

Title (en)

COOLING DEVICE WITH COOLANT JETS HAVING A HOLLOW CROSS SECTION

Title (de)

KÜHLEINRICHTUNG MIT KÜHLMITTELSTRAHLEN MIT HOHEM QUERSCHNITT

Title (fr)

DISPOSITIF DE REFROIDISSEMENT À JETS DE LIQUIDE DE REFROIDISSEMENT PRÉSENTANT UNE SECTION TRANSVERSALE CREUSE

Publication

**EP 4045204 A1 20220824 (DE)**

Application

**EP 20788823 A 20201014**

Priority

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- EP 2020078917 W 20201014

Abstract (en)

[origin: WO2021074233A1] The invention relates to a cooling device with coolant jets having a hollow cross section. A treatment line for a flat, elongate, hot rolling stock made of metal has a finishing train for rolling the rolling stock and a cooling device. The cooling device can, as required, be located upstream or downstream of the finishing train or within the finishing train. The cooling device has a first cooling bar, which extends fully over the rolling stock, seen in the width direction of the rolling stock. The first cooling bar has, facing the rolling stock, several coolant outlets by means of which water is applied to the rolling stock. The coolant outlets are arranged in the first coolant bar in a positionally fixed manner extending in at least one width direction (y) of the rolling stock and each have, within the respective row, a predefined distance from one another. The coolant outlets are designed as solid jet nozzles out of which, during operation, a solid jet having a respective cross section (11) exits. The cross sections (11) of the solid jets are each continuous and each have a convex shell. The convex shell in each case contains at least one region (13) that is not contained in the full jet itself.

IPC 8 full level

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