

Title (en)  
OXIDATION FURNACE

Title (de)  
OXIDATIONSOFEN

Title (fr)  
FOUR D'OXYDATION

Publication  
**EP 2534287 A1 20121219 (DE)**

Application  
**EP 11701767 A 20110129**

Priority  
• DE 102010007480 A 20100209  
• EP 2011000415 W 20110129

Abstract (en)  
[origin: WO2011098223A1] The invention relates to an oxidation furnace (1) for the oxidative treatment of fibres (20), especially for producing carbon fibres, which, in known ways, comprises a process chamber (6) arranged inside a housing (2), a blowing device (13) arranged in the centre of the process chamber (6), a suction device (14, 15) respectively arranged in the two opposite end regions of the process chamber (6), at least one ventilator (21) that circulates the hot air through the blowing device (13), the process chamber (6) and the suction devices (14, 15), and at least one heating device (18) arranged in the flow path of the hot circulated air. The blowing device (13) comprises a plurality of vertically interspaced blowing boxes (18; 118) comprising an inlet, and, respectively on opposite sides, outlets for the hot air. Optionally, two stacks of vertically interspaced blowing boxes (18) are provided, said blowing boxes being interspaced one behind the other in the direction of movement of the fibres (20), and/or the built-in boxes (118) in a stack comprise at least one additional outlet (130) in the upper side and the lower side, for hot air. In this construction, the effective length of the sections in which the fibres are subjected to the oxidising process is extended, compared to conventional constructions, so that the furnace can especially be built at a lower level.

IPC 8 full level  
**D01F 9/32** (2006.01); **D02J 13/00** (2006.01); **F27B 9/28** (2006.01); **F27B 9/30** (2006.01); **F27D 7/00** (2006.01)

CPC (source: EP)  
**D01F 9/32** (2013.01); **D02J 13/001** (2013.01); **F27B 9/28** (2013.01); **F27B 9/3005** (2013.01); **F27D 7/00** (2013.01)

Citation (search report)  
See references of WO 2011098223A1

Cited by  
DE102014009244A1; DE102014009244B4; US11236444B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**DE 102010007480 B3 20110721**; CN 102782198 A 20121114; CN 102782198 B 20140903; EP 2534287 A1 20121219;  
EP 2534287 B1 20141105; ES 2526296 T3 20150109; JP 2013519005 A 20130523; JP 5856082 B2 20160209; WO 2011098223 A1 20110818

DOCDB simple family (application)  
**DE 102010007480 A 20100209**; CN 201180008871 A 20110129; EP 11701767 A 20110129; EP 2011000415 W 20110129;  
ES 11701767 T 20110129; JP 2012552293 A 20110129