



US00D947249S

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

(10) **Patent No.:** **US D947,249 S**  
(45) **Date of Patent:** **\*\* Mar. 29, 2022**

- (54) **VOLUTE CASING FOR A PUMP**
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- (72) Inventors: **Teemu Gasman**, Kotka (FI); **Matti Koivikko**, Kotka (FI); **Sami Virtanen**, Kotka (FI)
- (73) Assignee: **SULZER MANAGEMENT AG**, Winterthur (CH)
- (\*\*) Term: **15 Years**
- (21) Appl. No.: **29/816,401**
- (22) Filed: **Nov. 22, 2021**

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**Related U.S. Application Data**

- (62) Division of application No. 29/657,776, filed on Jul. 25, 2018, now Pat. No. Des. 939,584, which is a division of application No. 29/551,960, filed on Jan. 19, 2016, now Pat. No. Des. 829,770.

(30) **Foreign Application Priority Data**

Aug. 20, 2015 (EM) ..... 002757914

(51) **LOC (13) Cl.** ..... **15-02**

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

(58) **Field of Classification Search**  
USPC ..... D15/7-9; D23/231, 232, 225  
CPC ..... F02M 37/04; F02M 37/14; F04D 29/46;  
F04D 29/4286; F04D 1/00; F04D 1/04;  
F04D 3/02; F04D 13/0646; F04D 17/18;  
F04D 29/322; F04D 29/628; F04B 47/00;  
F04B 25/00-04; F04B 441/06; F04B  
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See application file for complete search history.

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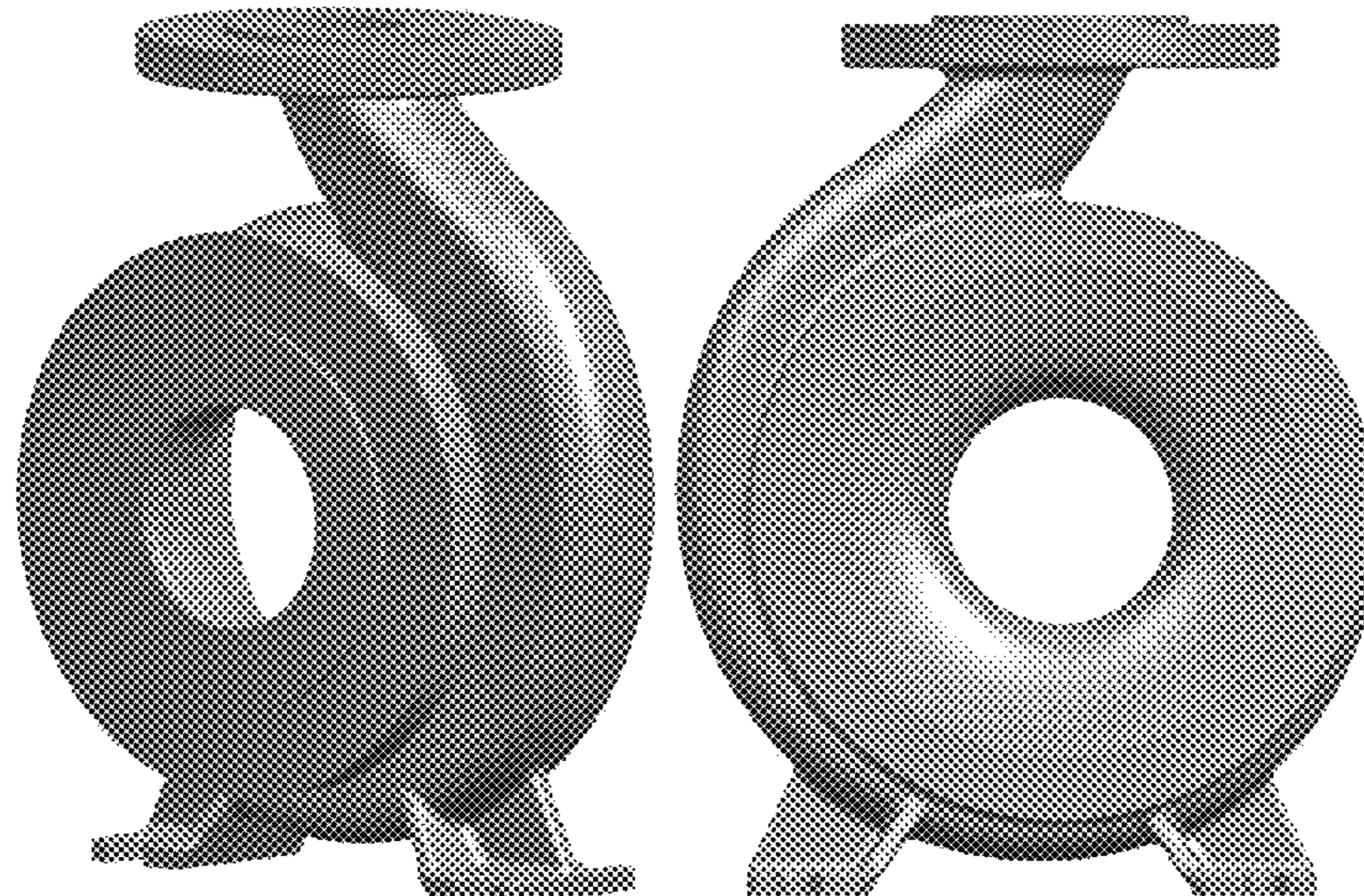
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*Assistant Examiner* — Mark T. Philipps



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(57) **CLAIM**

The ornamental design for a volute casing for a pump, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a first embodiment of a volute casing for a pump in accordance with our new design;  
 FIG. 2 is a first side elevational view of the volute casing illustrated in FIG. 1;  
 FIG. 3 is a second side elevational view of the volute casing illustrated in FIG. 1;  
 FIG. 4 is a first end elevational view of the volute casing illustrated in FIG. 15;  
 FIG. 5 is a second end elevational view of the volute casing illustrated in FIG. 1;  
 FIG. 6 is a bottom plan view of the volute casing illustrated in FIG. 1;  
 FIG. 7 is a top plan view of the volute casing illustrated in FIG. 1;  
 FIG. 8 is a perspective view of a second embodiment of a volute casing for a pump in accordance with our new design;  
 FIG. 9 is a first side elevational view of the volute casing illustrated in FIG. 8;  
 FIG. 10 is a second side elevational view of the volute casing illustrated in FIG. 8;  
 FIG. 11 is a first end elevational view of the volute casing illustrated in FIG. 8;  
 FIG. 12 is a second end elevational view of the volute casing illustrated in FIG. 8;  
 FIG. 13 is a bottom plan view of the volute casing illustrated in FIG. 8;  
 FIG. 14 is a top plan view of the volute casing illustrated in FIG. 8;  
 FIG. 15 is a perspective view of a third embodiment of a volute casing for a pump in accordance with our new design;  
 FIG. 16 is a first side elevational view of the volute casing illustrated in FIG. 15;  
 FIG. 17 is a second side elevational view of the volute casing illustrated in FIG. 15;  
 FIG. 18 is a first end elevational view of the volute casing illustrated in FIG. 15;  
 FIG. 19 is a second end elevational view of the volute casing illustrated in FIG. 15;  
 FIG. 20 is a bottom plan view of the volute casing illustrated in FIG. 15;  
 FIG. 21 is a top plan view of the volute casing illustrated in FIG. 15;  
 FIG. 22 is a perspective view of a fourth embodiment of a volute casing for a pump in accordance with our new design;  
 FIG. 23 is a first side elevational view of the volute casing illustrated in FIG. 22;  
 FIG. 24 is a second side elevational view of the volute casing illustrated in FIG. 22;  
 FIG. 25 is a first end elevational view of the volute casing illustrated in FIG. 22;  
 FIG. 26 is a second end elevational view of the volute casing illustrated in FIG. 22;  
 FIG. 27 is a bottom plan view of the volute casing illustrated in FIG. 22;  
 FIG. 28 is a top plan view of the volute casing illustrated in FIG. 22;

FIG. 29 is a perspective view of a fifth embodiment of a volute casing for a pump in accordance with our new design;  
 FIG. 30 is a first side elevational view of the volute casing illustrated in FIG. 29;  
 FIG. 31 is a second side elevational view of the volute casing illustrated in FIG. 29;  
 FIG. 32 is a first end elevational view of the volute casing illustrated in FIG. 29;  
 FIG. 33 is a second end elevational view of the volute casing illustrated in FIG. 29;  
 FIG. 34 is a bottom plan view of the volute casing illustrated in FIG. 29;  
 FIG. 35 is a top plan view of the volute casing illustrated in FIG. 29;  
 FIG. 36 is a perspective view of a sixth embodiment of a volute casing for a pump in accordance with our new design;  
 FIG. 37 is a first side elevational view of the volute casing illustrated in FIG. 36;  
 FIG. 38 is a second side elevational view of the volute casing illustrated in FIG. 36;  
 FIG. 39 is a first end elevational view of the volute casing illustrated in FIG. 36;  
 FIG. 40 is a second end elevational view of the volute casing illustrated in FIG. 36;  
 FIG. 41 is a bottom plan view of the volute casing illustrated in FIG. 36;  
 FIG. 42 is a top plan view of the volute casing illustrated in FIG. 36;  
 FIG. 43 is a perspective view of a seventh embodiment of a volute casing for a pump in accordance with our new design;  
 FIG. 44 is a first side elevational view of the volute casing illustrated in FIG. 43;  
 FIG. 45 is a second side elevational view of the volute casing illustrated in FIG. 43;  
 FIG. 46 is a first end elevational view of the volute casing illustrated in FIG. 43;  
 FIG. 47 is a second end elevational view of the volute casing illustrated in FIG. 43;  
 FIG. 48 is a bottom plan view of the volute casing illustrated in FIG. 43;  
 FIG. 49 is a top plan view of the volute casing illustrated in FIG. 43;  
 FIG. 50 is a perspective view of an eighth embodiment of a volute casing for a pump in accordance with our new design;  
 FIG. 51 is a first side elevational view of the volute casing illustrated in FIG. 50;  
 FIG. 52 is a second side elevational view of the volute casing illustrated in FIG. 50;  
 FIG. 53 is a first end elevational view of the volute casing illustrated in FIG. 50;  
 FIG. 54 is a second end elevational view of the volute casing illustrated in FIG. 50;  
 FIG. 55 is a bottom plan view of the volute casing illustrated in FIG. 50;  
 FIG. 56 is a top plan view of the volute casing illustrated in FIG. 50;  
 FIG. 57 is a perspective view of a ninth embodiment of a volute casing for a pump in accordance with our new design;  
 FIG. 58 is a first side elevational view of the volute casing illustrated in FIG. 57;  
 FIG. 59 is a second side elevational view of the volute casing illustrated in FIG. 57;  
 FIG. 60 is a first end elevational view of the volute casing illustrated in FIG. 57;

FIG. **61** is a second end elevational view of the volute casing illustrated in FIG. **57**;

FIG. **62** is a bottom plan view of the volute casing illustrated in FIG. **57**;

FIG. **63** is a top plan view of the volute casing illustrated in FIG. **57**;

FIG. **64** is a perspective view of an eleventh embodiment of a volute casing for a pump in accordance with our new design;

FIG. **65** is a first side elevational view of the volute casing illustrated in FIG. **64**;

FIG. **66** is a second side elevational view of the volute casing illustrated in FIG. **64**;

FIG. **67** is a first end elevational view of the volute casing illustrated in FIG. **64**;

FIG. **68** is a second end elevational view of the volute casing illustrated in FIG. **64**;

FIG. **69** is a bottom plan view of the volute casing illustrated in FIG. **64**; and,

FIG. **70** is a top plan view of the volute casing illustrated in FIG. **64**.

