

WE ALSO SPECIALIZE IN:

- Steam Boilers fired with Coal, Wood or any other Solid fuels, Oil, Gas, Oil cum Gas.
- Thermic fluid heaters fired with Coal, Wood, Husk, Oil, Gas, Oil cum Gas.
- Hot Water Boilers fired with Coal, Wood, Husk, Oil, Gas, Oil cum Gas.
- Hot Air Generators fired with Oil, Gas, Oil cum Gas.
- Non-IBR Steam Boilers fired with Oil, Gas.
- Small Industrial Boilers fired with Coal, Wood, Oil and Gas.
- Economisers, Gasifier, Super Heaters, Boiler Coils and other Boiler Accessories.

SALES & SERVICE:

We assist you in the selection of the correct size of boilers, boiler house layout, supply and erection of complete boiler house auxiliaries, supply of spares as well as commissioning and advising on the maintenance and operation of your boiler.

A fully trained and competent team of Service Engineers are available whenever necessary at all our branches. All our branches are well equipped with essential instruments, tools and spares required for a variety of maintenance and repairs.

SALES & SERVICE OFFICES AT:

Bangalore, Bhuvaneshwar, Cochin, Davangere, Hyderabad, Kolkatta, Madurai, Tirupur & Sri Lanka.



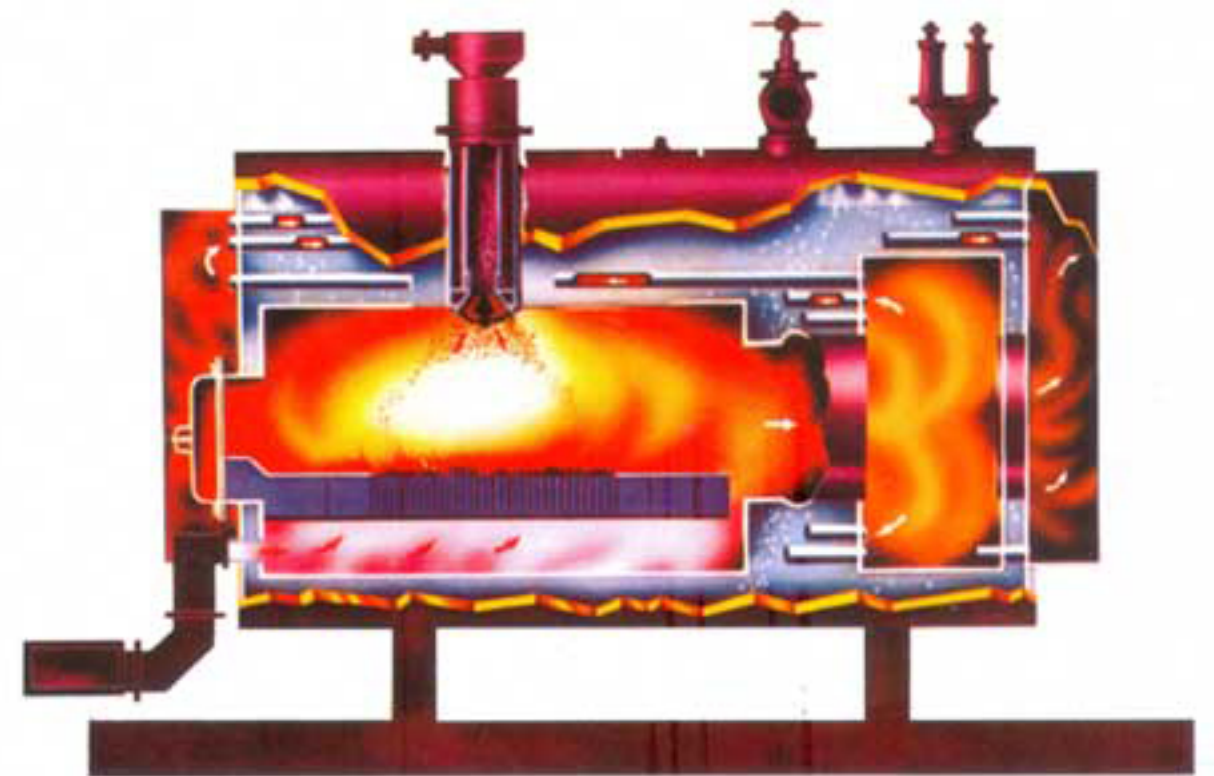
SOUTHERN BOILERS AND EQUIPMENTS (P) LTD.

