

Title (en)

Apparatus for the processing of sheet material.

Title (de)

Gerät zur Behandlung von Blattmaterial.

Title (fr)

Appareil pour le traitement d'un matériau sous forme de feuille.

Publication

EP 0613049 A1 19940831 (EN)

Application

EP 94200313 A 19940204

Priority

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- EP 93200502 A 19930223

Abstract (en)

An apparatus is described for the processing of sheet material. The apparatus comprises a tank (10) and at least one removable rack (12) located in said tank (10). Each rack (12) has opposite side plates (14a, 14b). At least one pair of guide rollers (16, 18, 20) define a transport path (15) for the sheet material. Liquid inlet openings (24a, 24b) are included in one side plate (14a), and liquid outlet openings (26a, 26b) are included in the opposite side plate (14b). A pump (28) feeds processing liquid to the liquid inlet openings (24a, 24b) to circulate the processing liquid under pressure of the pump through the rack (12). The liquid inlet and liquid outlet openings (24a, 24b, 26a, 26b) being so positioned to provide a circulating flow of the processing liquid closely adjacent the surface of the sheet material across the transport path (15) in a direction parallel to the guide rollers (16, 18, 20). The output side (30) of the pump (28) is in liquid communication with an upwardly facing connection port (34). The rack (12) includes pipe-work (32) leading from the liquid inlet opening (24a, 24b) to a downwardly directed pipe end (36), engageable in the upwardly facing connection port (34). The apparatus provides good circulation without the use of high flow-rate pumps and without the use of rinsing chambers. <IMAGE>

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CPC (source: EP)

G03D 3/06 (2013.01); **G03D 3/132** (2013.01)

Citation (search report)

- [X] US 5168296 A 19921201 - NAKAMURA TAKASHI [JP], et al
- [YA] EP 0327674 A2 19890816 - HERMANN KUMMERL LABORGERATEBAU [DE]
- [Y] US 4736222 A 19880405 - STROMBERG PETER G [US]
- [Y] DE 2941283 A1 19800424 - FUJI PHOTO FILM CO LTD
- [Y] US 4324479 A 19820413 - SACHS EMANUEL M

Cited by

EP1014190A1; EP0779546A1

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