

LEADERSHIP IN PROCESS HEAT



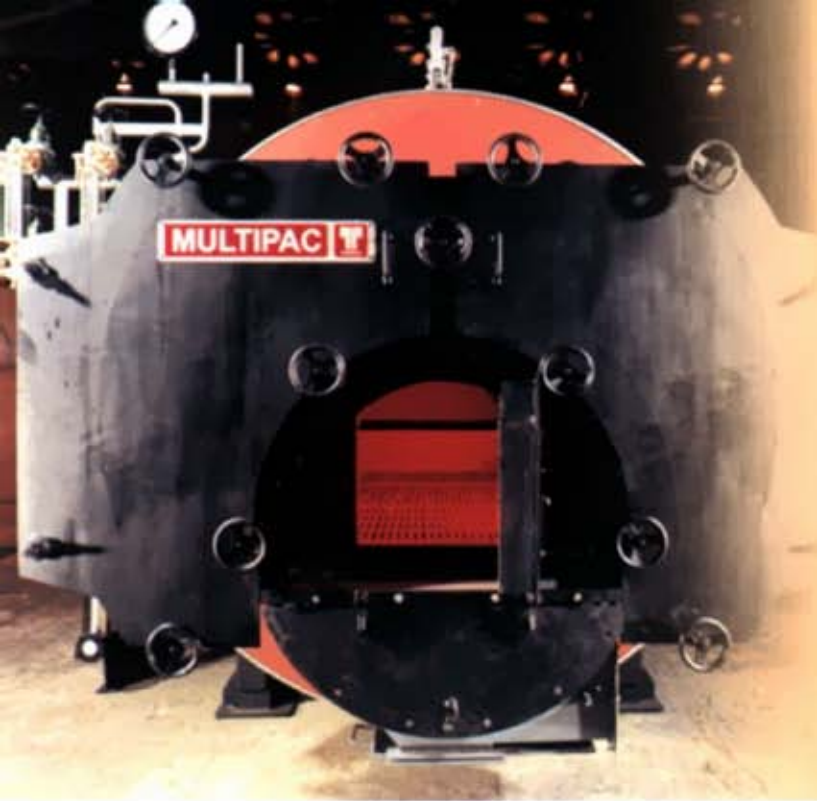
Multipac

The 3 Pass, High Efficiency,
Integral Furnace Boiler for Coal, Lignite & Wood



Add reliability
to your process

Multipac Boilers



Thermax presents Multipac, a boiler that gives you steam at the lowest operating cost coupled with trouble free operations and long life.

Multipac, uniquely designed through intensive Research and Development, based on extensive user feed back and trials, is a boiler suitable for all types of heating applications in textiles, food, chemicals and other industries.

Low operating cost

The Multipac boiler from Thermax ensures low operating cost. This is a result of several unique benefits that come in-built with this product.

Complete Combustion of Fuel

- **LARGE FURNACE DIAMETER AND VOLUME**
For better fuel charging and higher residence time for combustion
- **LOWER GRATE AREA LOADING**
Allows Indian coal, agro waste to be burnt completely and meet sudden demand for steam
- **BIGGER REVERSAL AIR CHAMBER**
Ensures better heat radiation from refractory and complete combustion of volatiles

