

Title (en)

Device for cooling a flat product, in particular a metal strip.

Title (de)

Vorrichtung zum Kühlen eines flächenhaften Gutes, insbesondere eines Metallbandes.

Title (fr)

Dispositif pour le refroidissement d'un produit plat, en particulier d'une bande métallique.

Publication

EP 0513631 B1 19940713 (DE)

Application

EP 92107559 A 19920505

Priority

DE 4116019 A 19910516

Abstract (en)

[origin: US5265441A] The invention relates to a device for cooling a laminar material, more particularly a metal strip 2, by liquid nozzles 11a, 11b, 12a, 12b disposed on both sides. The liquid nozzles 11a, 11b, 12a, 12b take the form of full-jet nozzles and so act upon the surface of the material 2 to be cooled by rebounding jets that zones of shooting flow SS are formed around the point of impingement of the individual rebounding jets.

IPC 1-7

B21B 45/02

IPC 8 full level

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CPC (source: EP US)

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Cited by

EP0669172A1; US5558017A; WO9832899A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 0513631 A1 19921119; **EP 0513631 B1 19940713**; DE 4116019 A1 19921119; DE 4116019 C2 19970123; DE 59200276 D1 19940818; ES 2060433 T3 19941116; JP 3190727 B2 20010723; JP H0691318 A 19940405; US 5265441 A 19931130

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