



TITAN BD

BI-DRUM WATER TUBE BOILER FOR BIOMASS BURNING



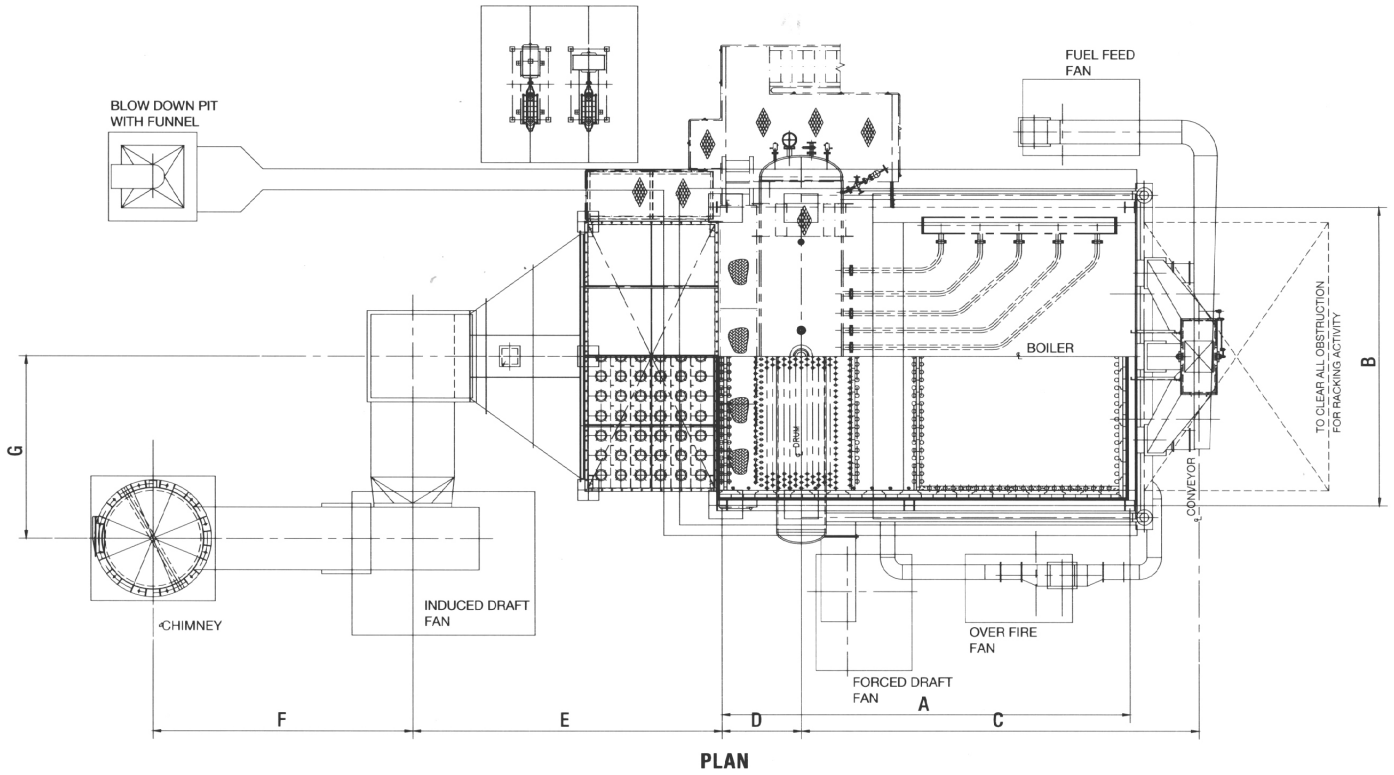
A medium to large size, naturally circulated field erected water tube boiler. specifically designed for high moisture solid waste firing. Designed and calculated conservatively to meet increased reliability, optimum fuel economy, long life and low maintenance cost. Flexible to accommodate high fluctuating loads and solid waste properties.

