

Title (en)  
METAL BAND COOLING APPARATUS AND COOLING METHOD THEREFOR.

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Application  
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- JP 15636193 A 19930603
- JP 15636293 A 19930603
- JP 17368293 A 19930622
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- JP 18743992 A 19920623
- JP 18744092 A 19920623
- JP 18744192 A 19920623

Abstract (en)  
[origin: WO9400605A1] A metal band cooling apparatus in a roll cooling machine on a heat treatment line, and a cooling method therefor. The basic characteristics of this invention reside in a roll cooling apparatus for regulating the contact length of a metal band with not less than one cooling roll by winding the metal band around the cooling rolls, the apparatus having a gas cooling unit disposed in an opposed state with respect to the cooling rolls via the metal band, and provided with not less than two nozzle headers extending in the lengthwise direction of the rolls, having a width smaller than that of the metal band and formed so that these nozzle headers can be moved in the moving direction of the cooling rolls and so that at least one of the nozzle headers can be moved in the lengthwise direction of the cooling rolls; and a gas regulating unit for regulating the pressure or flow rate of a cooling gas in the nozzle headers. By utilizing this structure, the narrow nozzle headers of the gas cooling unit is moved to a position just above a hot point of a narrow W-type ununiform temperature distribution, and a cooling gas the pressure or flow rate of which has been regulated by the gas regulating unit is blown out toward the hot point, whereby the mentioned part is cooled in a concentrated manner to efficiently eliminate ununiform temperature distribution.

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Citation (search report)

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- [A] EP 0230780 A1 19870805 - KAWASAKI STEEL CO [JP]
- [A] EP 0145485 A2 19850619 - MITSUBISHI HEAVY IND LTD [JP], et al
- See references of WO 9400605A1

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**WO 9400605 A1 19940106**; CA 2116230 A1 19940106; CN 1040130 C 19981007; CN 1088621 A 19940629; DE 69324566 D1 19990527; DE 69324566 T2 19991028; EP 0614992 A1 19940914; EP 0614992 A4 19961030; EP 0614992 B1 19990421; KR 0159121 B1 19990115; RU 2120482 C1 19981020; RU 94016952 A 19970227

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