

Title (en)

CONTROL DEVICE AND METHOD FOR CONTROLLING A SYSTEM AND A PROCESS FOR THE THERMAL TREATMENT OF METAL WORKPIECES

Title (de)

STEUEREINRICHTUNG UND VERFAHREN ZUR STEUERUNG EINER ANLAGE UND EINES PROZESSES ZUR WÄRMEBEHANDLUNG VON METALLISCHEN WERKSTÜCKEN

Title (fr)

DISPOSITIF DE COMMANDE ET PROCÉDÉ POUR COMMANDER UNE INSTALLATION ET UN PROCESSUS DE TRAITEMENT THERMIQUE DE PIÈCES MÉTALLIQUES

Publication

**EP 4314683 A1 20240207 (DE)**

Application

**EP 22722142 A 20220408**

Priority

- DE 102021109683 A 20210416
- EP 2022059357 W 20220408

Abstract (en)

[origin: WO2022218832A1] The invention relates to a control device and a method for controlling a process for the thermal treatment of metal workpieces by means of a hardening furnace, which comprises a heating portion for heating workpieces and a discharging portion for discharging workpieces from the hardening furnace, and by means a hardening press, the discharging portion being heatable. In accordance with the configuration of the control device and of the method carried out by means of the control device, the transport of workpieces through the heating portion is adjusted such that, in the heating portion, a defined heating dwell time and thermal history results for each workpiece. Furthermore, the transfer of heated workpieces from the heating portion into the discharging portion is adjusted such that said transfer occurs when the heating dwell time expires. For the discharging portion, heating power supplied is adjusted such that the workpieces are kept hot at a defined temperature level in the discharging portion.

IPC 8 full level

**F27B 9/02** (2006.01); **C21D 1/673** (2006.01); **C21D 9/00** (2006.01); **F27B 9/04** (2006.01)

CPC (source: EP)

**C21D 1/673** (2013.01); **C21D 1/773** (2013.01); **C21D 9/0018** (2013.01); **C21D 9/0056** (2013.01); **C21D 9/0062** (2013.01); **C21D 9/0068** (2013.01); **C21D 11/00** (2013.01); **F27B 9/028** (2013.01); **F27B 9/042** (2013.01); **F27D 2019/0028** (2013.01); **F27D 2019/0062** (2013.01)

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**DE 102022108513 A1 20221020**; EP 4314683 A1 20240207; WO 2022218832 A1 20221020; WO 2022218832 A9 20221208

DOCDB simple family (application)

**DE 102022108513 A 20220408**; EP 2022059357 W 20220408; EP 22722142 A 20220408