

Title (en)

Method and apparatus for manufacturing moulded articles in hard metal, ceramic, sintered metal or similar

Title (de)

Verfahren und Vorrichtung zur Herstellung von Presslingen aus Hartmetall, Keramik, Sintermetall oder dergleichen

Title (fr)

Procédé et dispositif pour la fabrication pièces moulées en métal dur, céramique, métal fritté ou similaire

Publication

EP 0873855 A3 19990113 (DE)

Application

EP 98103085 A 19980221

Priority

DE 19717217 A 19970424

Abstract (en)

[origin: EP0873855A2] The method involves a press die (12) being filled with a powder or granular material which is pressed by means of at least one punch (14, 16) against a counter-surface. At the same time the punch force and displacement are measured. Dependent on the geometry of the component and the material used, a target force-displacement diagram is obtained for a punch, and is stored. During the pressing process the measured punch force and displacement is compared in a computer with the target diagram. By means of at least one separately operatable punch section or a separate punch, the pressure on the material is either increased or decreased as soon as a deviation from the target diagram takes place. As a result, at the end of the pressing process all components will have the same density. The arrangement has at least one punch (16) with sections (18, 20) which have separate drives. It further includes displacement and force sensors, as well as a process computer.

IPC 1-7

B30B 11/00; **B30B 15/22**

IPC 8 full level

B22F 3/03 (2006.01); **B30B 11/00** (2006.01); **B30B 11/04** (2006.01); **B30B 15/00** (2006.01); **B30B 15/22** (2006.01)

CPC (source: EP US)

B22F 3/03 (2013.01 - EP US); **B30B 11/005** (2013.01 - EP US); **B30B 11/04** (2013.01 - EP US); **B30B 15/0094** (2013.01 - EP US); **B30B 15/22** (2013.01 - EP US); **B22F 2999/00** (2013.01 - EP US)

Citation (search report)

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- [AX] US 5288440 A 19940222 - KATAGIRI TAKESHI [JP], et al
- [AD] DE 4209767 C1 19930506
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EP 0873855 A2 19981028; **EP 0873855 A3 19990113**; **EP 0873855 B1 20060118**; AT E315997 T1 20060215; DE 19717217 A1 19981029; DE 19717217 C2 19991202; DE 59813346 D1 20060406; US 6074584 A 20000613

DOCDB simple family (application)

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