Construction Features

1. Reverse flame, wetback boiler
2. Compact design
3. Easily accessible internals
4. Manufactured under high standards and inspected under Lloyd's Register of Shipping

After Sales Services

1. Backed by a strong team of service technicians
2. Services include commissioning, servicing, breakdowns and routine maintenance
3. Comprehensive spare parts available at local warehouse



BOILER MODEL			BD46	BD56	BD66	BD76	BD91	BD101	BD111	BD121
BOILER RATING		KW	10450	13934	17417	20901	24384	27868	31351	34835
BOILER OUTPUT		LBS/HR	33069	44092	55115	66138	77160	88183	99206	110229
		KG/HR	15000	20000	25000	30000	35000	40000	45000	50000
LEADING DIMENSION	A	MM	5800	7275	6687	7230	7851	8811	9561	11300
	B	MM	4630	4045	5365	5695	5722	6126	6126	3450
	C	MM	5750	7160	6608	7115	7667	8526	9276	9672
	D	MM	1325	1454	1418	1454	1523	1624	1624	1713
	E	MM	4500	4950	5775	6000	6500	6500	6500	6500
	F	MM	4500	5000	5000	5000	5000	5000	5000	6000
	G	MM	2500	3000	3000	3000	3000	3000	3000	3000
	H	MM	8000	8500	8500	9000	9500	10000	10500	11000

Note : 1. Working pressure : 300 psig | 2. Feed water temperature : 70°C | 3. Dimension E, F & G can be varied depends on site condition.

SALES OFFICE:



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MECHMAR BOILERS SDN BHD a wholly owned subsidiary of **MECHMAR CORPORATION (M) BERHAD**, the market leader in Malaysia for boiler manufacturing achieved yet another distinction with the award of ISO 9002 certification Lloyd's Registration Quality Assurance making it the first boiler manufacturing company in Malaysia to attain this recognition.

With Lloyd's Class I certification for its product and ISO 9002 certification for its quality management system, **MECHMAR BOILERS SDN BHD** is now among the elite group of boiler manufacturing company in the world. For its high quality workmanship and consistency in quality, **MECHMAR BOILERS SDN BHD** is already a holder of CLASS I fabricator licence for pressure vessel manufacturing from Lloyd's Register of Shipping since 1985.

MECHMAR BOILERS SDN BHD started operation at Lot 14, Jalan Timah, Pasir Gudang Industrial Estate, Johore in 1977 and to date have produced more than 3000 units of boilers ranging from 500 lb to above 132,000 lb capacity of steam per hour. It also manufactures Hot Water Boilers, Thermal Fluid Heaters and other pressure vessel.

The products are developed and marketed by **MECHMAR COCHRAN BOILERS (M) SDN BHD**, another wholly owned subsidiary of **MECHMAR CORPORATION (M) BHD**.

MECHMAR COCHRAN BOILERS (M) SDN BHD markets a wide range of boilers, thermal oil heaters, steam plant and power plant installation. It operate from offices and service centres in Shah Alam, Johore ann Prai to ensure excellent after sales service and prompt supply of spares.



