

Title (en)

APPARATUS TO CLEAR THE FLAME AREA IN A ROTARY DRUM FURNACE USING DIRECT HEATING, AND ARRANGEMENT AND CONSTRUCTION OF THE SHOVELS

Publication

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Application

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Priority

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Abstract (en)

[origin: EP0327650A1] The invention relates to a process to clear the coaxially running flame area of a directly fired rotary drum furnace (1) for drying and heating bulk material (5), in particular grain-graded mineral substances or granulates made of mineral substances and bituminous binders by means of shovels (3) which are arranged in the direction of rotation, are partially open to the inner circumference (2) of the rotary drum furnace (1) and the edge limits of which form scooping edges (3.5), as well as the design and arrangement of shovels (3) in a directly fired rotary drum furnace (1) with uniform separation over its inner circumference (2). Criteria of these inventions are a) the reduction of the degree of filling of the shovels (3), occurring at constant material feed, to a given filling volume which allows greater mobility of the material inside the shovels and thus promotes heat transmission by contact to the material; b) prevention of shovel emptying until quadrant II of the rotary drum furnace (1) is reached; c) the special design of the rear wall (3.1) of the respectively leading shovel (3) with an indentation forming a channel (3.2) which receives the discarded residual volume of the bulk material (5), avoiding development of spraying grain and d) the necessary free space for the development of the coaxially running flame area is produced. <IMAGE>

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