

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 February 2006 (16.02.2006)

PCT

(10) International Publication Number
WO 2006/016256 A3

- (51) International Patent Classification:
B05B 7/16 (2006.01)
- (21) International Application Number:
PCT/IB2005/002376
- (22) International Filing Date: 8 August 2005 (08.08.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
BO2004A000518 9 August 2004 (09.08.2004) IT
- (71) Applicant (for all designated States except US): **EU-ROSIDER S.A.S. DI MILLI OTTAVIO & C.** [IT/IT];
Piazza Dante, 17, I-58100 Grosseto (IT).

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **MILLI, Ottavio** [IT/IT]; Via Ximenes, 24, I-58100 Grosseto (IT).
- (74) Agents: **NESTI, Antonio** et al.; Bugnion S.p.A., Via Goito, 18, I-40126 Bologna (IT).

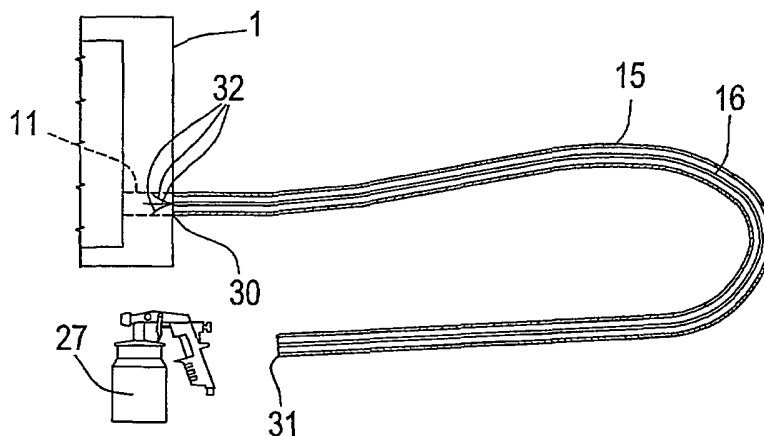
Published:
— with international search report

(88) Date of publication of the international search report:
27 April 2006

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A DEVICE FOR PRE-HEATING A CARRIER FLUID FOR SPRAY PAINTING



(57) Abstract: A spray painting device comprising a heated tube (15) for pre-heating the carrier fluid for painting.

WO 2006/016256 A3

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2005/002376

A. CLASSIFICATION OF SUBJECT MATTER
B05B7/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B05B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2 267 264 A (BLAND JAMES G) 23 December 1941 (1941-12-23) page 1; figure 1	1,2,7,8
X	US 2 583 761 A (AXELSON ESKIL ANDERS AUGUST) 29 January 1952 (1952-01-29) the whole document	1,2,7,8
X	US 5 214 740 A (CARROLL ET AL) 25 May 1993 (1993-05-25) abstract; figure 2	1,2,7,8
X	US 4 667 084 A (REGGE ET AL) 19 May 1987 (1987-05-19) abstract	1,2

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

3 November 2005

Date of mailing of the international search report

16. 01. 2006

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Eberwein, M

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2005/002376

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-9

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9

Device and method for heating a supply tube for a spray painting gun

2. claims: 10-23

Device and method for the production of nitrogen from compressed air using separation membranes

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2005/002376

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
US 2267264	A	23-12-1941	NONE	

US 2583761	A	29-01-1952	NONE	

US 5214740	A	25-05-1993	NONE	

US 4667084	A	19-05-1987	DE 3416105 A1	07-11-1985
			EP 0160731 A1	13-11-1985
			JP 1682951 C	31-07-1992
			JP 3029466 B	24-04-1991
			JP 60235669 A	22-11-1985