TITAN BD

Titan Bi-Drum Water Tube Boiler



BOILER CIRCULATION

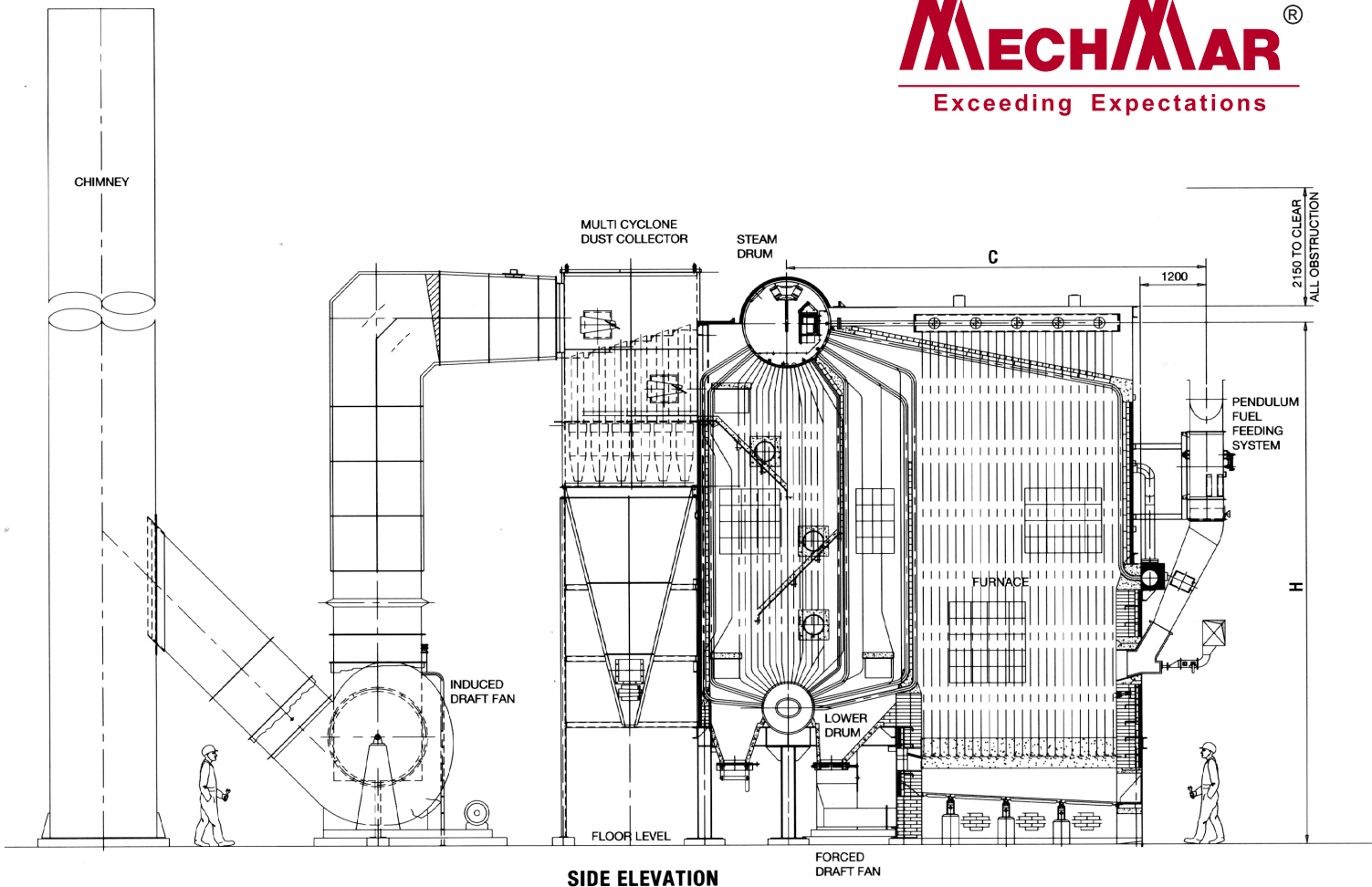
The boiler water flows from the steam drum via designated downcomer tubes into the lower drum. Downcomers are in the coldest part of gas passage and last tube row is covered by insulating material. The boiler water flows from the drums to furnace front and side headers and to the nest of convection bank riser tubes. External downcomers are also mounted.

Large volume of boiler water contained in the boiler assembly allows the boiler to respond to fluctuating steam demands. Baffling arrangement and steam/water separator inside the steam drum guarantee a good steam quality.

STEAM DRUM INTERNALS

Mechmar offers a 3-stage approach to achieving maximum steam purity. Steam is directed by baffling into cyclone separators and apply it to separatoing water from steam. Steam rises and flows through chevron scrubbers where residual water droplets or condensate cling to the scrubber plates, collect and return to drum water.

The end result is steam of excellent quality and high purity up to 99.5% dry.



GAS PASSAGE

First gas passage is in the boiler furnace. The gas changes flow direction at the furnace exit and flows downwards through superheater cavity to enter the bottom part of the convection bank. Baffling arrangement provided in the third boiler pass induces crossflow to maximise the recovery of thermal energy from the gas.

FURNACE

Large furnace volume provides sufficient residence time to suit the combustion of solid waste fuels. It is of balanced draft design. Combustion air is introduced to the furnace by means of forced undergrate fan equipped with damper. The balanced draft is maintained by the induced draft fan linked with boiler pressure draft controller. Overfire air is supplied to the furnace through air nozzles into the volatile zone to ensure adequate furnace turbulence and complete burnt out.

GRATE

As a standard, the boiler is supplied with high quality cast iron pin hole grate, which provide even air distribution over the entire grate area irrespective of fuel distribution.

