

Title (en)
Drying system

Title (de)
Trocknungsvorrichtung

Title (fr)
Système de séchage

Publication
EP 1081276 A2 20010307 (DE)

Application
EP 00111321 A 20000526

Priority
DE 19941336 A 19990831

Abstract (en)

The web drying station (10), in the prodn. and/or finishing of a paper or cardboard web (12), has an extended roller gap (S) to take the web (12) through it with at least one sieve (14,16) along the direction (L) of web travel. The roller gap (S) is formed between a flexible and continuous rotating belt (20) over a shoe (18) in a lower roller and an upper counter roller (22). The shoe (18) is divided into segments along the web line of travel, which are interconnected and subjected to separate forces at least partially. The shoe segments are at least partially linked together, and they are formed at least partially by zones of weakened material at the shoe (18), as cuts in succession along the line (L) of web travel on the side away from the press gap (S). The different temp. settings for the shoe segments give them an individual pressure profile in the press gap (S). The pressure in the gap (S) can be exerted by facing shoes (18), with at least one shoe (18) divided into segments. The surface of the continuous belt (20) and/or the counter surface (22) is structured and pref. grooved to equalize the pressure at the exit zone of the gap (S). The flexible continuous belt (20) is formed by the flexible mantle of a shoe roller (28), and the counter surface (22) is at a counter roller (30) with inner support and pref. a controlled bending roller (30). The continuous belt (20) over the shoe (18) is cooled, and the counter surface (22) is heated. A cooling medium (K) flows through the shoe (18) segments. The continuous belt (20) can be cooled externally and/or internally. The continuous belt (20) can also be cooled by a lubricant between it and the shoe (18). The sieves (14,16) are cooled before they enter the press gap (S), in the direction (L) of web travel. The continuous belt (20) over the shoe (18) can be heated, and the counter surface (22) cooled. The segmented shoe (18) is faced by a shoe without segments, which supports the counter surface (22). The two belts (20,22), forming the press surfaces, can each pass around floating deflection rollers and pref. bending compensation rollers, which also drive them. A separate and cooled steel belt (20') can be at the side of the shoe press roller.

Abstract (de)

In einer Trocknungsvorrichtung 10 einer Maschine zur Herstellung und/oder Behandlung einer Materialbahn 12 wie insbesondere Papier- oder Kartonbahn ist die Materialbahn 12 zusammen mit wenigstens einem Sieb 14, 16 durch einen in Bahnlaufrichtung L verlängerten Spalt S geführt, der zwischen einem an einem Schuh 18 abgestützten umlaufenden flexiblen Endlosband 20 und einer Gegenfläche 22 gebildet ist. Der Schuh 18 ist in Bahnlaufrichtung segmentiert, wobei die miteinander verbundenen Schuhsegmente 18' zumindest teilweise getrennt beaufschlagbar sind.
<IMAGE>

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