

Title (en)
BURNER WITH LINEAR ARRAYS OF FIRE HOLES

Title (de)
BRENNER MIT LINEAREN ANORDNUNGEN VON FEUERLÖCHERN

Title (fr)
BRÛLEUR AVEC RANGÉES LINÉAIRES DE TROUS COUPE-FEU

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Abstract (en)
A burner with linear arrays of fire holes, comprising at least one combustion unit, a secondary air regulation panel and a fuel gas transmission unit; the present invention uses a pattern of 2:1 repeated longitudinal arrangement of flame ports along each combustion unit and modifies the structures of the fuel gas channel and the gas regulation channel, so as to increase the burning area of the fire holes, change the burning power at the surfaces of the fire holes, and reduce the height of the burning flame at the fire holes. By using the primary air inlet openings having elongated shapes and auxiliary air inlet openings having circular shapes on the secondary air regulation panel, the combustion coefficient α_1 of the fuel is changed so that the flame is lowered and hence reduces the emissions of NO_x during thermal reaction. The present invention reduces the height of the burning flame at the fire holes, reduces the temperature of the flame, and obviously reduces the emissions of NO_x during thermal reaction of the burner. Thus, the burner of the present invention has the advantages of small load, reduced vibration and reduced noise during burning.

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