

Title (en)
TUNNEL-TYPE MUFFLE OVEN FOR THERMAL TREATMENT

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Application
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Priority
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Abstract (en)
[origin: US4568279A] This invention relates to a muffle furnace, for continuous heat treatment during passage of material therethrough, of products, the production cycle of which includes a treatment of predetermined duration at a temperature which may be about 1100 DEG to about 1150 DEG C., which furnace is heated by a flame producing burner without the combustion gases directly contacting the products to be treated. This furnace comprises: an inlet zone provided with a means for preheating, by circulating recycled combustion gases in a double casing provided around the muffle; a heating zone, provided inside a heat-insulated chamber provided with at least one means for circulating combustion gases around the heating zone of the muffle; and an outlet zone provided with at least one means for controlling the cooling rate of the treated product. For the heat treatment of refractory or carbon-containing products, impregnated with a carbon-containing material such as pitch, the pyrolysis of which produces combustible vapors, the heating zone is divided into three sections by means of an additional partition: a zone for exuding and removing volatile materials from the pitch; a zone for pyrolyzing and carbonizing the pitch; and a final firing zone.

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