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Applicant: **NORDSON CORPORATION, 555 Jackson Street P. O. Box 151, Amherst Ohio 44001 (US)**

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Inventor: **Hastings, Donald R., 42873 Woodhill Drive, Elyria Ohio (US)**

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Representative: **Allen, Oliver John Richard et al, Lloyd Wise, Tregear & Co. Norman House 105-109 Strand, London, WC2R 0AE (GB)**

(54)

**Air atomising nozzle assembly.**

(57) An air atomising nozzle assembly for electrostatic spray guns is disclosed. The nozzle assembly is made of polyamide-imide plastic parts and includes an air cap (50) having a central bore (52) which surrounds a fluid nozzle tip (60). The fluid nozzle tip (60) has a nut (61) formed on its forward end to facilitate threading of the rearward end (78) of the nozzle tip into a threaded bore (30) of the gun body (13). Formed on the front part of the nozzle, either as a part of the nut (61) or a cylindrical surface (63) adjacent the nut, is an accurately machined surface engageable in press fit relationship with a mating accurately machined bore of the air cap. These mating press fit surfaces centre the bore of the air cap (50) relative to the nozzle tip (60) so as to leave an annular, evenly dimensioned air flow passage surrounding the nozzle tip (60) and defined between the nozzle tip and the bore of the air cap (50). The air cap (50) is retained in a one-piece resilient retaining ring (66) by snapping the air cap into an annular lip (67) of the retaining ring (66). The retaining ring (66) is then threaded onto the gun body (13) to secure the nozzle assembly onto the gun body.

**EP 0 092 392 A3**



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. <sup>3</sup> )
X	US-A-3 746 253 (WALBERG)  * Column 6, lines 7-23; column 7, lines 51-52; column 4, line 46 - column 5, line 44; figures 2,3 *	1,2,4-12	B 05 B 5/02 B 05 B 7/08
X	--- US-A-3 873 023 (MOSS)  * Column 6, lines 14-17; column 8, lines 17-53; figures 1,2 *	1,2,4-7,9-12	
A	--- US-A-3 583 632 (SHAFFER)  * Column 2, line 3 - column 3, line 15; figures 3,4 *	1,2,4-12	
			TECHNICAL FIELDS SEARCHED (Int. Cl. <sup>3</sup> )
			B 05 B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 10-12-1984	Examiner WOHLRAPP R.G.
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	