



US00D484145S

(12) **United States Design Patent**  
**Roberts et al.**

(10) **Patent No.:** **US D484,145 S**

(45) **Date of Patent:** **\*\* Dec. 23, 2003**

(54) **DIAPHRAGM PUMP**

5,848,878 A 12/1998 Conti et al.

D435,855 S \* 1/2001 Donelson et al.

(75) Inventors: **Charles O. Roberts**, Edon, OH (US);  
**Gerald M. Distel**, Bryan, OH (US)

\* cited by examiner

(73) Assignee: **Ingersoll-Rand Company**, Woodcliff  
Lake, NJ (US)

*Primary Examiner*—Ralf Seifert

(74) *Attorney, Agent, or Firm*—Michael Best & Friedrich  
LLP

(\*\*) Term: **14 Years**

(57) **CLAIM**

(21) Appl. No.: **29/168,831**

We claim the ornamental design for a diaphragm pump, as  
shown and described.

(22) Filed: **Oct. 8, 2002**

(51) **LOC (7) Cl.** ..... **15-02**

(52) **U.S. Cl.** ..... **D15/7**

(58) **Field of Search** ..... D15/7-9; 419/393,  
419/395, 344, 345, 401, 442, 536; 285/12

**DESCRIPTION**

(56) **References Cited**

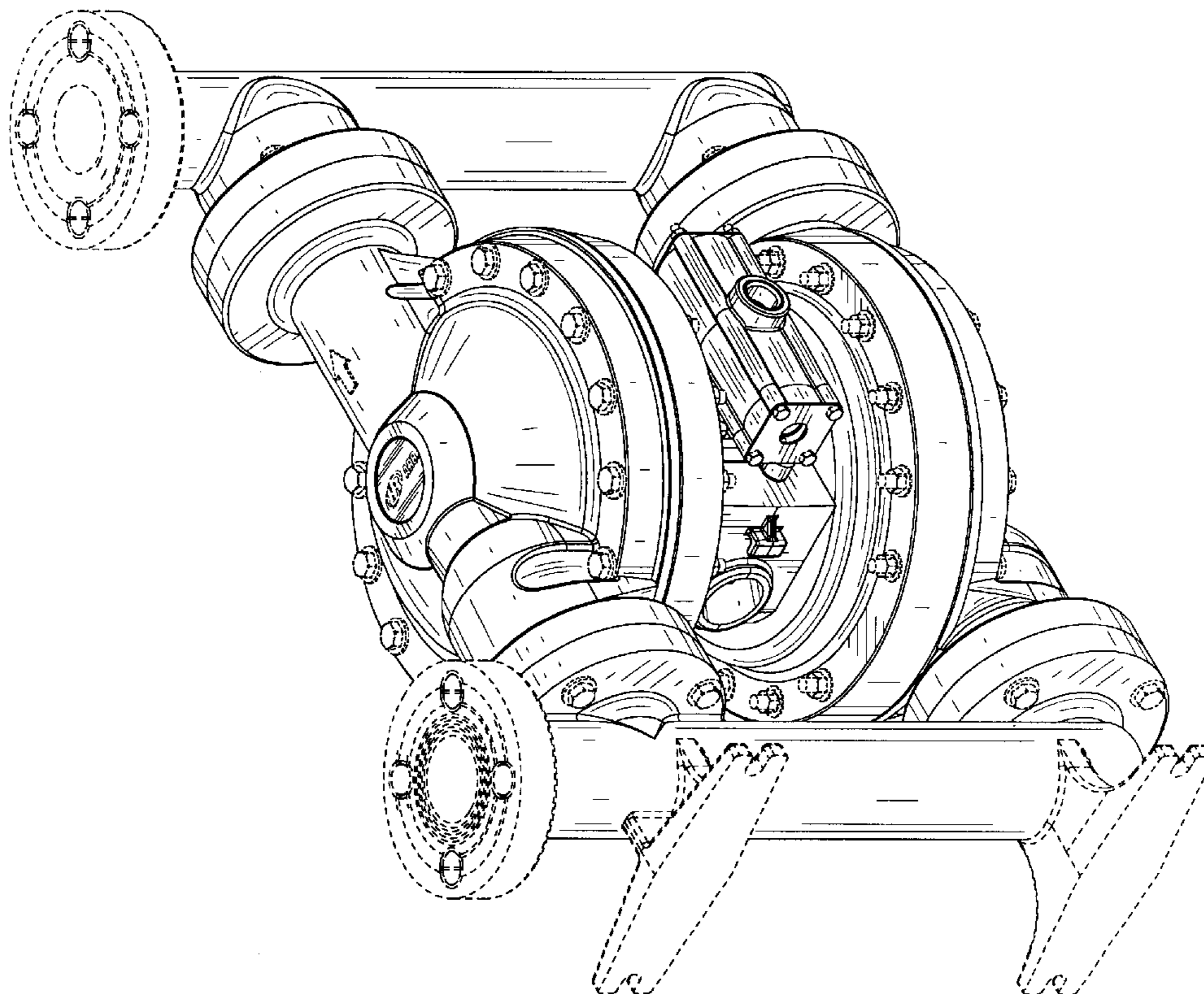
**U.S. PATENT DOCUMENTS**

- D294,946 S \* 3/1988 Wilden
- D370,488 S 6/1996 Kozumplik, Jr. et al.
- D388,796 S 1/1998 Conti et al.
- D388,797 S 1/1998 Conti et al.
- 5,711,658 A 1/1998 Conti et al.
- D400,210 S \* 10/1998 Reynolds et al.

FIG. 1 is a perspective view of a diaphragm pump showing  
our new design;  
FIG. 2 is a bottom plan view thereof;  
FIG. 3 is a top plan view thereof;  
FIG. 4 is a front elevation view thereof;  
FIG. 5 is a rear elevation view thereof;  
FIG. 6 is a left elevation view thereof; and,  
FIG. 7 is a right elevation view thereof.

The structural features depicted by means of broken lines in  
the drawing figures have been shown for illustrative pur-  
poses only and form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**



