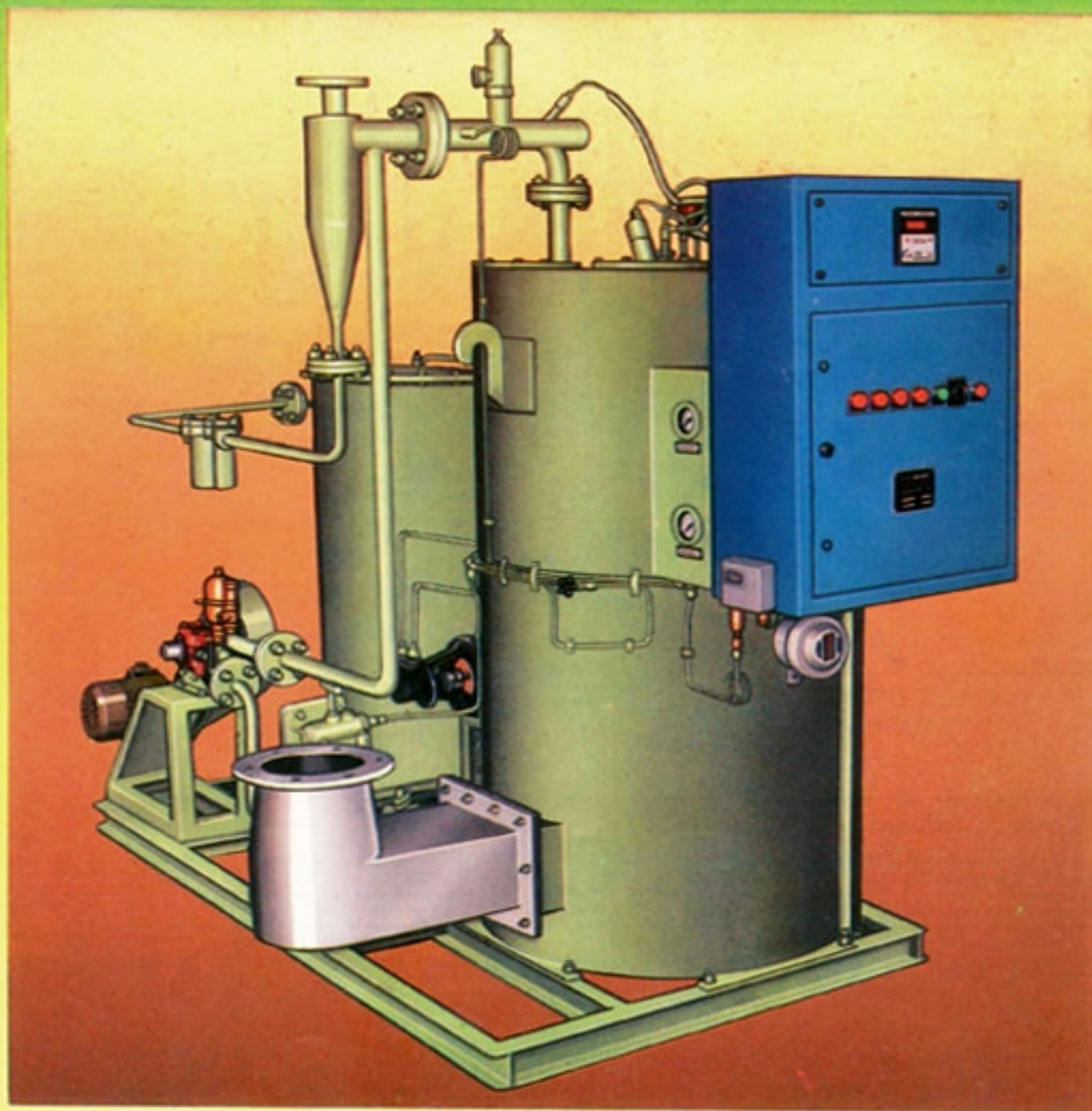


# ECOTHERM

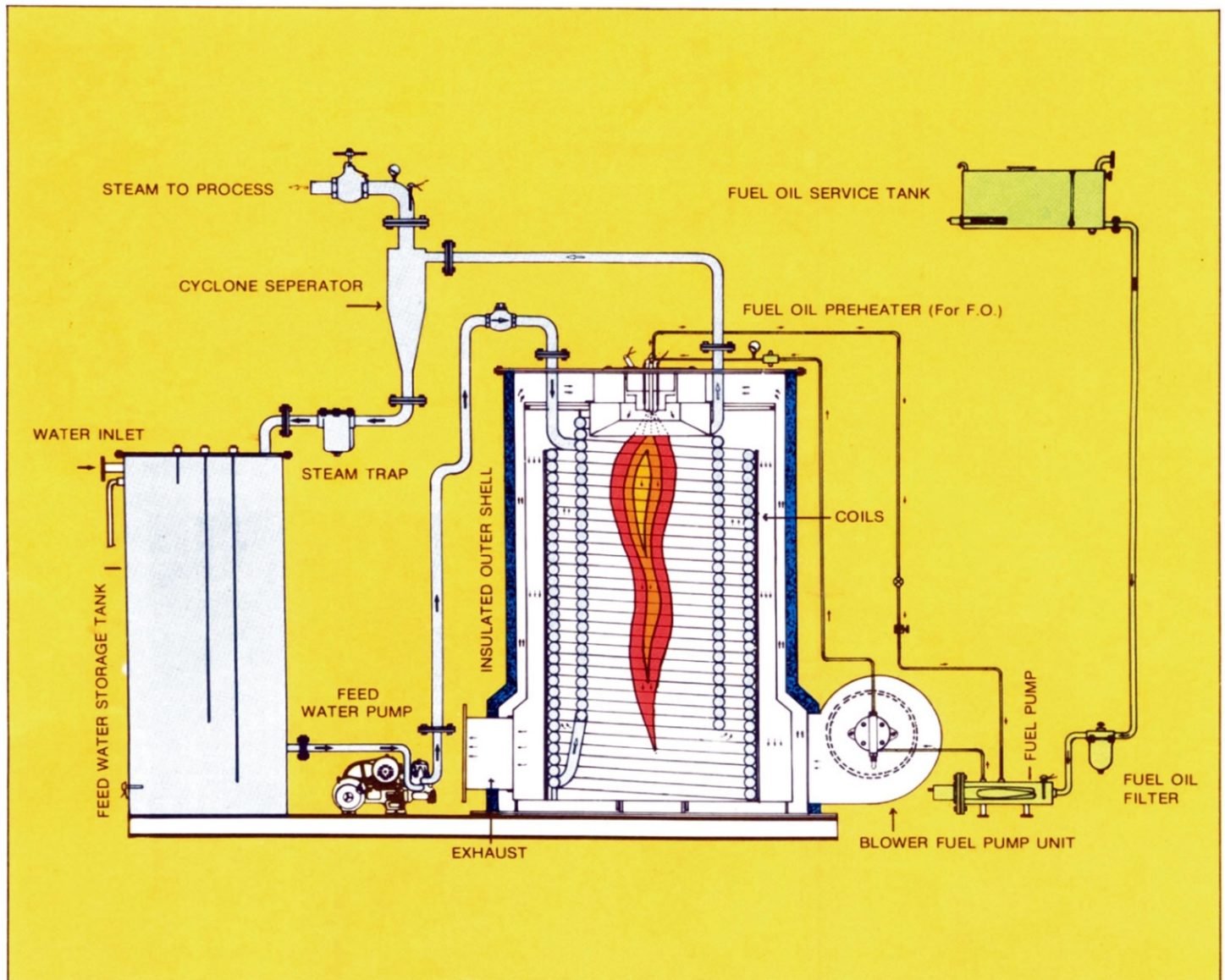
AN EFFICIENT & SAFE  
INDUSTRIAL STEAM  
BOILER



FULLY AUTOMATIC • QUICK • EFFICIENT • RELIABLE • LONG LIFE  
• ONCE THROUGH STEAM BOILER



## ECOTHERM SALIENT DESIGN FEATURES



## TECHNICAL SPECIFICATION OF ECOTHERM

Model	UNIT	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO	ECO
		100	200	300	400	500	600	750	1000	1500
Capacity from and at 100°C		100	200	300	400	500	600	750	1000	1500
Working Steam Pressure	Kgs/hr.	3.5-15	3.5-15	3.5-15	3.5-15	3.5-15	3.5-15	3.5-15	3.5-15	3.5-15
Fuel Oil Consumption	Kgs/hr.	6	12	18	24	30	36	45	60	90
Steam Outlet Size	mm	20	25	25	25	38	38	38	50	50
Flue Gas Outlet Size	mm	150	150	200	200	250	250	250	275	300
Fuel Oil Inlet dia	mm	12	12	12	12	12	12	12	12	12
Electrical Load	LDO Kw	1.5	1.5	1.5	1.5	2.5	3.0	3.0	3.0	3.0
	FO Kw		3	4.5	4.5	6.5	7	8.5	11.5	15
Burner Modulation		ON OFF	ON OFF	ON OFF	ON OFF	ON OFF	ON OFF	HIGH LOW	HIGH LOW	HIGH LOW



