

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

(19) World Intellectual Property  
Organization  
International Bureau

(43) International Publication Date  
06 September 2019 (06.09.2019)



(10) International Publication Number  
**WO 2019/168691 A3**

(51) International Patent Classification:

*F16K 3/00* (2006.01) *F01L 7/00* (2006.01)  
*F16K 11/00* (2006.01) *F01L 7/10* (2006.01)  
*F01C 19/00* (2006.01) *G01N 30/00* (2006.01)

(72) Inventors: **ANDESHMAND, Sayeed**; 230 Constitution Drive, Menlo Park, CA 94025 (US). **CAULEY, Thomas, H., III**; 230 Constitution Drive, Menlo Park, CA 94025 (US). **DIXON, John**; 230 Constitution Drive, Menlo Park, CA 94025 (US).

(21) International Application Number:

PCT/US2019/018351

(74) Agent: **GLENN, W., Benjamin** et al.; Shay Glenn LLP, 2755 Campus Drive, Suite 210, San Mateo, CA 94403 (US).

(22) International Filing Date:

15 February 2019 (15.02.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

15/898,064 15 February 2018 (15.02.2018) US

(71) Applicant: **TALIS BIOMEDICAL CORPORATION**  
[US/US]; 230 Constitution Drive, Menlo Park, CA 94025 (US).

(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, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(54) Title: ROTARY VALVE

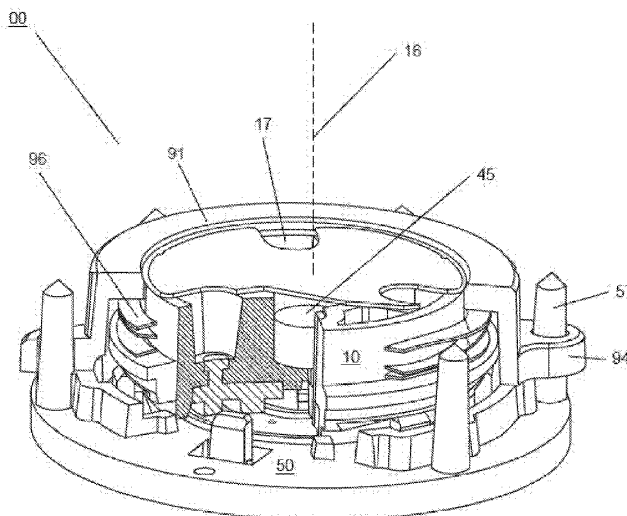


FIG. 1A

(57) Abstract: Rotary valves and methods of using, manufacturing, and storing the same are provided herein. The rotary valve includes a rotor and a stator, biased toward one another to form a fluid tight seal. In some implementations, the rotor comprises an integrated flow channel containing a porous solid support. Frequently, the interface between rotor and stator is made fluid-tight using a gasket. Some implementations of the rotary valve include a displaceable spacer to prevent the gasket from sealing against at least one of the rotor and stator prior to operation, wherein when the spacer is displaced, the gasket seals the rotor and stator together in a fluid-tight manner.

[Continued on next page]

WO 2019/168691 A3

**(84) Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, 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, 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))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

**(88) Date of publication of the international search report:**  
10 October 2019 (10.10.2019)