**1 Claim, 70 Drawing Sheets**

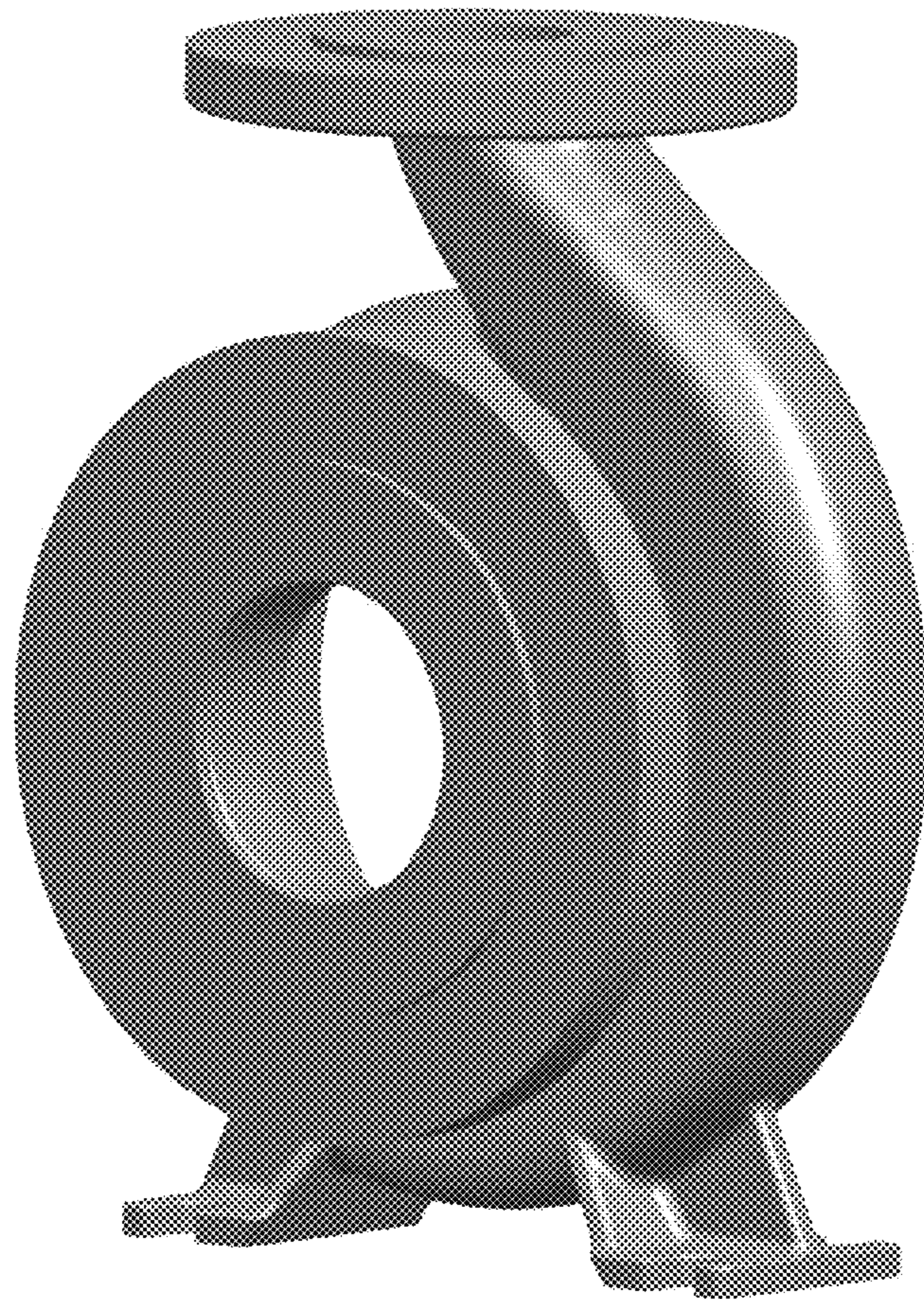


FIG. 1

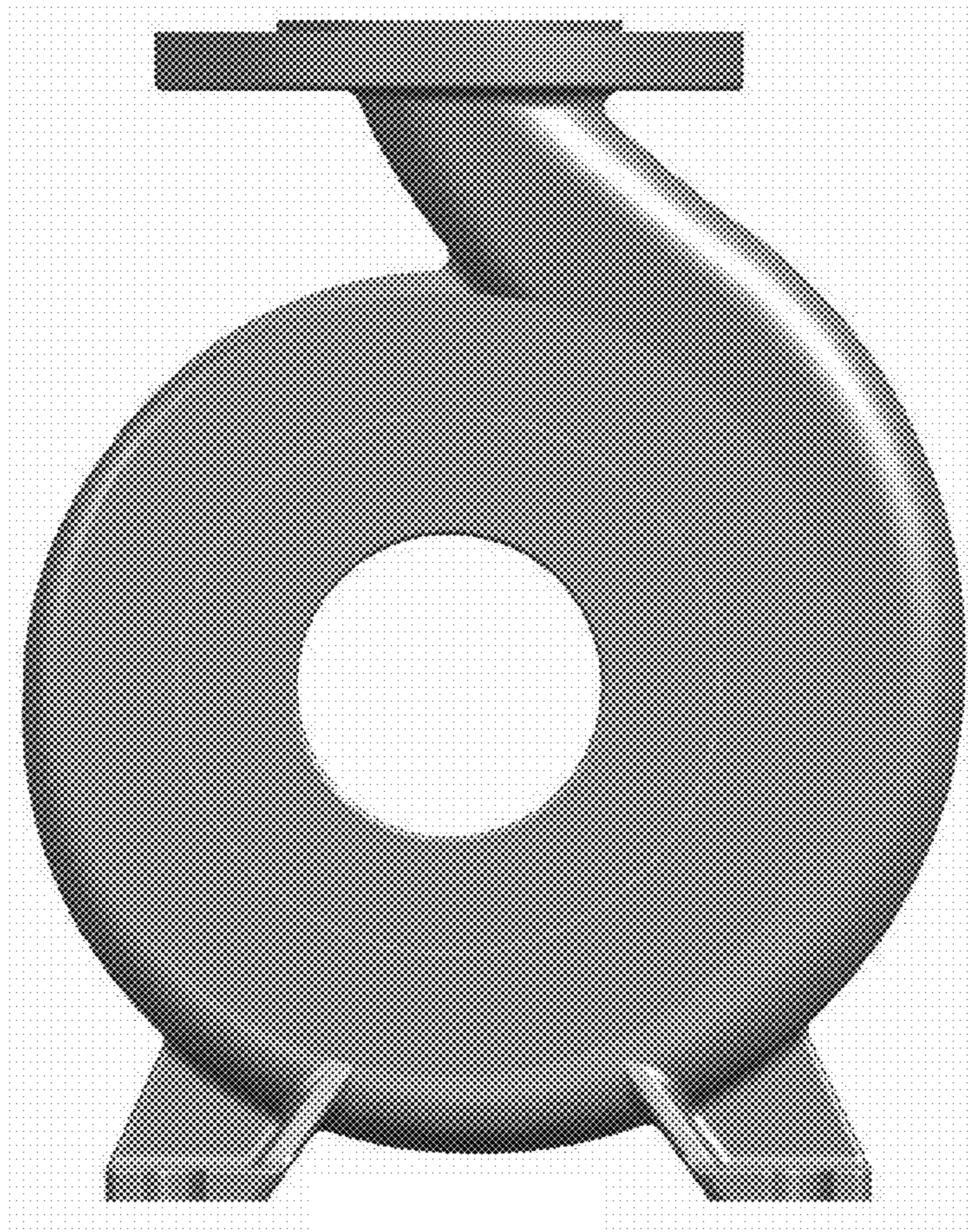


FIG. 2

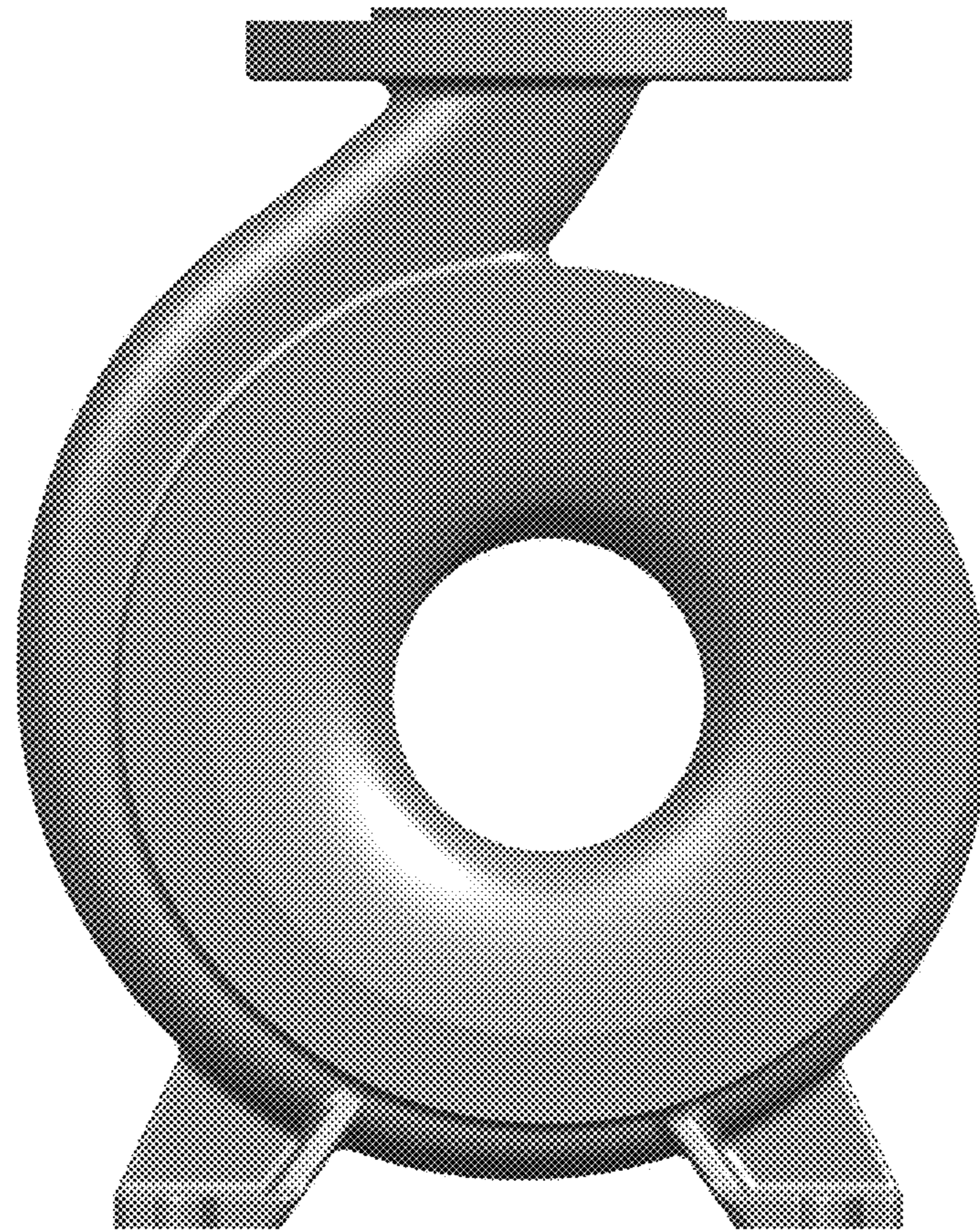


FIG. 3

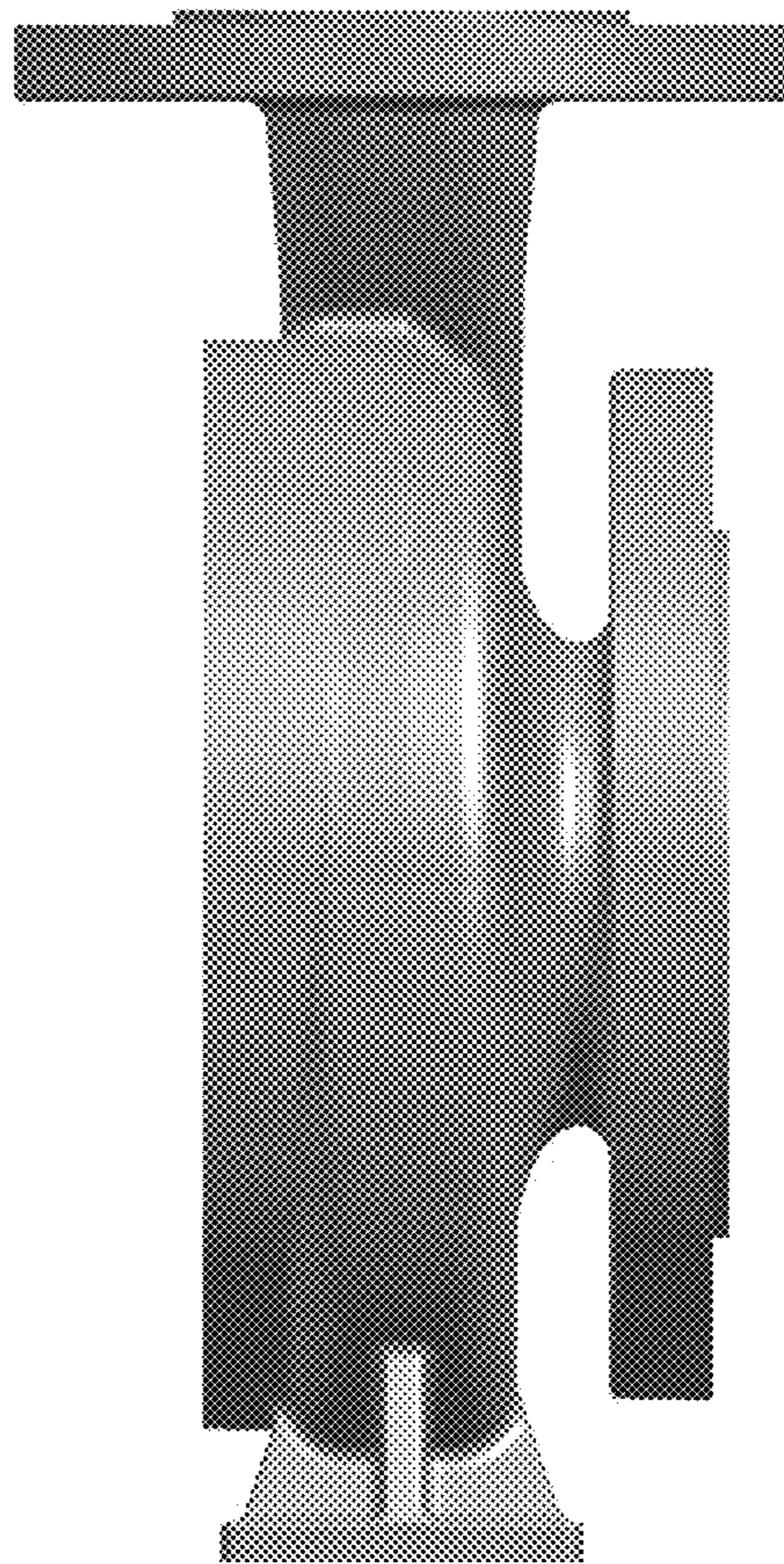


FIG. 4