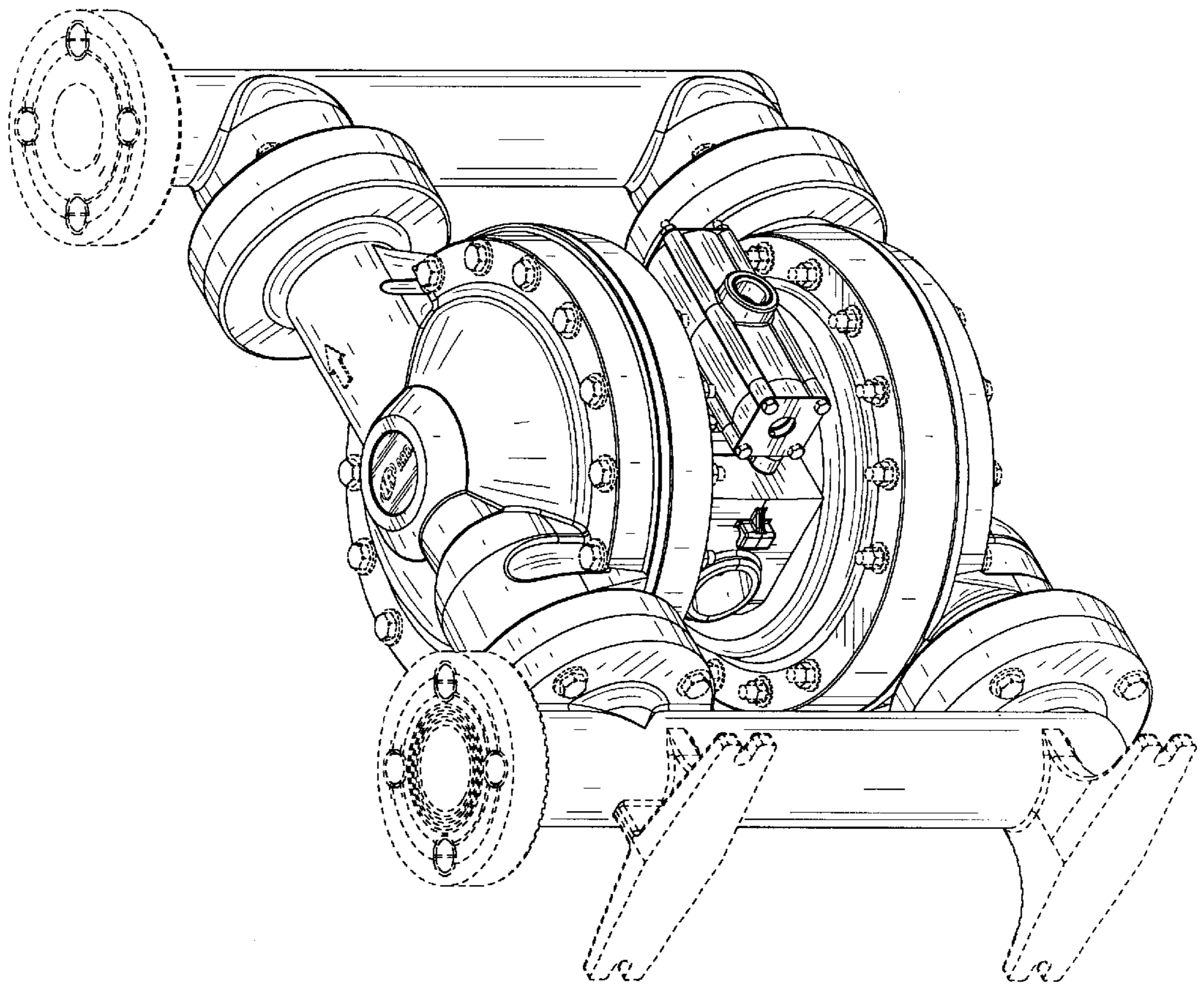


FIG. 1

