

Title (en)

Process and apparatus for transferring a flexible web

Title (de)

Verfahren sowie Vorrichtung zum Überführen einer flexiblen Materialbahn

Title (fr)

Procédé et dispositif pour le transfert d'une bande flexible

Publication

EP 1179632 A1 20020213 (DE)

Application

EP 01116387 A 20010706

Priority

DE 10033456 A 20000710

Abstract (en)

[origin: DE10033456A1] To transfer a flexible paper/cardboard web (10) between machine sections (12,14,16), two cutters (20,22) trim off a side strip (24) and form a leader transfer strip (26) from the remainder (28) of the web. The side strip is deflected to one side from the leader strip and is tensed at the same time. To transfer a paper/cardboard web between machine sections, the side strip is deflected to one side by at least one air stream, and is diverted to a pulper (30), and the like. Initially, the cutter (20) nearest to the web edge (32) is activated to cut the edge strip. When the edge strip has been deflected and tensed, the second cutter (22) is activated to form the transfer leader strip. When the leader strip has been transferred to the next machine section, the cutter furthest from the web edge is shifted across to the other edge (34) of the web to sever the remainder of the web, and the first cutter is moved to the first web edge to sever the edge strip. The transfer leader strip is formed at the first edge of the web at the start of the transfer movement of the web between machine sections, initially at a small gap (A1) from the edge of the web, which is enlarged by the lateral movements of the cutters. The maximum gap between the leader strip and the web edge is smaller than the gap to the other edge of the web. The cutters are moved to develop the leader strip into suitable positions according to the configuration of the following machine section, to be caught across the whole leader strip width. The leader strip is developed at a given gap from the web edge for the next machine section and enlarged to match the following machine section(s). The cutters have a non-contact cutting action using a water jet or a laser beam, or they have a mechanical action using a blade or a circular cutting disk. Non-contact cutting is used at the final drying cylinder of a papermaking machine, and mechanical cutting is used where the web is not supported in its movement path. Surplus web material is passed to the pulper before the transfer action. Both cutters are within the web width to start cutting, or at least one cutter is activated while outside the web width. The edge strip and the remainder of the web is passed to a pulper until the full web width has been transferred between the machine sections. The transfer leader strip is carried between the machine sections by at least one transport system and especially a cable guide, transfer belt, air guide unit and/or the like. The edge strip is cut in a width of 50-400 mm and preferably 50-200 mm. The leader strip is cut so that its outer edge (36) is at a gap (B1) of 150-1000 mm from the machine edge (40). On reaching the next machine section, the outer edge of the leader strip is at a gap from the machine edge of 150-1000 mm. An Independent claim is included for a papermaking/cardboard production and/or processing machine, with a number of machine sections where the web passes through. Cutters trim off edge strips and form a transfer leader strip where a web has to be transferred between machine sections. The rimmed edge strips are led off to the side and diverted to the pulper, and the like.

Abstract (de)

Bei einem Verfahren und einer Vorrichtung zum Überführen einer flexiblen Materialbahn (10), insbesondere Papier- oder Kartonbahn, von einer vorangehenden (12) zu wenigstens einer nachfolgenden Sektion (14,16) einer der Herstellung und/oder Behandlung der Materialbahn (10) dienenden Maschine, insbesondere Papiermaschine, wird die Materialbahn (10) mittels zweier Trennelemente (20,22) in einen sich in Bahnlaufrichtung (L) erstreckenden Randstreifen (24), einen daran angrenzenden Überführstreifen (26) sowie die an diesen Überführstreifen (26) angrenzende Restbahn (28) zerteilt. Dabei wird der Randstreifen (24) seitlich vom Überführstreifen (26) weg ausgelenkt und gleichzeitig gestrafft. <IMAGE>

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Citation (search report)

- [A] WO 9833974 A1 19980806 - VALMET CORP [FI], et al
- [PX] DE 20011943 U1 20000928 - VOITH SULZER PAPIERTECH PATENT [DE]

Cited by

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