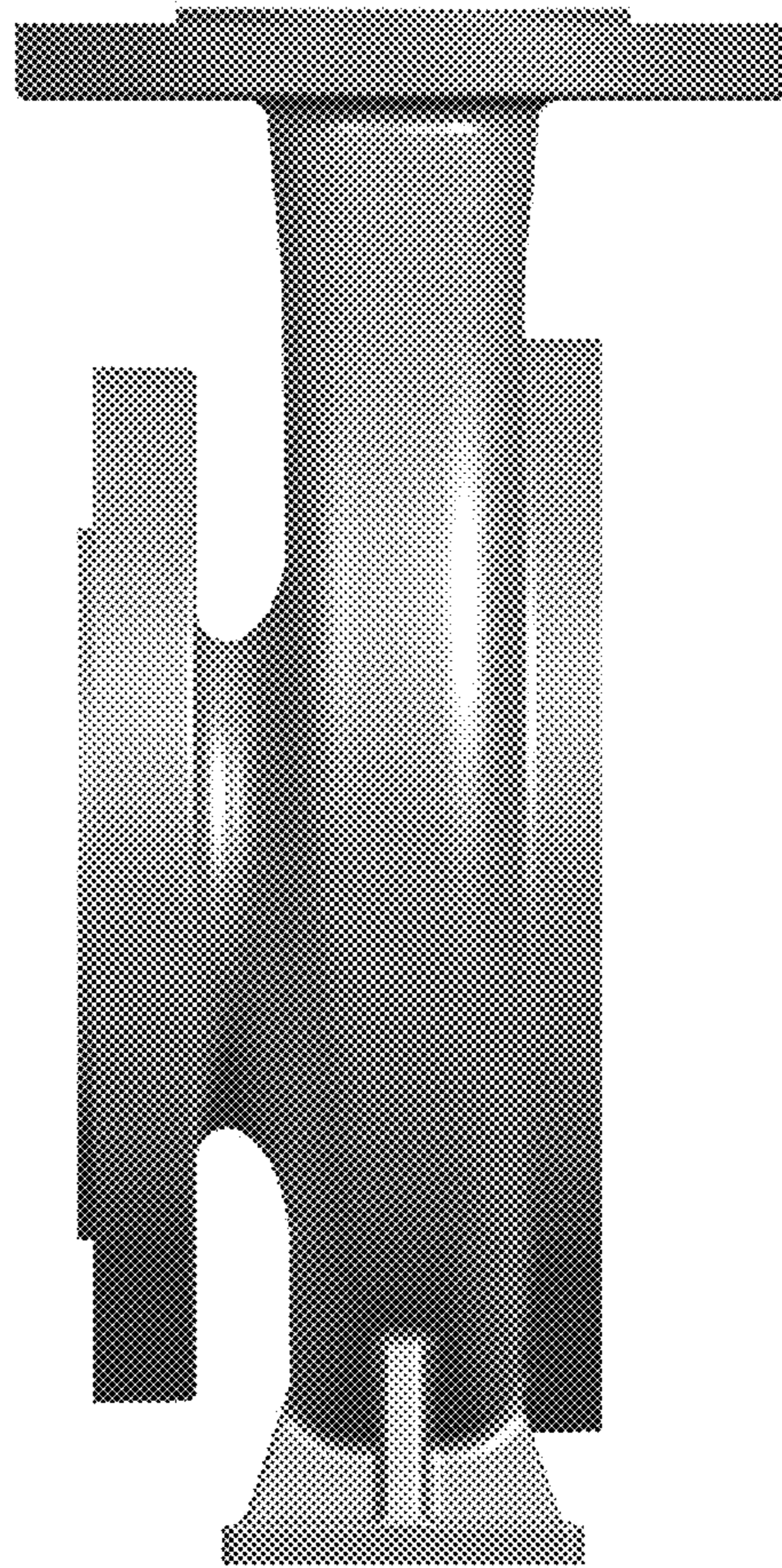


FIG. 5



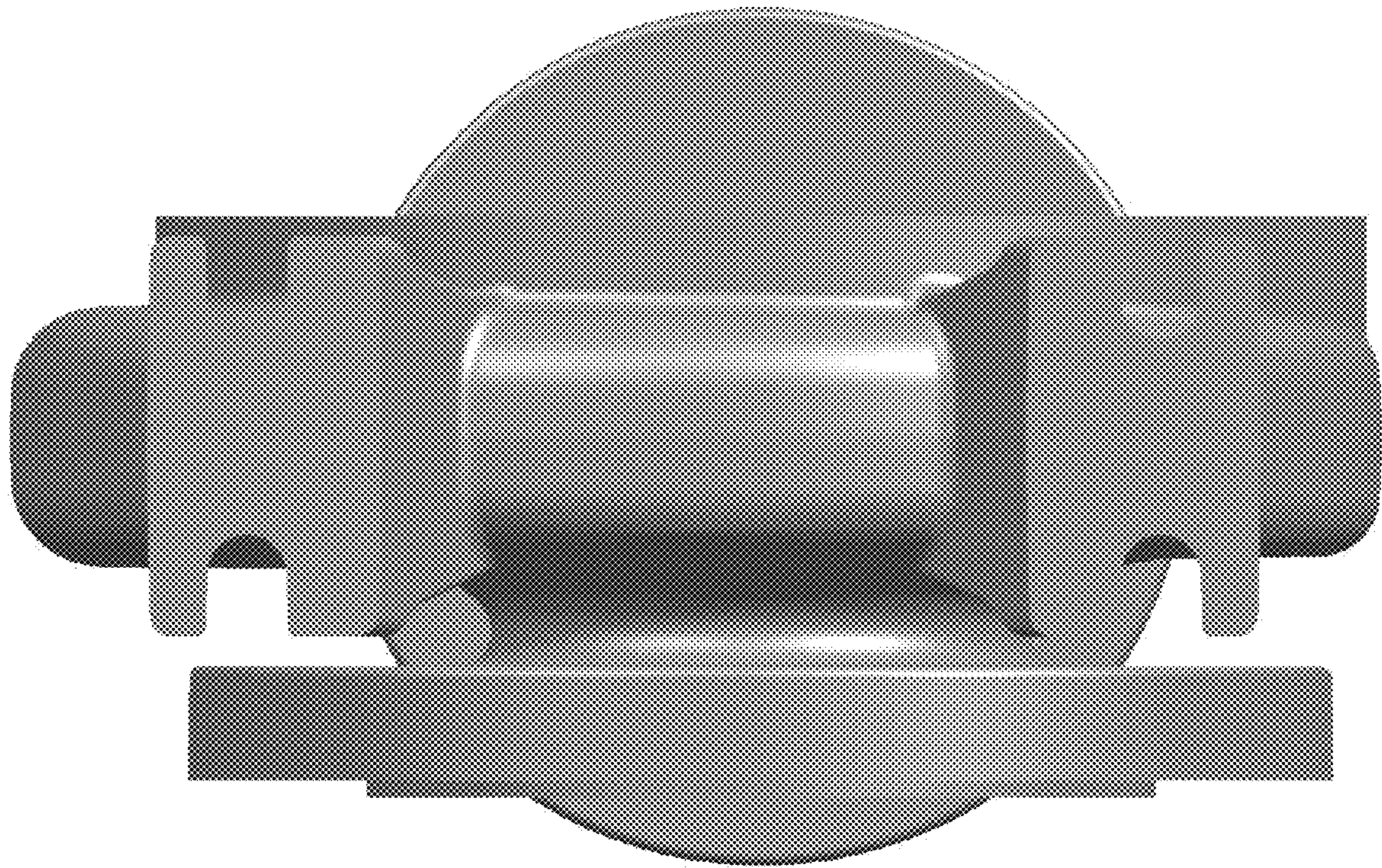


FIG. 6

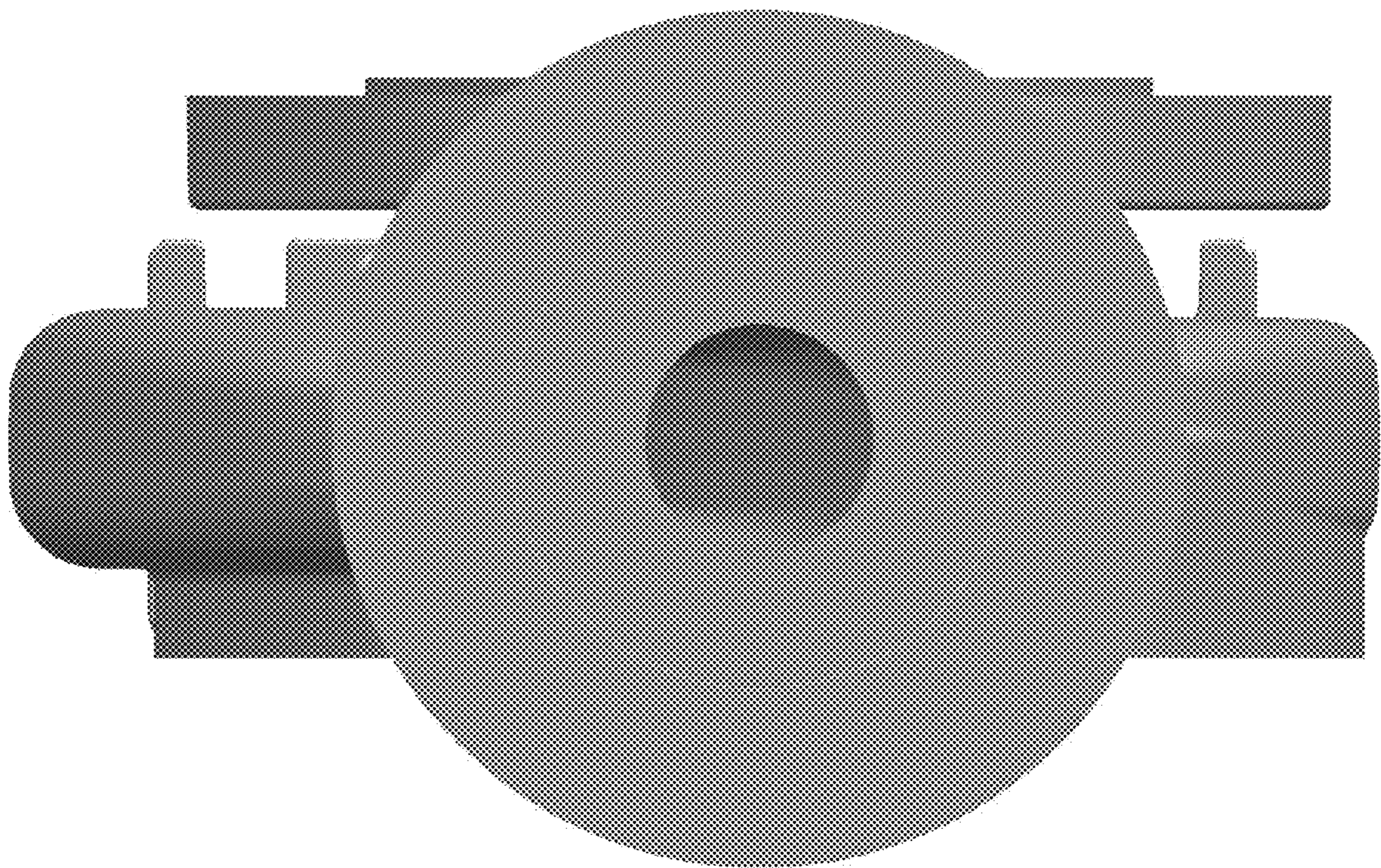


FIG. 7

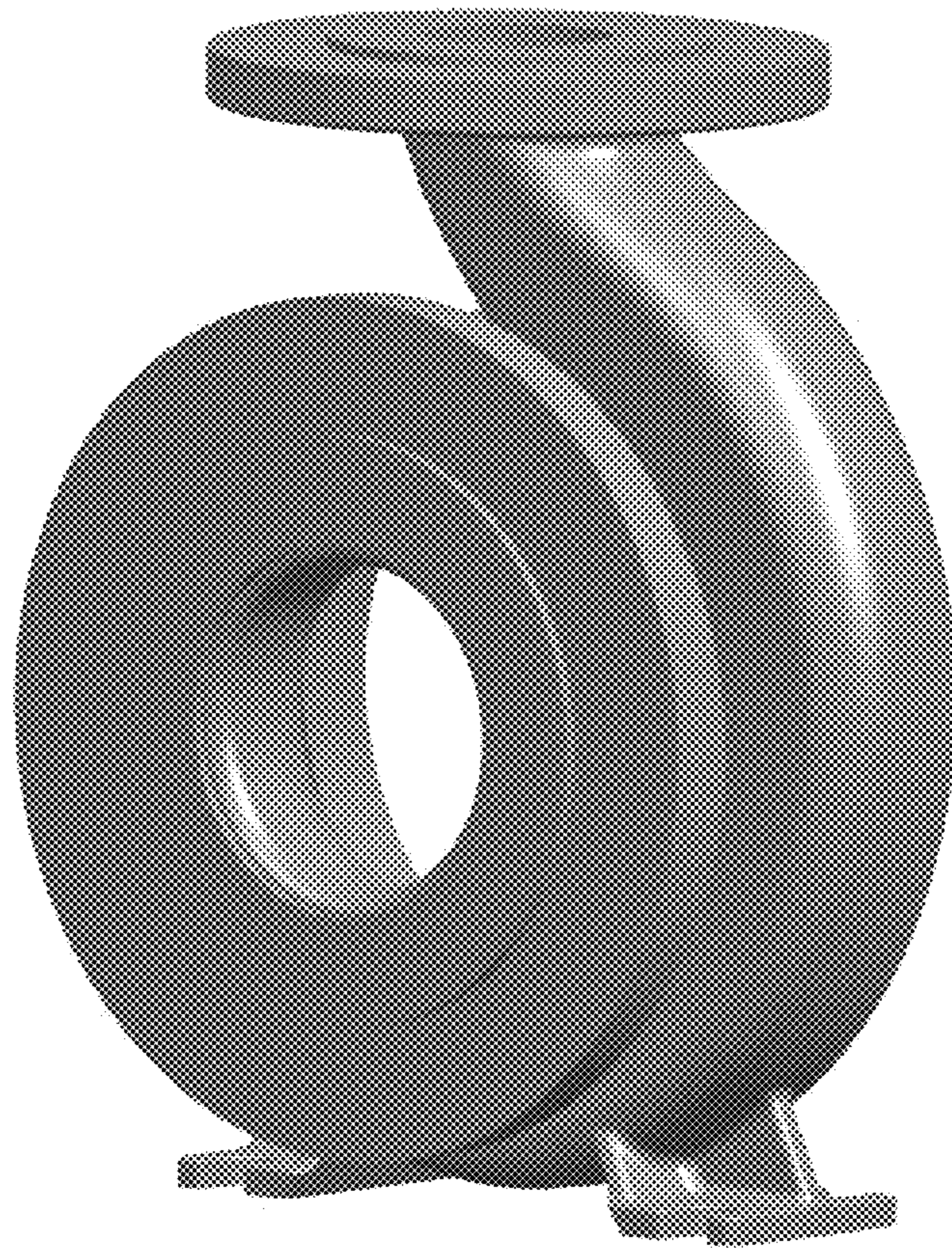


FIG. 8

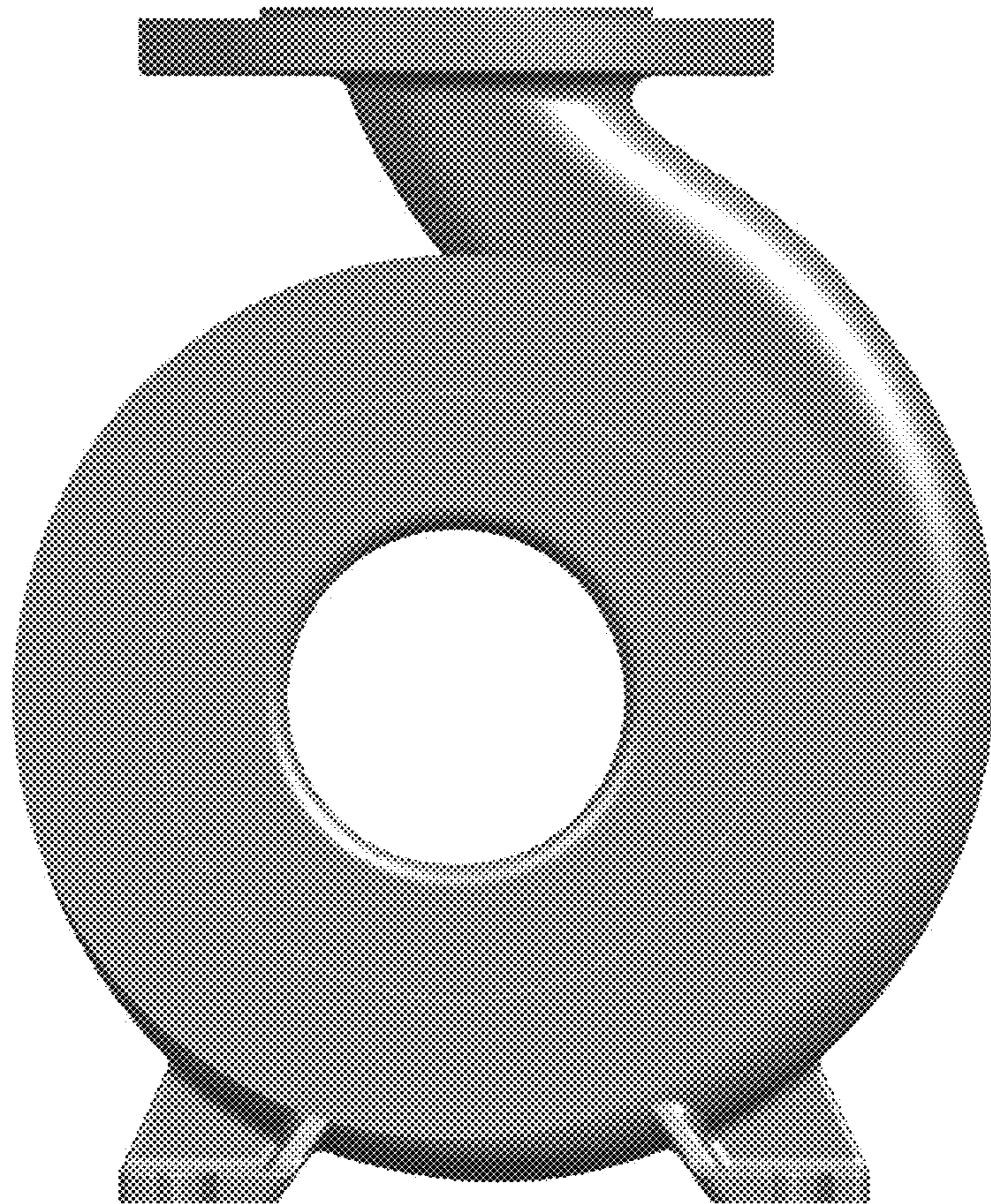


FIG. 9