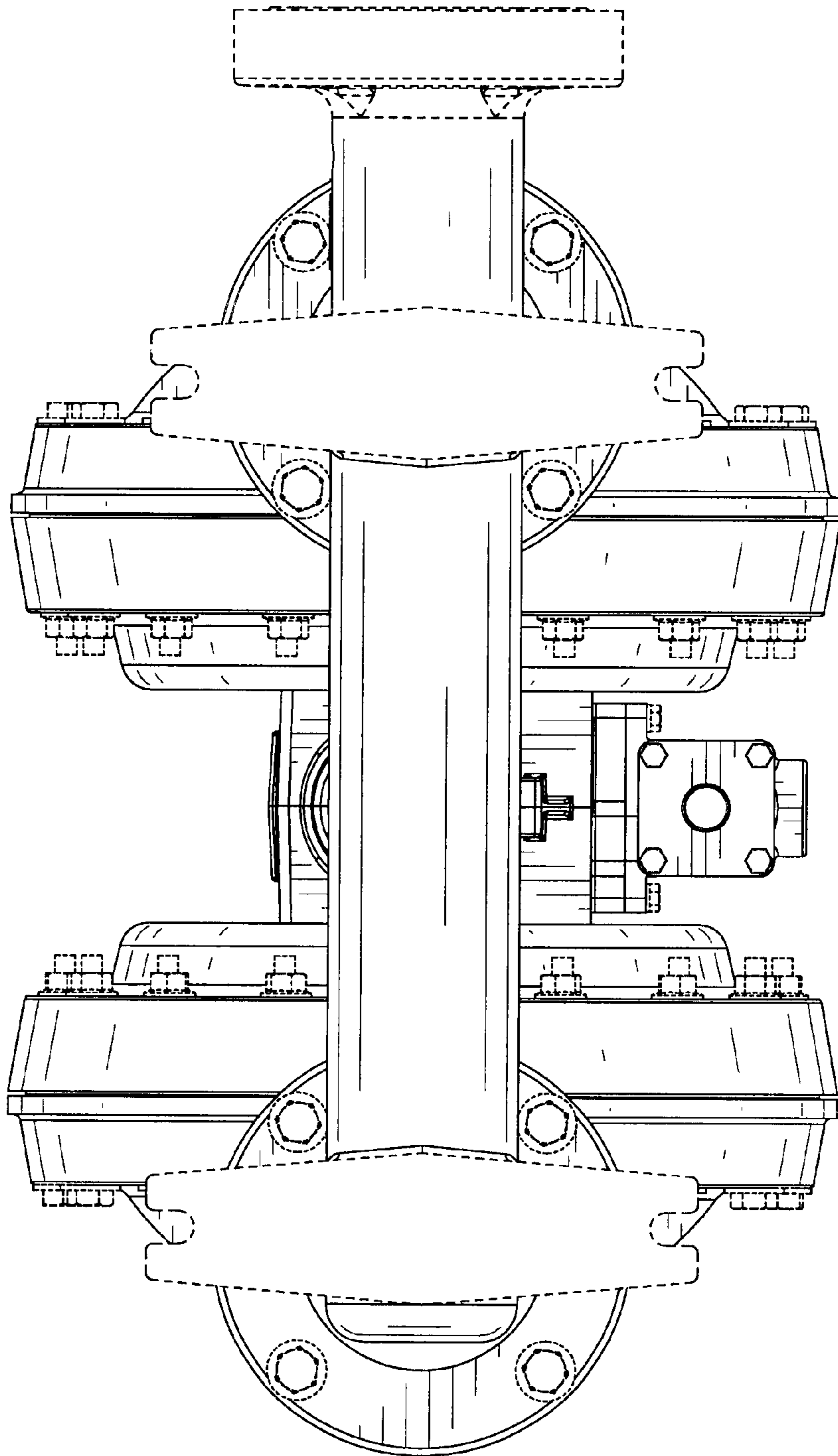


