

Title (en)

Water jet edge trimming station for use in papermaking machine

Title (de)

Wasserstrahleinrichtung zum Besäumen der Längskanten zur Verwendung in einer Papiermaschine

Title (fr)

Dispositif à jet d'eau pour le rognage des reives longitudinales pour usage dans une machine de fabrication du papier

Publication

EP 0870583 B1 20020710 (EN)

Application

EP 98106594 A 19980407

Priority

CA 2201990 A 19970407

Abstract (en)

[origin: EP0870583A2] 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. <IMAGE>

IPC 1-7

B26F 3/00; **D21F 7/00**

IPC 8 full level

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CPC (source: EP)

B26F 3/004 (2013.01); **B26F 3/008** (2013.01); **D21F 7/006** (2013.01)

Cited by

DE102014220647A1; EP1238764A3; DE102010056576A1; DE102010056576B4; DE102010056576B8; CN110770395A; EP3610065A4; US9221404B2; US11530515B2; US9217225B2; US6681670B2; EP2971345A4; WO2008119156A1; WO0233169A1; US8808504B2; US9222221B2; WO2011121390A1; WO2013127008A1; EP2253437A1; DE102009003150A1; US10626556B2; WO0216693A1; WO0168976A1; WO2006067260A1; WO03064124A1; WO2018236264A1; EP3610065B1

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