

Title (en)

BACK-VENTILATED FIRE-RESISTANT WALL, IN PARTICULAR FOR A COMBUSTION FURNACE

Title (de)

HINTERLÜFTETE FEUERFESTE WAND, INSBESONDERE FÜR EINEN VERBRENNUNGSOFEN

Title (fr)

PAROI RÉFRACTAIRE VENTILÉE PAR L'ARRIÈRE, EN PARTICULIER POUR UN FOUR À COMBUSTION

Publication

EP 2326879 B1 20160921 (DE)

Application

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Priority

- CH 2009000277 W 20090821
- CH 13622008 A 20080826

Abstract (en)

[origin: WO2010022523A2] A fire-resistant wall intended in particular for use in a combustion furnace comprises a tube wall (1), composed of tubes (11) connected by webs (12), and, placed in front at a distance from the tube wall, a fire-resistant protective cladding (2) composed of a plurality of fire-resistant panels (21) which are arranged next to and above one another and which are fastened to the webs (12) of the tube wall via in each case at least one panel holder (22). The panels (21) are provided with continuous open grooves (21a) into which the panel holders (22) engage. In the tube wall (1) are provided inlet openings (31) via which air can be introduced into the gap (3) between the tube wall (1) and the protective cladding (2). Also provided are outlet openings through which air can be removed from the wall. The air supply openings (31) are arranged in the region of the open grooves (21a) of the panels (21), with the result that the supplied air flows directly into the grooves and is distributed through these grooves over the entire wall. By incorporating the grooves (21a) into the air distribution system within the wall, the gap width (d) between the tube wall (1) and the protective cladding (2) can be reduced to £ 5 mm, thereby considerably improving the heat transfer. It is possible at the same time to manage with relatively small air volumes and the pressure loss is considerably reduced, making it possible to achieve considerable energy savings.

IPC 8 full level

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CPC (source: EP US)

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