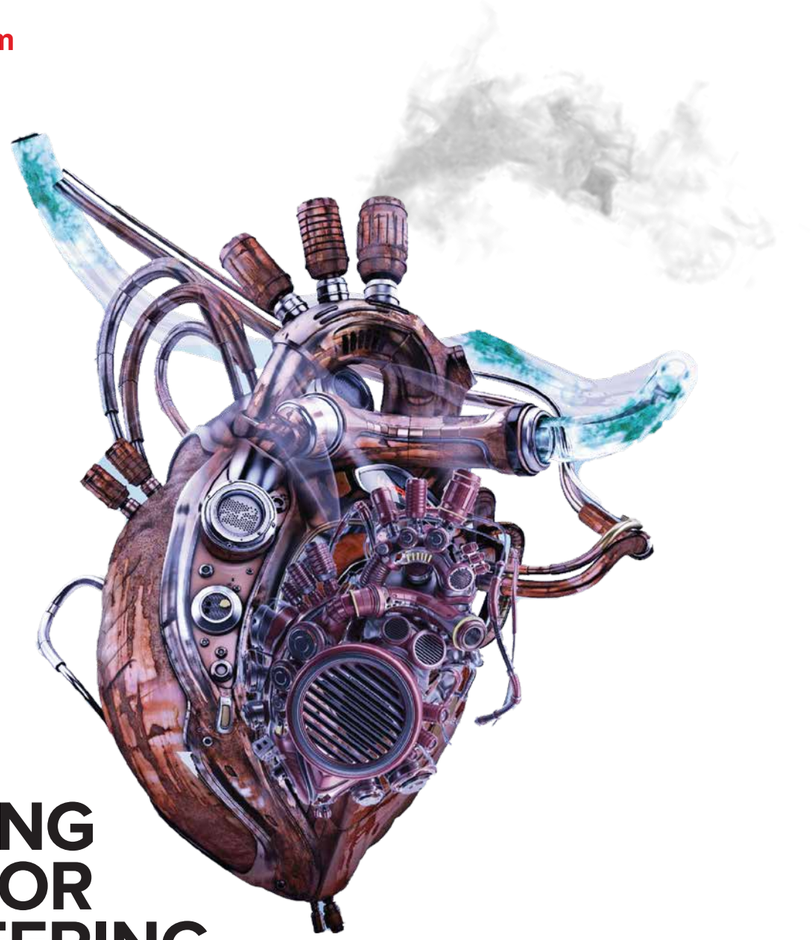
ROSS BOILERS

33, Burhani Industrial Estate,
Kondhwa Budruk Pune 411048, India

sales@rossindia.com

PROCESS HEAT EQUIPMENT

www.rossindia.com



CRAFTING SUPERIOR ENGINEERING SOLUTIONS

IBR Certified

ISO 9001:2015

Introduction

For more than three decades, we have dedicated ourselves to the production of top-tier heating equipment. Our primary goal is to provide meticulously engineered products and systems tailored to meet the specific requirements of our valued clients. Customer satisfaction stands as the cornerstone of our business philosophy. Our reputation is outstanding, reflecting the exceptional quality of our product range and the excellence of our after-sales service.

In the dairy industry, we were pioneers in developing shell-type hot water generators for milk pasteurization. Our product portfolio has since expanded to encompass a wide range of offerings, including industrial steam boilers, thermic fluid heaters, hot air generators, waste heat recovery units, water treatment plants, and a variety of boiler room accessories.

EXPORTS TO
MORE THAN **50** COUNTRIES
ACROSS **5** CONTINENTS

CORE VALUES

We Believe That Any Business Conduct
Can Be Ethical Only When It Rests On
The Core Values Of

Innovation, Leadership, Passion, Teamwork & Commitment

LEADERS IN INNOVATION
Innovative authentic & futuristic approach

TECHNOLOGICAL PROWESS
In Various Heating Equipment Technologies & Processes

EXCELLENT CUSTOMER SERVICE
Exceptional Customer Service: Going Above and Beyond

QUALITY CONTROL
Stringent Quality Checks At Every Step

WELL KNOWN BRAND
In Domestic As-well-as International Market

CUSTOMER CENTRIC
Elicit customers process related needs to give appropriate product proposals

ONE STOP SOLUTIONS
All boiler house equipment under one roof

Contents

1 RSW
Shell Type 3 Pass Steam Boilers, Solid Fuel Fired

The RSW series is a horizontal shell type integral furnace, flue tube, solid fuel fired steam boiler. Units are designed as per Indian Boiler Regulations. It can be built to fire various fuels, such as coal, lignite agrowaste & bagasse pellets. Models can be manufactured to fire rice husk & saw dust in automatic firing modes.

