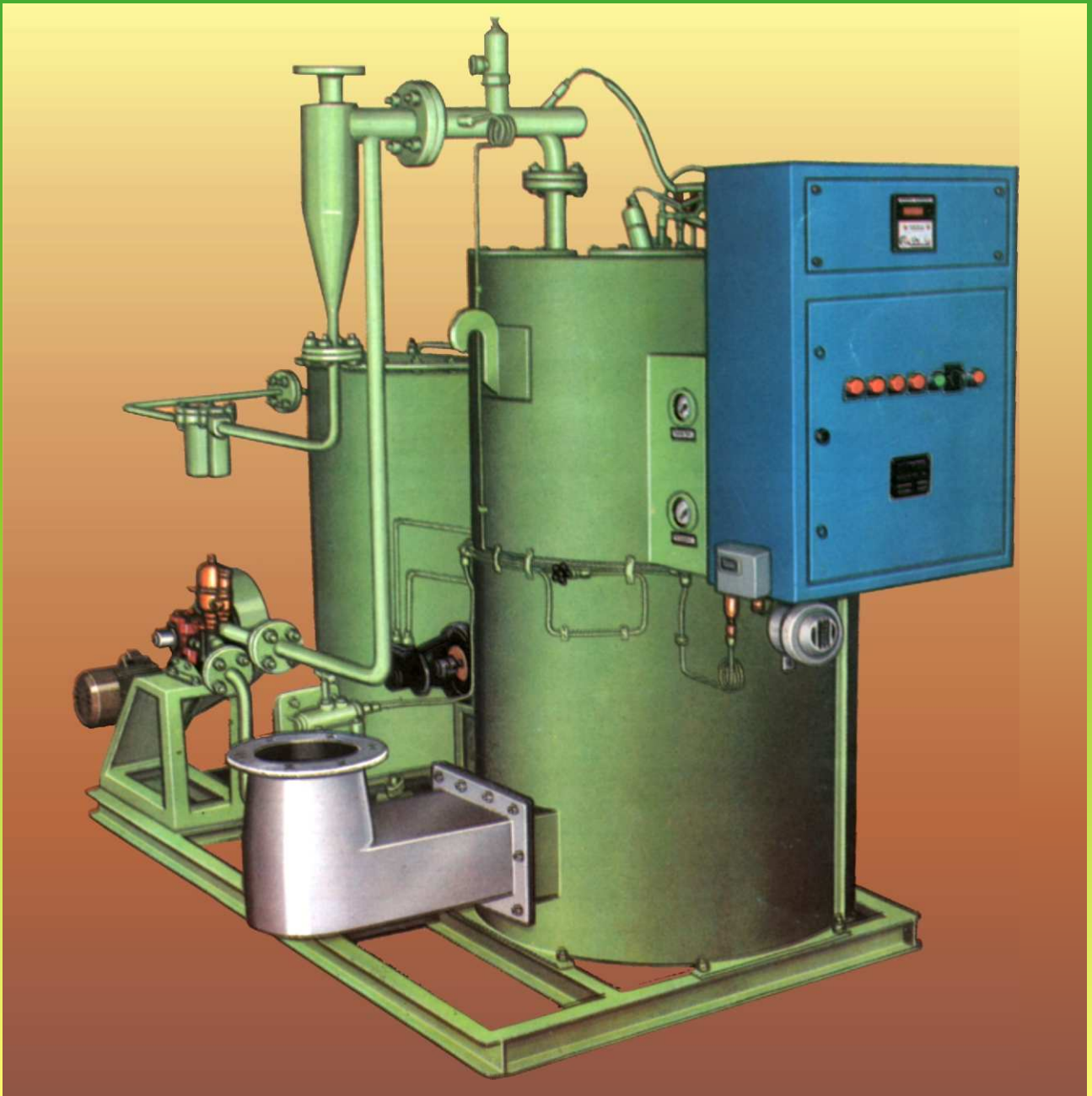


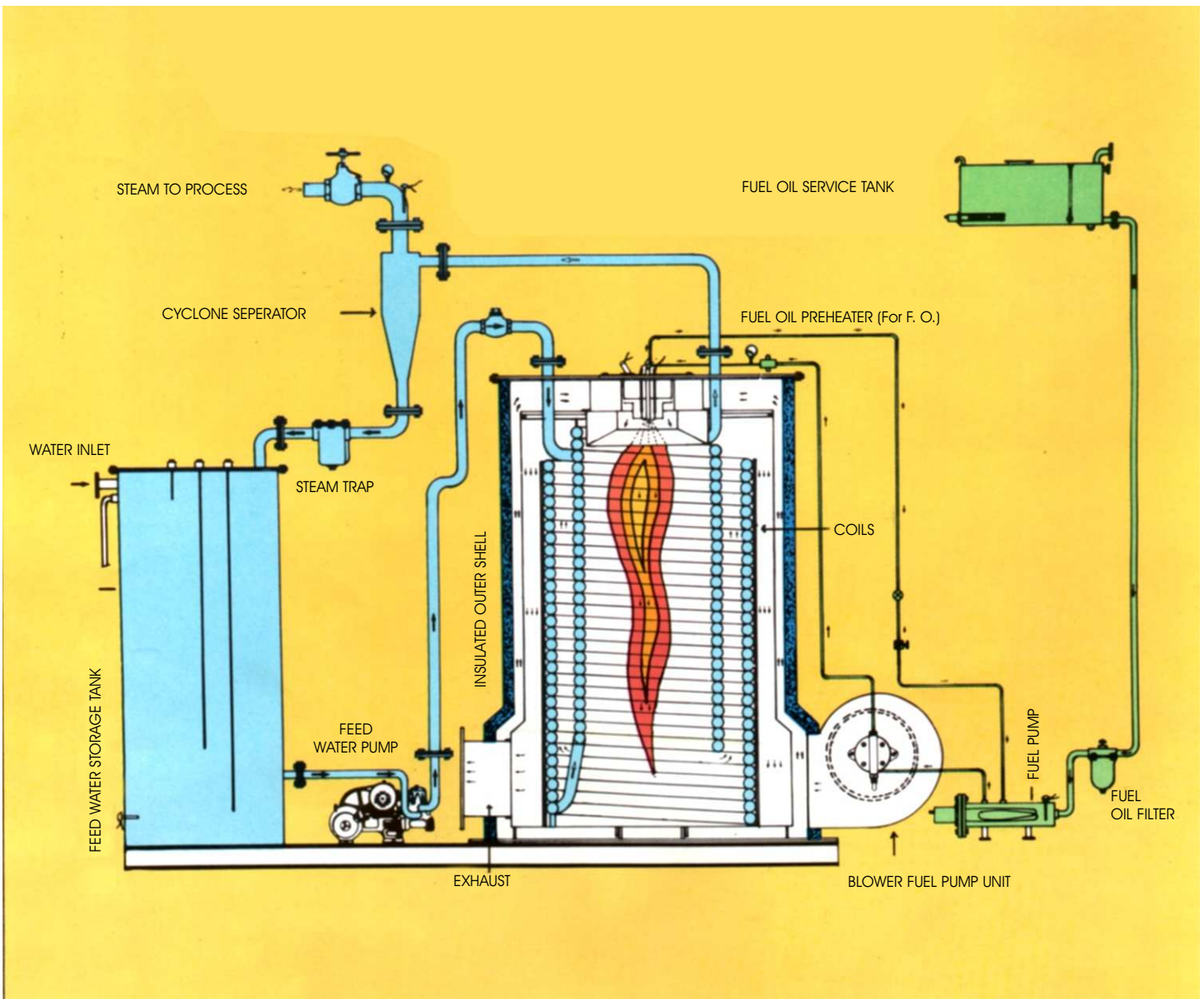
ECOTHERM

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

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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 work 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

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

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.

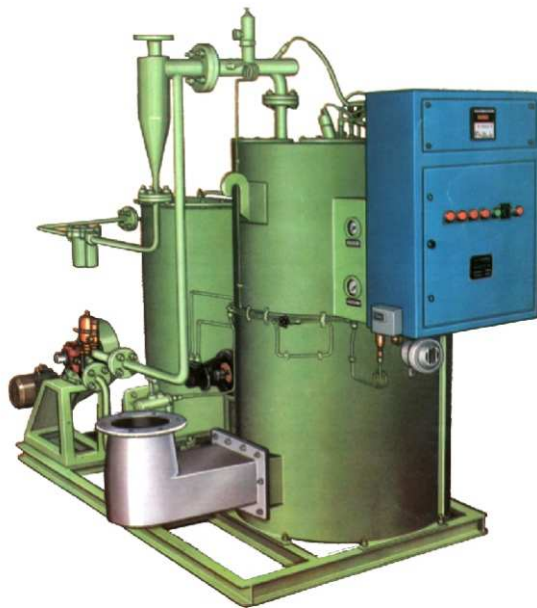
A mixture of oil mist and heated air is then ignited by high voltage sparking system. The hot gases first descend downward through the inner coil, ascend between the inner and outer coil, again descend in the annular passage formed between the outer coil and the inner shell and then it is finally exhausted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



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 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.

List of equipments manufactured by us :

1. Chemical Process Equipments.

- a. Reaction Vessels.
- b. Storage Tanks & Vacuum Filters.
- c. Pressure & Vacuum Filters.
- d. Water Softening Plants.
- e. Distillation Units.
- g. Any other chemical process equipments and

complete plants as per customer's specifications.

We also manufacture solid fuel fired equipments.

2. Heat transfer Equipments :

- a. Thermic Fluid Heaters Oil/Gas fired.