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Tamil Nadu, India. Phone : 04116-662120 / 663531.

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THREE PASS PACKAGED WETBACK BOILERS

HUSK ♦ LIGNITE ♦ COAL
♦ BIO MASS FIRED



SOUTHERN BOILERS AND EQUIPMENTS (P) LTD.

OPERATING PRINCIPLE

Our coal/Husk fired packaged boilers are specially designed for burning low/medium grade Coal, Husk which are available in our local markets. The Coal is fed into the hopper after crushing coal in coal crusher for proper sizing. Husk can be fed as such in available condition. From hopper the fuel is fed to a screw conveyor which is driven by a motorized variable speed drive. The speed is regulated according to the steam load on the boiler. From the screw-feeder the fuel is pneumatically transported and fed with a high degree of swirl from the top of the integral furnace. When the fuel particles enter the furnace, they are subjected to intense heating.

As a result, almost 50% of the weight of the fuel burns in suspension and the balance resulting char particles burn on the grate. The air is given from the bottom as well from the top. The primary air is supplied from the bottom of the furnace through specially designed, heat resistant c.i. Fire bars. The secondary air is supplied from the top of the furnace with a high degree of turbulence to the furnace gases and ensure vigorous mixing and complete combustion. The high degree of turbulence enhances combustion efficiency, and ensures high flame temperature and increases radiant heat transfer to the furnace walls. The wetback chamber, at rear of the furnace effectively absorbs the heat from the flame entering the chamber. The flue gases then takes the second and third passes through the smoke tubes, which effectively

absorbs all the useful heat resulting in high thermal efficiencies.

FEATURES

- Horizontal packaged boiler.
- 3-pass fully wet-back construction.
- Automatic fuel feeding.
- Integral furnace - minimum heat loss.
- Easy access for Inspection and cleaning.
- Specially designed heat resistant Cast Iron fire bars.

HIGH EFFICIENCY

High degree of turbulence caused by the interaction of the primary and secondary air streams enhances heat release rates and ensures high thermal efficiencies of 80 +/- 2%.

