

Title (en)

Method and apparatus for flow control in a package dyeing machine

Title (de)

Verfahren und Vorrichtung zur Durchflusssteuerung in einer Maschine zum Färben von Textilspulen

Title (fr)

Procédé et appareil pour la commande du débit dans une machine de teinture des bobines textiles

Publication

**EP 2000573 A1 20081210 (EN)**

Application

**EP 07252252 A 20070605**

Priority

EP 07252252 A 20070605

Abstract (en)

A method of controlling fluid flow rate during operation of a textile package fluid treatment machine, comprises measuring the differential pressure across a unidirectional pump (15) in a fluid circulation system connected to a kier (1) of the machine and comprising a reversal device (2) which is switched during operation of the machine to reverse the direction of fluid flow through at least one package in the kier; calculating the fluid flow rate through the fluid circulation system from the measured differential pressure using a performance characteristic of the pump; monitoring the flow rate over time to determine the accumulated flow between each switching of the reversal device; and using the accumulated flow information to automatically control switching of the reversal device such that total flow between each switching of the reversal device is substantially equal. The calculated flow rate may also be compared with a desired flow rate to determine any flow rate difference, from which operation of the pump is automatically adjusted to reduce the flow rate difference.

IPC 8 full level

**D06B 5/12** (2006.01)

CPC (source: EP KR)

**D06B 3/08** (2013.01 - KR); **D06B 3/20** (2013.01 - KR); **D06B 3/36** (2013.01 - KR); **D06B 5/16** (2013.01 - EP)

Citation (applicant)

DE 19851795 A1 20000511 - THIES GMBH & CO [DE]

Citation (search report)

- [A] DE 19851795 A1 20000511 - THIES GMBH & CO [DE]
- [A] EP 0851053 A2 19980701 - FALMER INVESTMENT LTD [VG]

Cited by

CN105334784A; KR101277394B1

Designated contracting state (EPC)

DE TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

**EP 2000573 A1 20081210**; **EP 2000573 B1 20120125**; CN 101320272 A 20081210; CN 101320272 B 20110907; KR 101277394 B1 20130620; KR 20080107237 A 20081210; TW 200900160 A 20090101; TW I347224 B 20110821

DOCDB simple family (application)

**EP 07252252 A 20070605**; CN 200810092644 A 20080416; KR 20070101994 A 20071010; TW 96122641 A 20070622