

Title (en)

PROCESS AND DEVICE FOR APPLYING A TEMPERATURE PROFILE TO METAL BLOCKS TO BE EXTRUDED

Title (de)

VERFAHREN UND VORRICHTUNG ZUR AUFBRINGUNG EINES TEMPERATURPROFILS AN FÜR DAS STRANGPRESSEN VORGESEHENEN METALLBLÖCKEN

Title (fr)

PROCEDE ET DISPOSITIF D'APPLICATION D'UN PROFIL DE TEMPERATURES SUR DES BLOCS DE METAUX A EXTRUDER

Publication

EP 0684881 B1 19961211 (DE)

Application

EP 94906877 A 19940217

Priority

- DE 9400166 W 19940217
- DE 4305012 A 19930218

Abstract (en)

[origin: US5802905A] PCT No. PCT/DE94/00166 Sec. 371 Date Feb. 12, 1996 Sec. 102(e) Date Feb. 12, 1996 PCT Filed Feb. 17, 1994 PCT Pub. No. WO94/19124 PCT Pub. Date Sep. 1, 1994The object of the invention is to apply an appropriate temperature profile to a bloc to be extruded, at which the extrusion process may be optimized For that purpose, the metal blocks (10a) to be extruded are heated (furnace 2) up to an appropriate extrusion temperature for that metal, are stored at that temperature (holding chamber 3) and are chilled (chamber 5) according to regulation areas (18) in synchronism with the extrusion cycle. Regulation in the areas (18) is carried out by influencing the amount and/or temperature of the coolant, and/or cooling duration, so that an axial and radial temperature distribution is obtained at the block. This temperature distribution allows isothermic extrusion at an optimum extrusion speed, taking into account the heat conductivity of the metal, the heat flow to the remaining block, to the block support and to the extrusion tools (die, matrix), as well as the increase in temperature of the block due to the heat produced forming and by friction of the block against its support, when such friction is present, i.e., in the case of direct extrusion.

IPC 1-7

B21C 29/00

IPC 8 full level

B21C 29/00 (2006.01); **C21D 1/00** (2006.01); **C21D 11/00** (2006.01)

CPC (source: EP US)

B21C 29/00 (2013.01 - EP US)

Cited by

DE19946998B4

Designated contracting state (EPC)

AT CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

US 5802905 A 19980908; AT E146105 T1 19961215; DE 4405027 A1 19941110; DE 59401270 D1 19970123; EP 0684881 A1 19951206; EP 0684881 B1 19961211; JP H08509660 A 19961015; NO 953078 D0 19950807; NO 953078 L 19950807; WO 9419124 A1 19940901

DOCDB simple family (application)

US 52554196 A 19960212; AT 94906877 T 19940217; DE 4405027 A 19940217; DE 59401270 T 19940217; DE 9400166 W 19940217; EP 94906877 A 19940217; JP 51855094 A 19940217; NO 953078 A 19950807