



THERMAL & REFRIGERATION ENGINEERING CO., LTD



WATERTUBE SOLID FIRED STEAM BOILER

BB SERIES

3-PASS DESIGN

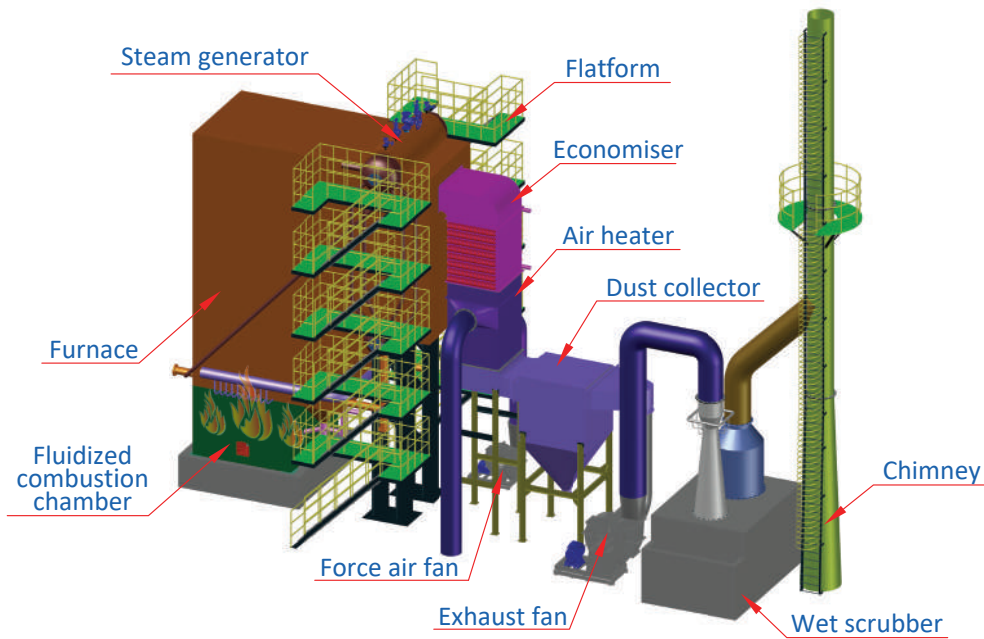
All Steel D-Type Watertube Construction

Capacities from 150 to 2000 BHP
5030 to 67000 MBTU/H
Pressure max 250 PSI



- High efficiency levels and excellent heat transfer capabilities
- Suitable for oil, gas or dual fuel firing
- It is capable of rising steam quickly from cold without thermal stress

SECTION VIEW



Inspected by
LLOYDS, SGS



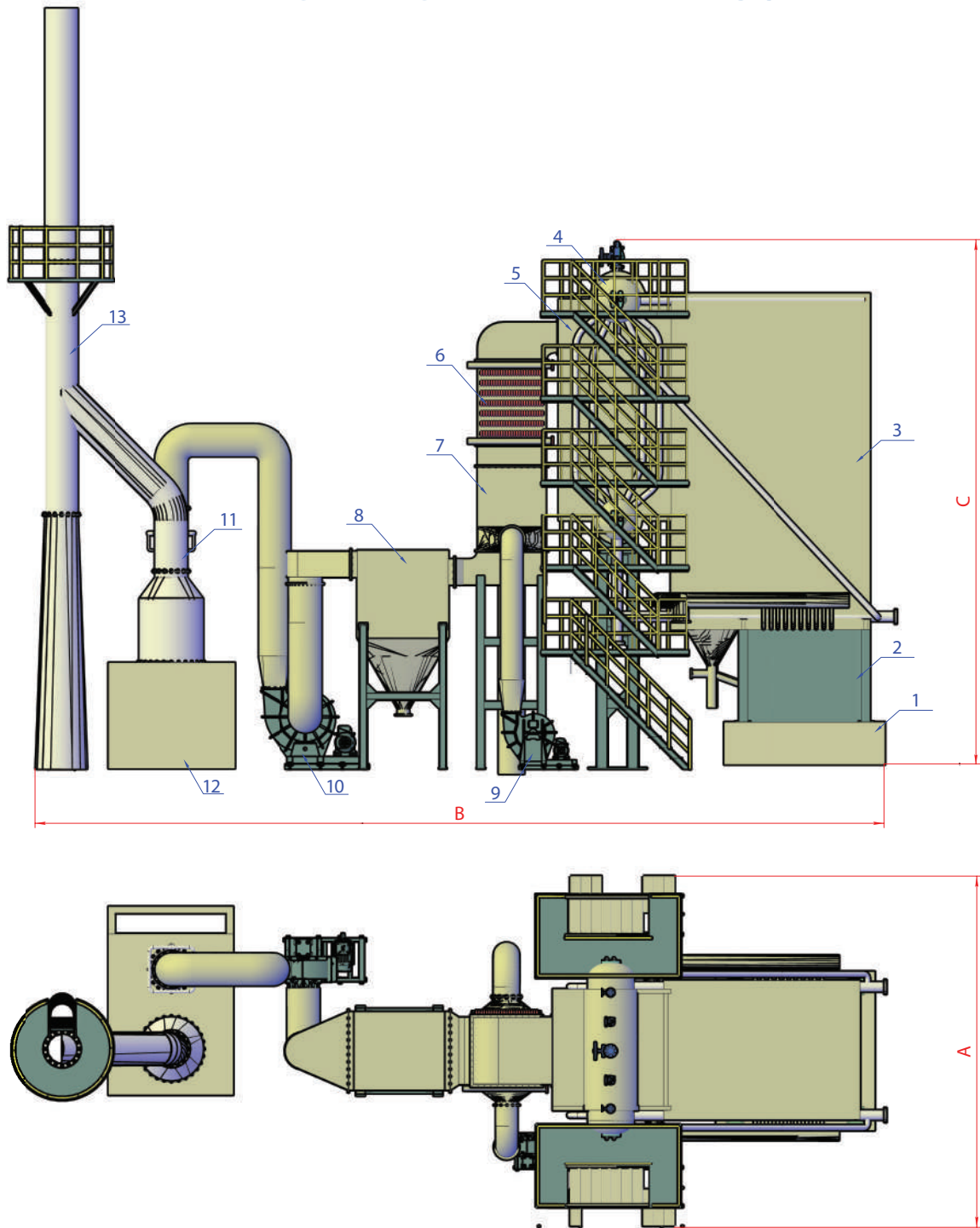
Designed,
constructed and
stamped in
accordance with the
requirements of the
ASME Boiler Codes.

