

Title (en)

Wet section and guiding device for such a wet section

Title (de)

Siebpartie sowie Bandführungseinrichtung für eine solche Siebpartie

Title (fr)

Partie humide et dispositif de guidage pour une telle section humide

Publication

**EP 1022382 A2 20000726 (DE)**

Application

**EP 99122801 A 19991117**

Priority

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Abstract (en)

The fourdrinier section of a machine for the production of a paper or cardboard fiber web has a flexible support belt where the two fourdriniers come together to form a double fourdrinier zone. The fourdrinier section (10), of a machine for the production of a paper or cardboard fiber web (12), has a flexible support belt (22) where the two fourdriniers (16,18) come together to form a double fourdrinier zone (14). The flexible support belt (22) is cylindrical, along the support zone (24) where the movement path (38) diverges from a circular track (36). The path line has a curvature radius which is larger than the radius of the circular path and especially larger than the average curvature radius of the total path (48) of the rotating support belt (22). The surface of the flexible belt (22) is structured to hold water by surface profiles and/or blind drillings. The flexible belt (22) and its inner support (40) are at a gap from each other in the support zone (24), along the direction (L) of web travel. The fourdrinier (18) at the double fourdrinier zone (14), away from the support belt (22), is pressed by pliable inner press units with intermediate spaces (44) between them. Both fourdriniers (16,18), with the wet web (12) between them, are pressed against the flexible support belt (22). The press units (42) are web shaping bars combined with a web shaping box (46). Suction slits are directed at the inner side of the fourdrinier (18) away from the support belt (22), opposite the inner belt support (40) and/or intermediate zones (44). A further support is provided for the flexible support belt (22), in at least a further zone along a path (49) within its circular path (36), to form a zone together with another machine section and especially the stock inlet, and two spaced supports (40) where the flexible support belt (22) travels in a straight path between them. The guide movement of the flexible support belt (22) is assisted by an overpressure on it within a sealed zone (50) at the side away from the supports (40). The flexible support belt (22) passes round an inner pipe (52), with seals (54) to define the inner ring zone held at an overpressure of 50-100 mbar. The rotating flexible support belt (22) is fixed by side cover disks. The inner side of the flexible support belt (22) is lubricated by a fluid, and the supports (40) are structured for the use of a fluid lubricant. The lubrication has a hydrodynamic and/or hydrostatic action. An Independent claim is included for a belt guide system with supports (40) within the loop formed by the flexible support belt (22). The flexible support belt (22) has a generally circular and cylindrical path, with a section (38) of a larger curve radius at the fourdrinier (16,18) support zone (24) than the remainder of its circular path (36).

Abstract (de)

Eine Siebpartie 10 einer Maschine zur Herstellung einer Faserstoffbahn 12 wie insbesondere einer Papier- oder Kartonbahn umfaßt eine zwischen zwei umlaufenden endlosen Siebbändern 16, 18 gebildete Doppelsiebzone 14, in deren Bereich wenigstens eines der beiden Siebbänder 16 durch ein umlaufendes, innerhalb der betreffenden Siebbandschlaufe angeordnetes flexibles Stützband 22 abgestützt ist. Das allgemein zumindest im wesentlichen kreiszylindrisch geführte flexible Stützband 22 ist in dem Stützbereich 24 entlang einer von der kreiszylindrischen Bahn 36 abweichenden Bahn 38 geführt, deren durchschnittlicher Krümmungsradius R größer ist als der Radius RK der kreiszylindrischen Bahn 36 und insbesondere größer ist als der durchschnittliche Krümmungsradius der insgesamt vom Stützband 22 durchlaufenen Bahn 48. <IMAGE>

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