



(11) **EP 1 703 239 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
26.10.2011 Bulletin 2011/43

(43) Date of publication A2:
20.09.2006 Bulletin 2006/38

(21) Application number: **06004205.8**

(22) Date of filing: **02.03.2006**

(51) Int Cl.:
F26B 3/092 ^(2006.01) **F26B 3/347** ^(2006.01)
F26B 21/06 ^(2006.01) **F26B 17/20** ^(2006.01)
F26B 3/34 ^(2006.01)

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI
SK TR**
Designated Extension States:
AL BA HR MK YU

(30) Priority: **15.03.2005 IT TV20050041**

(71) Applicant: **SMC TECHNOLOGY S.R.L.**
31100 Treviso (IT)

(72) Inventor: **Pagotto, Amedeo**
31027 Spresiano (TV) (IT)

(74) Representative: **Massa, Patrizia**
D'Agostini Group S.r.l
Contrà Santa Barbara, 33
36100 Vicenza (IT)

(54) **Apparatus for the fast and continuous dehumidification of loose materials, particularly pellets for a plastic moulding plant**

(57) Continuous apparatus (A) for the fast dehumidification of loose materials (M), particularly pellets for plastic moulding plants, consisting of:
-a first vertical container (1) to contain the pellets to be processed;
-a second container (2), orthogonal and in communication with said first for the processing of the pellets, with a fluidized bed and longitudinal auger (3), on which microwave generators (5,6) operate;
-a circuit for the distribution of a dehumidified airflow at a controlled temperature inside said second container

(2);
-means for the aspiration of the airflow at a controlled temperature and enriched with humidity from inside said second container (2), for then said airflow to be dehumidified and reintroduced inside said second container (2);
-sensor means (22,102,103) for the detection of the temperature and humidity percentage present in the pellets at least in said second container (2).

EP 1 703 239 A3



EUROPEAN SEARCH REPORT

Application Number
EP 06 00 4205

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 345 020 A2 (KAWATA CO LTD [JP]) 6 December 1989 (1989-12-06)	1-5	INV. F26B3/092 F26B3/347 F26B21/06 F26B17/20 F26B3/34
Y	* figures 1, 6 * * column 3, line 35 - line 39 * * column 5, line 31 - line 55 *	6	
Y	US 6 189 234 B1 (LUKER WILLIAM A [US]) 20 February 2001 (2001-02-20) * figures 4, 6, 7 * * column 1, line 66 - column 2, line 58 *	6	
A	US 5 205 050 A (MASAAKI NOSAKA [JP] ET AL) 27 April 1993 (1993-04-27) * figures 1, 12 * * column 5, line 48 - column 6, line 64 * * column 9, line 4 - line 8 * * column 11, line 57 - column 12, line 4 *	1,2,4,5	
A	FR 2 600 759 A1 (ELECTRICITE DE FRANCE [FR]; OMYA SA [FR]) 31 December 1987 (1987-12-31) * figure 1 * * page 11, line 2 - line 16 *	1,2,4,5	
A	WO 82/01062 A1 (COURNEYA C [US]) 1 April 1982 (1982-04-01) * figure 1 * * page 5, line 11 - page 6, line 7 *	1,3,4,6	TECHNICAL FIELDS SEARCHED (IPC) F26B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 21 September 2011	Examiner Etienne, Nicolas
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			

 1
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 00 4205

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

21-09-2011

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0345020	A2	06-12-1989	DE 68921669 D1 20-04-1995
		DE 68921669 T2 09-11-1995	
		US 4954681 A 04-09-1990	

US 6189234	B1	20-02-2001	NONE

US 5205050	A	27-04-1993	AT 145722 T 15-12-1996
		DE 69215477 D1 09-01-1997	
		DE 69215477 T2 27-03-1997	
		EP 0535771 A1 07-04-1993	
		JP 7014795 Y2 10-04-1995	
		JP H0532991 U 30-04-1993	

FR 2600759	A1	31-12-1987	NONE

WO 8201062	A1	01-04-1982	CA 1158432 A1 13-12-1983
		DK 231582 A 21-05-1982	
		EP 0059747 A1 15-09-1982	
		JP 57501445 T 12-08-1982	
		NO 821687 A 21-05-1982	
		US 4330946 A 25-05-1982	