TECHNICAL DATA

MODEL	BB 150	BB 200	BB 300	BB 400	BB 500	BB 600	BB 800	BB 1000	BB 1200	BB 1500	BB 2000
FUEL	BIOMASS										
Steam Capacity (BHP)	150	200	300	400	500	600	800	1000	1200	1500	2000
Heat Output (MW)	1.5	2	3	4	5	6	8	10	12	15	20
Total Heat Surface Area (SQ.FT)	1292	1615	2583	3229	4306	5382	6458	8073	10764	12917	16146
Design Pressure (PSI)	250	250	250	250	250	250	250	250	250	250	250
Total Volume (Gal)	1321	1585	2114	2642	3170	3963	4756	5812	6869	7926	9247
Biomass Consumption (Pound) ^(*)	1320	1760	2640	3520	4400	5280	7040	8800	10560	13200	17600
Chimney Diameter (Inch)	16	18	22	26	30	32	36	40	46	52	60
Overall Width A (Inch)	393,7	393,7	393,7	472,4	472,4	472,4	472,4	590,6	590,6	590,6	590,6
Overall Length B (Inch)	590,6	590,6	590,6	787,4	787,4	787,4	787,4	984,3	984,3	984,3	984,3
Overall Height C (Inch)	472,4	472,4	472,4	590,6	590,6	590,6	590,6	787,4	787,4	787,4	787,4

(*) : Wood chip calorific value 8.000 BTU/Pound
Moisture < 35%
Steam output > 60% of design capacity

TECHNICAL DRAWINGS



ANNOTATION:

1. Combustion chamber air supply
2. Fluidized combustion chamber
3. Main body
4. Steam drum
5. Boiler convector
6. Economiser
7. Air heater

8. Cyclone
9. Air fan
10. Exhaust fan
11. Venturi
12. Wet ash duster
13. Chimney

PRODUCT OVERVIEW

- Efficient 3 - Pass Design
- Flexibility - Capable of burning natural gas, fuel oil, digester gas & various other gaseous fuels
- ASME Code Constructed & Stamped
- Competitively Priced, Easily Maintained, Designed for Efficiency
- Large Furnace Volume for Ultimate Combustion Efficiency
- Low Heat Release
- Factory Insulated - 4" Mineral Wool
- Factory Jacketed & Stainless Steel
- Easy to maintaining and operating
- Ample Waterside Clean - Out Openings
- Fully Automatic Operation
- Factory Test Fired

Watertube steam boilers can be fired via conventional fuels (Diesel, LPG or Natural Gas). However, the ever increasing cost of fossil fuels, these steam boilers can be manufactured to take a large range of alternate fuels like coal, wood or even agricultural waste. All units are factory packaged with operating controls, relief valves, burner and fuel train. Installation is made simple in that only service connections are needed to place in operation. Flexible burner systems are available for firing natural gas, LP gas, #2 oil, heavy oil, or combinations. High density 4" mineral wool insulation assures lower radiant heat loss.



CONTACT US