# THERM TECH ENGINEERING CO.



Fact: Plot no. 48, Sector-57, Phase –IV, HSIIDC, Kundli, Dist.- Sonepat, Haryana

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## **Therm Tech Steam Generator**

The high efficiency Non-IBR Boiler, in four pass design, giving upto 850kgs/hr of steam using Reverse Flame Technology, suitable for a working pressure of 15 kg/cm2.

#### DESIGN AND CONSTRUCTION

The internal combustion chamber is used to accommodate helical tube coil, Which is placed in a concentric shell of mild steel construction. Aluminum reflector is fitted inside of outer shell, so that outer shell is not heated. This type of design helps in economizing the space and simultaneously ensures optimum rate of heat release. Due to elimination of extensive use of refractory, it permits rapid start up and operational and maintenance flexibility.

#### **BURNER AND FUEL SYSTEM**

A fuel atomizing pressure-jet burner is placed vertically downward in the combustion. Near the tip of burner air is swirled through diffuser plate and mixes with atomized fuel which achieve total combustion in the furnace.

#### INSTRUMENTATION AND CONTROL

Therm Tech Steam Generator is fully automatic Steam Generator. The unattended operation is possible only due to reliable instrumentation system incorporated. This includes total safely interlocks and alarms mounted on control panel box.

Each Therm Tech is rigidly tested before delivery and it is commissioned by our trained engineers. Therm Tech has an efficient, attentive AFTER-SARVICE including routine servicing and supply of spare parts.



Therm Tech Steam Generator Reverse Flame, Single Coil Gas/Diesel Fired

## Why choose us?

- Our industrial heaters promise high performances and are built using the latest technology.
- ❖ All our products are designed keeping in mind the customer's needs.
- Our heating units are built for high durability, less noise, maximum efficiency, and reliability.
- Our expert team strictly follows the total quality management.

### **DESIGN AND CONSTRUCTION**

The internal combustion chamber is used to accommodate concentric helical tube coil, Which is placed in a single insulated shell of mild steel construction. This type of design helps in economizing the space and simultaneously ensures optimum rate of heat release. Due to elimination of extensive use of refractory, it permits rapid start up and operational and maintenance flexibility.

#### **INSTRUMENTATION AND CONTROL**

Therm Tech is fully automatic thermic fluid heater. The unattended operation is possible only due to reliable instrumentation system incorporated. This includes total safely interlocks and alarms mounted on control panel box.

Each Therm Tech is rigidly tested before delivery and it is commissioned by our trained engineers. Therm Tech limited has an efficient, attentive AFTER-SARVICE including routine servicing and supply of spare parts.



Therm Tech Steam Generator Double Coil Gas/Diesel Fired

# **Advantages of Therm Tech Steam Generator**

- Maximum steam generation with less fuel utilization.
- •Occupies less space and is lightweight.
- •It is Non IBR.
- High Operation Efficiency.
- •High Performance
- Capable of quick starting and loading.
- •Low Operational and Maintenance cost.

# **Applications of Therm Tech Steam Generator**

- Rotogravure Printing
- Lamination & Adhesive Tapes
- Pharmaceuticals
- Space Heating
- Food Industries
- Pulse & Cereals

- Drying Chamber/Tumbler
- Plastics
- Corrugation Boxes
- Tobacco Drying
- Automotive

### **Electric Control Panel**

A fully dust proof control panel houses all the relays and controls required for the safe operation of the unit and its auxiliaries. Star Delta switchover wherever necessary is automatic through a timer. Full overloaded protection ensures that motors do not gets overheated. All motor winding wiring and other components conform to specification laid down by the Indian Bureau of standards.

### **Gas Burner**

Therm Tech Thermic Fluid Heater are fitted with a complete gas burning system comprising a pressure jet burner, a F.D fan, gas prob and spark ignition. Also necessary accessories like gas train, filters, low pressure PRV, pressure gage, etc are provided.

### **Oil Burner**

Therm Tech Thermic Fluid Heater are fitted with a complete fuel oil burning system comprising a gear pump, a pressure jet burner, a F.D fan and spark ignition. Also necessary accessories like filters, non-return valve, etc are provided. The oil burning system is adaptable to a wide range of oil fuels such as LDO, HSD, furnace oil and LSHS with minor changes in the basic system.

# Salient Features of Therm Tech Steam Generator

- Reversing of flame offers high resistance time and turbulance of furnace gases, ensuring maximum heat transfer.
- The four pass design with an integral atmospheric economiser and heat optimiser gives high operating thermal efficiency 88% on NCV of oil.
- Vertical packaged design reduces on site erection time and site work.
- Large diameter tube, single coil configuration reduces chances of choking of tubes to a big extent, offering reduced down time.
- Easy conversion to different fuel oils.
- High combustion efficiency because of Pressure Jet burner offering quick and uniform atomization.

### **After-sales Service**

A fully trained and competent team of service engineers is available for quick servicing whenever necessary. Our Office are equipped with essential instruments, tools and spares required for wide variety of maintenance and repair.

Our constant endeavor is to improve the design as a consequence of which the specifications are subject to change without notice. Illustrations are representative only and subject to modifications.

Therm Tech Steam Generator											
Model	Unit	SG-100	SG-200	SG-300	SG-400	SG-500	SG-600	SG-850			
		Operating Parameters									
Steam Output F&A 100C	kg/hr	100	200	300	400	500	600	850			
Steam Pressure	kg/cm2g	15									
Diesel	kg/hr	6	12	18	24	30	36	51			
Gas PNG	Kg/hr	7.2	14.4	21.6	28.8	36	43.2	61.2			
Gas LPG	Kg/hr	5.35	10.7	16.15	21.4	26.75	32.1	45.5			
Efficiency NCV	%	88 ± 2									
Burner Control		ON/OFF									
Pressure parts		Outside the preview of Indian Boiler Regulation									
Electric supply		AC 3 Phase; 415V ± 6%; 50Hz ± 3%; 4 wire									
Feed water pump motors	HP	1	1	1	1	1	1	1			
Blower motor	HP	1	1	2	2	3	3	5			
Fuel pump motor	HP		0.5	0.5	0.5	0.5	0.5	1			

Therm Tech Steam Generator										
Model	Unit	SG-100	SG-200	SG-300	SG-400					
	Operating Parameters									
Steam Output F&A 100C	kg/hr	100	200	300	400					
Steam Pressure	kg/cm2g	15								
Diesel	Kg/hr	5.75	11.5	17.25	23					
Gas PNG	Kg/hr	6.9	13.8	20.72	27.62					
Gas LPG	Kg/hr	5.1	10.2	15.3	20.42					
Efficiency NCV	%	92 ± 2								
Burner Control		ON/OFF								
Pressure parts		Outside the preview of Indian Boiler Regulation								
Electric supply		AC 3 Phase; 415V ± 6%; 50Hz ± 3%; 4 wire								
Feed water pump motors	HP	1	1	1	1					
Burner Motor	HP	0.25	0.25	0.5	0.5					

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Note: We reserve the right to change any specifications without prior notice.