- b. Drying & Baking Ovens and Furnaces.
- c. Hot air Generators.
- d. Heat Exchangers.
- e. Direct Fired Reactors.
- f. Oil heating & pumping Units.
- g. Fluid Bed Dryers.
- h. Spin Flash Dryers.
- i. Automatic gas fired Steam Boilers.

DEVELOPING & CONSULTING SERVICES :

We have a team of qualified Engineers for providing guide-lines and undertaking any inplants surveys in heating, heat transfer, waste heat utilisation and energy savings etc.

We will assist you in

1. Selection of the right type and the size of the equipments for expansion/new projects.
2. For evaluation of existing equipments and for the conservation of energy.
3. For the modification and the replacement of

We train our customer's operator for routine operation and preventive maintenance at the time of commissioning of Boiler. A detailed operation & maintenance manual is provided with each ECOTHERM.

GUARANTEE :

One year full value guarantee against defects in workmanship and materials under normal use and duty conditions specified in our warantee. We provide either free repairing or complete free replacement at our option. Customer would bear all the transport & incidental expences both ways.



Quality Certification
Bureau Inc.



Accredited by
the Dutch Council
for Accreditation

ISO 9002 CERTIFIED



ENERGY

ENERGY MACHINE

C1,B/423, G.I.D.C

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