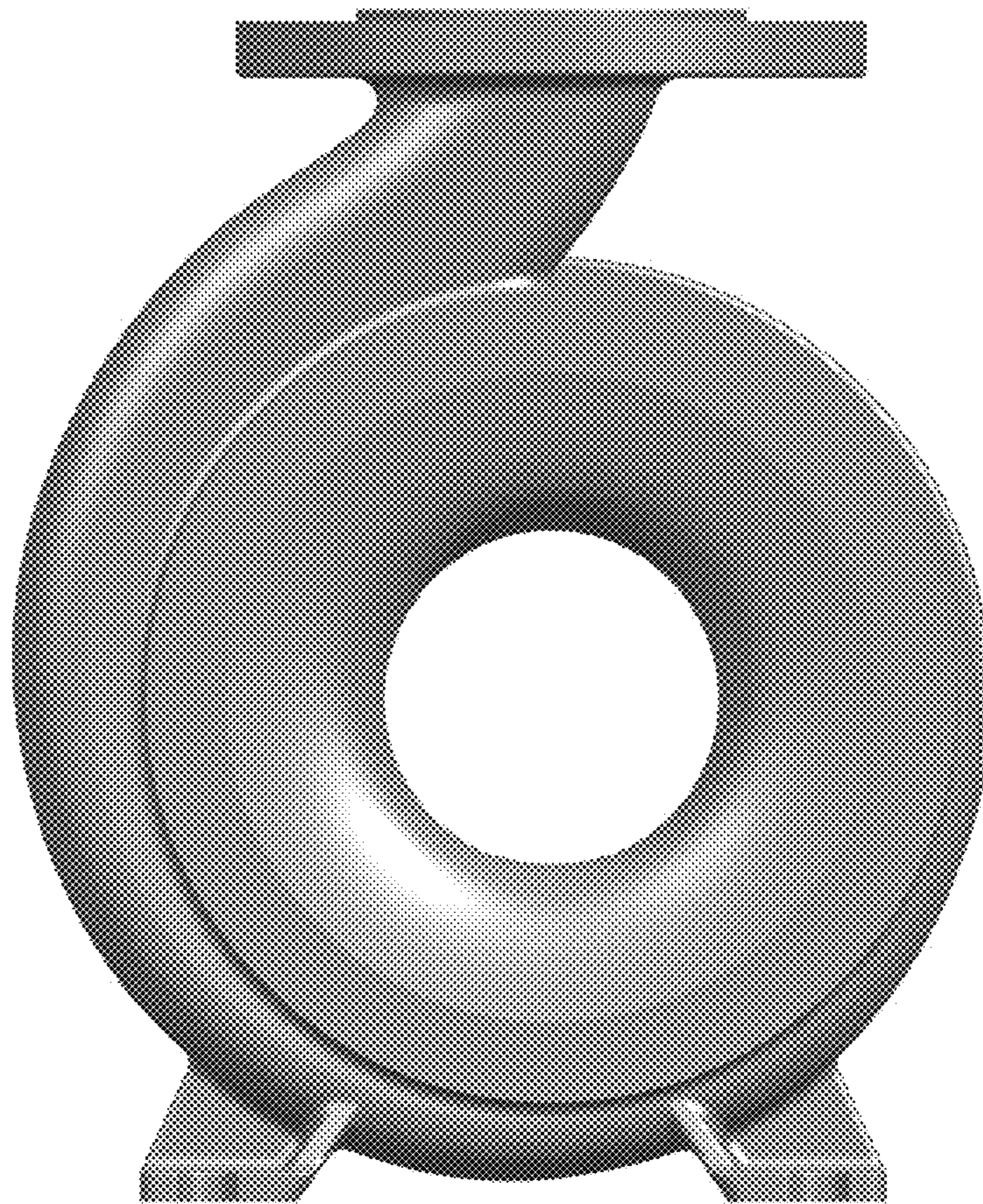


FIG. 10

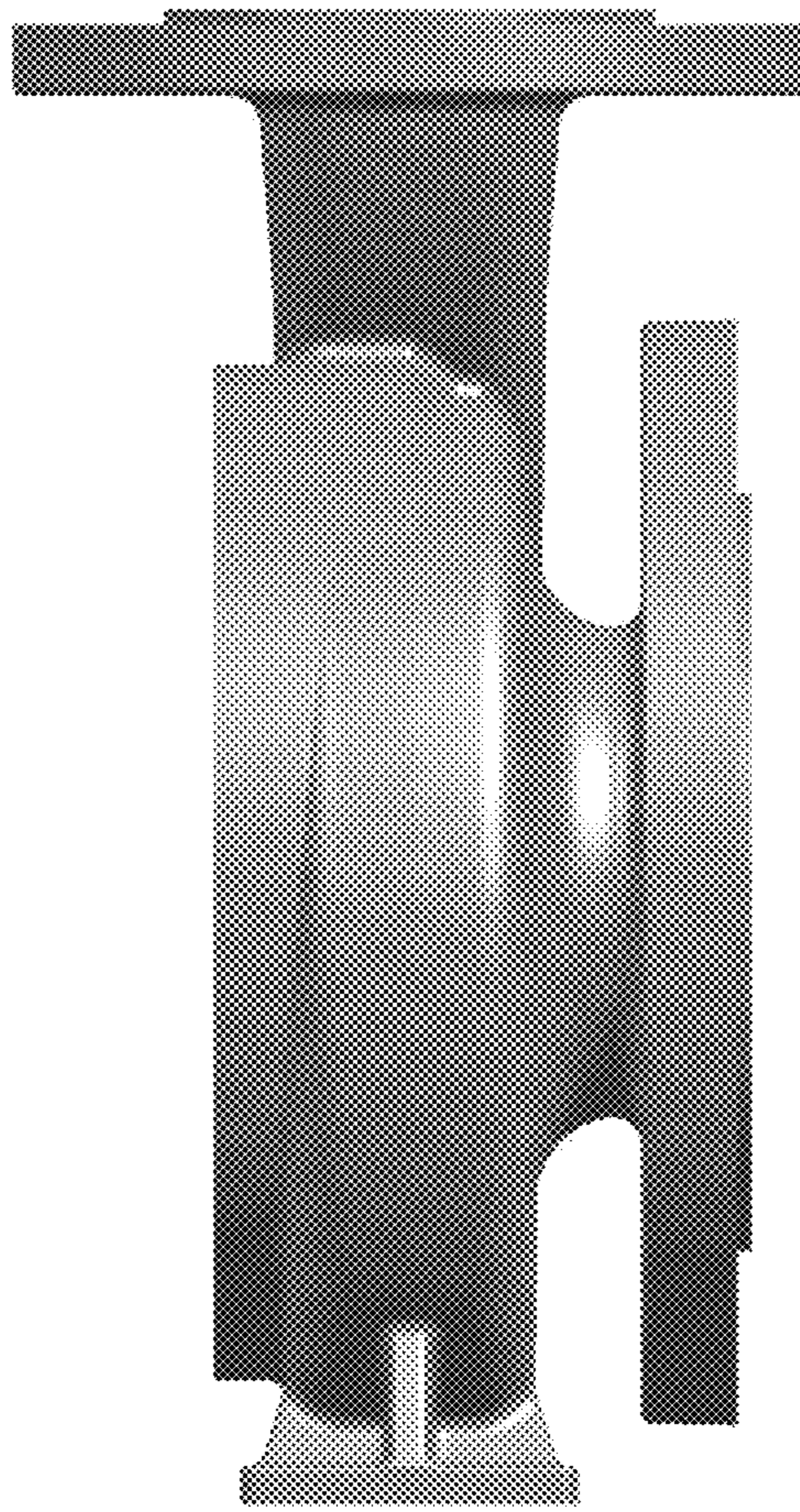


FIG. 11

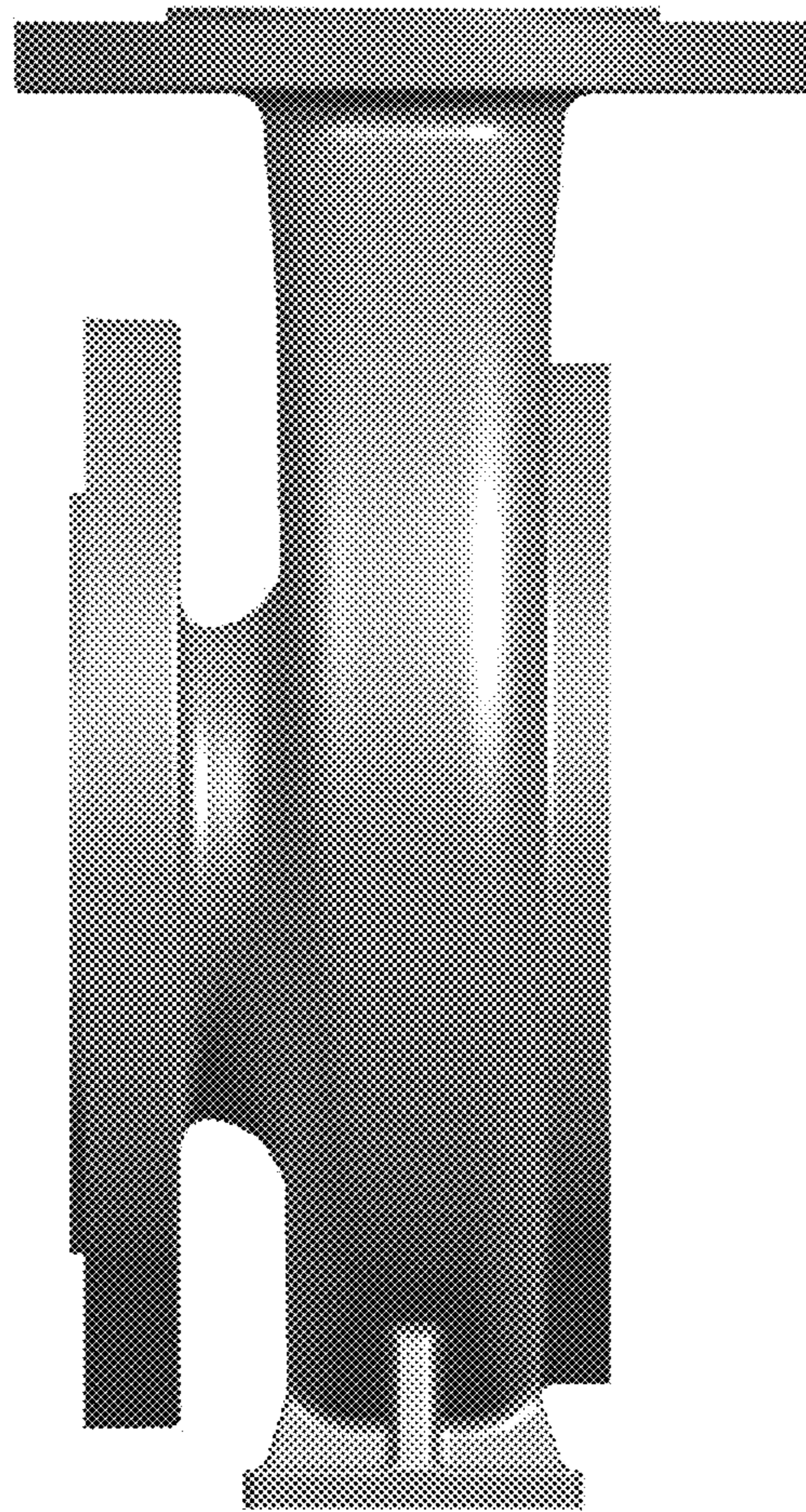


FIG. 12

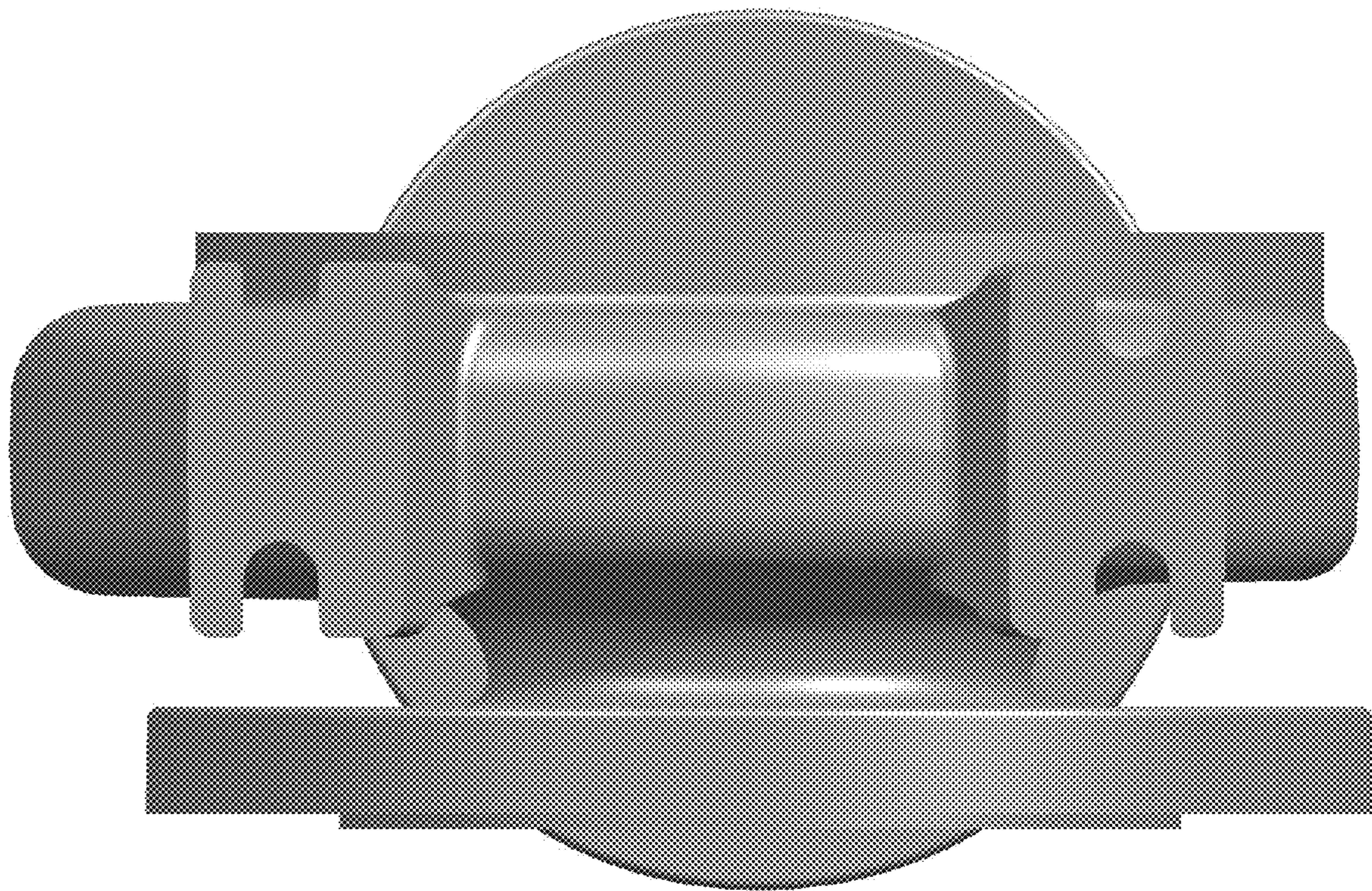


FIG. 13



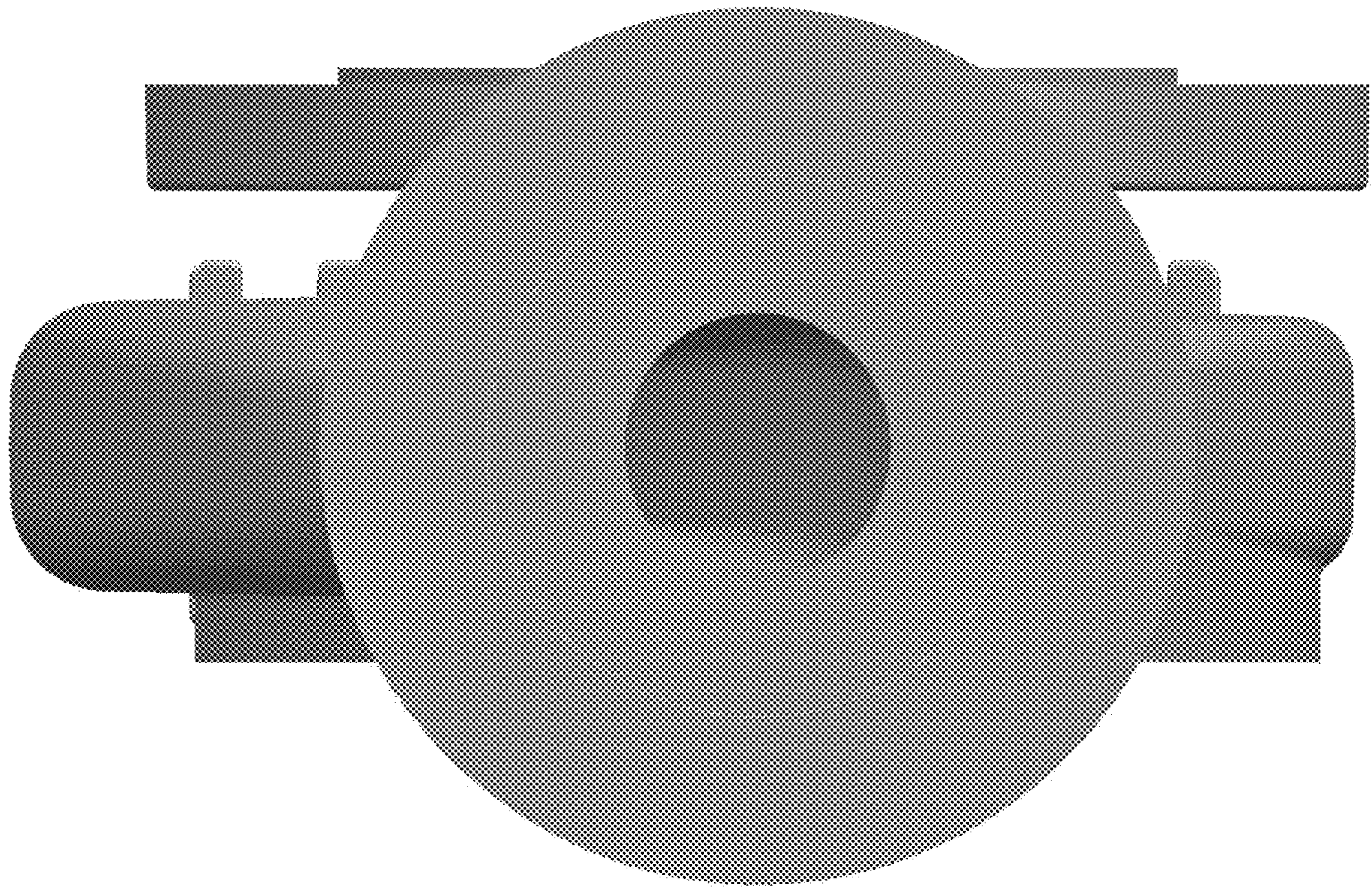