FIG. 2

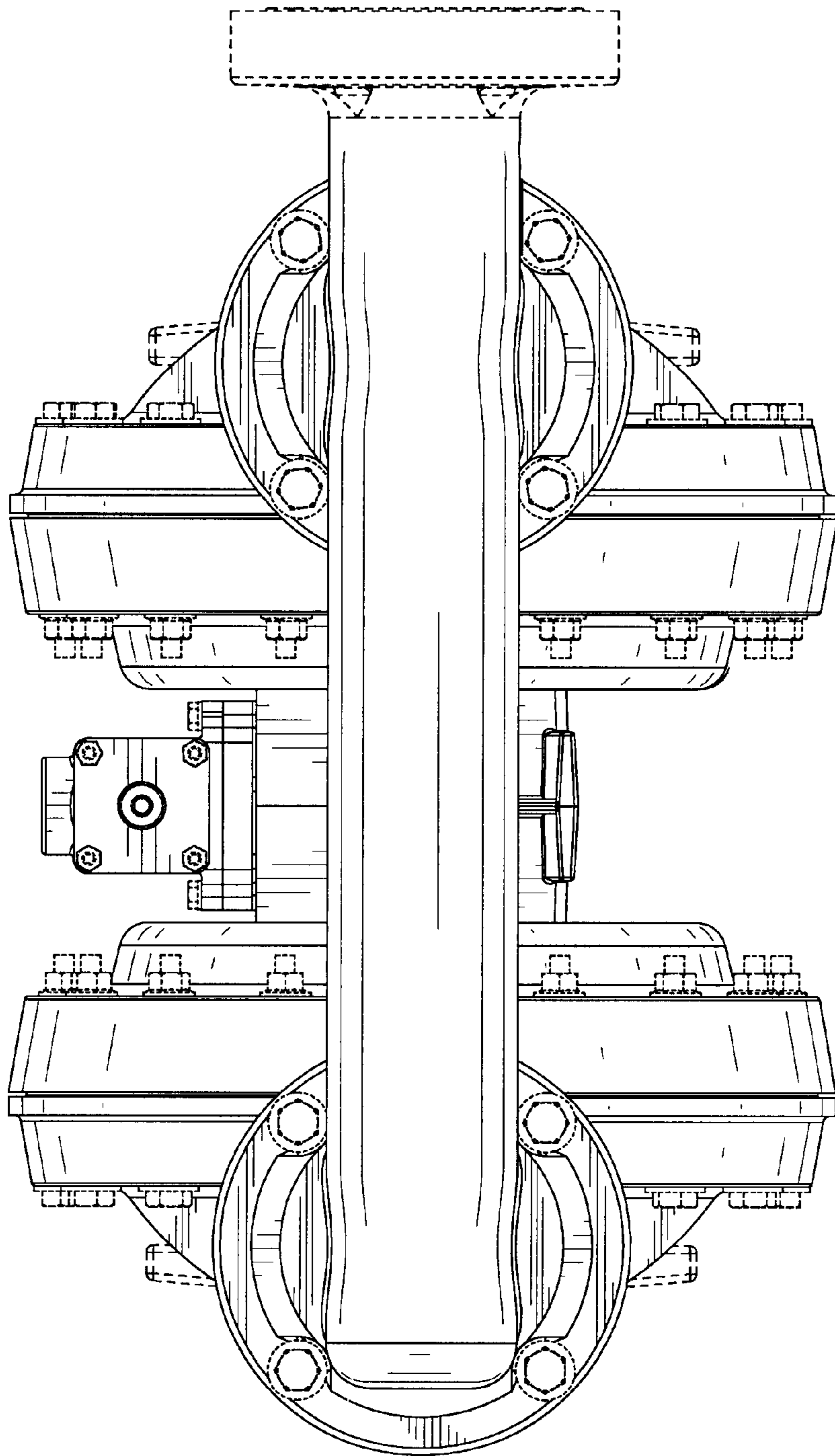


