

Title (en)
DUAL VACUUM INDUCTION MELTING&CASTING

Title (de)
DOPPELVAKUUMINDUKTIONSSCHMELZEN UND -GIESSEN

Title (fr)
FUSION ET COULÉE PAR INDUCTION SOUS VIDE DOUBLE

Publication
EP 3212353 A4 20180613 (EN)

Application
EP 15856007 A 20150626

Priority
• US 201462072635 P 20141030
• US 2015038065 W 20150626

Abstract (en)
[origin: US2016121394A1] A furnace system for melting and casting metals, alloys, and superalloys and a related method. A melt chamber of the furnace system is configured and arranged to include at least two melt boxes, thereby increasing the volume of alloy charge that can be rendered molten during a single furnace heating cycle. Accordingly, a number of ceramic casting molds equal to the number of melt boxes can be used to form castings following a single furnace heating cycle. The ceramic casting molds can be pre-heated in an external oven before being introduced to the mold or loading chamber of the furnace system. The throughput of the furnace system is increased by the ability to pour more than one casting per alloy charge melting cycle.

IPC 8 full level
B22D 18/00 (2006.01); **B22D 18/06** (2006.01); **B22D 27/15** (2006.01); **B22D 47/00** (2006.01)

CPC (source: EP US)
B22D 2/006 (2013.01 - US); **B22D 21/025** (2013.01 - US); **B22D 27/15** (2013.01 - EP US); **B22D 47/00** (2013.01 - EP US)

Citation (search report)
• [XY] US 2014251572 A1 20140911 - VOGT RUSSELL G [US], et al
• [Y] US 6981541 B2 20060103 - WARREN DAVID O [US]
• [Y] US 4055216 A 19771025 - ULYANOV VIKTOR LEONIDOVICH, et al
• [A] EP 2489451 A2 20120822 - UNITED TECHNOLOGIES CORP [US]
• See references of WO 2016069064A1

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)
US 2016121394 A1 20160505; EP 3212353 A1 20170906; EP 3212353 A4 20180613; JP 2017533099 A 20171109;
WO 2016069064 A1 20160506

DOCDB simple family (application)
US 201514751855 A 20150626; EP 15856007 A 20150626; JP 2017521227 A 20150626; US 2015038065 W 20150626