



EZHIL ENERGIES

ENERGISING THE FUTURE

SHELL & WATER WALL COMBO BOILER

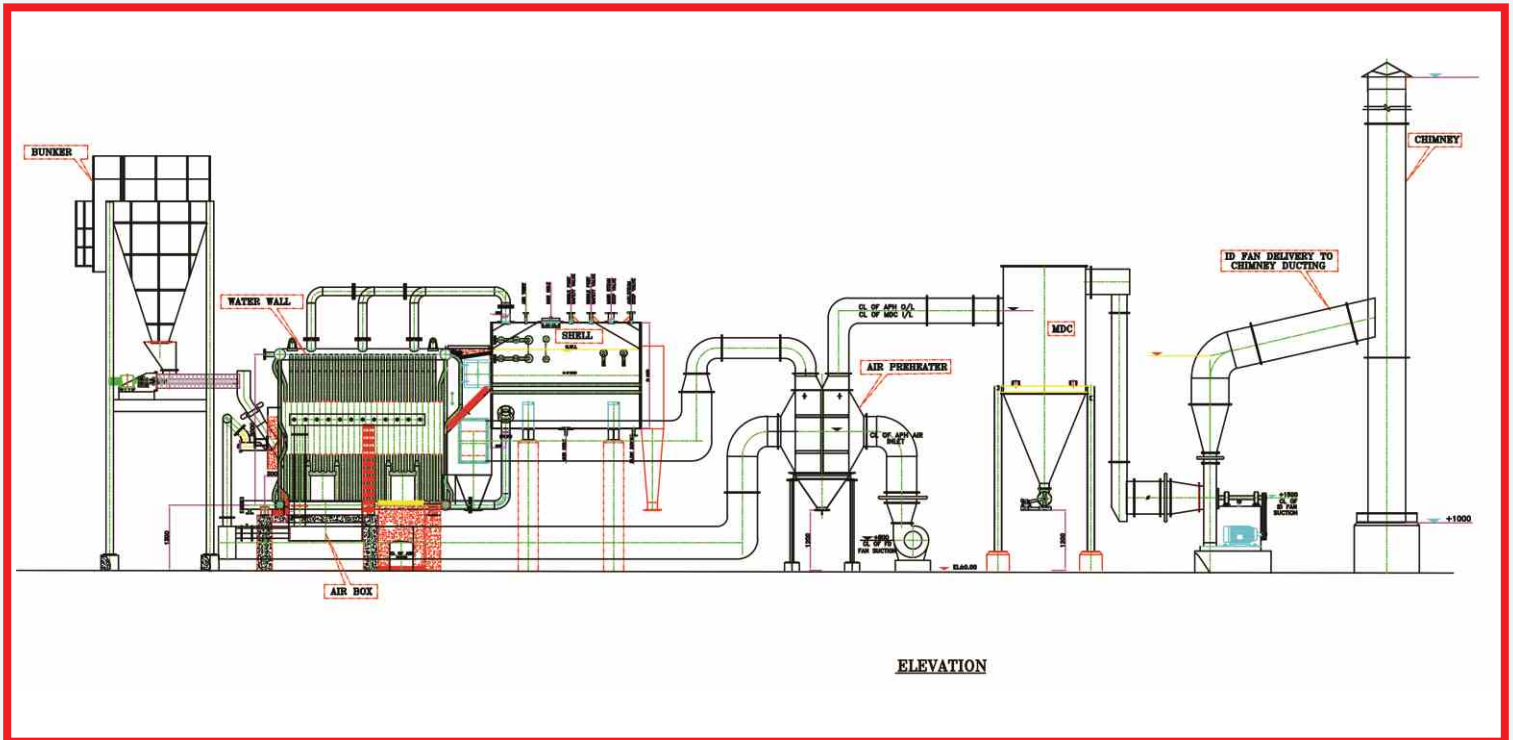
Capacity : 3Tph to 20 Tph



- ✦ AUTO / MANUAL FEEDING
- ✦ MULTI FUEL COMPATIBLE
- ✦ ERGONOMIC DESIGN

- ✦ ENERGY EFFICIENT
- ✦ 1 YEAR WARRANTY
- ✦ MONEY SAVER

Pneumatic Feed Husk Fired Shell & Waterwall Combo Boiler



SHELL AND WATERWALL COMBO BOILER

- ✧ Designs as per IBR (Indian Boiler Regulations)
- ✧ Fully automatic Boiler
- ✧ Boiler Capacity ranging from 3 tons to 20 tons / Hr
- ✧ SS Air Nozzles for firing in husk fired boilers
- ✧ Higher Steam space and hence steady steam availability
- ✧ Capable of firing wood, Rice Husk, Briquette, Ground nut shell, Coal, etc.
- ✧ Highly efficient and eco friendly boilers.