FIG. 3

FIG. 4

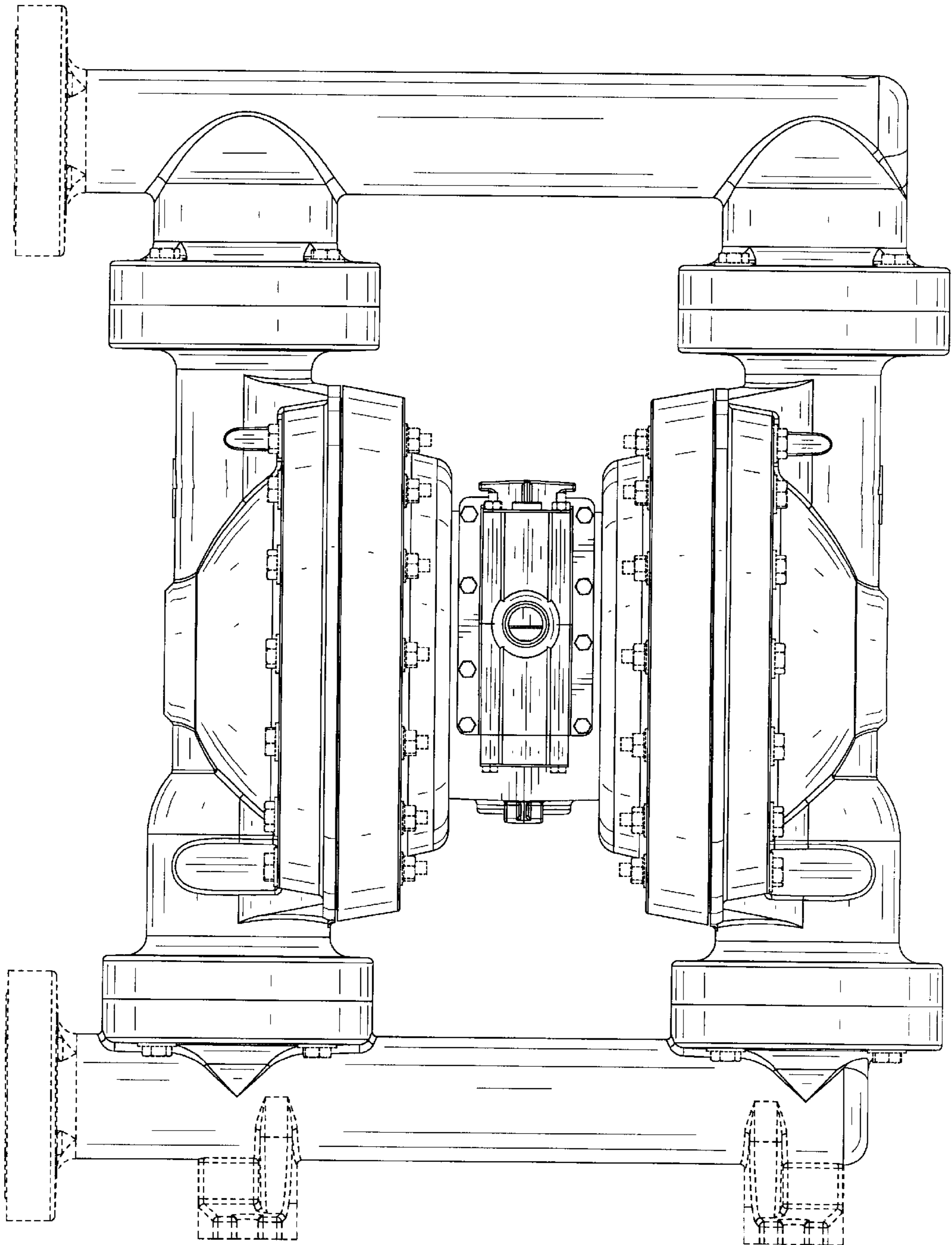