The advantages of the RSW series units are:

- Minimum space required due to compact design
- Packaged boiler, hence faster commissioning
- Very easy to operate & maintain
- Low power consumption
- Hinged doors for easy inspection & maintenance of boiler

Model	Capacity (kg/hr)
RSW 1000	1000
RSW 1500	1500
RSW 2000	2000
RSW 3000	3000
RSW 4000	4000
RSW 5000	5000
RSW 6000	6000

2 RSW
Shell Type 2 Pass Steam Boilers, Solid Fuel Fired

Steam boilers in the output range of 300 to 600 kq/hr are manufactured in two- pass smoke-tube, dry back compact shell type configuration and designed in conformity with SIB/Class 1 IBR codes.

The salient features are

- Compact design
- Hinged doors for easy access & maintenance
- Packaged unit ensures fast installation and startup

Model	Capacity (kg/hr)
RSW 300	300
RSW 400	400
RSW 500	500
RSW 600	600

3 RM
Membrane Walled, Shell Type Steam Boilers

The RM Series of steam boilers are smoke cum water tube steam boilers. They are compact in design, and are assembled at site. They are manufactured as per Indian Boiler Regulations.

The salient features are

- Very high thermal efficiency due to high combustion chamber volume
- Minimum radiation losses & minimum air leakage due to membrane water wall panelled radiant furnace
- Very large water holding and steam space
- Automatic operation for consistent & uninterrupted steaming

Model	Capacity (TPH)
RM 04	4
RM 05	5
RM 06	6
RM 08	8
RM 10	10
RM 15	15
RM 20	20
RM 25	25

4 RS
Shell Type Steam Boilers Oil/gas Fired

RS Series are shell type conventional 3 pass flue tube steam boilers. It can be operated on various fuels such as Light oil, LPG, CNG, Biogas & Heavy Oil .

The salient features are

- Rugged and reliable construction
- Higher radiation and convection heat transfer areas
- Large combustion volume, hence high safety and higher efficiency
- Packaged unit, which is fast & easy to install

Model	Capacity (TPH)
RS 01	1.0
RS 1.5	1.5
RS 02	2.0
RS 2.5	2.5
RS 03	3.0
RS 04	4.0
RS 05	5.0
RS 06	6.0
RS 08	8.0
RS 10	10
RS 12	12

5 RSR
Shell Type Reverse Flue Steam Boilers Oil/gas Fired

RSR series of steam boilers are compact, 3-pass, reverse flue shell type boilers, compliant with IBR regulations. These boilers are fitted with monobloc type European burners.

The salient features are

- Compact design, occupies less floor space
- Hinged doors for quick and easy access to furnace & smoke tubes
- Fully automatic operation with field proven controls & safeties

Model	Capacity (kg/hr)
RSR 100	100
RSR 200	200
RSR 300	300
RSR 400	400
RSR 500	500
RSR 600	600
RSR 800	800
RSR 1000	1000
RSR 1200	1200
RSR 1500	1500
RSR 2000	2000
RSR 2500	2500

6 RSB
Coil Type Steam Boilers

The RSB series is a versatile reverse flue, three-pass water tube steam boiler offering rapid steam generation within 4 minutes from a cold start.

The salient features are

- Single coil for easy maintenance
- Larger pipes for improved efficiency, and instant steam production
- Compact designs in vertical and horizontal configurations

Model	Capacity (kg/hr)
RSB 100	100
RSB 200	200
RSB 300	300
RSB 400	400
RSB 600	600
RSB 800	800
RSB 1000	1000
RSB 1200	1200
RSB 1500	1500

7 RSBE
Electric Steam Boilers

ROSS electric steam boilers are fully automatic units, which provide safe & convenient steam for industrial & commercial applications. Custom built units are manufactured as per customers specific requirements

