

Abstract

To carry out a process for regulating individual factors or all factors influencing combustion on a furnace grate, a radar device (22) is provided primarily. This radar device (22) serves to detect the three-dimensional distribution of the fuel mass on at least one preferred region of the grate. In addition, an infrared camera (23) is provided for supplying information on the burn-up behavior of the fuel located on the grate. By using the measured quantities obtained from these two devices, control variables may be derived within a regulating unit for influencing the grate speed, the charging device, the amount and composition of supplied primary air, the amount and composition of supplied secondary air, the speed of the ash roller and the temperature of the air preheating device so that the furnace performance can be adapted to the steam output requirement. In addition to improving the fuel burn-up on the grate, it is also possible to influence the exhaust gas in an advantageous manner, for instance, with respect to the formation of unburned gas components and nitrogen oxides.

(Figure 1)

