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(54) Title: VALVE WITH DUAL ROTATION VALVE MEMBER

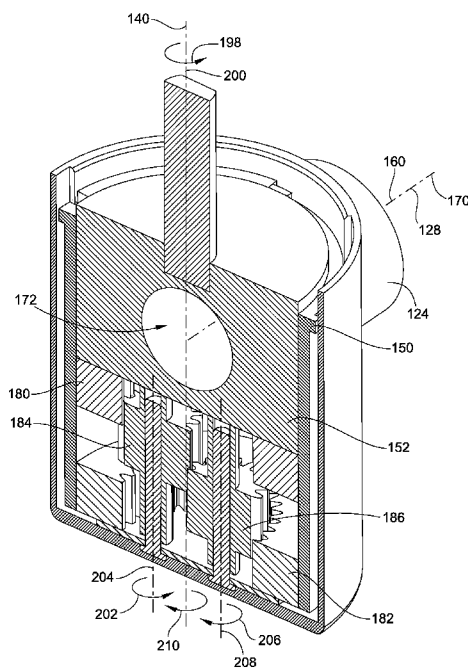


FIG. 9

(57) Abstract: A valve with a dual rotational valve member is provided. The valve includes a first valve member and a second valve member. An actuation arrangement is operably positioned between the first valve member and the second valve member to rotate the first valve member in a first direction and the second valve member in a second direction opposite the first direction. This counter-rotation of the first and second valve members selectively aligns or misaligns a pair of flow ports of the first valve member with a pair of flow ports of the second valve member. When the pairs of flow ports are aligned, the flow path of the valve allows for straight through flow of a fluid through the valve thereby decreasing turbulence, back pressure, and noise.



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A. CLASSIFICATION OF SUBJECT MATTER***F16K 5/10(2006.01)i, F16K 31/53(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)

F16K 5/10; F16K 43/00; F16K 5/04; F16K 47/02; F16K 5/06

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

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: dual, outer, inner, gear, arrangement, ball, open, closed, valve

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A	US 02482873 A1 (JOHN ROBERTS) (27 September 1949) See pages 1-3.	1-5, 9-10, 17 18-20 6-8, 11-16
Y	US 2010-0140522 A1 (CHANG SEOK-KYU et al.) 10 June 2010 See paragraphs [0036] - [0096] and figures 1-7.	18-20
A	JP 59-132955 U (ASAHI SUNAC CORPORATION) 06 September 1984 See pages 1-2.	1-20
A	JP 2008-215626 A (TOTO LTD) 18 September 2008 See abstract and figures 1-7.	1-20
A	JP 2002-228041 A (INAX CORP) 14 August 2002 See abstract and figures 1-3.	1-20



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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