

Title (en)

Process and device to prevent strip fluttering in the gas blowing zones, in particular in the cooling zones

Title (de)

Anlage und Verfahren zur Vermeidung von Bandvibrationen in den Gaseinblaszonen insbesondere in den Kühlzonen

Title (fr)

Procédé et dispositif de suppression de la vibration des bandes dans des zones de soufflage de gaz, notamment des zones de refroidissement.

Publication

EP 1067204 A1 20010110 (FR)

Application

EP 00401702 A 20000615

Priority

FR 9908709 A 19990706

Abstract (en)

Vibration of metal strip moving continuously through the zones of a heat treatment or coating line and subjected to gas blowing, notably in cooling zones, is suppressed by adjusting cooling gas pressure and/or flow rate to below the rated value in an area located on an edge of the strip, on one surface, and to below the rated value on the opposite edge located on the other side of the strip. Cooling gas pressure adjustment is obtained by producing a pressure drop, in a single blowing box, to limit gas jet pressure in the zones, in order to obtain the objective asymmetry. The pressure drop can be fixed or variable, the value capable of being modified as a function of the vibration to be overcome. Independent claims are given for: (a) a unit intended for implementation of the above process, where the unit includes blowing boxes comprising a device for adjusting the pressure and/or the flow rate of cooling gas to a value below the rated value in an area located on an edge of the strip in the box located on a surface of the strip, and to a value below the rated value on the opposite edge, in the blowing box located on the other side of the strip; and (b) a line for the continuous heat treatment or coating of metal strips.

Abstract (fr)

Procédé permettant de supprimer les vibrations des bandes (1) en déplacement continu dans les zones d'une ligne de traitement thermique (2) ou de revêtement où est mis en oeuvre le soufflage d'un gaz sur une bande (1) défilant en continu notamment dans des dispositifs de refroidissement par soufflage de gaz (4,5,6,7,8) par jets équipant des lignes de traitement thermique ou de revêtement en continu de bandes métalliques caractérisé en ce qu'il consiste à ajuster la pression et/ou le débit du gaz de refroidissement à une valeur plus faible que la valeur nominale dans une zone située sur une rive de la bande, sur une face de celle-ci et à une valeur plus faible que la valeur nominale, sur la rive opposée, située de l'autre côté de la bande. <IMAGE>

IPC 1-7

C21D 9/573; **C21D 9/56**

IPC 8 full level

C23C 2/00 (2006.01); **C21D 1/00** (2006.01); **C21D 9/56** (2006.01); **C21D 9/573** (2006.01); **C23C 2/32** (2006.01); **C23C 2/40** (2006.01); **C21D 1/613** (2006.01)

CPC (source: EP KR US)

C21D 9/562 (2013.01 - EP US); **C21D 9/573** (2013.01 - KR); **C21D 9/5735** (2013.01 - EP US); **C21D 1/613** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1067204 A1 20010110; **EP 1067204 B1 20041013**; AT E279541 T1 20041015; CN 1231605 C 20051214; CN 1279296 A 20010110; DE 1067204 T1 20010705; DE 60014781 D1 20041118; DE 60014781 T2 20060202; ES 2153803 T1 20010316; ES 2153803 T3 20050316; FR 2796139 A1 20010112; FR 2796139 B1 20011109; JP 2001059119 A 20010306; KR 100669834 B1 20070118; KR 20010015171 A 20010226; US 6309483 B1 20011030

DOCDB simple family (application)

EP 00401702 A 20000615; AT 00401702 T 20000615; CN 00120402 A 20000706; DE 00401702 T 20000615; DE 60014781 T 20000615; ES 00401702 T 20000615; FR 9908709 A 19990706; JP 2000202133 A 20000704; KR 20000038182 A 20000705; US 61195600 A 20000706