FIG. 14

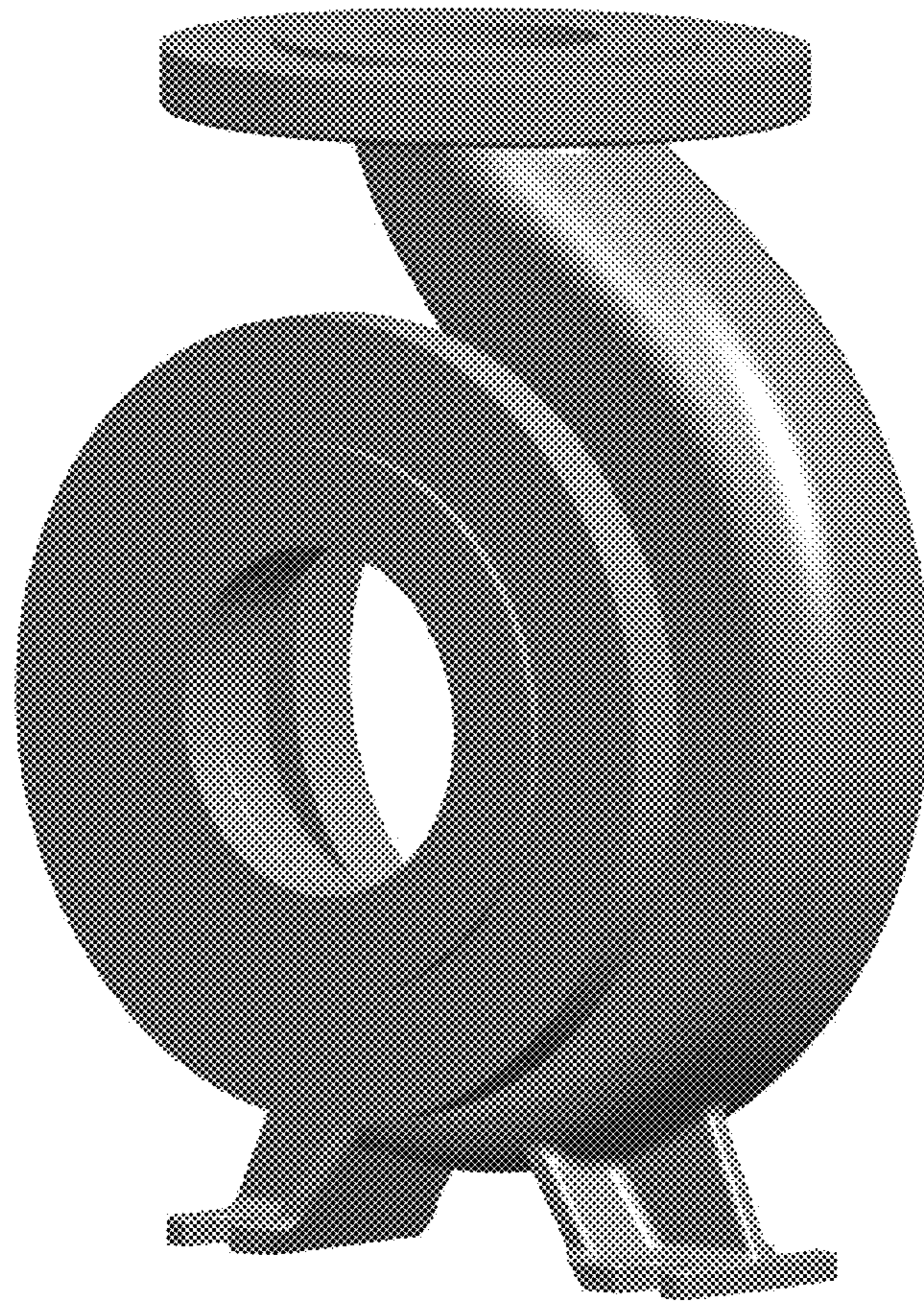


FIG. 15

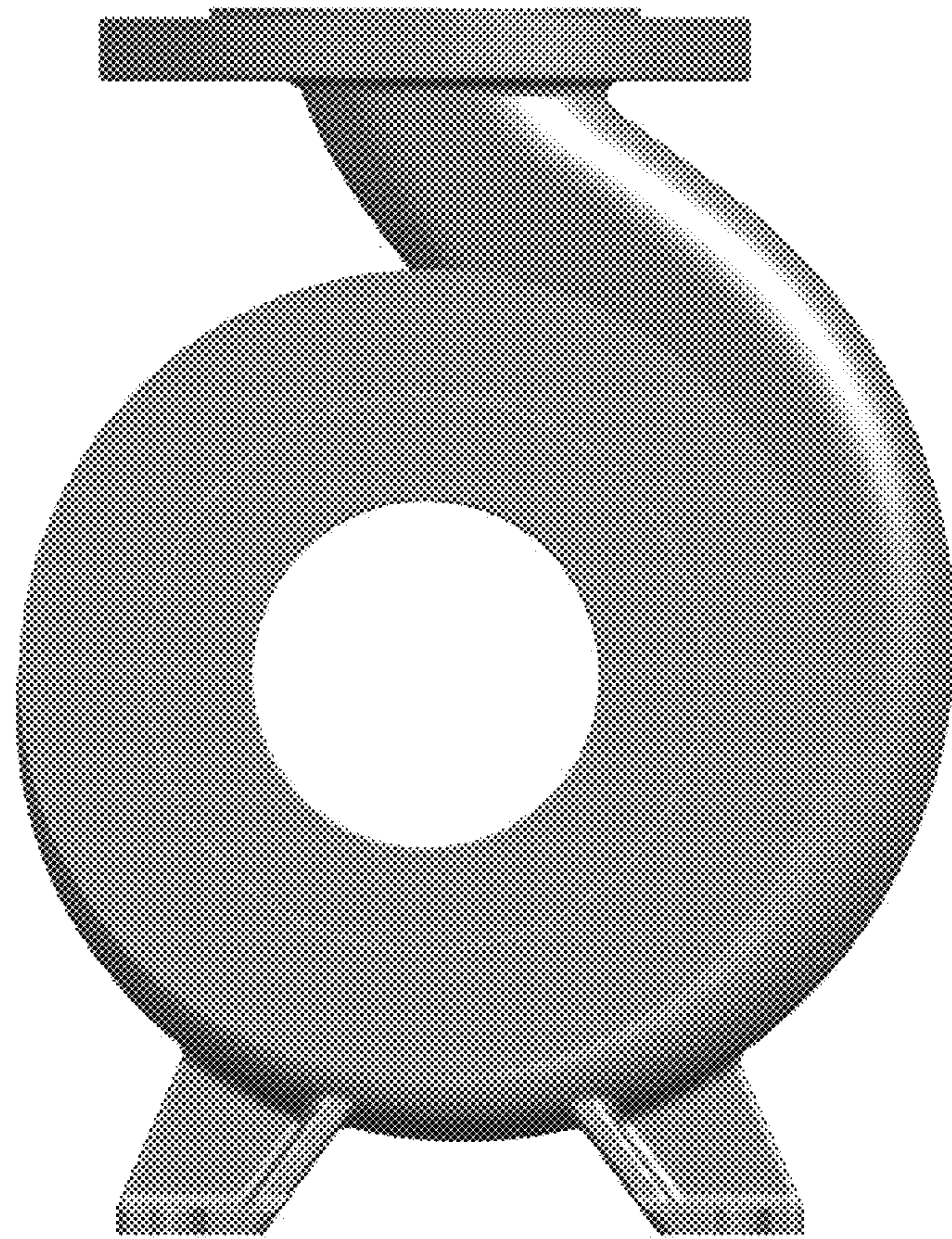


FIG. 16

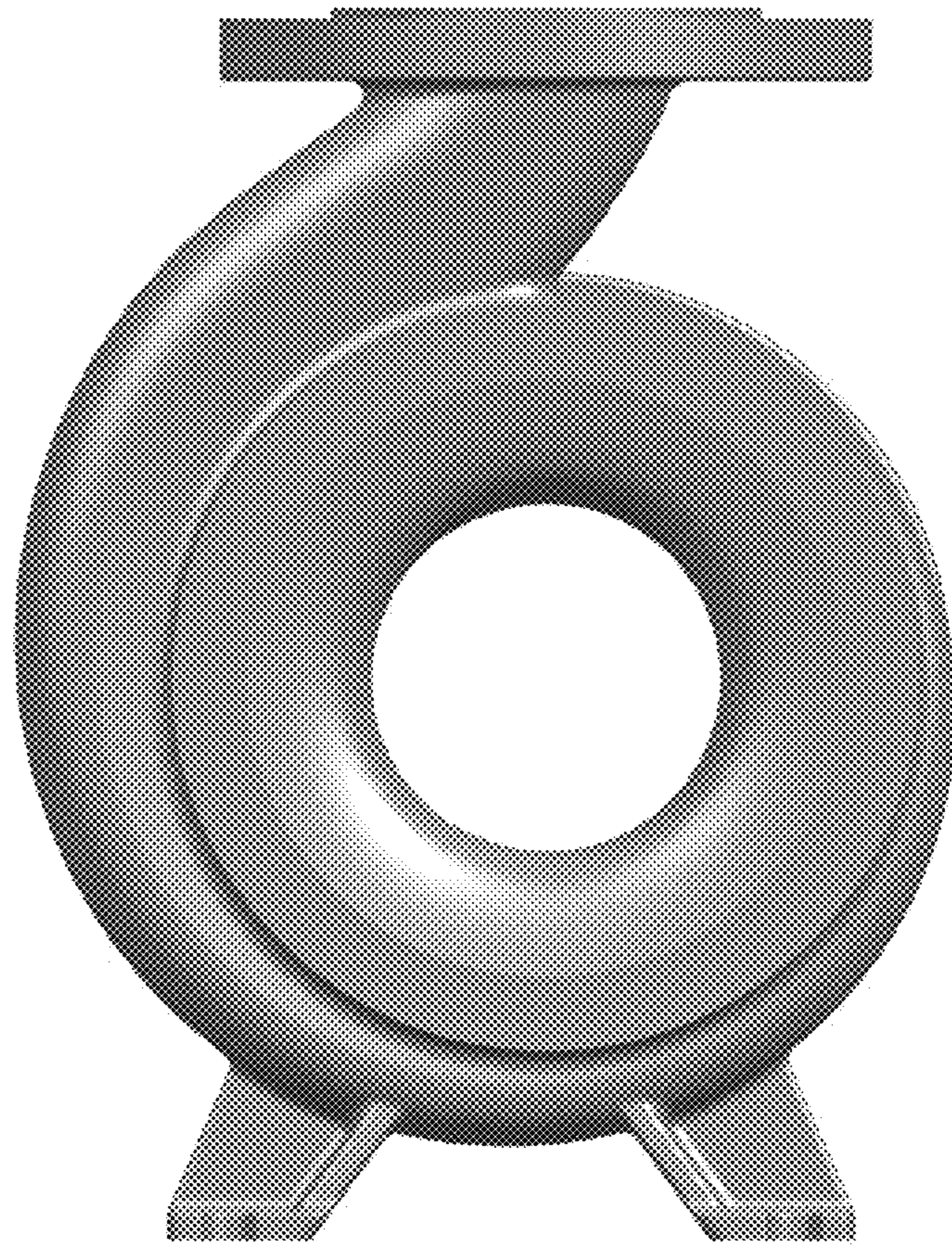


FIG. 17

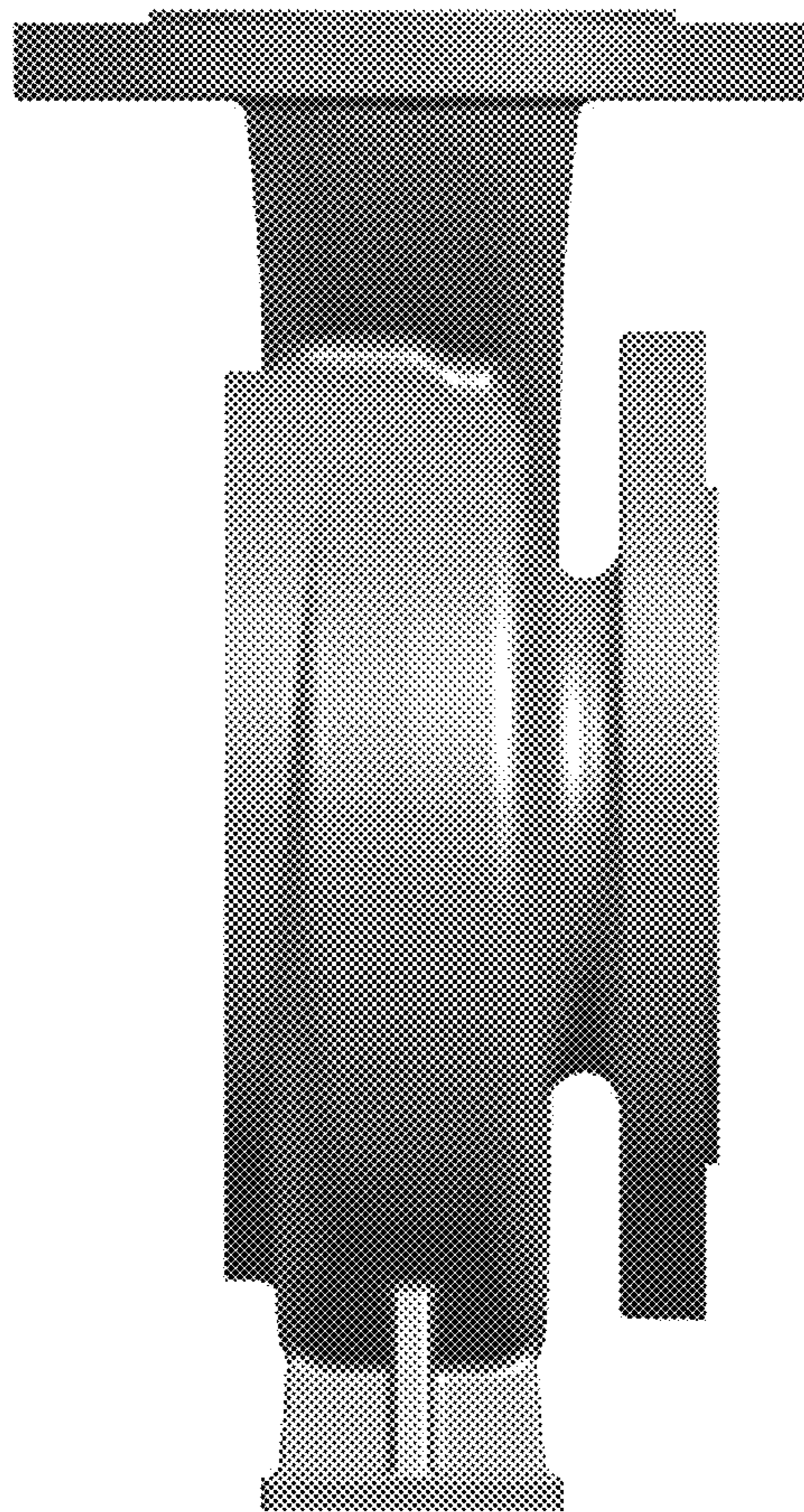


FIG. 18

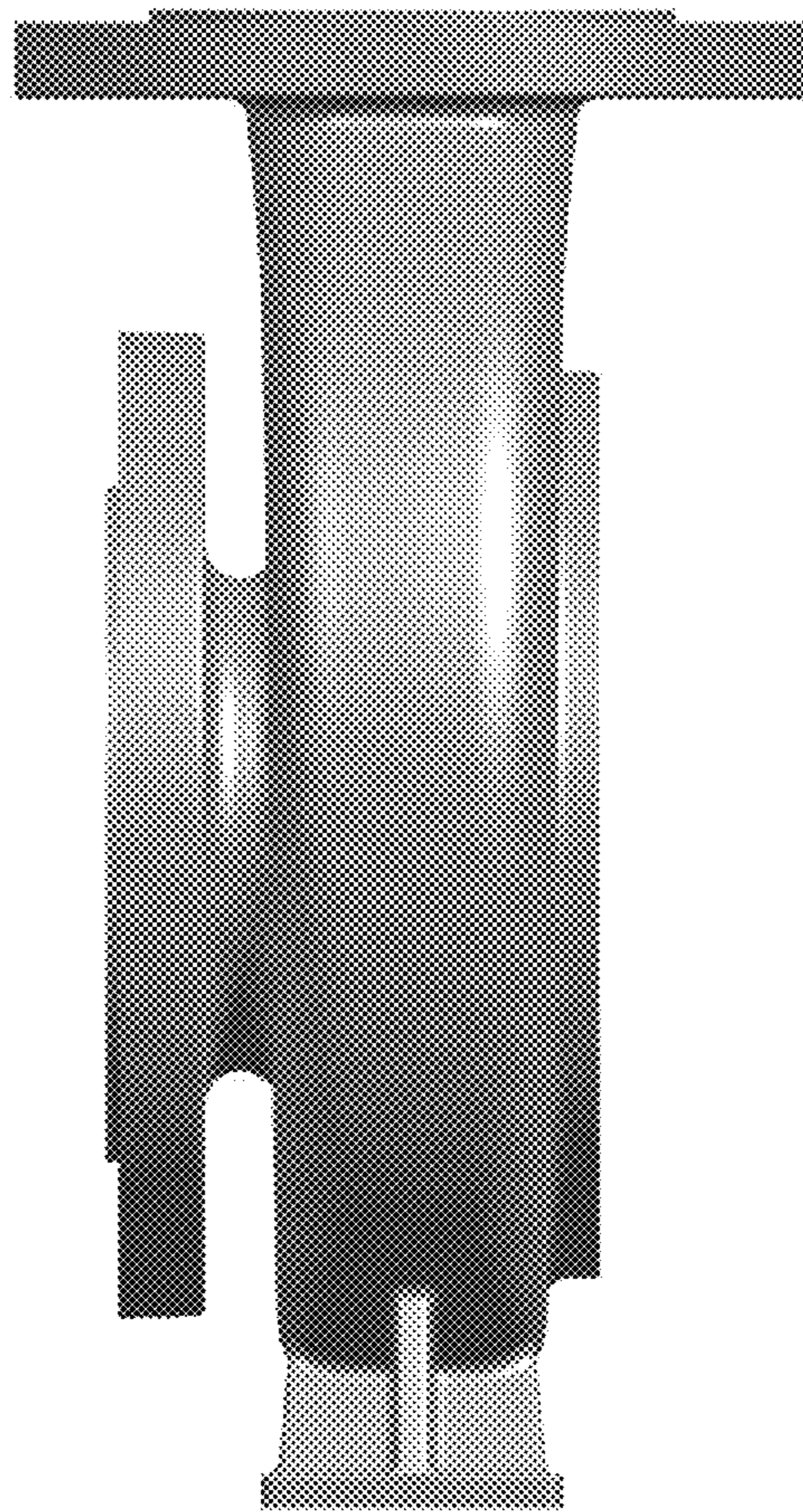