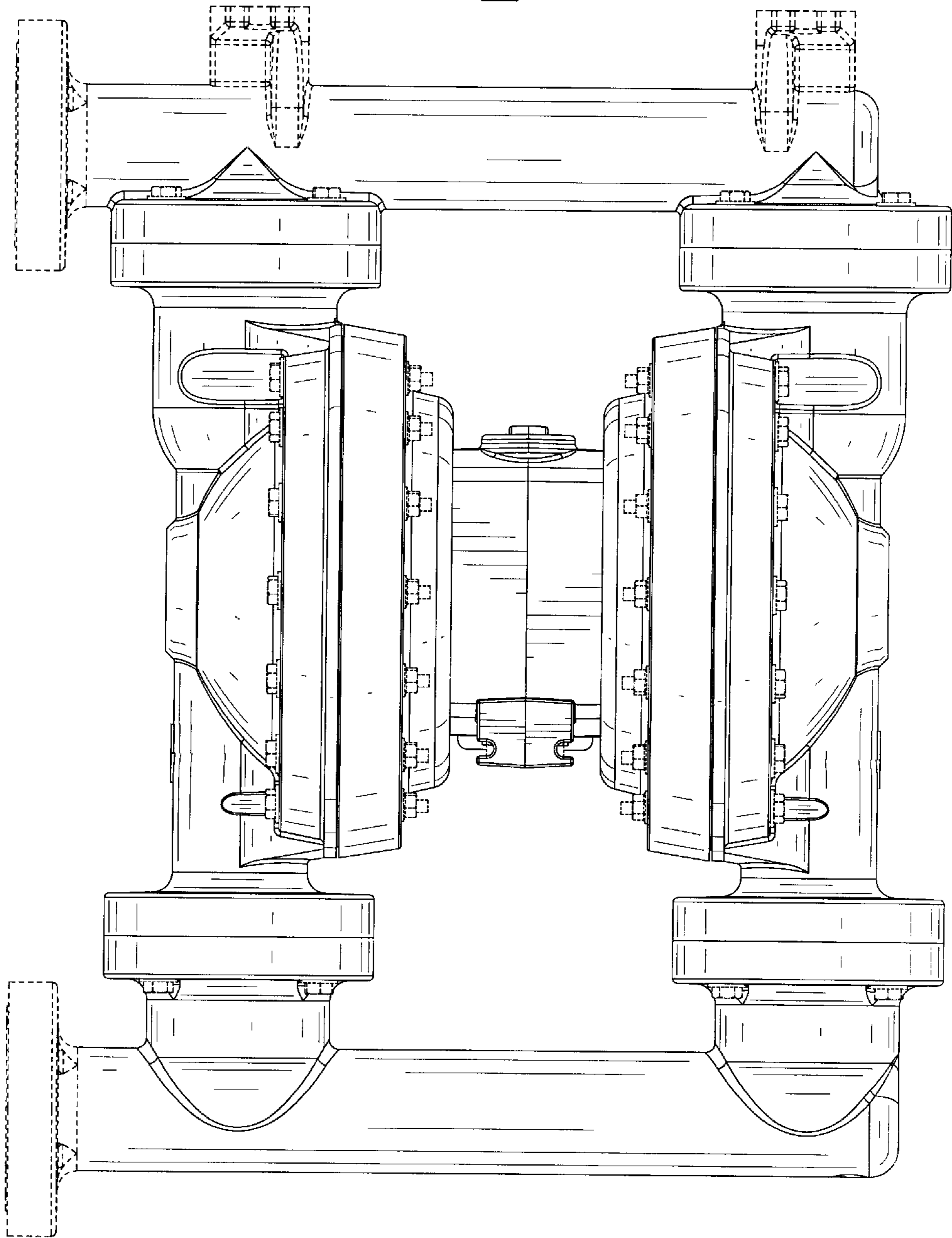


