

Title (en)

METHOD AND APPARATUS FOR THE COOLING OF VESSEL PARTS OF A METALLURGICAL FURNACE, ESPECIALLY AN ELECTRIC-ARC FURNACE

Publication

EP 0044512 B1 19840201 (DE)

Application

EP 81105529 A 19810714

Priority

DE 3027465 A 19800719

Abstract (en)

[origin: EP0044512A1] 1. A process for cooling parts of the container structure of a metallurgical furnace, which parts are subject to thermal loadings which fluctuate in respect of time and position, comprising a cooling box which is fitted into the wall region to be cooled or which forms the wall region and which includes a heat exchange surface on to which a cooling fluid is sprayed, characterised in that the temperature distribution in respect of space and time, on the heat exchange surface, is detected by a plurality of independent temperature measuring means and cooling fluid is sprayed on to the heat exchange surface region associated with the measurement value, over a large area thereof or in a localised manner, only so long as the respective measurement value is above the boiling point of the cooling fluid, and that the amount of cooling fluid so sprayed is limited to a value in respect of which the cooling fluid is caused to evaporate spontaneously avoiding the formation of a coherent film of fluid.

IPC 1-7

F27D 1/12; F27B 3/24; F27D 9/00

IPC 8 full level

F27B 3/08 (2006.01); **F27B 3/24** (2006.01); **F27D 1/12** (2006.01); **F27D 9/00** (2006.01); **H05B 7/06** (2006.01)

CPC (source: EP)

F27B 3/24 (2013.01); **F27D 1/12** (2013.01); **H05B 7/06** (2013.01); **F27D 2009/0016** (2013.01); **F27D 2009/004** (2013.01)

Cited by

US5653936A; DE102009031355A1; EP0335042A1; EP0393970A3; EP0472254A3; DE3603783A1; LU91408B1; DE4103508A1; US5290016A; EP0740121A1; AU679580B2; US5797274A; US11619450B2; EP0423003A1; FR2652890A1; US5125003A; EP0197137A4; AU592957B2; US7644752B2; US7527715B2; WO9512797A1; WO2009087183A1; WO8903011A1; WO2006089971A3; EP2449136A2

Designated contracting state (EPC)

AT CH GB LI

DOCDB simple family (publication)

EP 0044512 A1 19820127; EP 0044512 B1 19840201; AT E6095 T1 19840215; BR 8104601 A 19820406; DE 3027465 C1 19820318; ES 504094 A0 19820616; ES 8205459 A1 19820616; JP S5752788 A 19820329

DOCDB simple family (application)

EP 81105529 A 19810714; AT 81105529 T 19810714; BR 8104601 A 19810717; DE 3027465 A 19800719; ES 504094 A 19810718; JP 11288481 A 19810717