FIG. 19

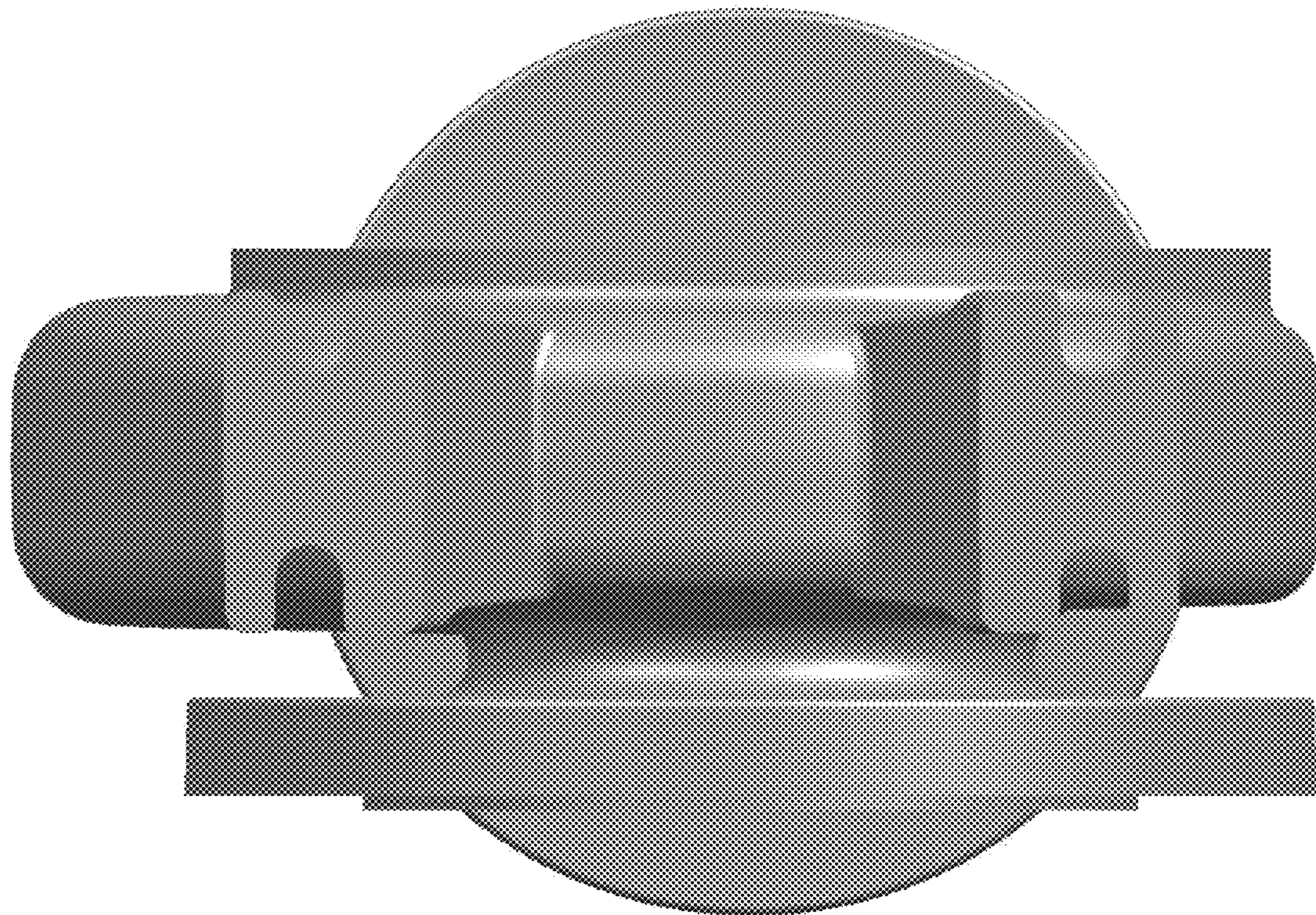


FIG. 20

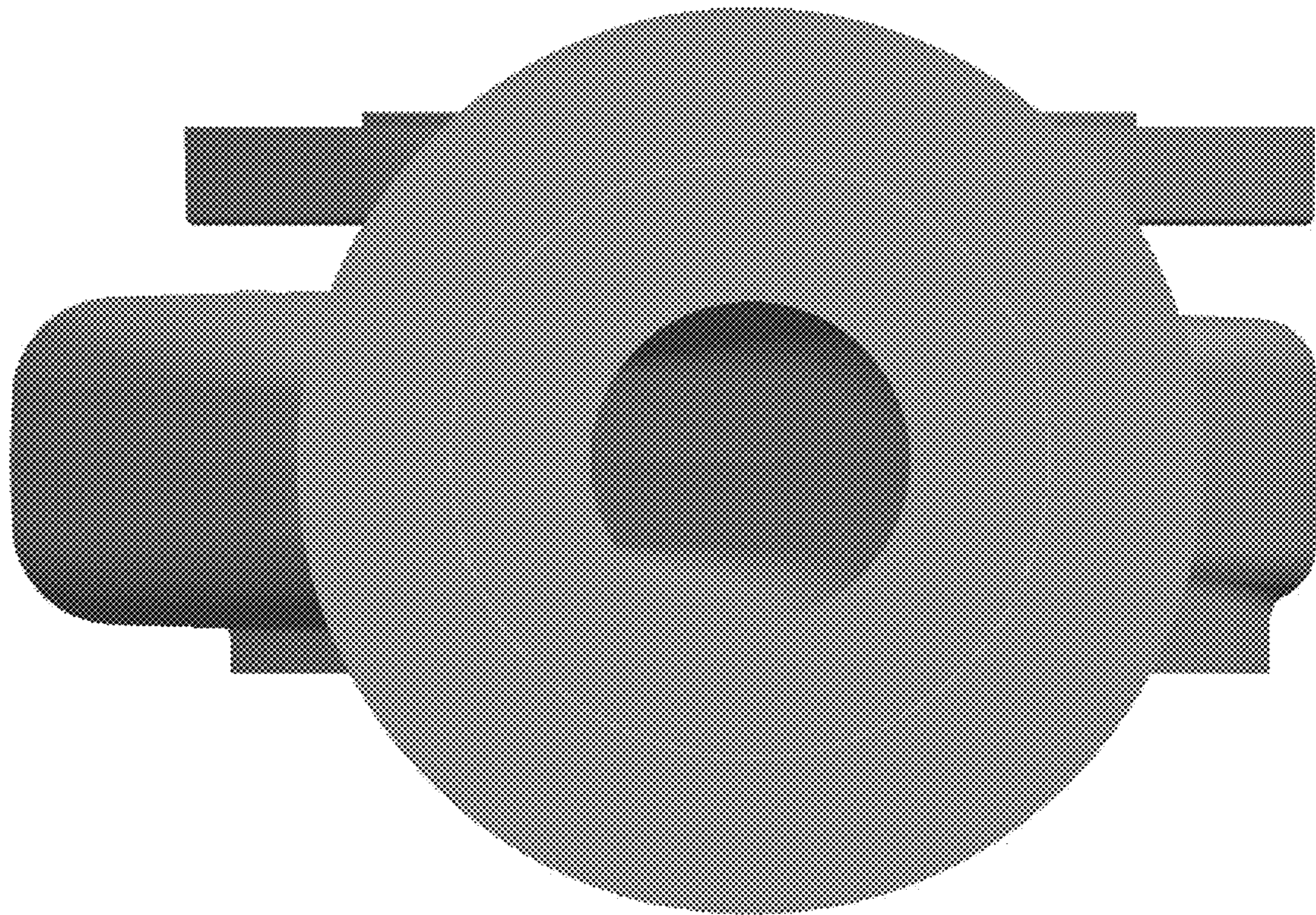


FIG. 21



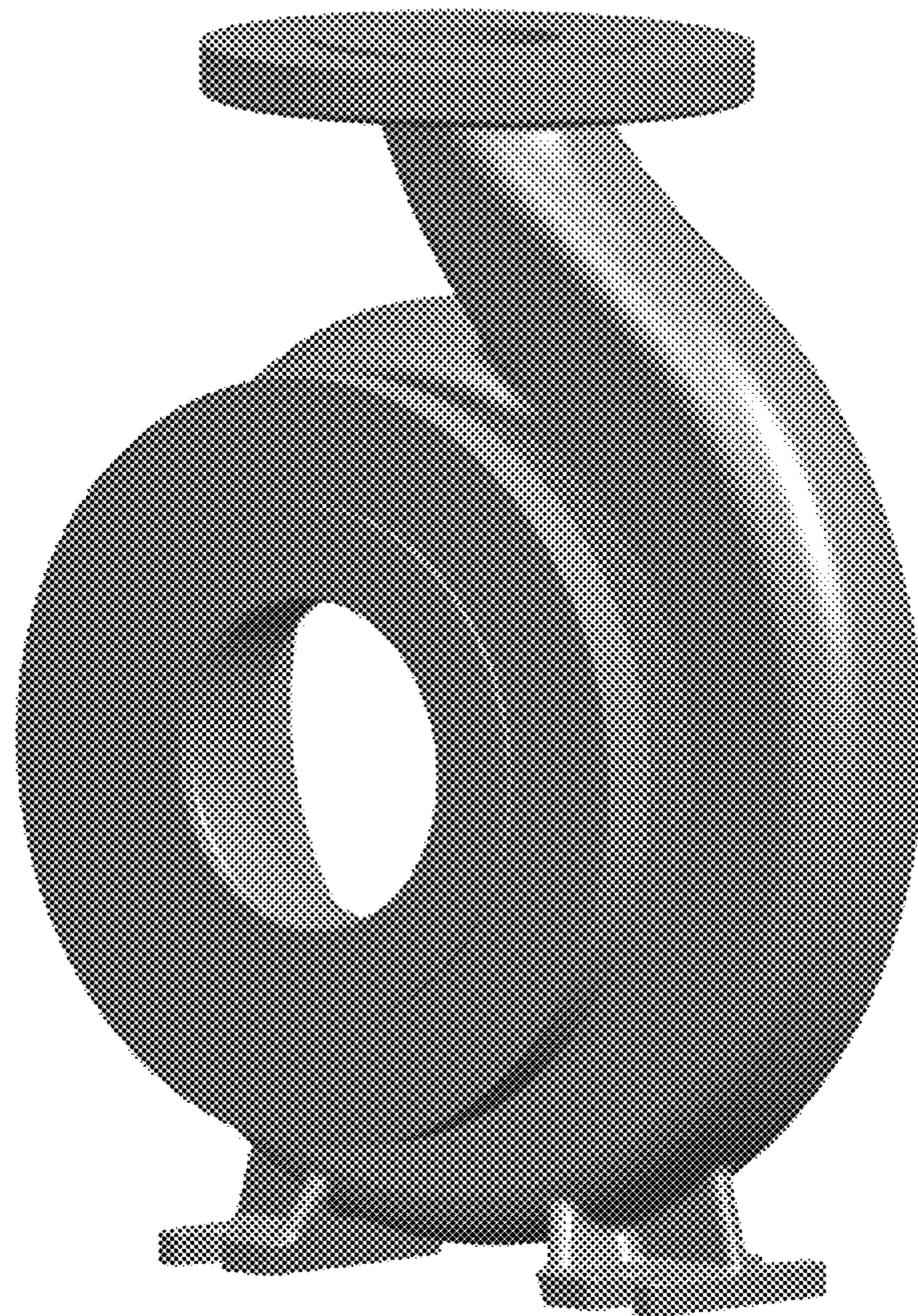


FIG. 22

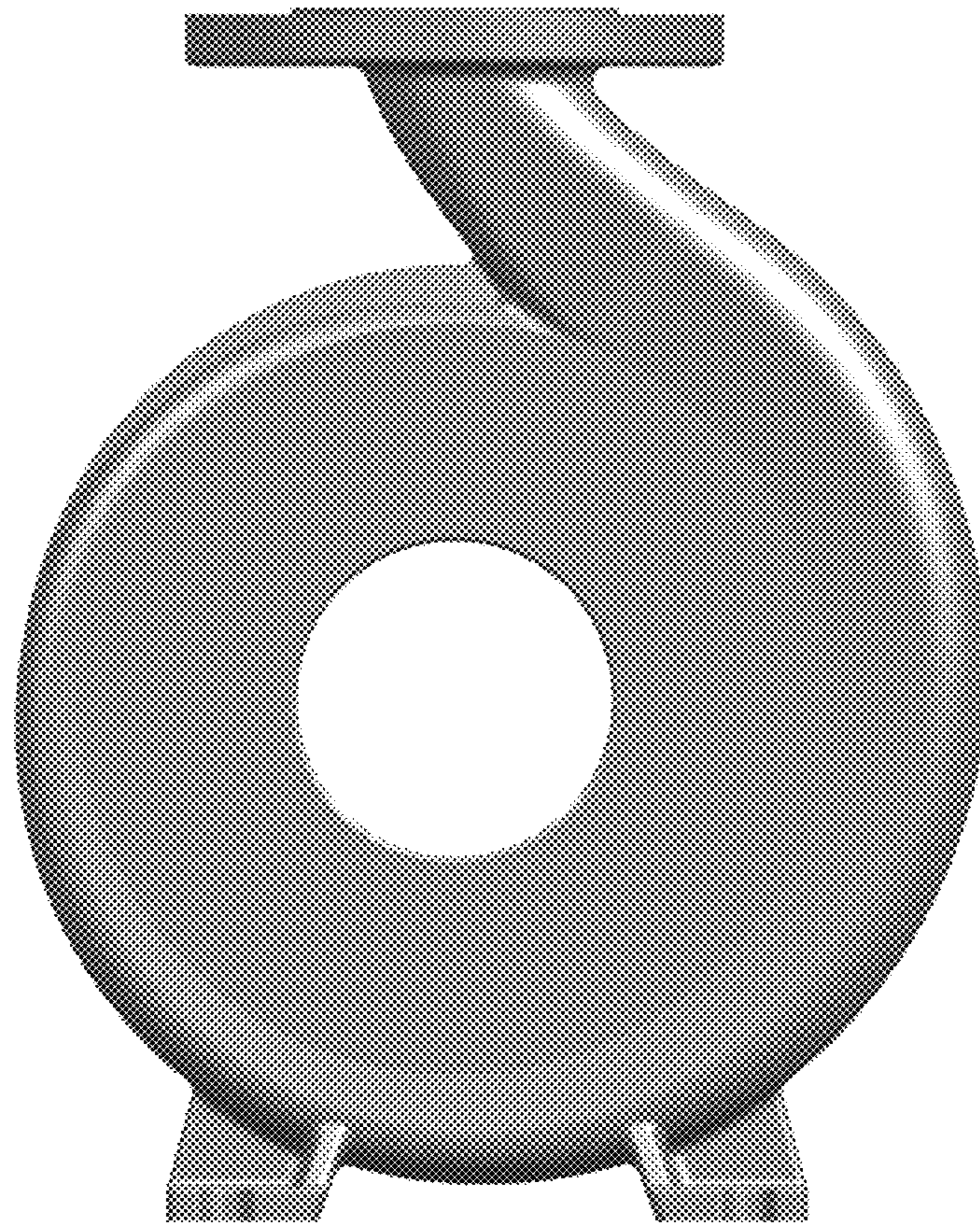


FIG. 23

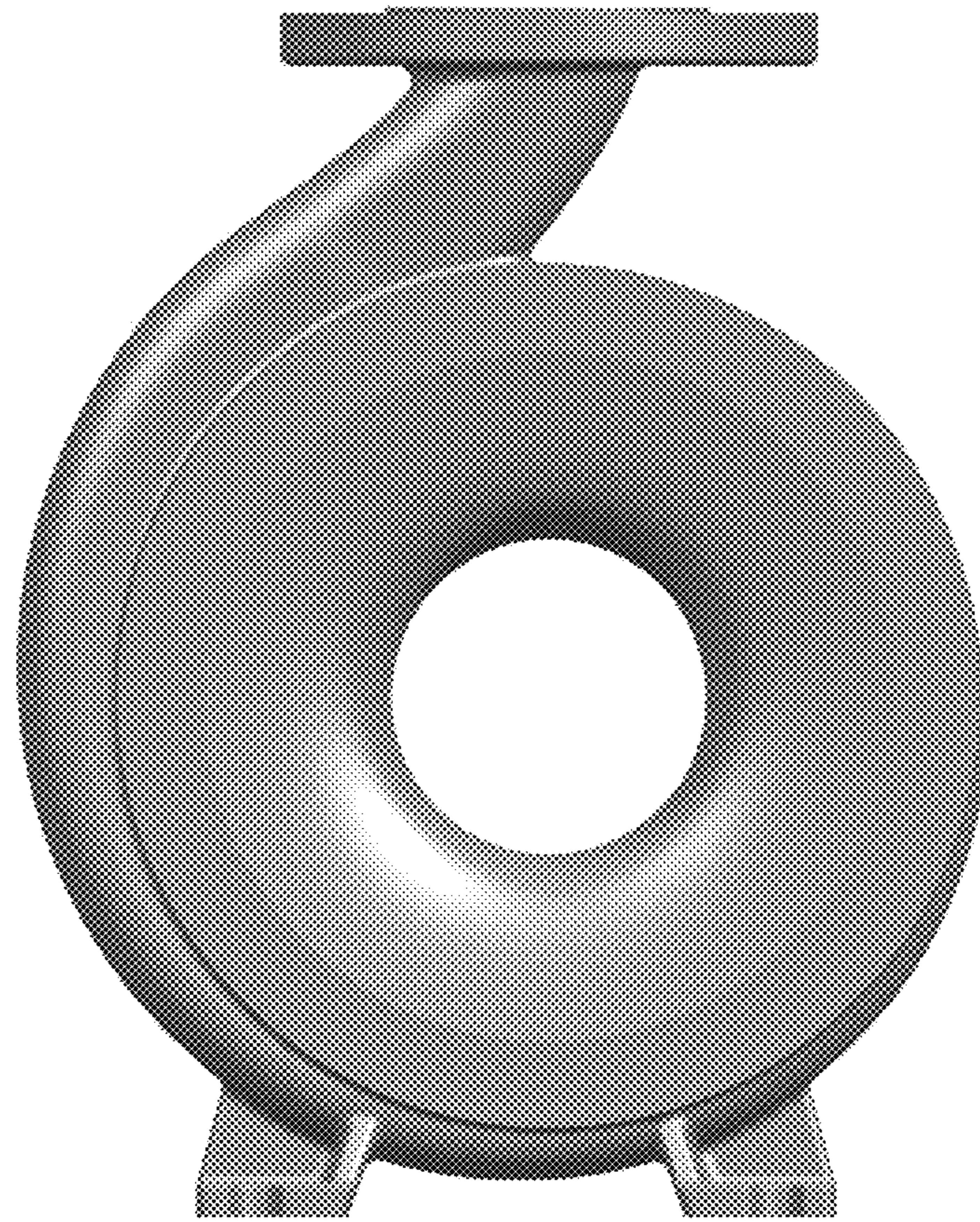


