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(54) Water jet edge trimming station for use in papermaking machine

(57) A water jet edge trimming station 12 for trimming the edges 54 of coated paper web 14 during on-machine operation including backsplash compensating features. The edge trimming station 12 has a cutting station 13 over which the web 14 travels to be cut. The water jet travels along a water jet axis 48 to a point of impingement 52 to cut the web 14. The cutting station 13 has an effluent receiving aperture at the point of impingement 84. A negative pressure mixing zone 90 located below the aperture draws effluent by-products or backsplash associated with cutting of the web 14 below the cutting surface 82. The water jet axis 48 is offset a first predetermined angle 62 chosen relative to a normal axis 61 passing at right angles through the point of impingement 84 to reduce backsplash. The water jet axis 48 is rotated about the normal 61 axis by a second predetermined angle 58 to direct the effluent by-products away from the water jet nozzle 33 and the traveling web 14. The water jet nozzle 33 has a positive air pressure chamber 64 surrounding the nozzle head 64 to maintain an air flow over the nozzle head 64 driving effluent backsplash away from the nozzle head 64.

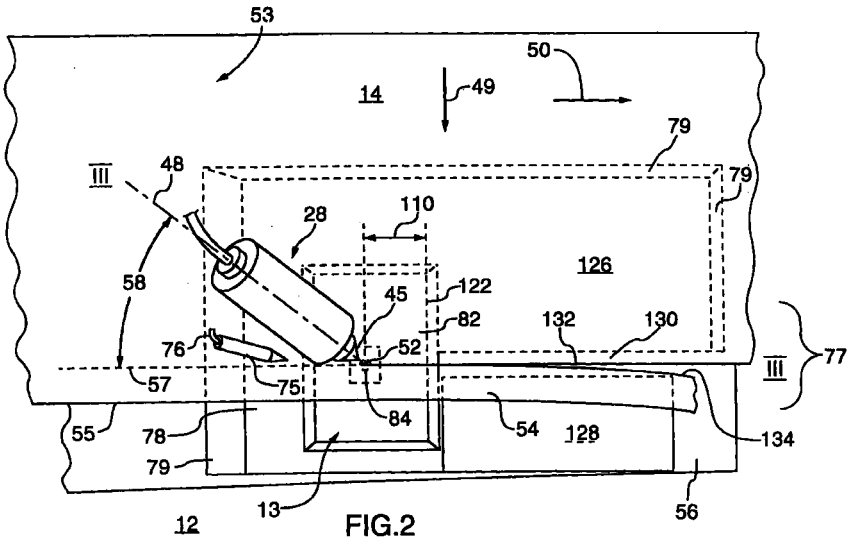

FIG.2

EP 0 870 583 A3

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EUROPEAN SEARCH REPORT

Application Number
EP 98 10 6594

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Y A	US 3 877 334 A (GERBER) 15 April 1975 * column 2, line 52 - column 10, line 11; figures 1-5 *	1,12 21,33	B26F3/00 D21F7/00
Y	WO 97 11814 A (TUORI) 3 April 1997 * page 2, line 7 - page 4, line 19; figures 1-3 *	1,12	
A	FR 2 647 049 A (GRUDZINSKI) 23 November 1990		

TECHNICAL FIELDS SEARCHED (Int.Cl.6)

B26F
D21F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	23 November 1998	Berghmans, H

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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