

Title (en)  
Shaft furnace

Title (de)  
Schachtofen

Title (fr)  
Four à cuve

Publication  
**EP 1930678 A3 20081231 (EN)**

Application  
**EP 07023876 A 20071210**

Priority  
• IR 138538200 A 20061211  
• DE 102006062689 A 20061221

Abstract (en)  
[origin: EP1930448A2] The invention refers to a vertical shaft furnace (100) for a burden (115) moving under the influence of gravity from the top to the bottom of the shaft furnace, in particular for the production of directly reduced iron, with at least one furnace outlet (120) provided at the top of the shaft furnace, which is characterized in that the central axis of the furnace gas outlet (120) is slanted with regard to the horizontal by an angle of 45 to 55°.

IPC 8 full level  
**C21B 13/02** (2006.01); **F27B 1/00** (2006.01); **F27B 1/16** (2006.01); **F27B 1/18** (2006.01)

CPC (source: EP)  
**C21B 13/02** (2013.01); **F27B 1/005** (2013.01); **F27B 1/16** (2013.01); **F27B 1/18** (2013.01); **F27D 17/001** (2013.01)

Citation (search report)  
• [XY] AU 459472 B2 19750311  
• [XY] WO 9420642 A1 19940915 - AIR LIQUIDE [FR], et al  
• [XY] US 4536213 A 19850820 - SANZENBACHER CHARLES W [US]  
• [XY] GB 2016124 A 19790919 - HAMBURGER STAHLWERKE GMBH

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CN116769994A

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
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DOCDB simple family (publication)  
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DE 202007019452 U1 20120827; DE 202007019472 U1 20121012; DE 602007007561 D1 20100819; EP 1930449 A2 20080611;  
EP 1930449 A3 20090107; EP 1930449 B1 20120627; EP 1930678 A2 20080611; EP 1930678 A3 20081231; EP 1930678 B1 20120627;  
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**EP 07023875 A 20071210**; AT 07023875 T 20071210; DE 202007019169 U 20071210; DE 202007019452 U 20071210;  
DE 202007019472 U 20071210; DE 602007007561 T 20071210; EP 07023876 A 20071210; EP 07023877 A 20071210;  
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