



Advanced Biomass Energy Solutions



www.cheemaboilers.com

About CBL



- Cheema Boilers Limited (CBL) has made a mark for itself in the last three decades by manufacturing premium range boilers and allied products for clients across the globe.
- The company offers a diverse range of Boilers along with fuel compatibilities attuned to the modern day industrial needs.
- CBL stresses largely on promoting safe and efficient energy consumption in its mission of **reducing the carbon footprint.**
- CBL track record of path-breaking engineering, efficient Project Management, Commissioning expertise and state-of-the-art manufacturing facilities enable the company to deliver the products of supreme quality.
- CBL operates with a large sales and service network covering entire India as well as many overseas locations.

3000+ Working Installations





Rice Straw/Cane Trash Bale Fired Multi Fuel Boiler

With increased awareness of sustainable development and environment concern such as climate change, the global focus for energy production has switched to renewable energy supplies.

Boilers have traditionally relied on fossil fuels to generate steam and electricity, but the need for alternative energy sources has become apparent. Renewable energy resources, notably Biomass Fuels, were the most reasonable options for meeting this need. In Biomass Fuels, the chosen fuel was Paddy Straw and Cane Trash,

which is essentially a waste by-product of the Paddy Crop and is widely farmed in India.

The burning of paddy in the field increases the risk of acute respiratory infection and contributes to air pollution by releasing toxic chemicals into the atmosphere. As a result, the approach outlined above reduces the requirement for field stubble burning.

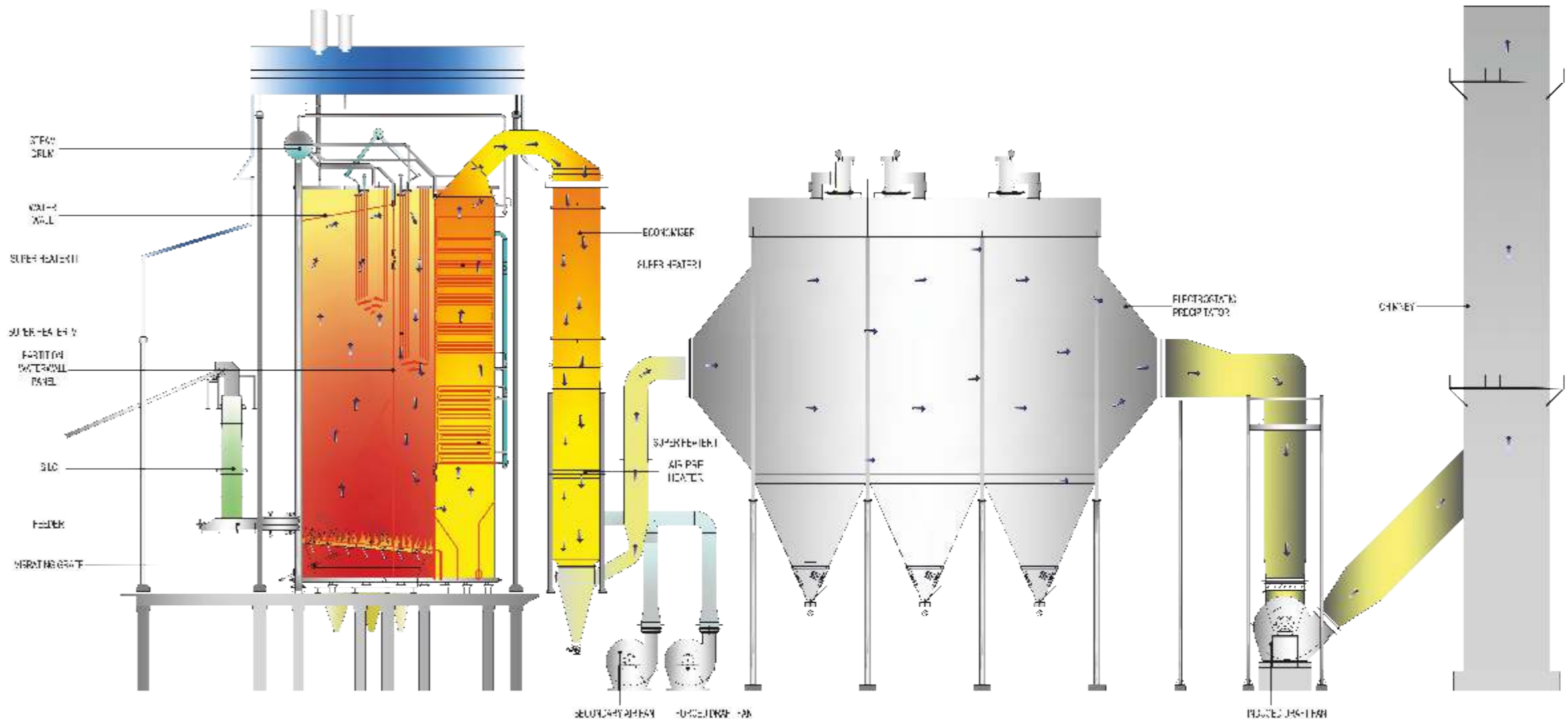


CBL developed a world-class solution to overcome this particular challenge by developing a mechanism to disintegrate and feed the Paddy Bale into the furnace as a combustion system i.e. **Water Cooled Vibrating Grate and Reciprocating Grate Boiler.**

Features of Water Cooled Vibrating Grate Boiler



- High efficiency as compare to other Grate Fired Boiler.
- Minimum fuel preparation requirement, flexibility in firing different fuel combinations.
- Higher pitched screen tubes, super heater and economizer eliminate the ash bridging.
- Tall and Multi pass furnace increases the residence time of flue gases, allow fuel to burn completely before entering the Convection Heating Surface.
- High Pressure, deep penetration secondary air jets are strategically located at multiple levels in furnace walls, ensuring proper turbulence and good mixing of volatiles with air and complete combustion.
- Hot Air helps in efficient burning of fuel even with higher moisture content also.
- Compartmentalized type Grate assembly ensures stage combustion with independent air control of each compartment.