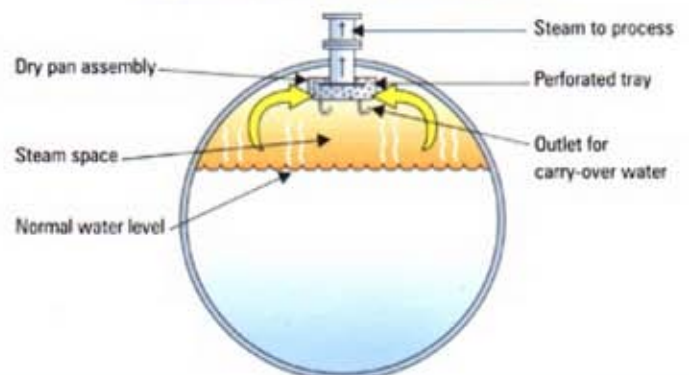


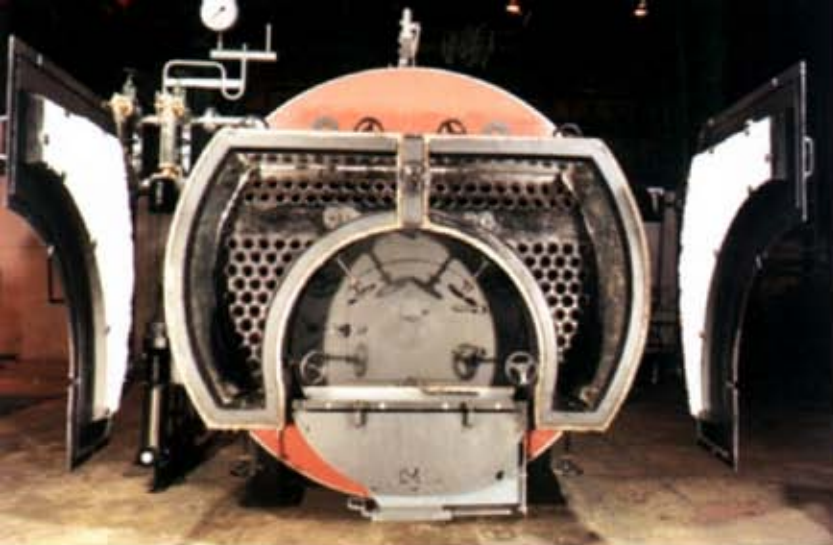
Complete combustion of fuel

High Purity Steam

Multipac delivers high purity steam which **increases usable heat** to the process thus reducing fuel costs. High purity of steam is achieved by having sufficient freeboard height and a large disengaging surface area. The result - dryness fraction of 98% and above.

MECHANICS OF HIGH PURITY STEAM IN MULTIPAC





Front View

Easy to install & maintain

Saves Time for Installation

Fully packaged, factory assembled Multipac requires minimum site work. Comes with clear and complete documents and drawings.

Long Life Refractory Material

- Ceramic wool - lightweight, yet possessing the highest refractory index
- Eliminates all problems associated with castable refractory
- Rarely requires replacement

Unmanned Operation

- Auto on/off control makes the boiler easy to operate

Minimum downtime

Two access doors each, in the front and back, provide for easier, faster and online cleaning.



Rear View

Operations

Trouble-free & reliable

Multipac ensures uninterrupted availability of steam to the process, with minimum downtime and production loss. This outstanding reliability is the result of superior design, careful selection of components coupled with the high quality manufacturing process.



CNC Plasma Arc Plate Cutting Machine

Better Material Life

CNC Plasma ARC Cutting Machine ensures straight cuts leaving minimum Heat Affected Zone (HAZ), hence better material life.

Long Lasting Weld Joints

Submerged ARC Welding (SAW) on shell and furnace joints ensures uniform heat to base metal, and thus, higher life of weld joints.

Also, tube expansion ensures no air gap between tube and tube plate preventing overheating of weld joints. This gives longer life to joints and minimizes tube to tube sheet failure as compared to other boilers.



Submerged ARC Welding (SAW)

"Zero Defect" Manufacturing

Working towards 'zero defect' manufacturing, Thermax has developed special fixtures in-house, for tube to tube plate welding in down hand position.

No Material Fatigue Failure

Stresses generated during manufacturing are relieved by heating the pressure part to 600°C, in a specially designed stress relieving furnace.

Reliable Components

Components are sourced only from competent and qualified vendors who have quality assured manufacturing facilities backed by dependable service.



Down Hand Welding

Options to increase savings

Water Pre-heater

- Recovers maximum heat from boiler flue gas
- Faster steam generation
- Easy to maintain

Air Pre-heater

- Recovers maximum heat from boiler flue gas
- Improves combustion of fuel having high moisture content
- Easy to maintain

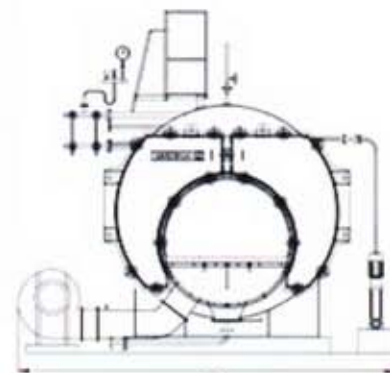


Pollution control

Mechanical Dust Collector

- Efficiently extracts dust from flue gases
- Low power consumption of ID fan
- Easy removal of dust/ash
- Space saving design

