

Title (en)

Furnace for the partial thermic treatment of tools.

Title (de)

Ofen zur partiellen Wärmebehandlung von Werkzeugen.

Title (fr)

Four pour le traitement thermique partiel d'outils.

Publication

EP 0422353 B1 19941012 (DE)

Application

EP 90115231 A 19900808

Priority

DE 3934103 A 19891012

Abstract (en)

[origin: US5052923A] An oven for the partial heat treatment of tools, for example, twist drills, comprises a first section, which contains the heating chamber that is constantly at the desired operating temperature. A second section for the loading and unloading and the quenching is provided. Between the two sections there is arranged a transport device for the charges of tools. The oven may be in the form of a one-chamber or three-chamber vacuum oven. The oven provides a high heat transfer rate, because the heating chamber is constantly at the desired operating temperature and the heat transfer by heat radiation under vacuum is started immediately when the charge is at its final position inside the heating chamber.

IPC 1-7

C21D 9/22; **F27B 17/00**; **F27B 5/02**; **F27B 5/04**

IPC 8 full level

C21D 1/773 (2006.01); **C21D 9/00** (2006.01); **C21D 9/22** (2006.01); **F27B 5/02** (2006.01); **F27B 5/04** (2006.01); **F27B 5/05** (2006.01); **F27B 17/00** (2006.01); **F27D 3/12** (2006.01); **F27D 5/00** (2006.01)

CPC (source: EP US)

C21D 1/773 (2013.01 - EP US); **C21D 9/0025** (2013.01 - EP US); **C21D 9/22** (2013.01 - EP US); **F27B 5/04** (2013.01 - EP US); **F27B 17/0033** (2013.01 - EP US); **F27D 3/12** (2013.01 - EP US); **F27D 5/005** (2013.01 - EP US)

Cited by

EP1726665A4; AU2001272673B2; EP0536108A1; EP0609492A1; US5417567A; EP0615106A3; FR2917752A1; US8580052B2; US6632302B2; US7625204B2; US9303303B2; WO2009000751A1; WO2010012270A1; WO0210465A1; WO2007054398A1; WO2007118489A1; WO2011029565A1; WO2005090616A1; US7771193B2; US8101120B2; US10196730B2; US9518318B2; US9303294B2

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EP 0422353 A2 19910417; **EP 0422353 A3 19910717**; **EP 0422353 B1 19941012**; AT E112807 T1 19941015; DE 3934103 A1 19910425; DE 59007443 D1 19941117; ES 2064560 T3 19950201; US 5052923 A 19911001

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