The salient features are

- Space saving designs
- Fully automatic operation
- Clean & quiet operation

Model	Capacity (kg/hr)
RSBE 20	30
RSBE 35	55
RSBE 50	78
RSBE 65	100
RSBE 130	200
RSBE 165	250
RSBE 200	300
RSBE 260	400
RSBE 320	500
RSBE 390	600
RSBE 450	700
RSBE 520	800
RSBE 650	1000
RSBE 780	1200
RSBE 975	1500
RSBE 1300	2000

8 ALFA
Oil/Gas Fired Thermic Fluid Heaters

ALFA thermic fluid heaters offer high-performance process heating at low operating pressure. They use thermal oil as the heat carrier, reaching 300°C without the need for high pressures like water and steam. These heaters are thermodynamically optimized for efficiency and heat transfer, with generously sized combustion chambers for clean burning and low emissions. They feature a large heating surface area, a hinged front door for easy maintenance, and rugged construction, ensuring maximum reliability.

Model	Capacity (kcals/hr)
ALFA 100	1,00,000
ALFA 200	2,00,000
ALFA 300	3,00,000
ALFA 400	4,00,000
ALFA 600	6,00,000
ALFA 800	8,00,000
ALFA 1000	10,00,000
ALFA 1500	15,00,000
ALFA 2000	20,00,000
ALFA 2500	25,00,000
ALFA 3000	30,00,000
ALFA 3500	35,00,000
ALFA 4000	40,00,000

9 RTH
Vertical Thermal Oil Heaters

The RTH series consists of compact, vertical thermal oil heaters for high-temperature, closed-loop applications using stable synthetic or mineral-based thermal oils in the temperature range of 10 to 300°C. They operate at a low pressure of 3-4 kg/cm^2 and are equipped with efficient indigenous pre-heated air burners.

These heaters are user-friendly, featuring standardized components and various options to meet specific process requirements. Smaller capacity units (100 to 300 × 1000 kcal/hr) use light fuel oil and single-stage burners for ease of maintenance, while larger units offer a choice of light or heavy fuel oil. They come fully assembled and tested, ready for quick plant start-up.

Model	Capacity (kcals/hr)
RTH 100	1,00,000
RTH 200	2,00,000
RTH 300	3,00,000
RTH 400	4,00,000
RTH 600	6,00,000
RTH 800	8,00,000
RTH 1000	10,00,000
RTH 1500	15,00,000

10 DELTA
Solid Fuel Fired Thermic Fluid Heaters

Our DELTA series of thermal oil heaters provide a cost-effective heating solution for industries that require high-temperature heat, particularly when they have access to agro-waste or solid fuels.

The smaller DELTA modelsare characterized by a compact vertical design with a 3-pass configuration. They come equipped with an integral furnace and grate bars, allowing for manual firing of agro-waste fuels.

For larger heating needs with enhanced efficiency, we offer 4-pass designs with capacities exceeding 400,000 kcal/hr. These designs feature a radiant section positioned above the furnace and a convection section connected through a refractory-lined flue duct. This arrangement significantly improves overall efficiency and heat transfer.

Model	Capacity (kcals/hr)
DELTA 100	1,00,000
DELTA 200	2,00,000
DELTA 300	3,00,000
DELTA 400	4,00,000
DELTA 600	6,00,000
DELTA 800	8,00,000
DELTA 1000	10,00,000
DELTA 1500	15,00,000
DELTA 2000	20,00,000
DELTA 2500	25,00,000
DELTA 3000	30,00,000
DELTA 3500	35,00,000
DELTA 4000	40,00,000

11 RTHE
Electric Operated Thermic Fluid Heaters

ROSS electric thermic fluid heaters are made with top-notch heating elements, ensuring safety and durability in a modern facility. They provide clean energy without emissions, making them suitable for challenging environments, including hazardous areas. Higher surface areas are provided to keep thermic fluid flim temperatures low, which protects the thermic fluid from carbonizing.

Depending on the overall dimensions, complete systems can be skid mounted on a base frame, this ensures faster installation and startup.