FIG. 24

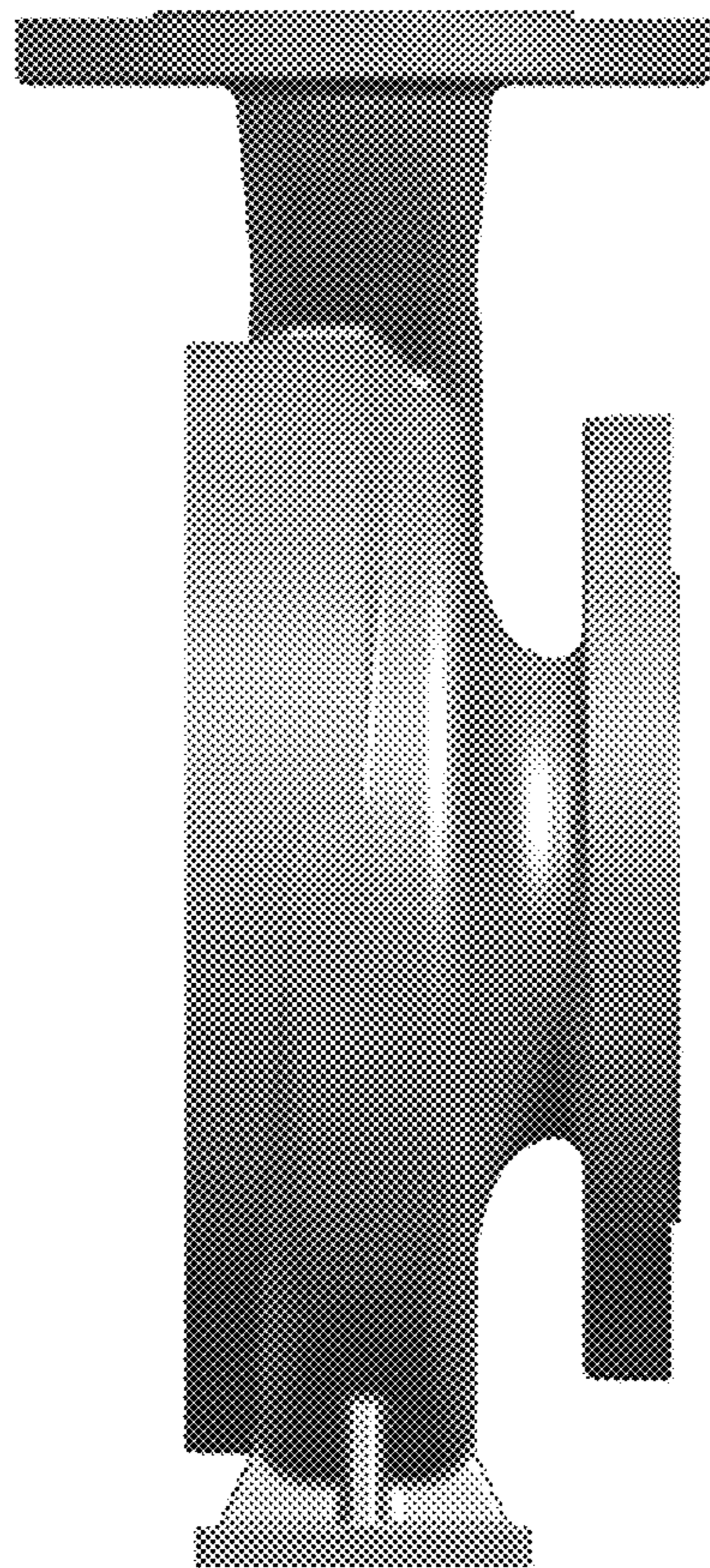


FIG. 25

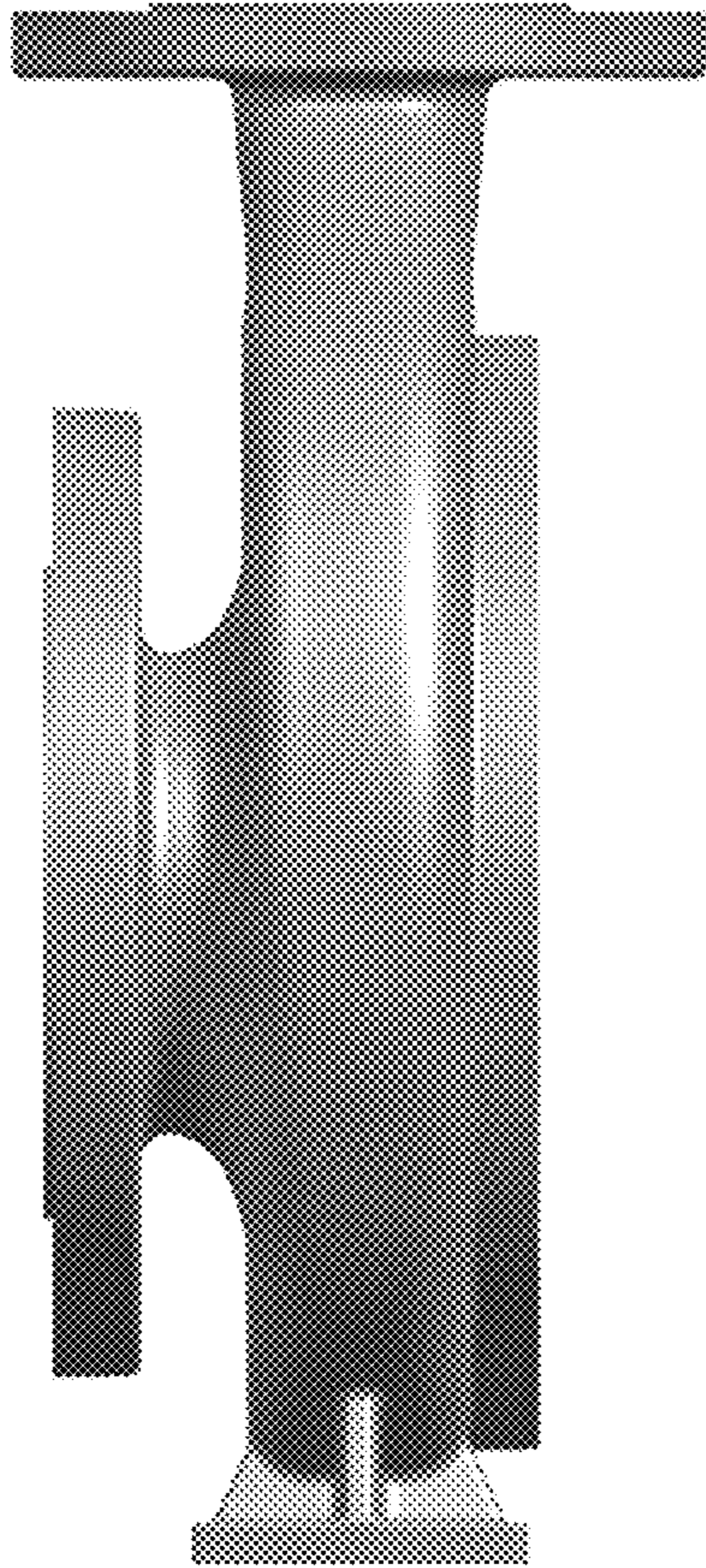


FIG. 26

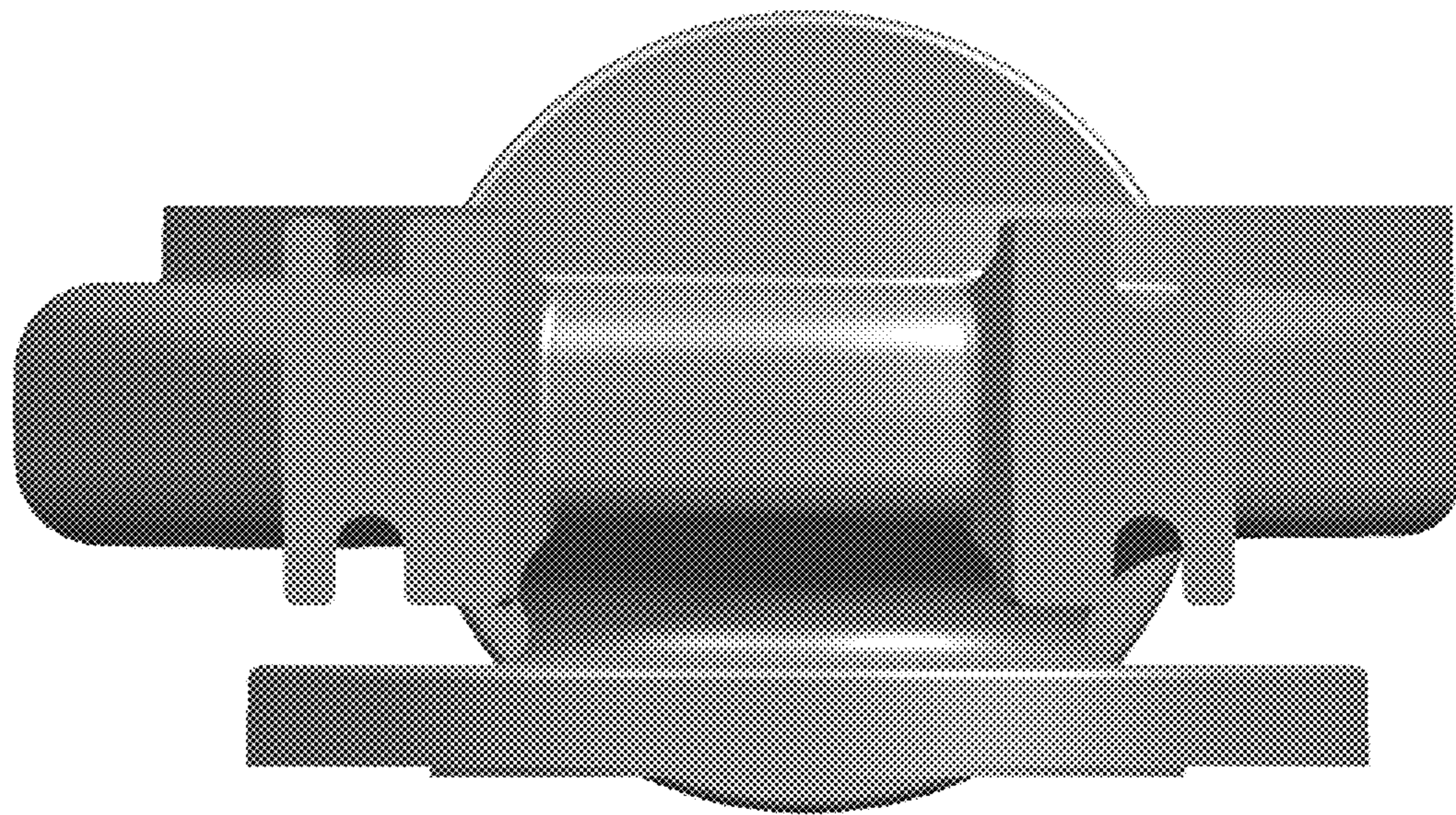


FIG. 27

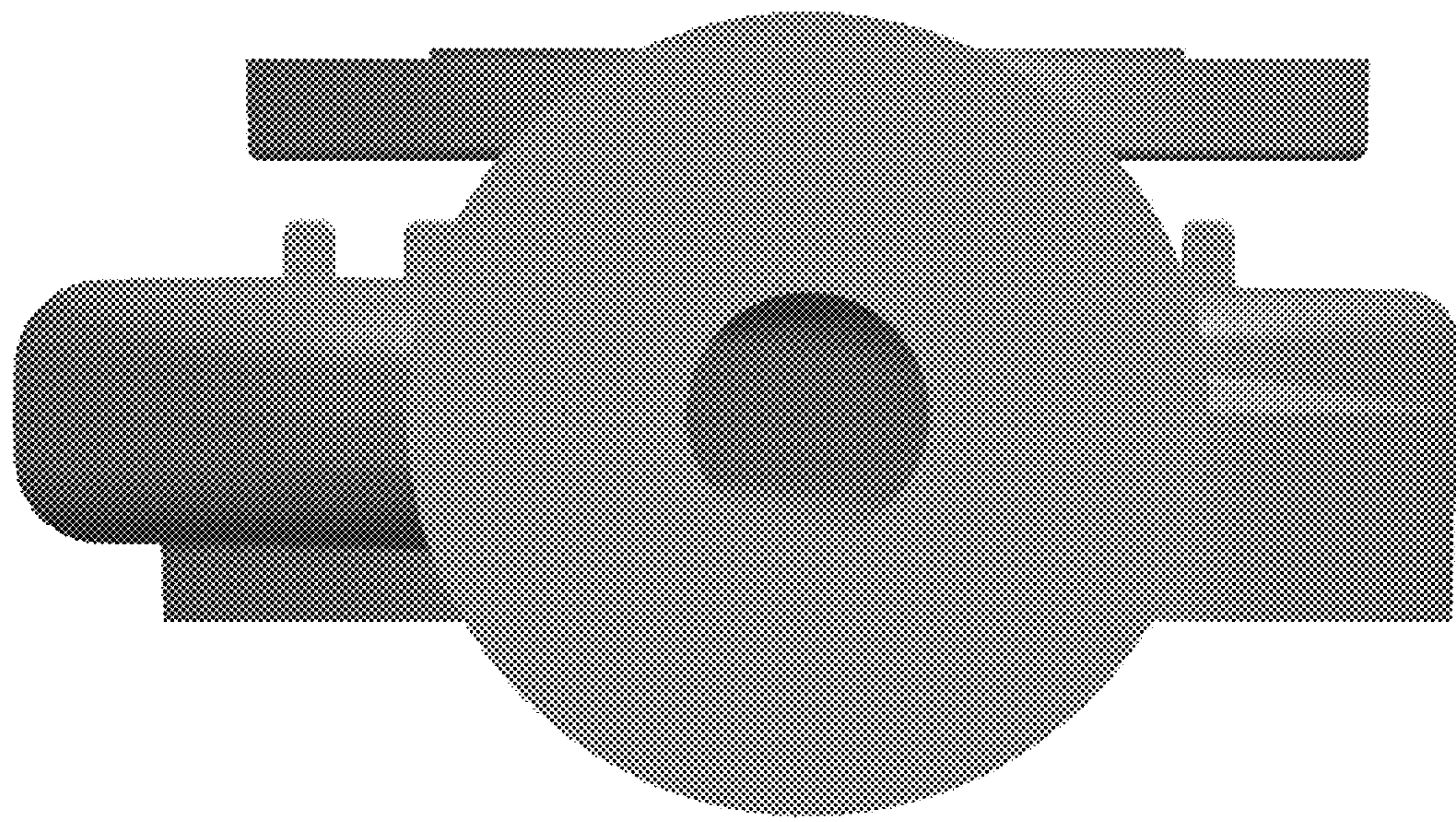


FIG. 28

