

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
30 May 2025 (30.05.2025)



(10) International Publication Number
WO 2025/109407 A1

(51) International Patent Classification:

F04C 25/02 (2006.01) F04C 18/12 (2006.01)
F04C 23/00 (2006.01) F04C 27/00 (2006.01)

(21) International Application Number:

PCT/IB2024/060756

(22) International Filing Date:

31 October 2024 (31.10.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2317862.7 22 November 2023 (22.11.2023) GB

(71) Applicant: EDWARDS KOREA LIMITED [KR/KR];

96, 3 Gongdan 1-ro, Seobuk-gu, Cheonan-si, Chungcheong-
nam-do 331-200 (KR).

(72) Inventors: **KIM, Hunje**; Edwards Korea Limited, 80,
3Gongdan6-ro, Seobuk-gu, Cheonan-si, Chungcheong-
nam-do 31085 (KR). **KIM, U Jung**; Edwards Ko-
rea Limited, 80, 3Gongdan6-ro, Seobuk-gu, Cheonan-si,
Chungcheongnam-do 31085 (KR).

(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, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,
NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,
RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(54) Title: STATOR FOR A VACUUM PUMP

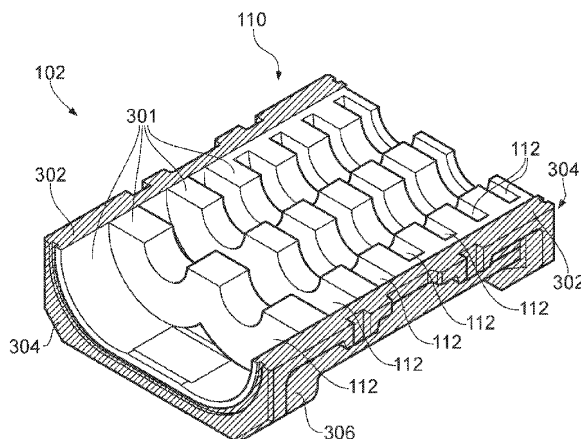


FIG. 3

(57) Abstract: A vacuum pump stator, comprising: a first stator component (101) having a first surface (106); and a second stator component (102) having a second surface (110); wherein at least one of the first or second surfaces (106, 110) comprise one or more recesses (108, 112) which define one or more pumping chambers (202) between the first and second stator components (101, 102); the first and second stator components (101, 102) are formed of a first material; at least a portion of each of the first and second surfaces (106, 110) that, when the first and second stator components (101, 102) are sealingly connected to each other, at least partially defines the one or more pumping chambers (202) is an unplated portion formed of the first material; and at least a portion of each of the first and second surfaces (106, 110) that, when the first and second stator components (101, 102) are sealingly connected to each other, does not define the one or more pumping chambers (202) is plated in a second material, the second material being different to the first material.

[Continued on next page]

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))