Model	Capacity (Kcals/hr)
RTHE 24	20,000
RTHE 30	25,000
RTHE 60	50,000
RTHE 90	75,000
RTHE 120	1,00,000
RTHE 180	1,50,000
RTHE 240	2,00,000
RTHE 300	2,50,000
RTHE 360	3,00,000
RTHE 480	4,00,000
RTHE 600	5,00,000
RTHE 720	6,00,000
RTHE 960	8,00,000
RTHE 1200	10,00,000
RTHE 1440	12,00,000
RTHE 1800	15,00,000

12 ASTRA
3 Pass Reverse Flue Shell Type Hot Water Generators

Our ASTRA hot water generator is a rugged, horizontal, three-pass, reverse flue design with a water-cooled furnace and low heat release rate. It can be equipped with a ROSS make burner or compact European monobloc burner, ensuring higher efficiency and fuel savings. Each ASTRA unit undergoes a comprehensive firing test, including electrical component checks and burner adjustments for efficient combustion. Key features include a robust design, hinged doors for easy cleaning and inspection, fully automatic operation, improved efficiency, and straight forward installation and maintenance

Model	Capacity (Kcals/hr)
ASTRA 100	1,00,000
ASTRA 150	1,50,000
ASTRA 200	2,00,000
ASTRA 250	2,50,000
ASTRA 300	3,00,000
ASTRA 400	4,00,000
ASTRA 500	5,00,000
ASTRA 600	6,00,000
ASTRA 800	8,00,000
ASTRA 1000	10,00,000
ASTRA 1500	15,00,000
ASTRA 2000	20,00,000
ASTRA 2500	25,00,000
ASTRA 3000	30,00,000

13 SIGMA
Solid Fuel Fired Hot Water Generators

The Sigma series of horizontal smoke tube hot water generators were developed in response to the increasing cost of liquid fuels, aiming to meet the growing demand for solid fuel-based hot water generators. These units are specifically engineered to accommodate high water flow rates while minimizing pressure drops within the system.

Sigma units are versatile in terms of fuel compatibility, capable of operating on a range of solid fuels, including coal, wood, and agro-waste pellets. Furthermore, they offer options for fluidized bed combustion systems, making them suitable for burning rice husk and sawdust.

These boilers are characterized by their robust construction, ensuring durability and reliability. They are designed to be user-friendly, making them straightforward to operate and maintain.

Model	Capacity (Kcals/hr)
SIGMA 100	1,00,000
SIGMA 150	1,50,000
SIGMA 200	2,00,000
SIGMA 250	2,50,000
SIGMA 300	3,00,000
SIGMA 400	4,00,000
SIGMA 500	5,00,000
SIGMA 600	6,00,000
SIGMA 800	8,00,000
SIGMA 1000	10,00,000
SIGMA 1500	15,00,000
SIGMA 2000	20,00,000
SIGMA 2500	25,00,000
SIGMA 3000	30,00,000

14 VEGA
Solid Fuel Fired Coil Type Hot Water Generators

VEGA series of solid fuel fired hot water generators, can be used upto temperatures of 160Deg C. These generators provide a cost-effective alternative when compared to steam or thermal oil heating systems, particularly for applications that demand lower heating temperatures.

They operate through a closed-loop process where water is recirculated, enhancing efficiency. Furthermore, VEGA hot water generators can be customized to run on a variety of solid fuels, including coal, agrowaste, rice husk, and sawdust.

Model	Capacity (Kcals/hr)
VEGA 100	1,00,000
VEGA 150	1,50,000
VEGA 200	2,00,000
VEGA 300	3,00,000
VEGA 400	4,00,000
VEGA 500	5,00,000
VEGA 600	6,00,000
VEGA 800	8,00,000
VEGA 1000	10,00,000
VEGA 1250	12,50,000
VEGA 1500	15,00,000
VEGA 2000	20,00,000
VEGA 2500	25,00,000
VEGA 3000	30,00,000

15 RHBW
Solid Fuel Fired Hot Water Generators

This hot water generator is of the vertical shell type, specifically engineered for the combustion of solid fuels like wood, coal, and agrowaste. It incorporates a water-walled combustion chamber that effectively captures radiant heat, in addition to a shell and tube heat exchanger.

This unit boasts effortless installation and maintenance, arriving as a comprehensive package complete with a panel box, grate bars, and a water pump.

