Title (en)

RADIANT BURNER FOR NOXIOUS GAS INCINERATION

Title (de)

STRAHLUNGSBRENNER ZUR VERBRENNUNG VON SCHÄDLICHEM GAS

Title (fr)

BRÛLEUR RADIANT POUR L'INCINÉRATION DE GAZ NOCIF

Publication

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Application

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Priority

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Abstract (en)

[origin: GB2532776A] A radiant burner 8 for treating an effluent gas stream from a manufacturing process tool has a sintered metal fibre sleeve 100 through which combustion materials pass for combustion proximate to an inner combustion surface 21 of the sintered metal fibre sleeve. The burner further includes an insulating sleeve 130 surrounding the sintered metal fibre sleeve and through which the combustion materials pass. The invention also relates to a method of operating the radiant burner by determining the outer surface temperature of the burners sintered metal fibre sleeve and supplying the combustion materials in one of a plurality of mix ratios selected in response to the determined temperature. By providing the insulating sleeve, the temperature within the radiant burner and the temperature of an outer surface of the radiant burner remain comparable with existing ceramic burners. Therefore, in use, the radiant burner does not crack if rapid cycling caused by frequent idle steps of the process tool occur, and during which the burner is extinguished. The radiant burner can therefore be substituted as a crack-resistant burner in place of an existing ceramic burner.

IPC 8 full level

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