

Title (en)

Method and cooling aggregate for cooling rolling stock at rolling-temperature, especially hot wide strip

Title (de)

Verfahren und Kühlaggregat zum Kühlen von walzwarmem Walzgut, insbesondere von Warmbreitband

Title (fr)

Procédé et agrégat de refroidissement pour refroidir des produits de laminage chauds, notamment des bandes larges laminées à chaud

Publication

EP 0875304 A3 20020102 (DE)

Application

EP 98107703 A 19980428

Priority

DE 19718530 A 19970502

Abstract (en)

[origin: EP0875304A2] Cooling of a rolled product (1) is by forced convection, with pressurised water stream in a pressure space (10) and a convection space (13). The intensity of forced convection is controlled by individually adjustable parameters such as the duration of stay of the product in the spaces (10, 13), as well as the amount, pressure and flow velocity of the cooling medium. The amount of heat taken from the product is preferably such that a safe distance from the boiling point is attained, and unstable film evaporation is avoided. The corresponding apparatus includes an amount and pressure controllable nozzle gap (11) for entry of the cooling medium into the pressure space (10), and diffusor (12) with means (16) for extraction of the cooling medium. A constriction (33) is located between the pressure and convection spaces.

IPC 1-7

B21B 45/02

IPC 8 full level

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CPC (source: EP)

B21B 45/0218 (2013.01); **C21D 9/573** (2013.01); **B21B 2201/04** (2013.01); **C21D 1/62** (2013.01)

Citation (search report)

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- [XA] WO 8907993 A1 19890908 - ASHLON ENG LTD [GB]
- [A] DE 4009228 A1 19910926 - KRENN WALTER [DE]
- [AD] DE 2543750 A1 19760415 - CENTRE RECH METALLURGIQUE
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 340 (M - 740) 13 September 1988 (1988-09-13)

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EP 0875304 A2 19981104; **EP 0875304 A3 20020102**; **EP 0875304 B1 20031210**; AT E255965 T1 20031215; DE 19718530 A1 19981112; DE 19718530 B4 20050203; DE 59810374 D1 20040122; ES 2212167 T3 20040716

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EP 98107703 A 19980428; AT 98107703 T 19980428; DE 19718530 A 19970502; DE 59810374 T 19980428; ES 98107703 T 19980428