

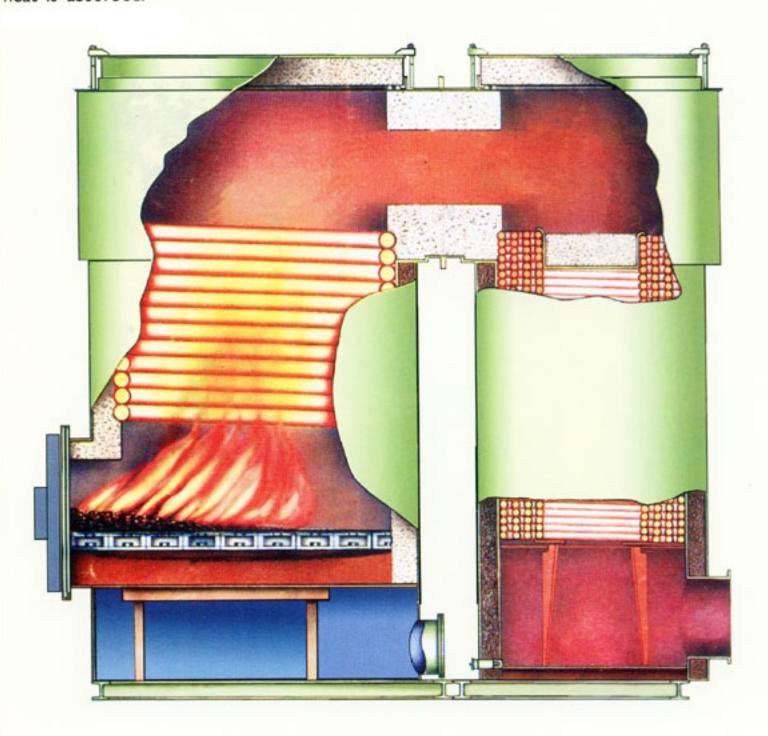
# THERMAL HEATER

- UNIQUE TWIN CHAMBER DESIGN
- HIGH EFFICIENCY
- HIGH RELIABILITY OF OPERATION
- LONG SERVICE LIFE

- ECONOMICAL OPERATION
- EASY MAINTENANCE
- WOOD / COAL FIRING
- SKID MOUNTED DESIGN

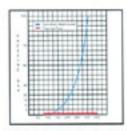
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Thermal Heating System consists of twin units, a radiation chamber and a convective chamber. The fuel burnt on stationery grate produces radiant heat which is absorbed by the radiant coil. The residual heat is then passed on to the convective zone of concentric coils, where maximum heat is absorbed.



This design guarantees a very low contamination as well as easy cleaning of the gas side heating surface. The FD fan & ID Fan provided ensures optimum combustion with low excess-air. Ash cleaning doors are provided for both the chambers. The unit is skid mounted, refractory lined & supplied with ready to use conditions, which reduces the errection time at site.

### **ADVANTAGE**



#### **OPERATION WITHOUT PRESSURE**

A thermal fluid system can function between 100°C and 350°C without any pressure increase.

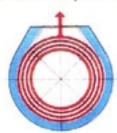
By way of comparison, the use of steam at 320°C requires a pressure greater than 110 bar and far more complex equipment. Thus UNIFIRE low pressure system ensures high efficiency, high safety and low cost.

#### NON-CORROSIVE SYSTEM

The system requires mineral oil as heat transfer media which is non-corrosive and free from any foreign particles. This ensures low maintenance cost and higher reliability.

#### NO EXPLOSION RISKS

offers low thermal inertia, low pressure system and with fully automatic safety trips ensures fully safe operation.



#### TUBE COIL

The radiation and heating surfaces of the heater consists of a tube coil with concentric cylindrical sections of spirally wound sections to form the combustion chamber & Convection Heater.

This tube arrangement guarantees: • Optimal heat Transfer • Low fluid pressure loss • Low heating surface load • Low pump drive power Stress-free mounting of the heating surfaces • Almost no heat loss bridges



#### NO BOILER REGULATION

heater is outside the purview of Indian Boiler regulations and therefore eliminates the need for annual shutdown.

#### EXPANSION CHAMBER CUM DE-AERATOR

Continuous de-aeration of the thermal fluid ensures long fluid life. The combined chamber, which has UNIQUE DESIGN also offers significant protection against oxidation of the thermal fluid.



#### CIRCULATING PUMP

The pump is installed in the return line to ensure that it will be operated upon by the lower return temperature. The pump is provided with pedestal, gland and bearing cooling arrangement.

## SAFETY & CONTROLS

System provides following safety inter lockings.

- Outlet temp High Audio Visual Alarm with ID Fan/FD Fan Trip
- Inlet temp high Audio Visual Alarm
- Expansion Tank level low Audio Visual Alarm with ID Fan/FD Fan Trip
- Fluid Pressure High Spring Loaded Safety Valve
- . Fluid flow low Audio Visual Alarm with ID Fan/FD Fan Trip

Thermal Heaters are available in 8 Standard Models with heat Out put ranging from 50,000 k-cal/h to 2000,000 k-cal/h

MODEL	HEAT OUTPUT (K-Cal/h)
UTH-05	50,000
UTH-10	100,000
UTH-20	200,000
UTH-40	400,000
UTH-60	600,000
UTH-100	1000,000
UTH-150	1500,000
UTH-200	2000,000

Higher Rating Models are available on request.

#### OTHER RANGE OF PRODUCTS

Oil/coal/wood/husk fired Steam Boilers, Oil/gas fired Thermal Heaters, Oil/gas fired Instant Steam Generators, Coal/wood/husk fired Small industrial Boilers, Hot Water Boilers, Air Heaters, Hot Gas Generators, Waste Heat Boilers, Thermal Dryers, Heat exchangers, Space heaters, Tray dryers, Batch & Continuous Dryers, Agro Dryers and Special Custom made process heat products.

## **//**Amba Enterprises

C- 130, Station Plaza Basement, Station Road, Bhandup (W), Mumbai - 400 078 Tel: 022-2566 3569

Fax: 022-2566 3550 Email: ambaenterprises@mtnl.net.in

Website: www.ambaenterprises.net