# ECOTHERM SALIENT DESIGN FEATURES

## 1. COMBUSTION SYSTEM:

In any heating system where fuel is used for generating heat, what matters most is the combustion efficiency. Our ECOTHERM is fitted with highly efficient, adjustable high pressure, solid injection type burner working at 150 psig. and above.

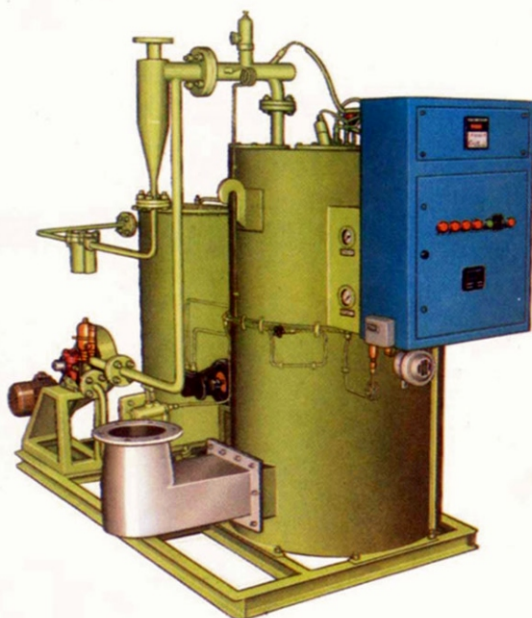
It consists of self cleaning, in line fuel oil filter, fuel pump, blower with adjustable damper, solenoid valve, vortex chamber, ignition electrodes and spray nozzle.

The special vortex chamber provides high combustion efficiency by thoroughly mixing atomised fuel oil and air. The combustion air is preheated by waste heat available from boiler shell which ensures better combustion and thermal efficiency.

## 2. STEAM LOOP:

It consists of heating coil made up of high temperature service IBR approved boiler quality steel tubes, feed water pump, cyclone separator etc.

The reciprocating pump, pumps the water through the coil where it receives the heat liberated from the combustion and evaporation takes place inside the coils. The cyclone separator removes the escaped particles to provide 99% dry saturated steam.



## 3. GAS LOOP:

The combustion blower supplies air. The combustion air while passing through the annular passage formed between the intermediate shell and the inner shell recovers the heat conducted and radiated from the inner shell and the heated air then passes through the Vortex Generator, where it mixes with the atomised fuel oil spray.

A mixture of oil mist and heated air is then ignited by high voltage sparking system. The hot gases first descend downward through the inner coil, ascend between the inner and outer coil, again descend in the annular passage formed between the outer coil and the inner shell and then it is finally exhausted to the atmosphere via chimney.

## 4. AUTOMATION:

Our ECOTHERM is completely automatic unit where the pressure and the combustion are automatically controlled.

The burner is ON-OFF or modulating type with an automatic ignition and photo electric flame failure sensing device to safeguard the combustion operations.

All the electrical and the electronic components and its circuits are housed in a special control panel cabinet mounted on ECOTHERM. A pressure switch is fitted on boiler which monitors the working of Ecotherm. A temperature indicator and controller senses the degree of superheat and safe guards against over heating of coil.

We also supply fully automatic oil or gas fired Hot Water Generators of. 1,00,000 kcals/hr. to 15,00,000 kcals/hr. capacities.

### Applications:

Food Processing, Distilleries, Chemical Process Industries, Rubber, Paper & Board, Plastic Industries, Dairies, Hotels, Hospitals, Timber Seasoning, Pharmaceuticals, Textiles, Fertilizer, Pesticides and any other process industries.

### Fuel Oil Data:

L.D.O. (Light Diesel Oil): Viscosity at 18°C upto 15 centistokes, Calorific value about 10,700 kcal/kg.  
Furnace Oil : Viscosity at 38°C upto 800 centistokes. Calorific value about 10,200 kcal/kg.