

TECHNOLOGY FOR SOFT COKE MAKING OVEN

Description

Coal Carbonization Division, CSIR-CIMFR developed ovens for soft coke production which is energy efficient, environment friendly and of low capital investment and has successfully. Numbers of such oven have been erected and commissioned for a capacity of 1.5 to 2.01 t coal throughput per oven for 16 hrs. carbonization and one hour charging and discharging. These are connected with a single common chimney of minimum 40 ft height.

The ovens, made of standard refractory bricks, are arch shaped having a single door which can be removed during discharge. Coal is charged in the previously heated oven and the door is placed and sealed with mud. The volatiles coming out of the coal is partly burnt and the heat generated during combustion of the volatiles help to maintain the temperature of the oven. The flue gas generated is typically channelised into the sole of the oven with hindrance created by special design resulting higher sole temperature which helps to burn out the remaining volatile matters and eliminate the tarry matter in the gas before being drained through the chimney. The circulation of the flue gas generated during low/medium temperature carbonization of coal achieves the following benefits:

- a) Higher temperature of sole which reduces the coking time and thus increase productivity.
- b) Allows the tarry matters coming out during carbonization, to be completely burnt/partly settled with the help pf secondary air injected through the holes selectively placed inside the oven. Entry of secondary air can be regulated through the side holes as well as dampers and if necessary can be utilized to dilute the emitted gas from the chimney.
- c) Reduces pollution.



Transferred Improved Soft Coke Making Technology to :

- a) M/s Kahakasha Enterprises, Jharkhand
- b) M/s Ganpati Enterprises, Bihar
- c) M/s Shardapunj Fuel Coke Pvt. Ltd., UP
- d) M/s Eastern Fuels Pvt. Ltd., UP
- e) M/s Sidhgiri Holdings Pvt. Ltd. UP



Completed Soft Coke Plant Based on CSIR-CIMFR Technology



Soft Coke Plant Under Construction