

Title (en)

Apparatus for cooling sheet metal strip

Title (de)

Vorrichtung zum Kühlen eines Blechbandes

Title (fr)

Dispositif de refroidissement d'une bande de tôle

Publication

**EP 1624078 A1 20060208 (DE)**

Application

**EP 05450119 A 20050711**

Priority

AT 13362004 A 20040804

Abstract (en)

Device for cooling a metal strip (1) comprises nozzles (6) forming a common jet surface (7) and covers (10) connected to the metal strip arranged laterally in the spraying region of the nozzles.

IPC 8 full level

**C21D 9/573** (2006.01); **B05B 1/20** (2006.01); **B05B 7/08** (2006.01); **B05D 1/02** (2006.01); **B21B 45/02** (2006.01); **C21D 1/667** (2006.01)

CPC (source: EP US)

**B21B 45/0218** (2013.01 - EP US); **C21D 1/667** (2013.01 - EP US); **C21D 9/573** (2013.01 - EP US); **C21D 9/5735** (2013.01 - EP US); **B21B 45/0233** (2013.01 - EP US)

Citation (applicant)

- EP 0695590 A1 19960207 - ALUSUISSE LONZA SERVICES AG [CH]
- DE 10207584 A1 20030911 - VITS MASCHB GMBH I INS [DE]

Citation (search report)

- [A] DE 19726890 A1 19990128 - KAMPF GMBH & CO MASCHF [DE]
- [DA] DE 10207584 A1 20030911 - VITS MASCHB GMBH I INS [DE]
- [A] US 6301906 B1 20011016 - THIEL HERMANN [DE], et al
- [A] US 4185648 A 19800129 - GERMAIN ALFRED M J [FR]
- [PA] PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12 5 December 2003 (2003-12-05)

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Designated contracting state (EPC)

AT BE CH DE FR IT LI

DOCDB simple family (publication)

**EP 1624078 A1 20060208**; AT 414102 B 20060915; AT A13362004 A 20051215; JP 2006043773 A 20060216; US 2006027163 A1 20060209; US 7582251 B2 20090901

DOCDB simple family (application)

**EP 05450119 A 20050711**; AT 13362004 A 20040804; JP 2005225862 A 20050803; US 19185505 A 20050728