

SYSTEM FOR DRYING COAL USING SUPERHEATED STEAM

Abstract of the Disclosure

5 The present disclosure relates to a coal drying system for removing water contained in coal used as a fuel of a thermoelectric power plant with superheated steam. The system includes a superheated steam boiler for generating superheated steam by heating water supplied from a water
10 tank with combustion of a fuel supplied from a gas tank; a high temperature air supplier for generating high temperature air by combusting the fuel supplied from the gas tank and then blowing the air; a superheated steam drying device for removing water of a surface of the coal
15 with superheated steam supplied from the superheated steam boiler while transferring the coal, which is transferred from a coal storage place through a trough conveyor belt and arranged by an arrangement device, through a steam conveyor belt; one or more high temperature air drying
20 devices for removing water within the coal with high temperature air supplied from the high temperature air supplier while transferring the coal passing the superheated steam drying device through a dry conveyor belt; and a natural drying device for drying the coal
25 passing the high temperature air drying device such that

water of the coal is naturally evaporated at room temperature while transferring the coal through a flat conveyor belt, to decrease a temperature of the coal. Accordingly, the system prevents the incomplete combustion
5 of the coal by removing water existing inside and outside the coal fuel of the thermoelectric power plane, thereby improving a heating value of coal and minimizing the discharge of pollutants, prevents the corrosion of the system and improves the durability, and increases the use
10 of low-quality coal of which the demand is low, thereby improving the stable supply of the coal.

Fig.1