

(19)



(11)

EP 4 549 326 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
09.07.2025 Bulletin 2025/28

(43) Date of publication A2:
07.05.2025 Bulletin 2025/19

(21) Application number: **24205506.9**

(22) Date of filing: **09.10.2024**

(51) International Patent Classification (IPC):
B65B 1/04 (2006.01) **B65B 1/10** (2006.01)
B65B 1/36 (2006.01) **B65B 1/38** (2006.01)
B65B 9/04 (2006.01) **B65B 1/16** (2006.01)
B65B 1/32 (2006.01) **B65B 47/10** (2006.01)

(52) Cooperative Patent Classification (CPC):
B65B 1/04; B65B 1/10; B65B 1/36; B65B 1/38;
B65B 9/042; B65B 1/16; B65B 1/32; B65B 47/10;
B65B 2009/047

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL
NO PL PT RO RS SE SI SK SM TR
 Designated Extension States:
BA
 Designated Validation States:
GE KH MA MD TN

(30) Priority: **13.10.2023 IT 202300021414**

(71) Applicant: **Sasib S.p.A.**
40013 Castel Maggiore (BO) (IT)

(72) Inventors:
 • **GHIOTTI, Roberto**
40133 BOLOGNA (IT)
 • **MONTANARI, Andrea**
40133 BOLOGNA (IT)
 • **CORTI, Mattia**
40133 BOLOGNA (IT)

(74) Representative: **Studio Torta S.p.A.**
Via Viotti, 9
10121 Torino (IT)

(54) **MANUFACTURING MACHINE AND MANUFACTURING METHOD FOR THE PRODUCTION OF POUCHES, EACH CONTAINING A QUANTITY OF LOOSE PRODUCT**

(57) A manufacturing machine (6) and a manufacturing method for the production of pouches (1), preferably snus pouches (1), each containing a quantity (2) of loose product. The following are provided: an upper disc (21), which is arranged horizontally, is mounted in a rotary manner, in a stepped manner, around a vertical rotation axis (22) and has at least one through hole (24) which laterally delimits a compartment (23), which is open at the top and is designed to receive and contain an amount of loose product; a transfer device (49), which is configured

to retrieve at least one quantity (2) of loose product from the compartment (23); and a lower disc (25) which is mounted in a rotary manner around the rotation axis (22) in a synchronous manner with the upper disc (21), is arranged under the upper disc (21), has a base wall (26) inserted in the through hole (24) of the upper disc (21) so as to delimit, at the bottom, the compartment (23) and is axially movable relative to the upper disc (21) in order to change a depth of the compartment (23).

