

Title (en)

VERTICAL HEAT TREATMENT SYSTEM

Title (de)

VERTIKALES WÄRMEBEHANDLUNGSSYSTEM

Title (fr)

SYSTÈME DE TRAITEMENT THERMIQUE VERTICAL

Publication

EP 2139628 A2 20100106 (EN)

Application

EP 08744427 A 20080327

Priority

- US 2008058348 W 20080327
- US 90874307 P 20070329
- US 90904807 P 20070330

Abstract (en)

[origin: US2008236779A1] A system and method for forming and heat treating metal castings is provided with a vertical heat treatment unit positioned adjacent and downstream from a pouring station at which a series of molds are filled with a molten metal to form the castings. The vertical heat treatment unit includes a vertically oriented furnace chamber in which the castings are received, and which has a reduced footprint to reduce the manufacturing floor space required for the vertical heat treatment unit, and to enable the vertical heat treatment unit to be positioned in close proximity to the pouring station.

IPC 8 full level

B22D 47/02 (2006.01); **C21D 9/00** (2006.01); **F27B 9/02** (2006.01); **F27B 9/10** (2006.01); **F27B 9/16** (2006.01); **F27B 9/24** (2006.01)

CPC (source: EP US)

B22D 45/00 (2013.01 - US); **B22D 47/00** (2013.01 - US); **B22D 47/02** (2013.01 - EP US); **C21D 9/0006** (2013.01 - US);
C21D 9/005 (2013.01 - EP US); **F27B 9/16** (2013.01 - EP US); **F27B 9/243** (2013.01 - EP US)

Citation (search report)

See references of WO 2008121671A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

US 2008236779 A1 20081002; CN 101678450 A 20100324; CN 101678450 B 20160309; EP 2139628 A2 20100106; EP 2139628 B1 20130227;
EP 2489452 A2 20120822; EP 2489452 A3 20130501; US 2015343531 A1 20151203; WO 2008121671 A2 20081009;
WO 2008121671 A3 20081218

DOCDB simple family (application)

US 5635908 A 20080327; CN 200880016418 A 20080327; EP 08744427 A 20080327; EP 12167544 A 20080327; US 2008058348 W 20080327;
US 201514734173 A 20150609