The salient features are

- Compact footprint, demanding minimal space
- Ample fuel feed door and grate area
- Comes equipped with a forced draft fan for efficient combustion
- Simplified cleaning and maintenance procedures

Model	Capacity (Kcals/hr)
RHBW 30	30,000
RHBW 50	50,000
RHBW 80	80,000
RHBW 100	1,00,000
RHBW 150	1,50,000
RHBW 200	2,00,000
RHBW 250	2,50,000
RHBW 300	3,00,000

16 RHB
Shell Type Vertical Hot Water Generators

The RHB represents a compact vertical shell-type hot water generator, featuring a combustion chamber surrounded by a water jacket, which is further enveloped by an air jacket. Positioned at the bottom is an air blower, which preheats the incoming air before it enters the combustion chamber, thereby enhancing overall efficiency.

Standard models come equipped with a robust ROSS burner for light oil firing, and there are options for gas-fired units as well. Thanks to its shell-type design, this unit is exceptionally well-suited for applications requiring higher water flow rates. Its user-friendly operation and minimal maintenance requirements make it one of the most sought-after designs in the current market.

Model	Capacity (Kcals/hr)
RHB 30	30,000
RHB 50	50,000
RHB 80	80,000
RHB 100	1,00,000
RHB 150	1,50,000
RHB 200	2,00,000

17 SIRIUS
Coil Type Oil/gas Fired Hot Water Generators

The SIRIUS series of hot water generators, capable of utilizing both oil and gas as fuel sources, are suitable for operating at temperatures of up to 160 degrees Celsius. These generators offer a cost-effective solution, especially when compared to steam or thermal oil heating systems, particularly for applications that require lower heating temperatures.

They function through a closed-loop process, where water is continuously recirculated, resulting in enhanced efficiency. In terms of burner options, the SIRIUS series is available with either rugged ROSS burners or European burners, catering to the specific preferences of customers. Furthermore, these generators are manufactured in both vertical and horizontal configurations to suit various installation requirements.

Model	Capacity (Kcals/hr)
SIRIUS 100	1,00,000
SIRIUS 200	2,00,000
SIRIUS 300	3,00,000
SIRIUS 400	4,00,000
SIRIUS 500	5,00,000
SIRIUS 600	6,00,000
SIRIUS 800	8,00,000
SIRIUS 1000	10,00,000
SIRIUS 1200	12,00,000
SIRIUS 1500	15,00,000
SIRIUS 2000	20,00,000
SIRIUS 2500	25,00,000
SIRIUS 3000	30,00,000
SIRIUS 3500	35,00,000
SIRIUS 4000	40,00,000

18 RHBE
Electrical Hot Water Generators

The RHBE series of electric hot water generators offer cost-effective solutions for meeting hot water needs in commercial and industrial settings. Their installation is swift and uncomplicated, as they don't necessitate a separate boiler house or chimney. These units eliminate the need for storing and handling fuel and employ low watt density heaters to prolong their operational lifespan. They excel in thermal efficiency, demand minimal maintenance, and can be easily placed near the point where hot water is needed. Notably, these generators are environmentally conscious, having undergone factory testing and being compact in size, requiring less floor space compared to their oil or gas-fired counterparts. Key benefits encompass superior efficiency, minimal maintenance requirements, quiet and clean operation, and environmentally friendly, pollution-free performance.

Model	Capacity (Kcals/hr)
RHBE 30	25,000
RHBE 50	40,000
RHBE 60	50,000
RHBE 90	75,000
RHBE 120	1,00,000
RHBE 150	1,25,000
RHBE 200	1,60,000
RHBE 250	2,00,000
RHBE 300	2,50,000
RHBE 360	3,00,000
RHBE 480	4,00,000
RHBE 600	5,00,000
RHBE 720	6,00,000
RHBE 960	8,00,000
RHBE 1200	10,00,000
RHBE 1440	12,00,000
RHBE 1780	15,00,000

19 RTS
Thermal Oil Heated Steam Boilers

The RTS steam boilers are tailor-made to effectively utilize excess heating capacity generated by thermal oil heaters, thereby offering additional steam production capacity for industrial plants. These boilers are characterized by their quiet operation, stationary design, and minimal maintenance requirements. They conform to SIB (Small Industrial Boiler) or Class 1 IBR (Indian Boiler Regulation) steam boiler standards.

Each RTS steam boiler is furnished with essential components, including feed water pumps, thermal oil pneumatic valves, and control systems. Their spacious shell design ensures the consistent generation of dry steam. Moreover, these boilers are delivered in a fully assembled packaged form, simplifying installation and operational procedures while eliminating the complexities associated with fuel combustion.