FIG. 5



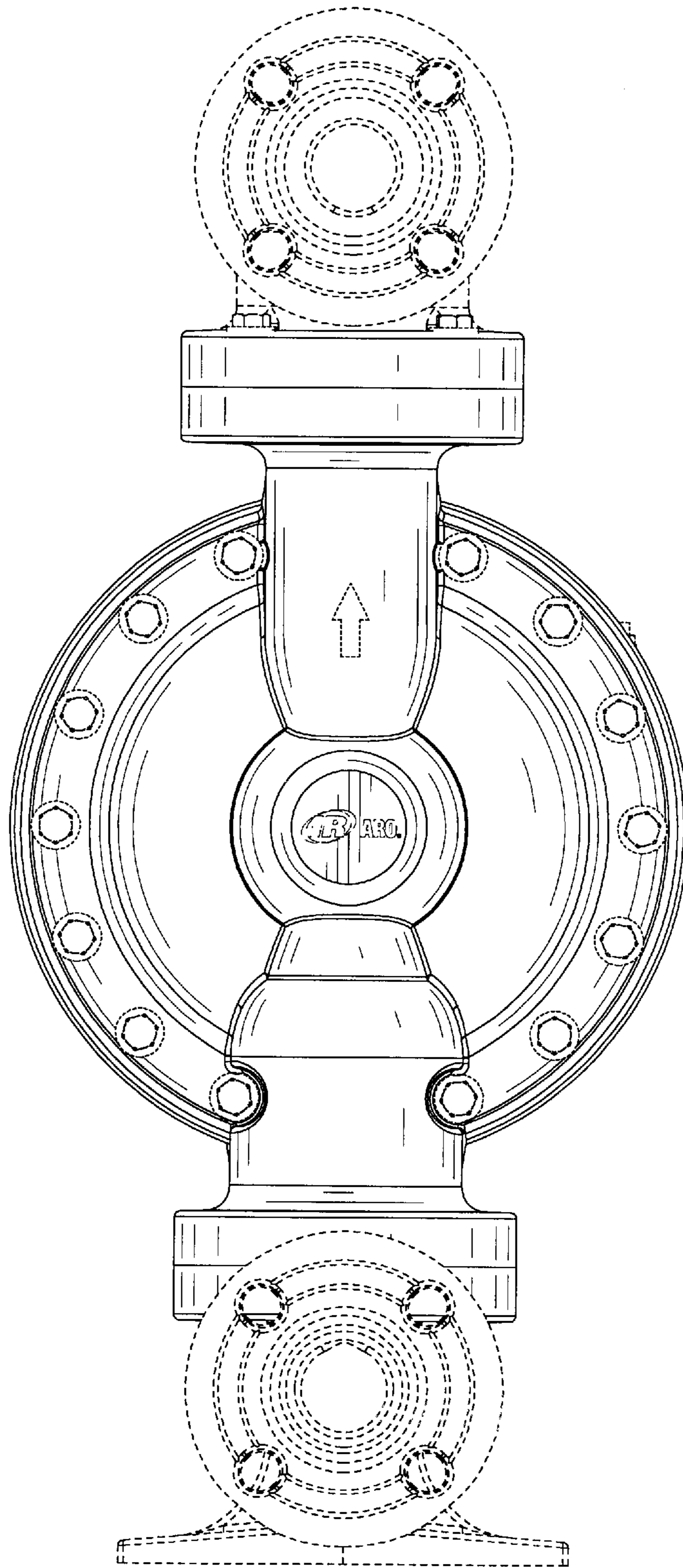


