



## COMBIMAX

Combining the best of smoke tube and water tube designs for maximum efficiency.



## Twin drum, three-pass, wet back smoke tube boiler.

**T**hermax, the pioneer of thermal engineering in India, now offer COMBIMAX — a boiler with a super efficiency of 92 per cent (NCV) — an innovative first in the Indian boiler market. This packaged, twin drum, natural circulation boiler, as its name suggests, combines the best of smoke tube and water tube designs. Combimax is fully automatic and comes with a steel gilled economiser in a range of 8 tonnes to 16 tonnes.

### Salient Construction Features

#### Corrugated Furnace :

Unlike furnaces with bowing hoop or stiffener rings, corrugated furnaces allow for differential expansion between furnace and tube sheet, thereby reducing thermal stress enormously. The large volume of the furnace provides for longer life and higher combustion efficiency.

#### Thermax-Oertli Burner :

The Thermax burner, made in collaboration with Oertli of Switzerland, is of simple and rugged construction. Specially designed to work trouble-free on heavy Indian fuel oils, it provides the best fuel atomisation at all load conditions. What's more, the burner has been adapted by Thermax to burn waste gases and fuel oil simultaneously.

#### Chevron Separator :

Unlike all smoke tube boilers which do not have enough free board to accommodate a steam separator in the main shell, Combimax is designed to fit a Chevron Separator in the top drum, which ensures 99.5 per cent dry steam.

#### Drum Coil Heater :

The unique design of Combimax allows for incorporation of a series of coils in the top drum — to preheat

the water entering the economiser. This not only avoids any corrosion problems, but also ensures steady efficiency under all loads.

#### Pressurised Economiser :

The unique Thermax steel gilled economiser is compact and highly efficient to make Combimax the most cost-efficient boiler. The economiser design makes routine cleaning a simple task to ensure high performance.

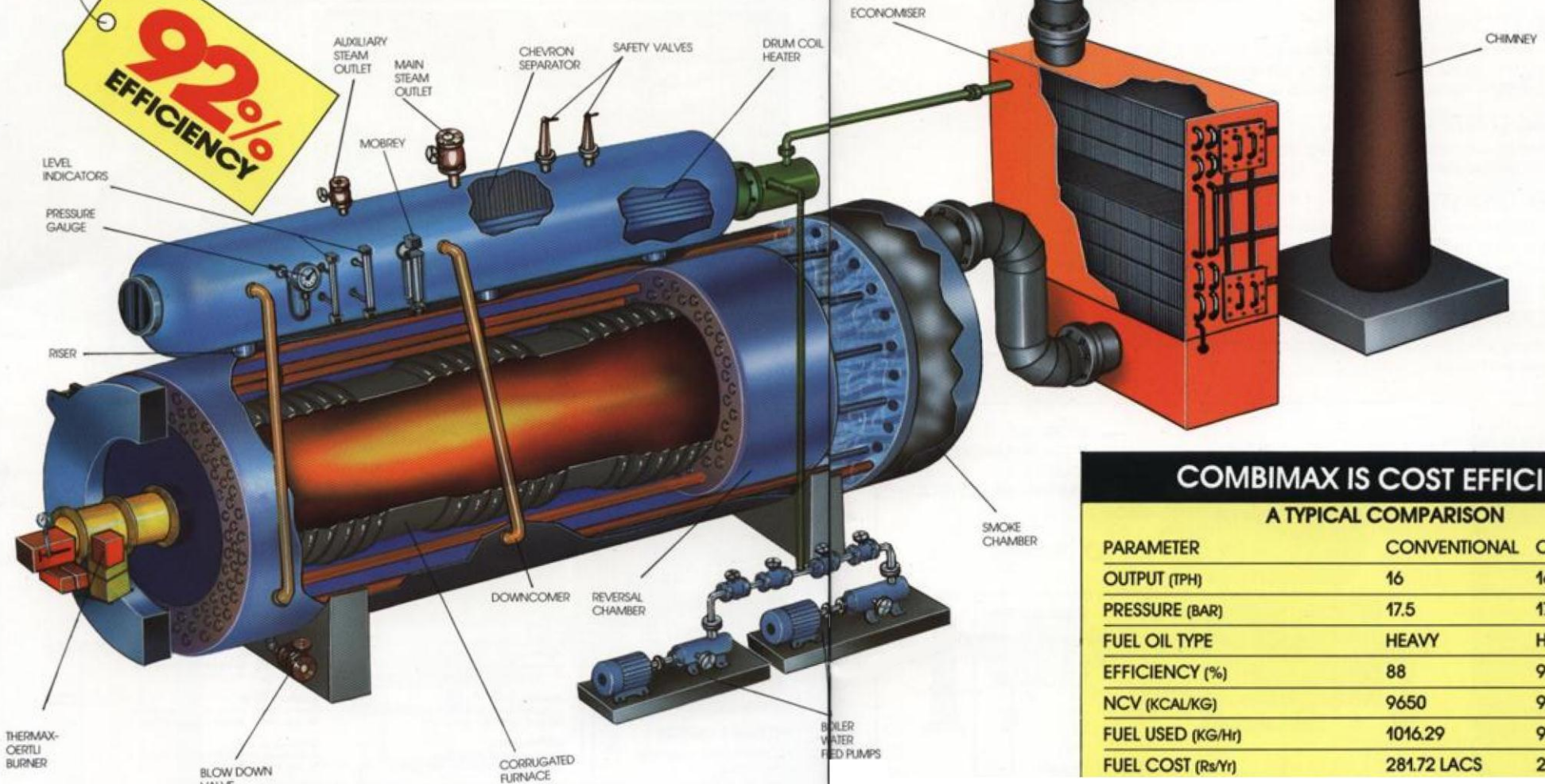
#### Safe Design :

The volume of water held in the boiler above the safety limit is much higher than any conventional smoke tube boiler making Combimax safe. Moreover, the single element drum level control eliminates any mobility failures normally associated with conventional boilers. This control also keeps water pumps running continuously.

# COMBIMAX

COMBINING THE BEST OF SMOKE TUBE AND WATER TUBE DESIGNS FOR MAXIMUM EFFICIENCY

**92%  
EFFICIENCY**



**COMBIMAX IS COST EFFICIENT**  
A TYPICAL COMPARISON

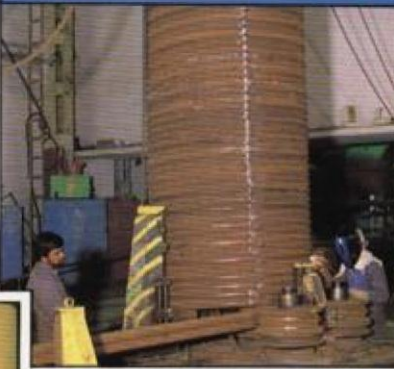
PARAMETER	CONVENTIONAL	COMBIMAX
OUTPUT (TPH)	16	16
PRESSURE (BAR)	17.5	17.5
FUEL OIL TYPE	HEAVY	HEAVY
EFFICIENCY (%)	88	92
NCV (KCAL/KG)	9650	9650
FUEL USED (KG/Hr)	1016.29	972.11
FUEL COST (Rs/Yr)	281.72 LACS	269.62 LACS

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