CONSTRUCTION

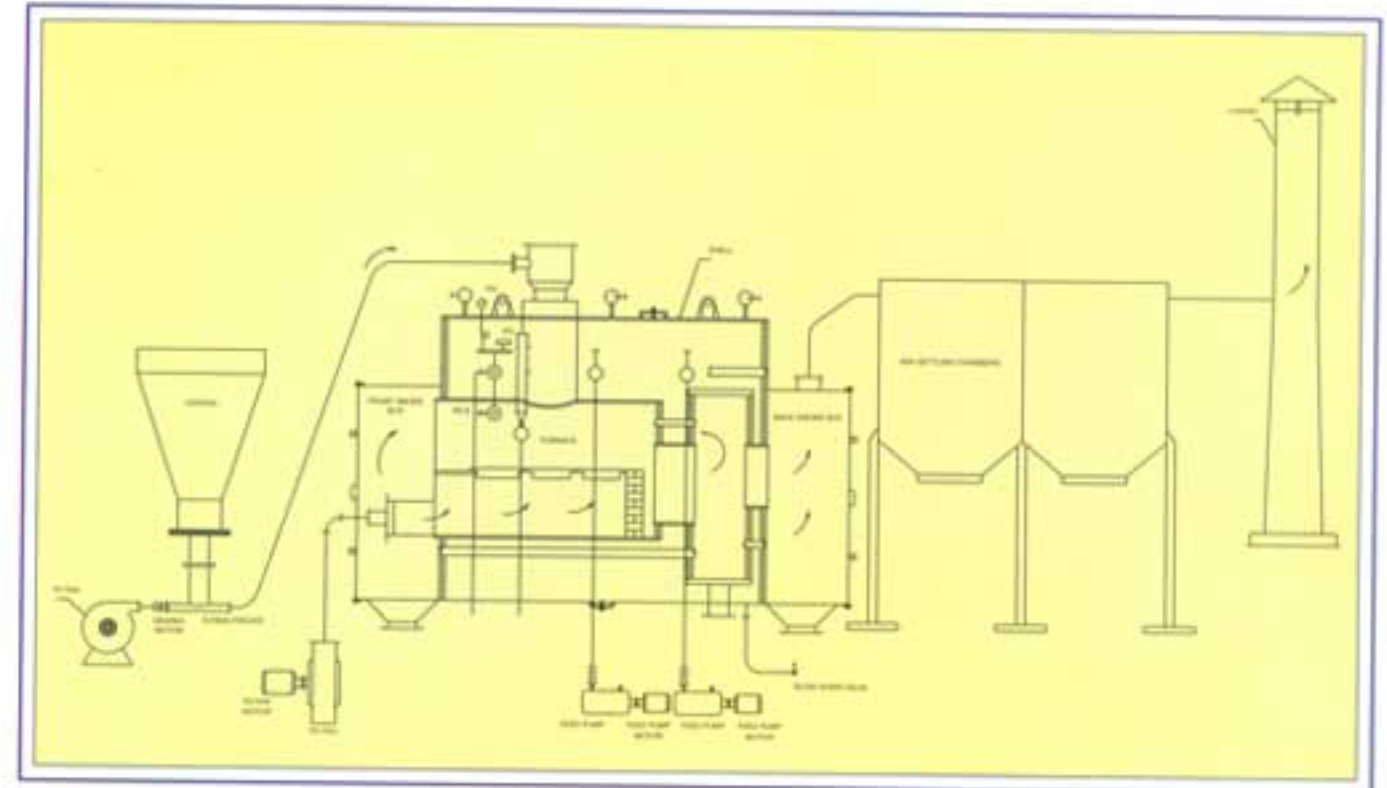
Our boilers are manufactured in accordance with the stringent standards laid down by the Indian Boiler Regulation Code. Boiler quality steel plates and tubes are used and strict quality control is enforced at every stage of construction. All welding seams are Xray inspected and hydrottested.

INSULATION

Our boilers are insulated so that heat losses are minimum thus ensuring high efficiency.

ELECTRICAL

We supply a dust - proof control panel with relays, controls for safe operation and for full



Schematic Diagram

overload protection for motors. All motors, wiring and other components conform to the specifications laid down by the Indian Bureau of Standards.

STANDARD SCOPE OF SUPPLY

- Boiler with furnace, rear wet back chamber, smoke tubes and fusible plug manufactured, tested and certified by Indian Boiler Regulating authorities.
- Thermal insulation with protective covering.
- One set of specially designed heat-resistant fire-bars with tight sealed fire-door.
- Fuel feeding system comprising of variable speed screw conveyor, transport blower and drop tube in the boiler.
- Feed water system comprising two

numbers of motorised feed water pumps, pipe line to boiler and automatic feed-water controller.

- IBR Quality boiler mountings comprising of one safety valve, one pressure gauge with syphon, one steam-stop valve, two feed check valves, one blowdown valve and one air-vent valve.
- Forced Draught Fan with primary and secondary air-ducts.
- Control panel for boiler and it's auxiliaries.

CAPACITIES

We manufacture this type of boilers in various capacities from 750 kgs/hr to 4000 kgs/hr with standard pressures of 10.54, 14 and 17 kgs/cm².