

Title (en)

Method and device for intermittently applying dye to moving yarns

Title (de)

Verfahren und Vorrichtung zum intermittierenden Auftragen von Farbflotten auf laufende Garne

Title (fr)

Procédé et dispositif pour la teinture par dépôt de taches de bains de teintures sur fils en mouvement

Publication

EP 0965673 A1 19991222 (FR)

Application

EP 99440135 A 19990604

Priority

FR 9807668 A 19980616

Abstract (en)

The yarn space dyeing operation applies dyestuffs of different colors at intervals to the moving yarns. The dyes are applied at successive stations in short bursts in cycles or in a pseudo-random action. The yarns are brought into contact with the dyestuffs, by movement of the dye baths. The operating unit (2) gives a linear or pseudo-linear movement to the dye baths at the applicator (1). The applicator (1) is a jet, turbine or spray with a guide to determine the size of the dye bath jet. Each operating unit (2), to determine the bath movement, has a blade (3) fitted to the shaft of a linear movement unit (4) to divert the jet stream to a lower receptacle (6). A guide (5) sets the size of the jet of the dye bath. The cyclic or random action can be through a control fitted to a distorting member such as a twin strip which is tripped to give a deflection action on the jet unit. The trip action can be through a piezo electric activator. The swing axis of the movement is parallel to the jet and the plan of the yarns being dyed, for the displacement action as a screen parallel to the dye bath. The linear or pseudo-linear activator is at right angles to the screen or parallel to it, with a lever for positioning which is an extension of the screen or is at right angles to it. An additional activator works in the opposite direction to the first activator (2) system to give the linear or pseudo-linear movements. Two moving blades can be used, to seal off the outlet of the jet while the dye flow is interrupted, with a separate linear or pseudo-linear movement activator to control each blade individually. The applicator can have a dyestuff jet and an air jet, with separate controls to open and close them. The linear movement units (4) are linear electric motors, piezo electric units or electromagnetic systems. They can have a mechanical movement enhancement, or not, and can be controlled wholly, or not at all, or in a proportional mode.

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D06B 11/00

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D06B 11/0023 (2013.01); **D06B 11/0026** (2013.01)

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- FR 2650311 A1 19910201 - SUPERBA SA [FR]
- FR 2693486 A1 19940114 - SUPERBA SA [FR]
- US 5339658 A 19940823 - HASELWANDER JACK G [US]
- US 5594968 A 19970121 - HASELWANDER JACK G [US], et al
- FR 2719058 A1 19951027 - SUPERBA SA [FR]

Citation (search report)

- [DA] FR 2719058 A1 19951027 - SUPERBA SA [FR]
- [A] FR 2333883 A1 19770701 - BOUS KARL [DE]
- [A] FR 2178339 A5 19731109 - OMNIUM DE PROSPECTIVE IND SA [FR]
- [A] GB 2059876 A 19810429 - BRITISH CARPETS LTD
- [A] US 4015550 A 19770405 - BARTENFELD WILLIAM CHELSEA, et al

Cited by

CN1309893C; WO03066950A3; US7157122B2; US7279045B2

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