

# Essar Steel Mill Power Station Hazira - India



## Two Multi Fuel Fired Drum Boilers

### The Award

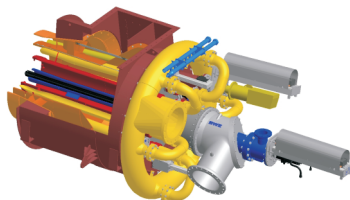
BWE Energy India was given the award of two 150 MWe multi fuel boilers in 2010. The execution will be supported with engineering and supervision by Burmeister & Wain Energy A/S in Denmark from where the core technology originates. The contract comprises the design, supply, supervision and commissioning.

### The Site

The boiler will be installed at the ESSAR Steel Mill in Hazira and will be part of a captive power plant that will deliver steam and power to the Steel Mill and export electricity to the grid.

### The Multi Fuel System

The two Drum Boilers are designed to fire a number of different fuels. Main fuels are COREX Gas and COREX Coal besides a variety of other coal



The boilers are, however, also capable of firing COREX Coal Fines, Corex Coal Dust, HFO and LDO.

The Multi Fuel System has been engineered to obtain the maximum flexibility and operationability with the various fuels. The flexibility is important for the consistent operation of the Steel Mill. Within minutes, switch between the various fuels can be accomplished to support the actual availability of each individual fuel type.

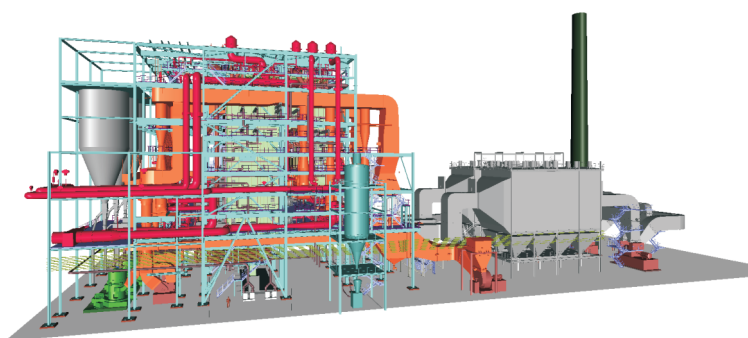
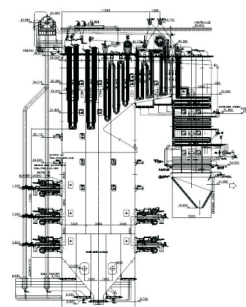
### The Burners

The 20 Multi Fuel Burners makes it possible to fire 100 % Coal, Coal Fines, Dust or Gas or any reasonable combination of the four.

In order to obtain the best possible combustion of all fuels, only one fuel is introduced in one burner at a time.

### The Boiler

The Boiler is of the drum type and with single reheat. The Boiler has a compact character considering the number of fuel systems present. The steel structure, galleries and auxiliaries around it have been managed with excellence to provide functionality and maintenance to all systems.



### World leader in steam power technology

Burmeister & Wain Energy A/S has specialized in the development and design of advanced steam boiler plants for utility and biomass fired power stations.

Furthermore, BWE designs a wide range of auxiliary power station equipment such as the BWE Low-NOx coal/oil/N-gas/biomass burners, Air Preheaters and Gas-Gas Heaters.

BWE is part of the Italian STF S.p.A. Group.

### Boiler Specification:

Boiler Capacity (BMCR) .....	418 MW
Turbine Capacity (TMCR) .....	150 Mwe
Fuel Consumption (BMCR):	
Coal .....	57.8 t/h
Gas .....	236.9 t/h
Steam Capacity:	
HP-part .....	487 t/h
RH-part .....	462 t/h
Steam Pressure:	
HP-part .....	141 bar
RH-part .....	33 bar
Steam Temperature:	
HP-part .....	540 °C
RH-part .....	540 °C
Efficiency (LVH).....	93.8 %

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