

Title (en)

Device for the lubrication and cooling of forms, especially forging dies and tools in metal forming

Title (de)

Vorrichtung zum Schmieren und Kühlen von Formen, insbesondere von Schmiedegesenken und Werkzeugen in der Umformtechnik

Title (fr)

Dispositif de lubrification et de refroidissement des formes, en particulier matrices et outils de forgeage dans la technique de formage

Publication

**EP 1637252 A1 20060322 (DE)**

Application

**EP 04022305 A 20040920**

Priority

EP 04022305 A 20040920

Abstract (en)

The hot parts of a machine tool are cooled by a spray with separate incoming channels for coolant, compressed air and lubricant to a single housing (1). Each of the incoming channels discharged to a discrete outlet (20, 17).

IPC 8 full level

**B21J 3/00** (2006.01); **B05B 7/08** (2006.01); **B21J 1/06** (2006.01)

CPC (source: EP)

**B05B 1/14** (2013.01); **B05B 1/3442** (2013.01); **B05B 7/0892** (2013.01); **B21J 1/06** (2013.01); **B21J 3/00** (2013.01)

Citation (applicant)

- EP 0724486 A1 19960807 - WOTEC AUTOMATIONSSYSTEME GMBH [DE]
- DE 4420679 A1 19950316 - ACHESON IND DEUTSCHLAND ZWEIGN [DE]

Citation (search report)

- [X] DE 3039914 A1 19820513 - LANGENSTEIN & SCHEMANN AG [DE]
- [A] DE 19812128 A1 19990930 - FRAUNHOFER GES FORSCHUNG [DE]
- [X] PATENT ABSTRACTS OF JAPAN vol. 008, no. 002 (M - 266) 7 January 1984 (1984-01-07)
- [A] KNOEDLER R ET AL: "KUEHL- UND SCHMIERSYSTEME BEI HALBWARMANLAGEN", UMFORMTECHNIK, MEISENBACH, BAMBERG, DE, vol. 30, no. 1, 1 March 1996 (1996-03-01), pages 53 - 54,57, XP000584000, ISSN: 0300-3167

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DE102006046568A1; DE102006046568B4; US10792723B2; WO2017012609A3; US10960420B2

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DOCDB simple family (publication)

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