

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 April 2009 (09.04.2009)

PCT

(10) International Publication Number
WO 2009/044197 A3

(51) International Patent Classification:

F04C 27/02 (2006.01) **F04C 18/12** (2006.01)
F04C 23/00 (2006.01)

(21) International Application Number:

PCT/GB2008/050886

(22) International Filing Date: 1 October 2008 (01.10.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0719394.9 4 October 2007 (04.10.2007) GB

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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), 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).

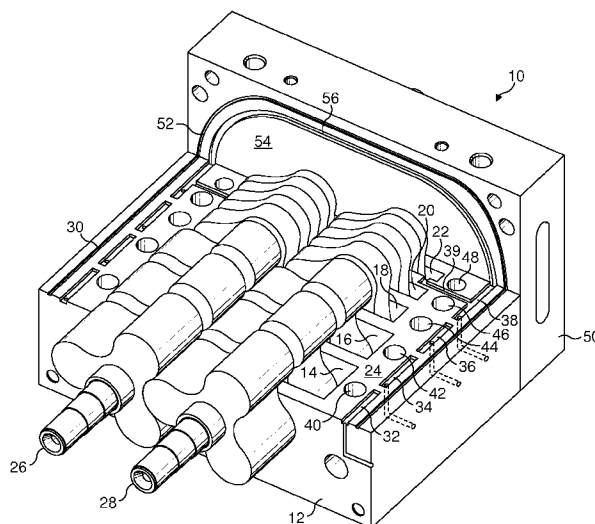
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
22 May 2009

(54) Title: A MULTI STAGE, CLAM SHELL VACUUM PUMP

FIG. 1



(57) Abstract: A multi-stage, clam shell, vacuum pump comprises two housing components (12) which are to be sealingly connected to one another such that an array of chambers extending longitudinally from an inlet region of the pump to an outlet region of the pump is defined thereby. Sealing means (30) are provided within the vacuum pump, between the two housing components, to prevent transfer of fluid in to and out of the vacuum pump where said components are connected. An array of discrete, elongate channels (33, 34, 36, 38) is provided, located between the sealing means (30) and the array of chambers (14, 16, 18, 20, 22). The channels serve to protect the sealing means (30) from fluid that passes through the chambers during operation of the vacuum pump. Each channel is configured to receive a barrier fluid having a different pressure than a barrier fluid to be received by an adjacent channel.