

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 March 2009 (12.03.2009)

PCT

(10) International Publication Number
WO 2009/032574 A3

- (51) International Patent Classification: *F16J 15/00* (2006.01) *G01L 19/14* (2006.01) [US/US]; 900 Watkins Glen Blvd., Marysville, Ohio 43040 (US).
- (21) International Application Number: PCT/US2008/074159
- (22) International Filing Date: 25 August 2008 (25.08.2008)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 11/897,114 29 August 2007 (29.08.2007) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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),

[Continued on next page]

(54) Title: AUTOMATED EVACUATION AND SEALING PROCESS

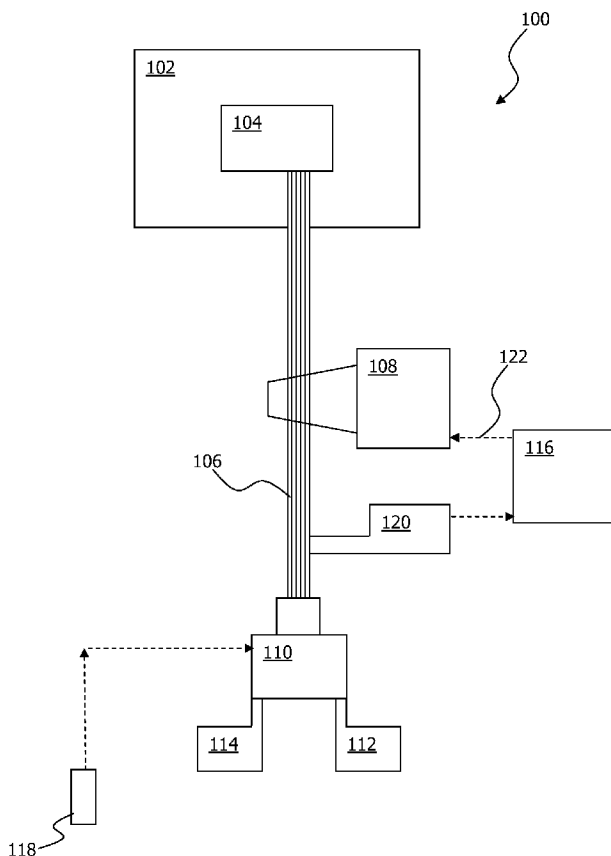


FIG. 1

(57) Abstract: An automatic chamber evacuating method, system, and apparatus are disclosed, which include a nest, wherein a region or chamber, such as for example the reference chamber of an absolute pressure sensor, may be placed. A switch is used to initiate an automatic process whereby an air operated chuck seals to a tubular region protruding from the chamber via compressed air. An evacuating device connected to the tubular region by the chuck then applies a vacuum which evacuates the chamber. When the chamber has been sufficiently evacuated a message is sent to a programmable logic controller which then outputs a signal to an ultrasonic welding apparatus. The ultrasonic welder crimps and seals the tubular region thereby quickly and efficiently creating a permanent vacuum in the chamber.

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European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

Published:

— *with international search report*

(88) Date of publication of the international search report:

7 May 2009

A. CLASSIFICATION OF SUBJECT MATTER*F16J 15/00(2006.01)i, G01L 19/14(2006.01)i*

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)

IPC F16J 15/00, A61B 18/18, B65B 31/02, B65G 53/14 and F16L 35/00

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

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

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

eKIPASS(KIPO internal) & keywords : evacuating, sealing, vacuum, chuck, tube, ultrasonic, welding and compressed air.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6364876 B1 (LYNDALL ERB et al.) 2 April 2002 See figure 7 and columns 6-14.	1,6,9
A	US 7243478 B2 (RICHARD F. DAWSON and CHARLES G. WALDER) 17 July 2007 See figures 1A-1B and columns 4-7.	1,6,9
A	US 5069582 (ROGER YOUNG) 3 December 1991 See figures 3-8 and columns 3-4.	1,6,9

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

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"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

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"&" document member of the same patent family

Date of the actual completion of the international search

23 MARCH 2009 (23.03.2009)

Date of mailing of the international search report

23 MARCH 2009 (23.03.2009)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2008/074159

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