Benefits of Water Cooled Vibrating Grate Boiler



- Higher combustion efficiency than available grate in the market.
- Low maintenance
- No fuel preparation required. Fuel can be fired in the form of Bale
- Shop assembled modular design reduces installation time.
- Suitable for complex and versatile biomass fuel / high moisture fuel.
- Water cooled grate reduces maintenance cost and longer uptime of Boiler.



Some of our installation



> M/s BCL Industries Limited, Bathinda, Punjab
60 TPH, 67 Kg/cm², 490°C Boiler



> Nachiketa Papers Limited, Derabassi, Punjab
30 TPH, 70 Kg/cm², 495°C Boiler



> Premier Alcobev P. Ltd., Sansarpur, (H.P.)
60 TPH, 45 Kg/cm², 480°C Boiler





> M/s M G Petrochem Pvt. Ltd., Panchkula, Haryana
50 TPH, 68 Kg/cm², 490°C Boiler



Multiple Biomass Fuel Compatibility



Rice Straw Bale



Sugarcane Trash



Mustard Husk



Rice Husk



Soya Husk



Sunflower Husk



Coffee Husk



Briquettes



Cotton Stalk



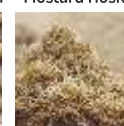
Coconut Shell



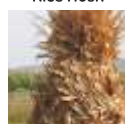
Ground nut Shell



Cashew nut Shell



Bagasse



Corn Stacks



Wood Chips



Wood Bark



Corn Cobs



Eucalyptus Leaves



Palm Fiber



Empty Fruit Bunches



Wheat Straw



Napier Grass

Few key references of Water Cooled Vibrating Grate Boiler



- > Satia Industries Ltd., Muktsar, Punjab
110 TPH, 87 Kg/cm², 515°C Boiler
75 TPH, 67 Kg/cm², 495°C Boiler
- > BCL Industries Ltd., Bathinda, Punjab
60 TPH, 67 Kg/cm², 490°C Boiler
- > Premier Alcobev P. Ltd., Sansarpur, (H.P.)
60 TPH, 45 Kg/cm², 480°C Boiler
- > M G Petrochem Pvt. Ltd., Panchkula, Haryana
50 TPH, 68 Kg/cm², 490°C Boiler
- > Hygena Life Sciences Pvt. Ltd., Nalagarh, (H.P.)
40 TPH, 67 Kg/cm², 490°C Boiler
- > Nachiketa Papers Limited, Derabassi, Punjab
30 TPH, 70 Kg/cm², 495°C Boiler
- > Satkar Paper Mills, Ludhiana, Punjab
30 TPH, 68 Kg/cm², 490°C Boiler
- > Harp Chemicals Pvt. Ltd., Sangrur, Punjab
26 TPH, 45 Kg/cm², 450°C Boiler
- > VRV Hospitality Pvt. Ltd., Gurdaspur, Punjab
26 TPH, 45 Kg/cm², 450°C Boiler
- > TC Terrytex Limited, Lalru, Punjab
32 TPH, 68 Kg/cm², 490°C Boiler
and many more...

Our Offerings

CPP/IPP

- > Power Boilers
 - > Atmospheric Fluidized Bed Combustion Boiler (AFBC)
 - > Reciprocating Grate/Travelling Grate/ Dumping Grate/Pulsating Grate
- > Waste Heat Recovery Boilers (WHRB)
- > Slop Fired Boilers

Process Industrial Boilers

- > Hypac - AFBC
- > Energypac - Grate Fired
- > Energypac Plus
- > Oil / Gas Fired
- > Effypac - Manual / Auto Fired

Thermic Fluid Heater

- > AFBC/Grate/Oil & Gas

Retrofit and Spares

- > Spares for Boilers / TFH
- > Structures
- > Centrifugal Fans
- > Boiler Services
 - > Annual Service Contract
 - > Engineering & Operation audit of Boilers
 - > O&M Services
 - > RLA/ Health audit of Boiler
- > Pollution Control Equipment's
 - > Electrostatic Precipitators (ESP)
 - > Bag Filter
 - > Cyclones
 - > Wet Scrubber
- > Automation

Boiler Water Solution

- > Pre-Treatment
 - > Clarification
 - > Filtration
- > Resin Based System
 - > Demineralization (DM)
 - > Softeners
 - > Electrodeionization (EDI)
- > Membrane Based System
 - > Reverse Osmosis (RO)
 - > Nanofiltration (NF)
 - > Ultrafiltration (UF)
- > Water Recycling System
 - > Zero Liquid Discharge Systems (ZLD)

SERVICE SUPPORT - 24x7
Tel: +91-7777881225



CBL quality standards are inspected and certified by prestigious global agencies like:



Certifications and Accreditations

- ISO 9001:2015
- ISO 14001:2015
- ISO 45001:2018
- ISO 3834-2:2005
- EN1090-1:2009 + A1: 2011
- EN1090-2:2018
- ASME 'U', 'S' & 'H' Certificates

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