Title (en)

Method and apparatus for producing a mineral fibre mat

Title (de

Verfahren und Vorrichtung zur Herstellung einer Mineralfasermatte

Title (fr)

Procédé et dispositif pour la production d'une matte de fibres minérales

Publication

EP 1136609 A2 20010926 (DE)

Application

EP 01105619 A 20010307

Priority

DE 10013644 A 20000318

Abstract (en)

To produce a mat of mineral fibers, a primary web is formed where the mineral fibers are aligned parallel to both outer surfaces, to be folded into a secondary web where the mineral fibers remain parallel to the outer surfaces, but are across the direction of material movement. The secondary web is compressed to the required thickness, and is cut into slats along and across the direction of travel. The slats are turned by 90 degrees so that the main surfaces of adjacent slats are next to each other. The slats are placed together into the required geometry of the mineral fiber mat and heat treated. The primary web is folded by a pendulum into the secondary web. The secondary web is cut by a saw, cutting blade or a fluid stream. The slats are given a final compression between two rollers, and the surfaces are treated before the heat treatment stage. The secondary web is initially compressed between two rollers. The mineral fiber mat can be fitted with a reinforced cladding layer on one or both sides. The mineral fibers in the mat are parallel to the main surfaces. An Independent claim is included for an assembly to produce the mineral fiber mat with a station to form a primary web, with the mineral fibers parallel to the main outer surfaces. The primary web is folded by a pendulum (5) into a secondary web (9), with the mineral fibers parallel to the main upper (90) and lower (9u) surfaces, and across the direction of travel, to be moved by a conveyor system (7.1,7.2). Two cutting units (15,19) cut the secondary web into slats along separate cutting planes (E2). The slats (21) are passed through a turning station (23), to be turned by 90 degrees where one cut plane is at right angles to the movement direction of the secondary web (9) and a turning station (27) to turn them by 90 degrees so that their lower and upper surfaces (9u,9o) are next to each other. Final stations (31.1,31.2,35.1,35.2) finish the slats (21) into a mineral fiber mat. Preferred Features: The first slat turning station (23) has a height adjustment setting. The second turning station (27) has an upper (27) and a lower (29) section. The slats are finished by paired rollers (31.3,31.2,35.1,35.2), rotating against each other, followed by a hardening kiln.

Abstract (de)

Die Erfindung betrifft ein Verfahren und eine Vorrichtung zur Herstellung einer Mineralfasermatte. < IMAGE>

IPC 1-7

D04H 13/00

IPC 8 full level

D04H 13/00 (2006.01); E04B 1/76 (2006.01)

CPC (source: EP)

D04H 1/4209 (2013.01); D04H 1/4218 (2013.01); D04H 1/559 (2013.01); D04H 1/593 (2013.01); D04H 13/00 (2013.01); E04B 2001/7683 (2013.01)

Cited by

WO03056087A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1136609 A2 20010926; EP 1136609 A3 20021204; DE 10013644 A1 20010927

DOCDB simple family (application)

EP 01105619 A 20010307; DE 10013644 A 20000318