Title (en)

Device for blowing gas onto a surface of a material in running strips

Title (de)

Vorrichtung zum Blasen von Gas auf eine Fläche von durchlaufendem Bandmaterial

Title (fr)

Dispositif de soufflage de gaz sur une face d'un matériau en bande en défilement

Publication

EP 2085488 B1 20100922 (FR)

Application

EP 08291203 A 20081217

Priority

- FR 0709166 A 20071228
- FR 0805843 A 20081022

Abstract (en)

[origin: EP2085488A1] The device for blowing a gas on one side of a rolling strip material (15), comprises a hollow box (20) equipped with tubular nozzles (30) directed towards the side of the strip material. The hollow box has a surface (22) on the turned side facing the strip material. The surface has a profile (P) that is variable in a given direction (D) symmetrical to a median plane (Q) perpendicular to the plane of the strip. The tubular nozzles are fixed at the foot of the variable profile so that their respective axis is mainly orthogonal to the variable profile, and have a respective length. The device for blowing a gas on one side of a rolling strip material (15), comprises a hollow box (20) equipped with tubular nozzles (30) directed towards the side of the strip material. The hollow box has a surface (22) on the turned side facing the strip material. The surface has a profile (P) that is variable in a given direction (D) symmetrical to a median plane (Q) perpendicular to the plane of the strip. The tubular nozzles are fixed at the foot of the variable profile so that their respective axis is mainly orthogonal to the variable profile, and have a respective length such that outlet openings of the nozzles are in a common plane (R) parallel to the plane of the strip. The variable profile is a dihedral profile providing a constant inclination of the tubular nozzle on both sides of the median plane, or a broken line (P') or curvilinear profile (P") providing variable inclinations of tubular nozzle on both sides of the median plane. The dihedral profile is convex so that the partition of the variable profile surface connects the shortest distance at the plane of the strip, and the dihedral profile is concave so that the partition of the variable profile surface connects the largest distance at the plane of the strip. The dihedral profile has a tip angle (alpha) of 150-170[deg] . The blowing device has a wall including a tulip-shaped opening inside the hollow box and the foot of each tubular nozzle. Each tubular nozzle has a free end with a conical opening. The two variable profile surfaces are symmetrical with respect to the plane of the passage of the strip. The tubular nozzles of the two hollow boxes are implanted so that the points of impact of blown gas on the rolling strip are staggered one after other.

IPC 8 full level

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CPC (source: EP US)

B21B 45/0209 (2013.01 - EP US); **C21D 1/613** (2013.01 - EP US); **C21D 1/667** (2013.01 - EP US); **C21D 9/46** (2013.01 - EP US); **C21D 9/573** (2013.01 - EP US); **C21D 9/5735** (2013.01 - EP US); **F26B 13/10** (2013.01 - EP US); **F26B 21/004** (2013.01 - EP US); C21D 9/63 (2013.01 - EP US)

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