

Title (en)
HEAT TREATMENT FURNACE

Title (de)
WÄRMEBEHANDLUNGSOVEN

Title (fr)
FOUR DE TRAITEMENT THERMIQUE

Publication
EP 4023985 A1 20220706 (EN)

Application
EP 20859246 A 20200822

Priority
• JP 2019155082 A 20190827
• JP 2020031745 W 20200822

Abstract (en)

A purpose of the present disclosure is to provide a configuration of a heat treatment furnace for quenching that makes it possible to forgo the use of a converted gas and suitably prevent appearance of a modified layer resulting from decarburization or the like at a surface of a workpiece such as steel. A heat treatment furnace (10) according to an aspect of the present invention includes a gas supply section (26) configured to supply a neutral gas or an inert gas to a quenching heating chamber (12), and an internal structure such as a muffle (34) in the quenching heating chamber that is at least partially made from a graphite-based material.

IPC 8 full level

F27B 9/04 (2006.01); **C21D 1/18** (2006.01); **C21D 1/63** (2006.01); **C21D 1/76** (2006.01); **F27B 9/06** (2006.01); **F27B 9/34** (2006.01);
F27D 7/06 (2006.01)

CPC (source: EP KR)

C21D 1/18 (2013.01 - EP); **C21D 1/58** (2013.01 - EP KR); **C21D 1/62** (2013.01 - EP); **C21D 1/63** (2013.01 - EP KR); **C21D 1/74** (2013.01 - EP);
C21D 1/76 (2013.01 - KR); **C21D 9/0056** (2013.01 - EP); **C21D 9/0062** (2013.01 - EP); **F27B 9/025** (2013.01 - KR); **F27B 9/045** (2013.01 - EP);
F27B 9/047 (2013.01 - KR); **F27B 9/068** (2013.01 - EP); **F27B 9/24** (2013.01 - EP); **F27B 9/243** (2013.01 - KR); **F27B 9/34** (2013.01 - EP KR);
F27D 7/06 (2013.01 - EP KR); **F27D 2007/063** (2013.01 - KR)

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 4023985 A1 20220706; EP 4023985 A4 20230920; JP 6948746 B2 20211013; JP WO2021039677 A1 20210913;
KR 20220038479 A 20220328; WO 2021039677 A1 20210304

DOCDB simple family (application)

EP 20859246 A 20200822; JP 2020031745 W 20200822; JP 2021500986 A 20200822; KR 20227006566 A 20200822