

THERMO

Engineering Works

WELCOME TO THERMO ENGINEERING WORKS

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ABOUT US

Established in 1991 by Mr. Redrouthu Ramesh Babu with the vision of providing the quality product and support, having worked with THERMAX GLOBAL his experience has turned the company around, under the astute leadership of our proprietor the company moved into bigger orbit. The journey from service contracts to manufacturing boilers.

We at THERMO ENGINEERING WORKS are determined in providing the best of the product lineup which we have to offer. The company major products include IBR steam boilers, NON IBR steam boilers, Thermic Fluid heaters, Hot water generators, Hot air generators, GMP & NON GMP tray dryers & Oil circulation systems. The major goal of the company is to provide quality products without any compromises yet affordable which is a win-win for the industries. The company is committed to provide what is promised and prompt service for every product sold which made us last for 3 decades with strong customer base. We have more than 1000 installations across globe ranging from steam boilers to 30 lac kcal/hr thermic fluid heaters.



With the company's moto of protecting environment, the systems, products and services developed by THERMO helps industries achieve better resource productivity and improve bottom line while maintaining a cleaner environment.

The company's factory is located in Hyderabad which is spread across 2400 sq feet of working floor with all types of required equipments such as

- ✓ 10 ton cranes - 3 nos
- ✓ Drilling Machine - 1 nos
- ✓ Sheet bending machine - 2 nos
- ✓ Coil bending machine - 3 nos
- ✓ Arc welding machines - 6 nos
- ✓ Mig welding machines - 2 nos
- ✓ Tig welding machines - 2 nos



We have a prompt & experienced service team which can help in solving problems and providing service when needed. Our service and timely response has earned us the reliable status which we are proud of. The company is providing annual maintenance contracts to more than 20 companies.

We at THERMO ENGINEERING WORKS have a very deep respect on our employees who are working. Some of our employees are accompanying in our journey right from the beginning which tells the respect which we have towards human lives and human dignity.

We believe that being true to ourselves in our personal and professional dealings and doing always right at all the times.

NON IBR STEAM BOILERS :

Any boiler which is not covered under the preview of IBR code and the water holding capacity of such pressure vessel is less than 25 litres.

Thermo offers coil type steam boilers from the range 50 kg/hr to 850 kg/hr. These units can produce steam almost instantly. Designed by our inhouse team these boilers can be used in various processes. These coil type boilers are portable, easy, safe and designed to work on different types of fuels such as HSD, LDO, FO & GAS.

“THERMO” has supplied more than 250+ units till date.

“THERMO” offers single coil reverse flu design with economiser and can also offer double coil without economiser depending on customer requirement.

PRODUCT FEATURES

- ✓ Instant steam generation
- ✓ Fully automatic
- ✓ Different fuel options
- ✓ Requires less place
- ✓ Skid mounted
- ✓ Safety features
- ✓ Excellent Efficiency (+/- 88) based on NCV
- ✓ Heat recovery system
- ✓ Easy maintenance
- ✓ Dose not come under IBR preview



HOT WATER GENERATORS:

“THERMO” offers hot water generators in which liquid is used as a heating medium, temperatures as high as 150 deg C can be achieved while still keeping water in liquid state. This is achieved by pressurising the water and heating it so that the water does not boil to steam.

The complete design of the heater is designed as per India standards mentioned in

PRODUCT FEATURES:

- ✓ Water as heating medium
- ✓ Lower operating and maintenance cost
- ✓ Ideal for pharma, steel, dairy industries.
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- ✓ Available in vertical and horizontal variants.
- ✓ Compact and easy to use

IBR STEAM BOILERS

IBR also known as Indian Boiler Regulation

“THERMO” is IBR certified Boiler Manufacturer and offers high standard steam boilers of various types.

PRODUCTS:

- ✓ THERMO-OILPAC
- ✓ THERMO-FIREPAC
- ✓ THERMP-HUSKPAC
- ✓ THERMO-WATERTUBE

THERMO-OILPAC :

This 3-pass wet back design is developed by our inhouse team ensures maximum heat transfer area and to reduce the waste heat leaving the system. Comes with mono block or dual block burners imported from Italy.

This wet back design also ensures to reduce the fuel cost by at least 20%. The liberally sized furnace which is designed by taking radiation & convention into account helps in higher volume of fuel to burn ensuring higher efficiency and lower exit temperatures.

The burners used in the THERMO-OILPAC boilers are of REILLO or ECOFLAME make which are of high quality and international make. These burners are made in accordance with international standards.



THERMO-FIREPAC :

This type of boiler can be supplied in 2-pass & 3-pass design depending on customer requirements

The 2-pass design of fire Pac is a smoke tube boiler in which the flu gas is passed through tubes and water is surrounded around the tubes inside the drum, which will allow the heat to transfer from tubes to water which turns into steam.

The boiler has a furnace along the length of the boiler which opens to the front and rear tube sheets, boiler ERW tubes are fitted in between this tube sheet which opens to the smoke box, these smoke box at the rear end is used to guide the flu gas to 2nd pass, and the smokebox at front end is used to guide the flu gas to chimney inlet.