COMBIFLAME

As the name suggests EZHIL COMBIFLAME have option of feeding various types of fuels manually and Mechanically. Depending on application Combiflame series is offered along with different Grates and feeding system.

I. COMBIFLAME (S) :

COMBIFLAME (S) is a stationary grate Boiler suitable for Waste Wood Chips, Coal, Briquette. The Grate Bars are specially designed ie., Box pattern and casted with best proportion of Cr-Mn Casting to provide Strength and long life.



STATIONARY GRATE

IV. COMBIFLAME (RE) :

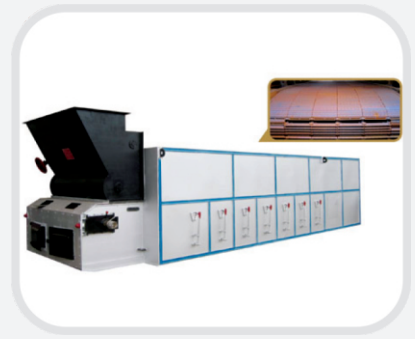
COMBIFLAME (RE) Series is Combination Boiler provided with Reciprocating grate. The Boiler is provided with reciprocating grate driven by a drive. The Fuel is fed through a service hopper fitted at the front end of the Furnace. The Ignited fuel travels through the furnace and total combustion happens till it reached the end of the grate. The Ash drops into the ash chamber. Ash can be removed from the ash door. The Combiflame (RE) is suitable for Multi fuels like : Bagasse, Groundnut shell, Wood waste, and other agro fuels.



RECIPROCATING GRATE

III. COMBIFLAME (T) :

COMBIFLAME (T) Series is Combination Boiler provided with travelling grate. The Boiler is provided with travelling grate driven by a drive. The Fuel is fed through a service hopper fitted at the front end of the Furnace. The Ignited fuel travels through the furnace and total combustion happens till it reached the end of the grate. The Ash drops into the ash chamber. Ash can be removed from the ash door. Multiple fuels are suitable for travelling grate like: Coal, Briquette, Wood Waste.



TRAVELLING GRATE

II. COMBIFLAME (FBC) :

COMBIFLAME (FBC) is supplied as a Fluidized Bed Combustion Boiler. Wherein a specially designed In-Bed Coil Assembly is placed in the Furnace combustion Zone. The fuel is Fed Under – bed or Over-Bed depending on the type quality of fuel. Special Designed High temperature Stainless Steel Bar Stock fabricated Air Nozzles are fitted on air Box for uniform and controlled distribution of Air required for Combustion. Combiflame (FBC) offers very high combustion and Over-all Efficiency due to Fluidization and maximum heat recovery in the In Bed Assembly zone. The Boiler is fitted with best in class fuel feeding system with VFD. COMBIFLAME (FBC) is best suited for Pulverized Coal & PADDY HUSK.

III. COMBIFLAME (POF) :

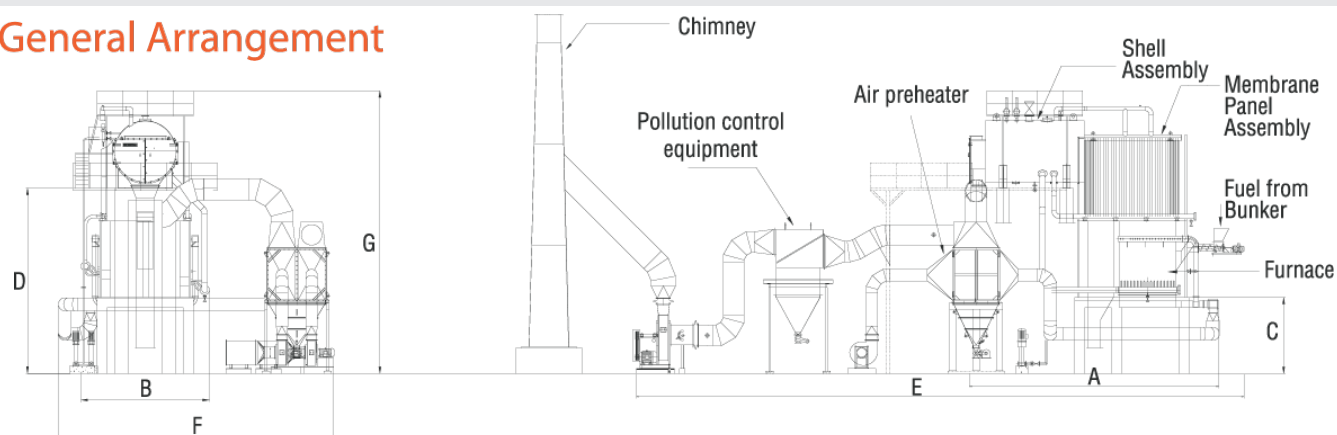
COMBIFLAME (POF) is Pneumatic over feed Boiler best suited for multiple fuel applications. It is designed for multi fuel applications. Fuel is fed into the Combustion chamber with screw feeder arrangement. Air nozzles or fire bars are fitted to the air box for even distribution of Air required for combustion.