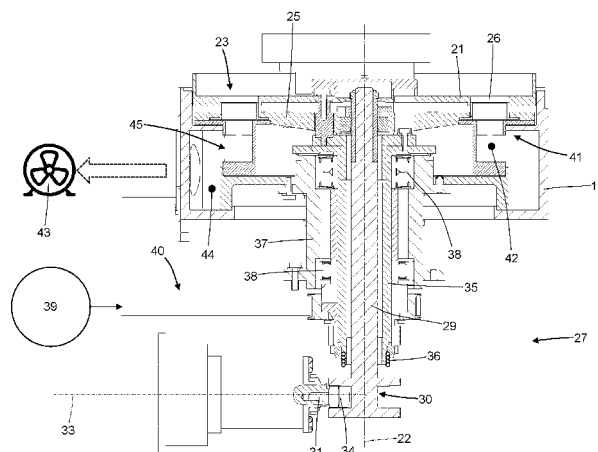


Fig. 8



EUROPEAN SEARCH REPORT

Application Number

EP 24 20 5506

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	US 2011/277878 A1 (WILLIAMS DWIGHT D [US]) 17 November 2011 (2011-11-17) * see particularly passages cited in the written opinion; the whole document *	1-6,20, 21	INV. B65B1/04 B65B1/10 B65B1/36 B65B1/38 B65B9/04
Y	EP 0 319 131 A1 (GLAXO GROUP LTD [GB]) 7 June 1989 (1989-06-07) * see particularly passages cited in the written opinion; the whole document *	1-6,20, 21	ADD. B65B1/16 B65B1/32 B65B47/10
Y	US 11 407 534 B2 (ALTRIA CLIENT SERVICES LLC [US]) 9 August 2022 (2022-08-09) * the whole document *	1-6,20, 21	
A	WO 01/54645 A1 (YI JONGKANG [CN]) 2 August 2001 (2001-08-02) * see particularly passages cited in the attached written opinion;; the whole document *	1-6,20, 21	
-The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			B65B
Place of search		Date of completion of the search	Examiner
Munich		26 February 2025	Paetzke, Uwe
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			



Application Number

EP 24 20 5506

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1 - 6, 20, 21

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION **SHEET B**

Application Number

EP 24 20 5506

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-6, 20, 21

A first group of invention comprises claims 1 to 6 and 20 and 21. The features of these claims are directed to the piston like bottom wall of the cavity and how it is actuated. Accordingly, the first invention is directed to solving the problem of providing a mechanical solution on how to adjust the amount of particulate material to be fed.

2. claims: 7-9

A second group of invention comprises claims 7-9. The features of these claims are directed to the bearings of concentric shafts and the drive. Accordingly, the second invention is directed to reducing friction, providing stability of the assembly components and to how to provide an appropriate drive mechanism.

3. claims: 10-12

A third group of invention comprises claims 10-12. The features of these claims are directed to the base wall being a sieve like structure and its pneumatic connection. Accordingly, the third invention is directed to improve compaction and or ejection of the particulate matter in the cavities.

4. claims: 13-18

A fourth group of invention comprises claims 13-18. The features of these claims are directed to the tank and scraping elements etc. Accordingly, the fourth invention is directed how to feed and replenish the cavities with particulate matter.

5. claim: 19

A fifth group of invention comprises claim 19. The features of this claim are directed to controller. Accordingly, the fifth invention is directed to automizing the feeder.

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

EP 24 20 5506

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.

26-02-2025

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2011277878 A1	17-11-2011	BR 112012024355 A2	24-05-2016
		CA 2794637 A1	29-09-2011
		DK 2552786 T3	21-12-2015
		DK 2743194 T3	24-07-2017
		EC SP12012260 A	30-11-2012
		EP 2552786 A2	06-02-2013
		EP 2743194 A2	18-06-2014
		JP 5734407 B2	17-06-2015
		JP 2013527085 A	27-06-2013
		KR 20140026997 A	06-03-2014
		MY 165786 A	25-04-2018
		PT 2552786 E	22-12-2015
		PT 2743194 T	11-07-2017
		RU 2012145613 A	10-05-2014
		UA 110335 C2	25-12-2015
EP 0319131 A1	07-06-1989	US 2011277878 A1	17-11-2011
		US 2014157728 A1	12-06-2014
		WO 2011117732 A2	29-09-2011
		AT E83995 T1	15-01-1993
		AU 2351988 A	13-04-1989
		CA 1296687 C	03-03-1992
		DE 3877162 T2	19-05-1993
		EP 0319131 A1	07-06-1989
		ES 2036689 T3	01-06-1993
		GB 2210601 A	14-06-1989
US 11407534 B2	09-08-2022	IT 1224757 B	18-10-1990
		JP H01124502 A	17-05-1989
		US 4949766 A	21-08-1990
		ZA 887502 B	25-10-1989
		EP 3722214 A1	14-10-2020
WO 0154645 A1	02-08-2001	US 2020324924 A1	15-10-2020
		US 2022324596 A1	13-10-2022
		US 2024140633 A1	02-05-2024
		AU 2999601 A	07-08-2001
		CN 1306935 A	08-08-2001
		WO 0154645 A1	02-08-2001

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82