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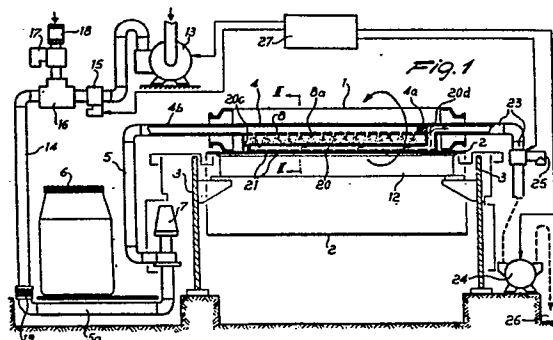
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54 **Process and related apparatus for the automatic washing of components of printing units for rotary-drum printing machines.**

57 Process for the automatic washing of the printing units of rotary-drum machines, kept in work position, consisting of the injection of pressurized water with preset intermittence unto the printing drum through the color feed tube, so as to force the water to mix with the residuals of color remaining within said color feed tube, within the drum and around the magnetic printing roller, then of the creation of a continuous depression inside the drum, so as to allow the continuous removal of the water-color mixture formed in said drum, the steps of intermittent injection of the washing water under pressure and of the start and end of the aspiration being controlled by an appropriately programmed microprocessor and provided with the printing machine rotating at a reduced speed with respect to the operating speed. Said process furthermore provides, to improve the effectiveness of the wash, the injection of pressurized air with preset intermittence so as to create alternate pressurized water/compressed air cycles such as to facilitate the elimination of all the residuals of color within the devices of the printing unit, said cycles of washing, air injection and aspiration being controlled by a microprocessor.

Said process is produced by an automatic apparatus, constituted by a pump for the injection of

pressurized water into the color feed tube, by a source of compressed air, and by an aspirating pump adapted to create a depression within the drum and to aspirate and draw out the mixture of water and residuals of color formed inside the drum, and by at least one tubular body connected to said aspirating pump, arranged inside the drum and having such holes so as to create a continuous depression inside said drum and thus allow, with the printing machine rotating at reduced speed and with the activation of the magnetic attraction field of the printing roller at the compressed air injection steps, the complete washing of all the components of the printing head, according to intervention steps programmed by means of a microprocessor.





European Patent
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EUROPEAN SEARCH REPORT

Application Number

EP 88 10 0136

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.4)
X	AT-A-338209 (ZIMMER PETER) * the whole document *	1-6	B41F35/00
A	EP-A-166616 (BURNS, WILLIAN P.) * page 11, line 1 - line 16; figures 1, 2 *	1-2	
A	PATENT ABSTRACTS OF JAPAN vol. 10, no. 2 (M-444) 2059 08 January 1986, & JP-A-60 168657 (TOUSHIN KOGYO K.K.) * see the whole document *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			B41F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 28 APRIL 1989	Examiner DIAZ-MAROTO V.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			