20 RAH
Oil/gas Fired Hot Air Generators

The RAH series of hot air generators are available in both vertical and horizontal configurations, with options for standard or custom-made models to precisely suit customers' specific needs and applications. These systems come in both DIRECT and INDIRECT heating variants, offering exceptional reliability and low maintenance requirements.

The salient features are

- Robust and long-lasting construction
- Simple operation with minimal maintenance demands
- A high degree of operational safety, ensuring greater reliability
- Comprehensive automation for burner control and temperature regulation guaranteeing seamless operation

21 RAHW
Solid Fuel Fired Hot Air Generators

The RAHW series of hot air generators are exclusively available in horizontal designs, customizable to meet specific customer requirements and applications. These systems are engineered in both DIRECT and INDIRECT heating configurations, renowned for their minimal maintenance needs and exceptional efficiency. For applications demanding elevated temperatures, units can be manufactured using stainless steel.

The salient features are

- Sturdy and long-lasting construction
- User-friendly operation with minimal maintenance requirements
- Exceptional operational safety, ensuring heightened reliability

22 OILOTHERM
Edible Oil Heaters

Food processing machinery in the "Fryer" category often requires the heating of edible oil to high temperatures. Traditionally, this is accomplished by using a combination of thermal oil heaters and heat exchangers. However, an alternative and cost-effective approach involves the use of fully automated re-circulation type direct edible oil heaters, which are equipped with oil or gas firing burners.

These custom-built heaters are crafted using food-grade quality stainless steel materials, pumps, and other essential components. They offer several advantages, including higher thermal efficiency, improved utilization of cooking oil, and freedom from thermal oil contamination, making them an attractive choice for food processing applications.

The salient features are

- Low heat release rate
- Availability of models for oil, gas, or solid fuel firing
- Ease of operation and maintenance
- Robust construction for durability and reliability

23 REVERSE OSMOSIS PLANTS
Water Treatment Plants

Our VODA Series reverse osmosis plant is meticulously crafted, offering a specialized, compact, and user-friendly solution for water purification. This RO plant is comprehensively equipped with essential components, including a raw water pump, filter, high-pressure water pump, membranes, doser, and a fully automatic control panel, ensuring the production of perfectly treated water.

Furthermore, the compact size of the VODA Series RO plant makes it ideal for installation in spaces with limited room. This RO system is capable of effectively reducing Total Dissolved Solids (TDS) by 90 to 95%, resulting in high-quality purified water. For added convenience, an optional remote monitoring system can be integrated to enable remote supervision of the plant's operation.

Its skid-mounted design ensures rapid and hassle-free installation. With a focus on energy efficiency, it boasts low power consumption. Moreover, its compact footprint makes efficient use of floor space.

1 Dust Collectors

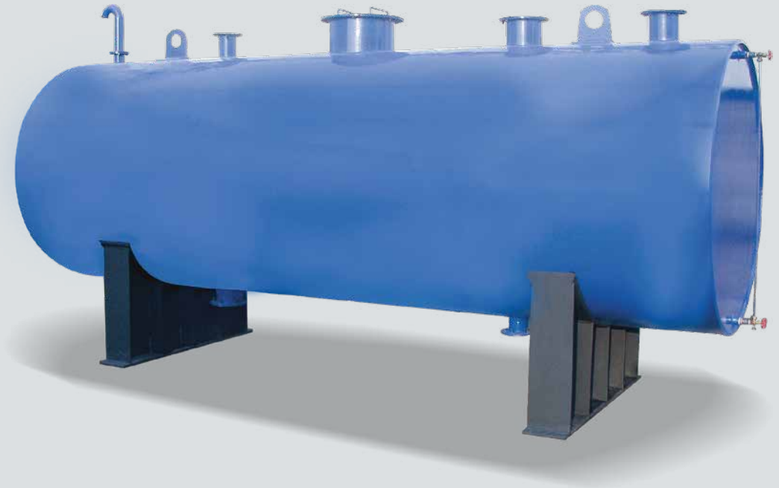
2 Air & Water Pre Heaters

3 Bag Filters

4 Steam Pressure
Reducing Stations

5 Radiators

6 Fuel & Water Tanks



7 Calorifiers

8 Deaerator & Expansion Tanks

9 Fuel Oil Ringmain Systems & Oph Systems