Technical Specifications

Description	Unit	CPFD-40	CPFD-60	CPFD-80	CPFD-100	CPFD-120	CPFD-140	CPFD-160
Capacity (kg/hr F&A 100 deg C)	kg/hr	4000	6000	8000	10000	12000	14000	16000
Design pressure (SVLOP)	kg/cm ² g	10.54 / 17.50						
Fuel		Husk/ Indian Coal/ Indonesian Coal/Lignite						
Fuel feeding system		Auto - Underbed / Overbed						
Combustion system		Fluidised Bed Combustion						
Furnace compartments		1				2		
Efficiency (Underbed / Overbed)	%	As Per BS 845 Part -1 NCV Basis						
Husk	%	85 / 84						
Indian coal	%	86 / 85.5						
Indonesian coal	%	86.5 / NA						
Lignite	%	84.5 / NA						
Fuel Consumption		Underbed / Overbed						
Husk	kg/hr	876/887	1314/1330	1753/1773	2191/2217	2629/2660	3067/3103	3505/3547
Indian coal	kg/hr	585/588	878/881	1171/1175	1464/1469	1756/1763	2049/2056	2342/2350
Indonesian coal	kg/hr	446/NA	669/NA	892/NA	1115/NA	1338/NA	1561/NA	1784/NA
Lignite	kg/hr	741/NA	1111/NA	1482/NA	1852/NA	2223/NA	2593/NA	2964/NA
Connected load (10.54 / 17.5)		With APH & MDC						
Under Bed firing		40/43	58/61	75/77	94/103	117/121	141/148	161/168
Over Bed firing		32/34	47/50	60/62	76/85	96/100	119/127	130/137
Connected Load (10.54 / 17.5)		With APH & Cyclomax or Bagfilter						
Under Bed firing		48/50	69/73	90/92	109/119	135/139	171/178	180/188
Over Bed firing		39/41	58/62	75/77	91/100	113/117	149/157	150/157
Dimensions								
A	mm	9841	9900	10651	11130	12000	12900	11950
B	mm	4600	4829	5449	5300	5500	7249	7369
C	mm	3000	3000	3000	3000	3000	3000	3000
D	mm	6515	6370	7040	6905	7295	7495	7505
E	mm	23000	24000	24400	25000	25000	27000	25063
F	mm	8220	8704	9654	9955	10675	12544	12804
G	mm	9040	9045	10084	10100	10870	10990	11000
Chimney top diameter	mm	600	700	800	900	1000	1100	1150
Dry weight (10.54 / 17.5)								
Boiler shell	tonne	4.5 / 5.0	6.0 / 6.5	7.5 / 8.5	9.0 / 10.0	12.5 / 14.0	14.0 / 16.5	17.0 / 19.0
Furnace*	tonne	32.0	37.0	46.0	54.0	70.0	75.0	75.0
Flooded weight (10.54 / 17.5)								
Boiler shell	tonne	10.0 / 10.5	12.0 / 12.5	16.0 / 17.0	19.0 / 20.0	26.0 / 27.5	29.5 / 32.0	34.5 / 36.5
Furnace*	tonne	33.0	38.0	47.5	55.5	72.0	77.0	77.0

Note: Design standard-IBR. Efficiency is calculated based on NCV of Husk as 2900 kcal/kg, Indian coal as 4300 kcal/kg, Indonesian coal as 5600 kcal/kg and Lignite as 3450 kcal/kg. *Furnace weight includes furnace structure, membrane panel and refractory. Above mentioned weights and dimensions may vary with actuals. Please refer to offer document for more details.

General Arrangement



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