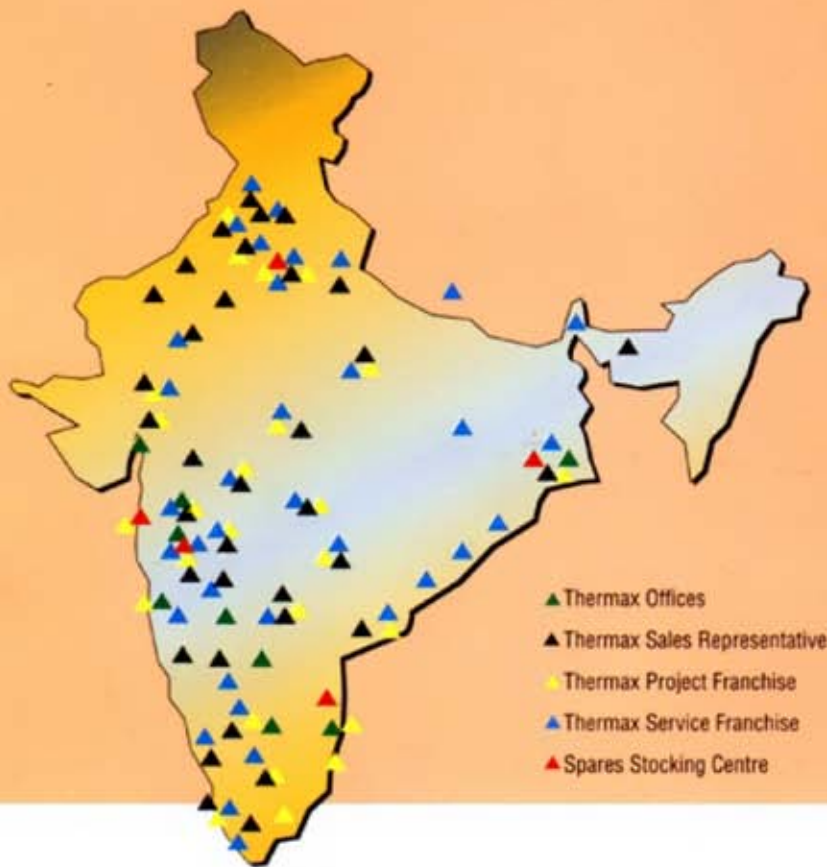
Technical specifications



Parameter	Unit	IFB-10A	IFB-15A	IFB-20A	IFB-30A	IFB-40A
Capacity (MCR-F & A 100° C)	Kg/h ²	1000	1500	2000	3000	4000
Design pressure	Kg/cm g	10.54				
Fuel		Coal/Lignite/Wood				
Firing method		Fixed grate				
Dimensions (LxWxH)	Mts	3.8 x 3.5 x 3.4	4.4 x 3.8 x 3.6	4.4 x 4.0 x 3.8	4.4 x 4.2 x 4.3	4.6 x 4.8 x 4.6
Dry Weight of pressure part	Ton	6.8	8.7	11.0	19.0	21.2
Electrical connected Load		415VAC ± 6%, 50Hz ± 3%, 3ph, 4 wire system				
Feed water pump	kW	2.2	2.2	2.2	3.0	3.0
Induced draught fan (Coal / Lignite / Wood)	kW	3.7	3.7	5.6	9.3	11.2
Induced draught fan (Coal / Lignite with Dust Collector)	kW	5.6	7.5	9.3	11.2	14.9
Forced draught fan (Coal / Lignite)	kW	0.6	0.8	1.5	1.5	2.2
Forced draught fan (Wood)	kW	1.5	2.2	2.2	3.7	5.6

Note : *As per BS 845 Part 1 method. Also Heat Recovery Unit has been considered as part of boiler for technical specification computation.

Networked for service



Thermax's highly trained sales and service dealers and franchisees are, today, the industry's benchmark in service and capability. This nationwide network gives you dedicated, efficient and prompt service within 24 hours.

The Thermax network offers :

- System guidance, selection of equipment and accessories
- Complete Boiler House Package with accessories
- Annual Service Contract
- Comprehensive Service Contract
- Operation & Maintenance Services
- Timely spares support
- Boiler maintenance chemicals
- Upgrades, Retrofit Kit
- Full fledged facility for customer training

In view of our constant endeavour to improve the quality of our products, we reserve the right to alter or change specifications without prior notice.



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& ISO 14000
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