PRODUCTS:

- ✓ Low stack temperature at boiler outlet
- ✓ Electrically driven water pumps
- ✓ Integral flu furnace
- ✓ Skid mounted
- ✓ Low-cost heating
- ✓ Higher Heat transfer rate

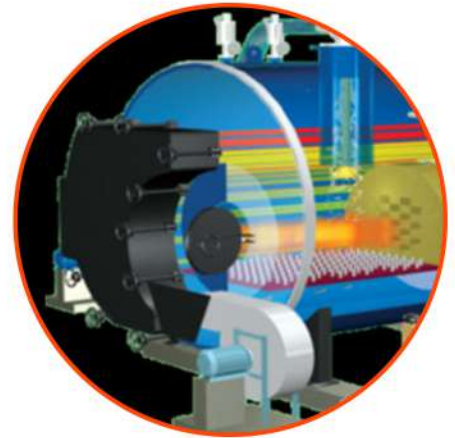


THERMO-HUSKPAC

This next generation huckpac is fitted with bubbling bed combustion gives higher residence time to complete combustion and giving higher efficiency. Turbulent mixing of air and fuel reduces the ash formation and settlement.

The complete unit is designed in accordance with latest IBR standards, pressure parts are calculated with various trail and error to choose exact dimensions. These designed pressure parts are then validated with FEM (Finite Element Analysis).

The complete final design is Simulated in 3D AutoCAD software for perfect fittings and to find any errors.



FEATURES:

- ✓ Low-cost heating
- ✓ Rice Husk fuel firing
- ✓ Bubble bed design for higher combustion efficiency
- ✓ Design pressure ranges (10.54 kg/cm² & 17.5 kg/cm²)

THERMO-WATERTUBE :

This is a hybrid water and smoke tube design made in accordance with IBR standards. The furnace is designed based on the principle of FBC (Fluidised Bed Combustion) in which the air is made to flow by FD fan over the bed with the help of various nozzles places on the bed.

The water wall is used to circulate water through the tubes to achieve water circulation, this water wall is placed above the furnace chamber where the FBC combustion takes place. The heat transfer takes place in water wall through radiation between flu gases and water wall, conduction through tube thickness and convection between tube and water inside making it raise its temperature.

The steam drum or shell assembly is places after the water wall which is a single pass design.



HOT AIR GENERATORS:

“THERMO” makes hot air generators as per customer needs. These hot air generators can be customer designed as per customers scope and where they want to use it.

The system can be designed by electrical heating where the electrical heaters are placed inside the chamber over which the air is passed which allows the air to heat.

Where as in other applications the hot flu gas which is generated can be made to pass over the heat exchanger in which the heat transfer takes place to generate hot air.

THERMO has an in-house design team who can design the system based on the customer needs.



THERMIC FLUID HEATERS

Thermopac Boilers are majorly used in pharma industries where heat is required without pressure. Heat transfer medium used in these heaters is called THERMIC FLUID OIL or SYNTHETIC THERMIC FLUID OIL. These fluids are heated in the heater and transferred to the desired location for heat transfer and the entire system is a closed circulation system.

The complete design of the heater is designed as per India standards mentioned in

IS 13306 : 1992 (INDIAN STANDARD OIL AND GAS FIRED THERMIC FLUID HEATERS – METHOD OF CALCULATION OF FILM TEMPERATURE)



“THERMO” Offers

- ✓ 3-PASS THERMOPAC
- ✓ 4-PASS THERMOPAC
- ✓ VERTICAL THERMOPAC

3-PASS THERMOPAC

This is designed to fit every industry according to its needs, skid mounted and easily moveable.

FEATURES:

- ✓ Completely automatic
- ✓ Desired temperature of the thermic fluid can be set
- ✓ Closed unit with continuous flow of thermic fluid oil for overall continuous heating.
- ✓ Can achieve high temperatures up to 280 deg C & 300 deg C (optional).
- ✓ Efficiency of up to 87% as per BS 845 part 1 (NCV BASIS)
- ✓ Complete all types of safeties are enclosed.

4-PASS THERMOPAC

This design is usually used in wood as fuel firing, achieving higher efficiency due to the robust 4 pass design in which the flu gas generated in furnace passes through the convective coil, radiant coil, air preheater.

Product ranges from 4,00,000 kcal/hr to 30,00,000 kcal/hr

This design ensures that the maximum heat is being transferred without losing the waste heat to stack.

SOME UNIQUE FEATURES:

- ✓ APH (Air Pre-Heater): This is used to heat the atmosphere air entering the furnace. The atmosphere air is first passes through the APH in which the heat is transferred from flu gases to air allowing it to increase the inlet temperature of air. This ensures in increasing the efficiency in combustion in turn increases the efficiency of overall heater by reducing the cost of burning solid fuel.
- ✓ MDC (Multiple Cyclone Dust Collector): This is used in collecting the dust and sediments produced in combustion of fuel.

PRODUCT FEATURES:

- ✓ Higher efficiency
- ✓ Wide range for capacities available
- ✓ Operating temperature: 280 deg C/300 deg C (optional)
- ✓ Wide range of fuels can be used (coal, petcock, saw dust etc)
- ✓ Safeties and controls

PRODUCT GALLERY



OUR VALUABLE CLIENTS



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