FIG. 6

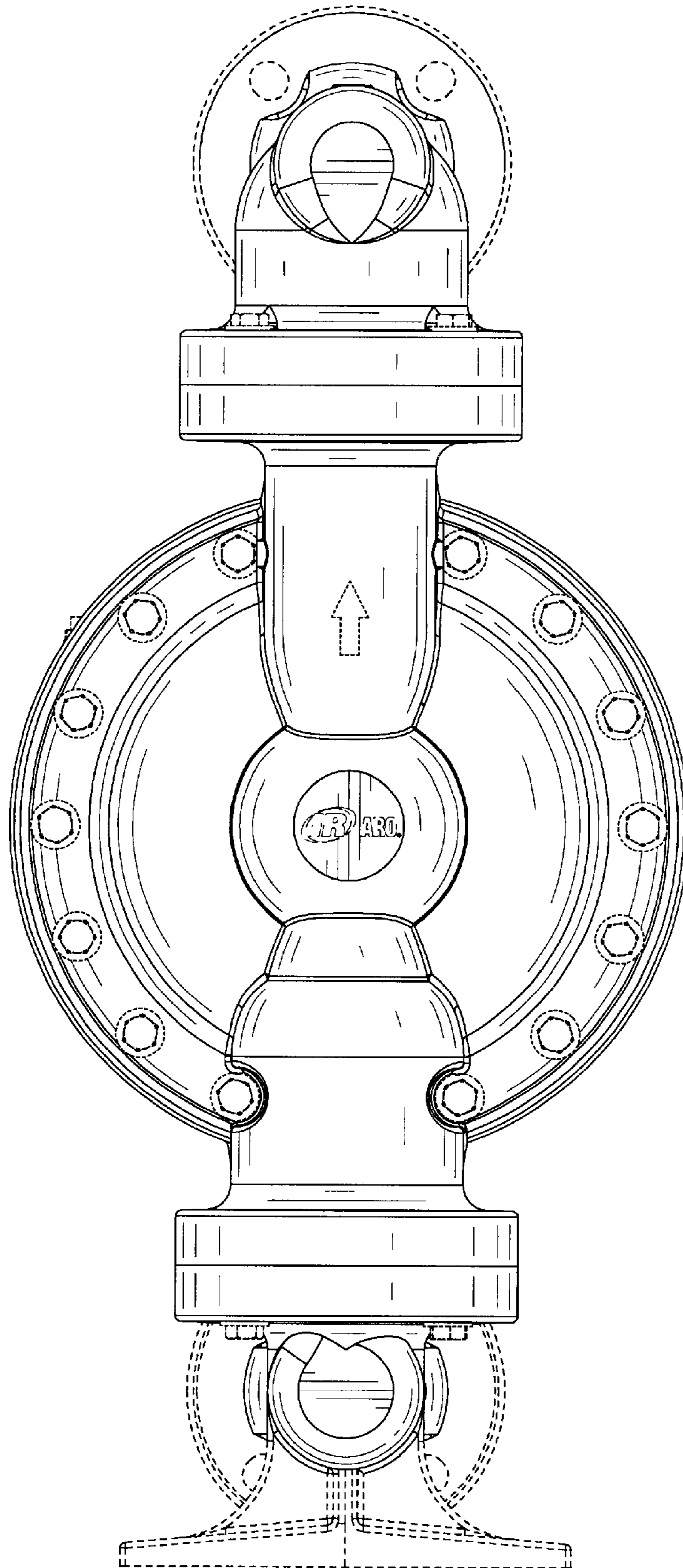


FIG. 7