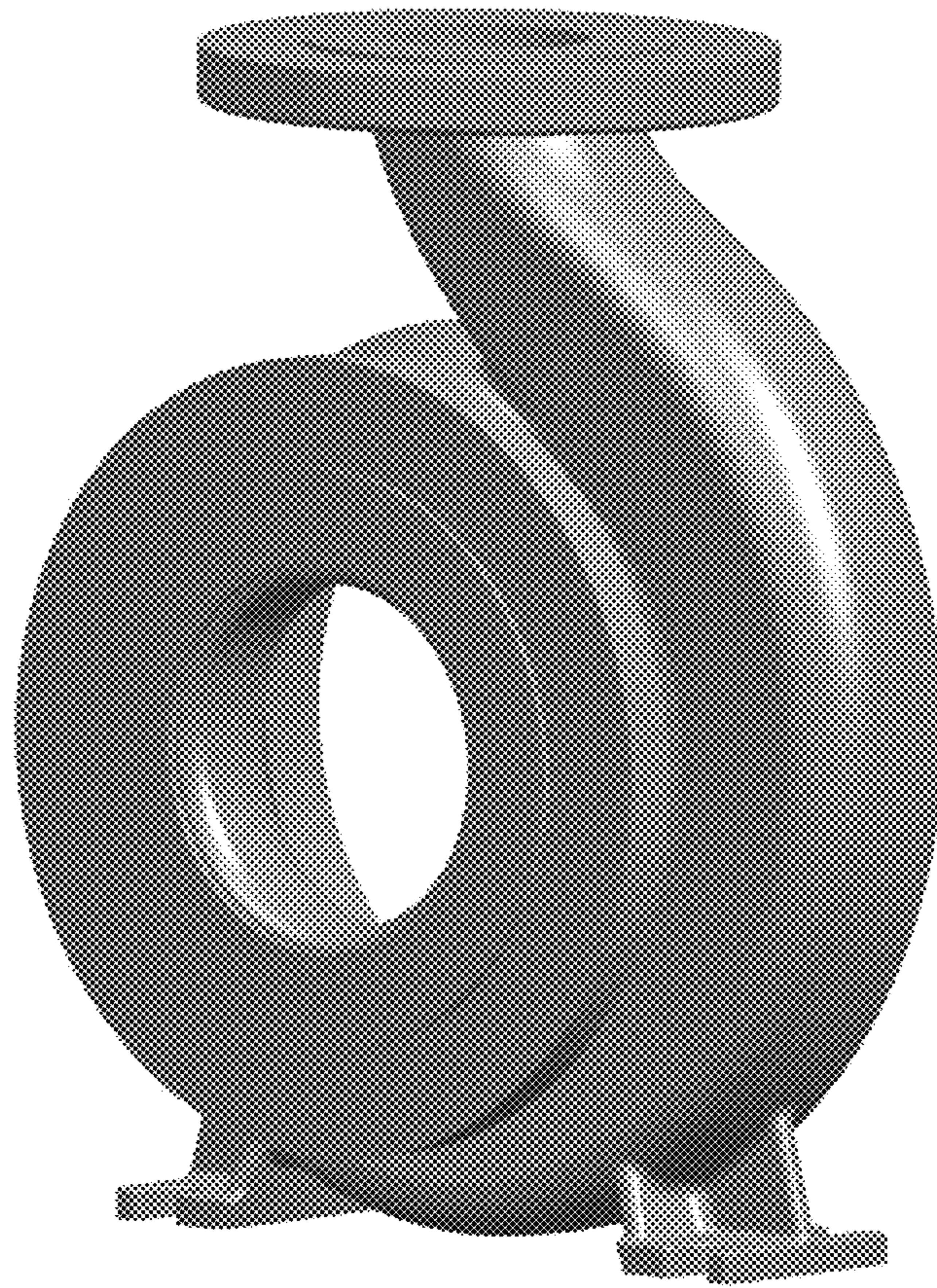


FIG. 29



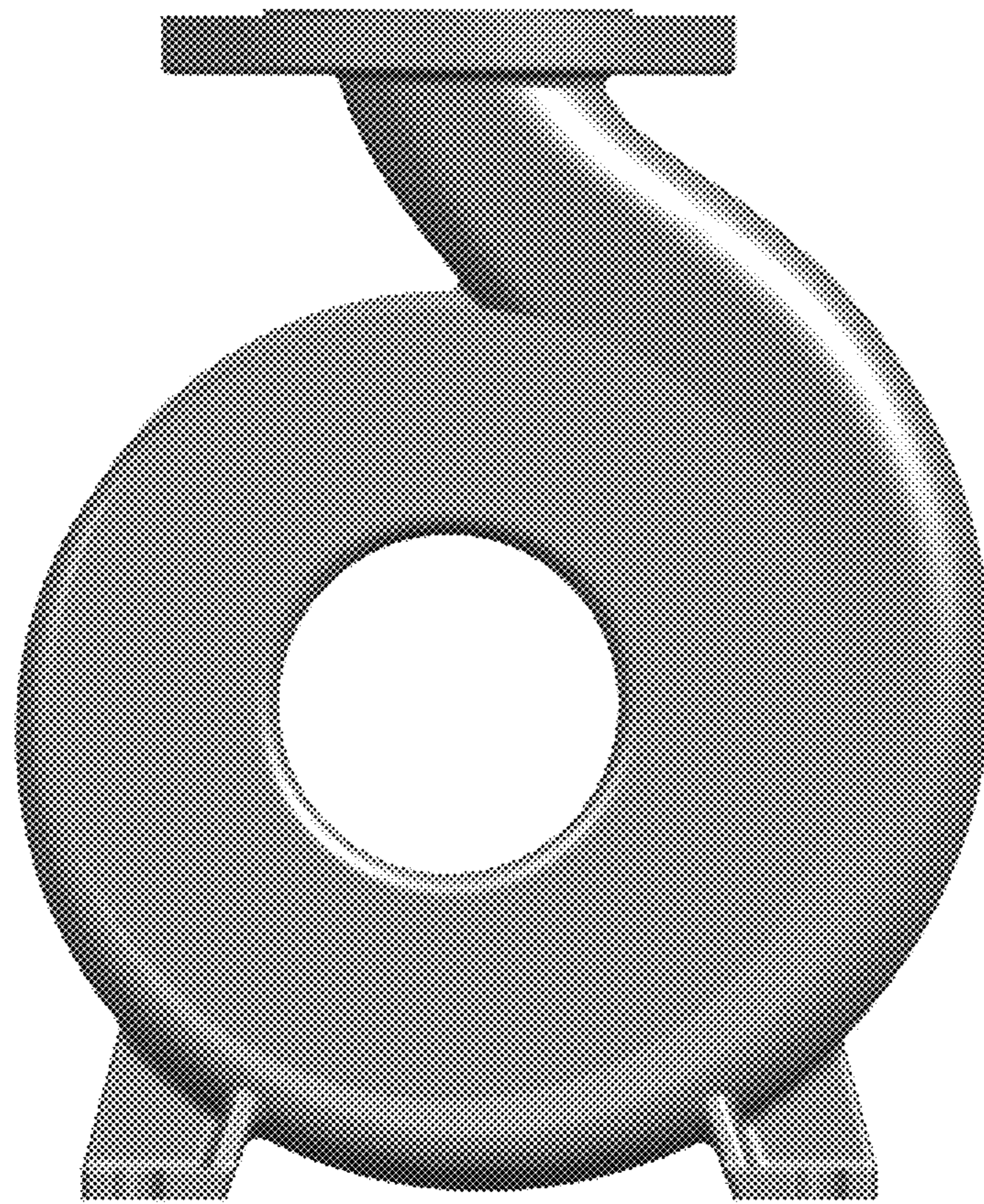


FIG. 30

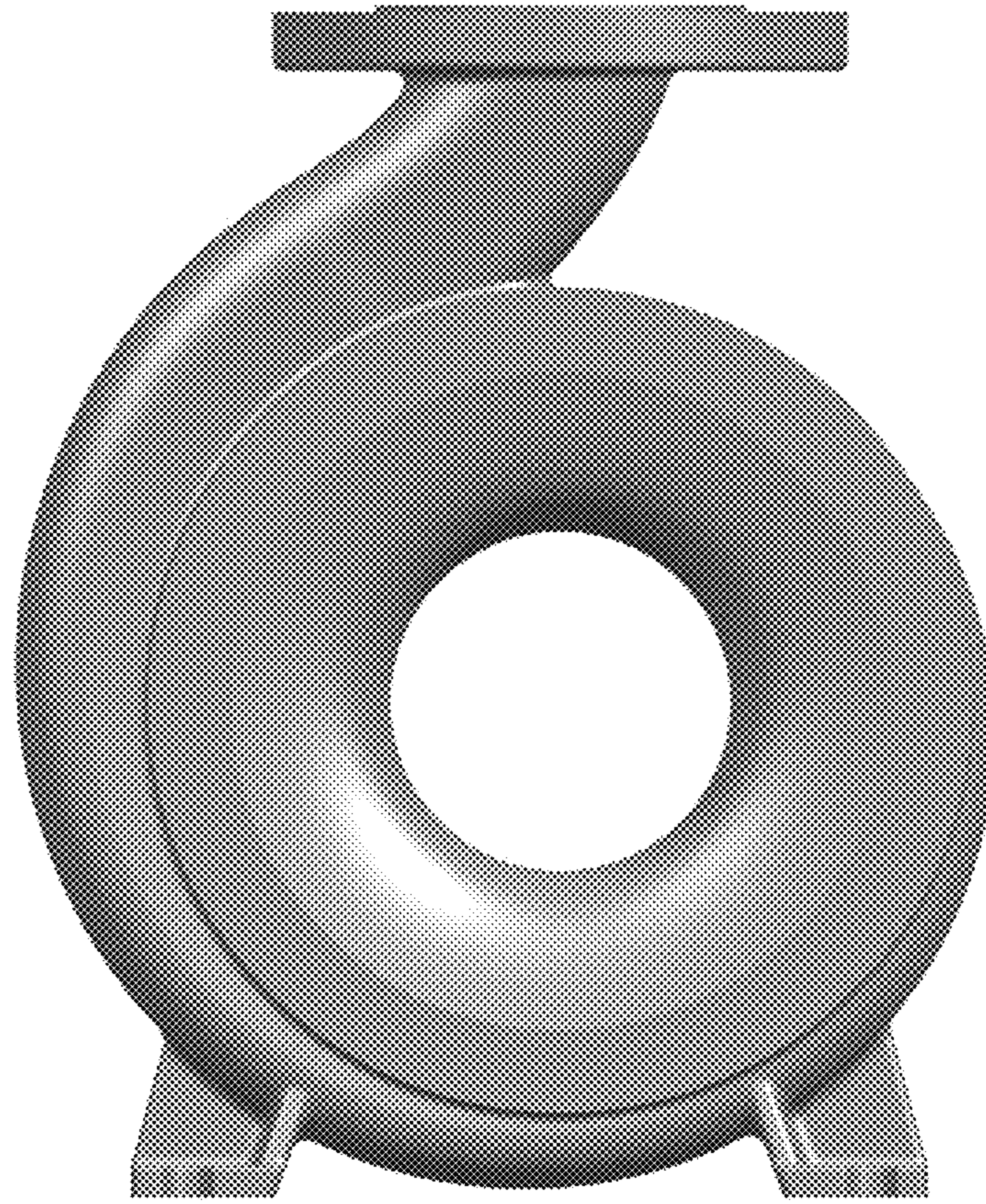


FIG. 31

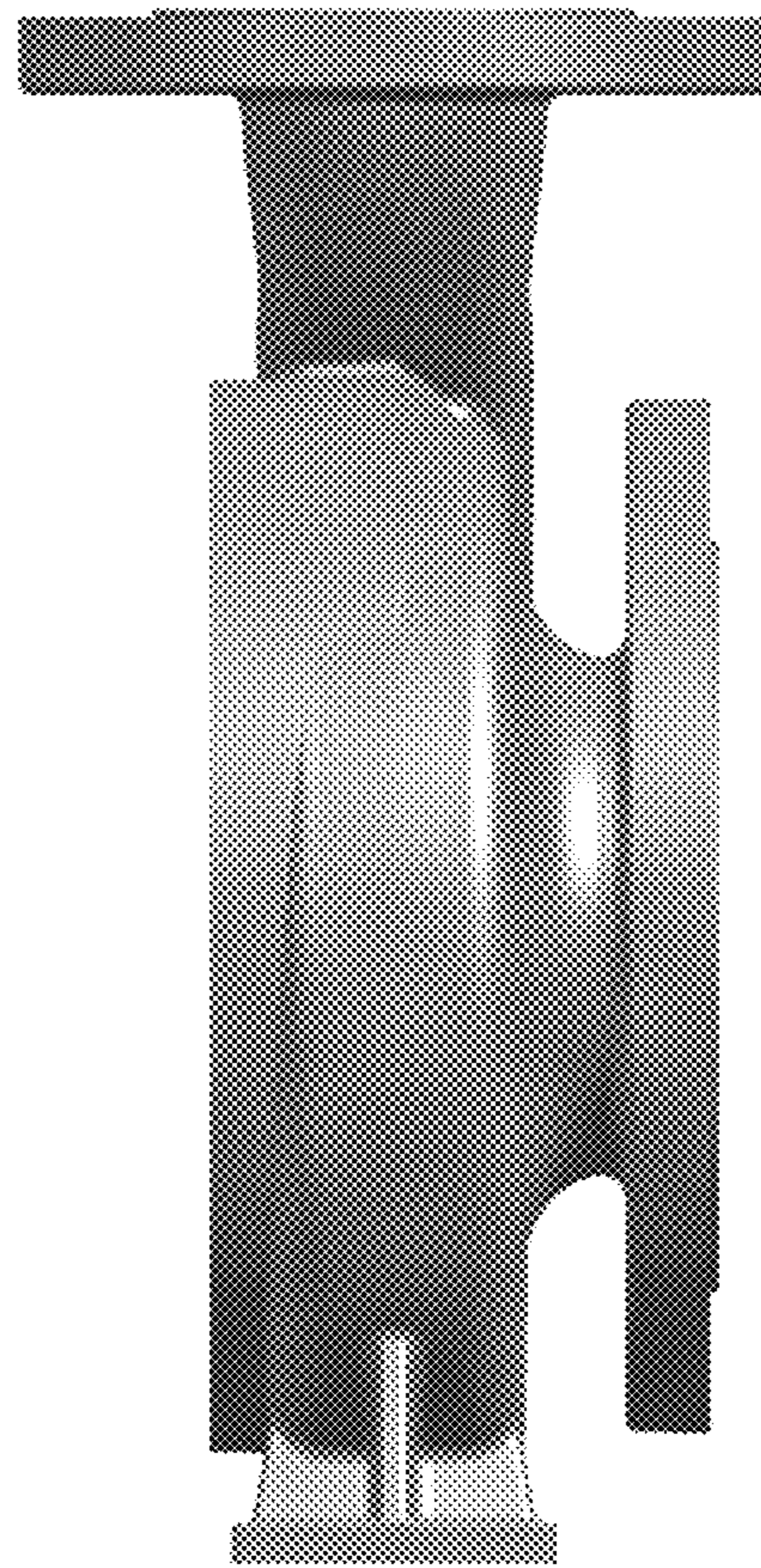


FIG. 32

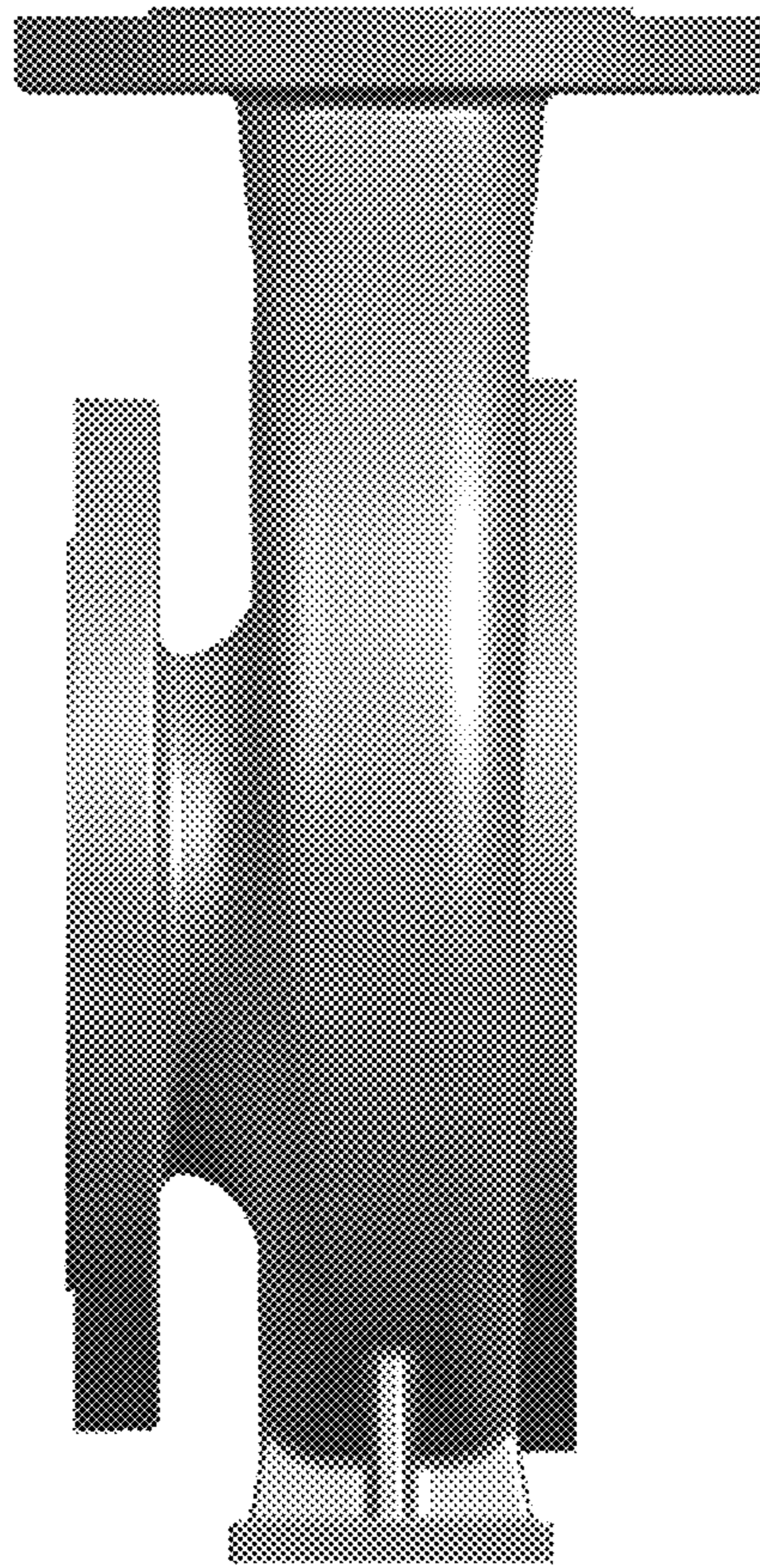


FIG. 33

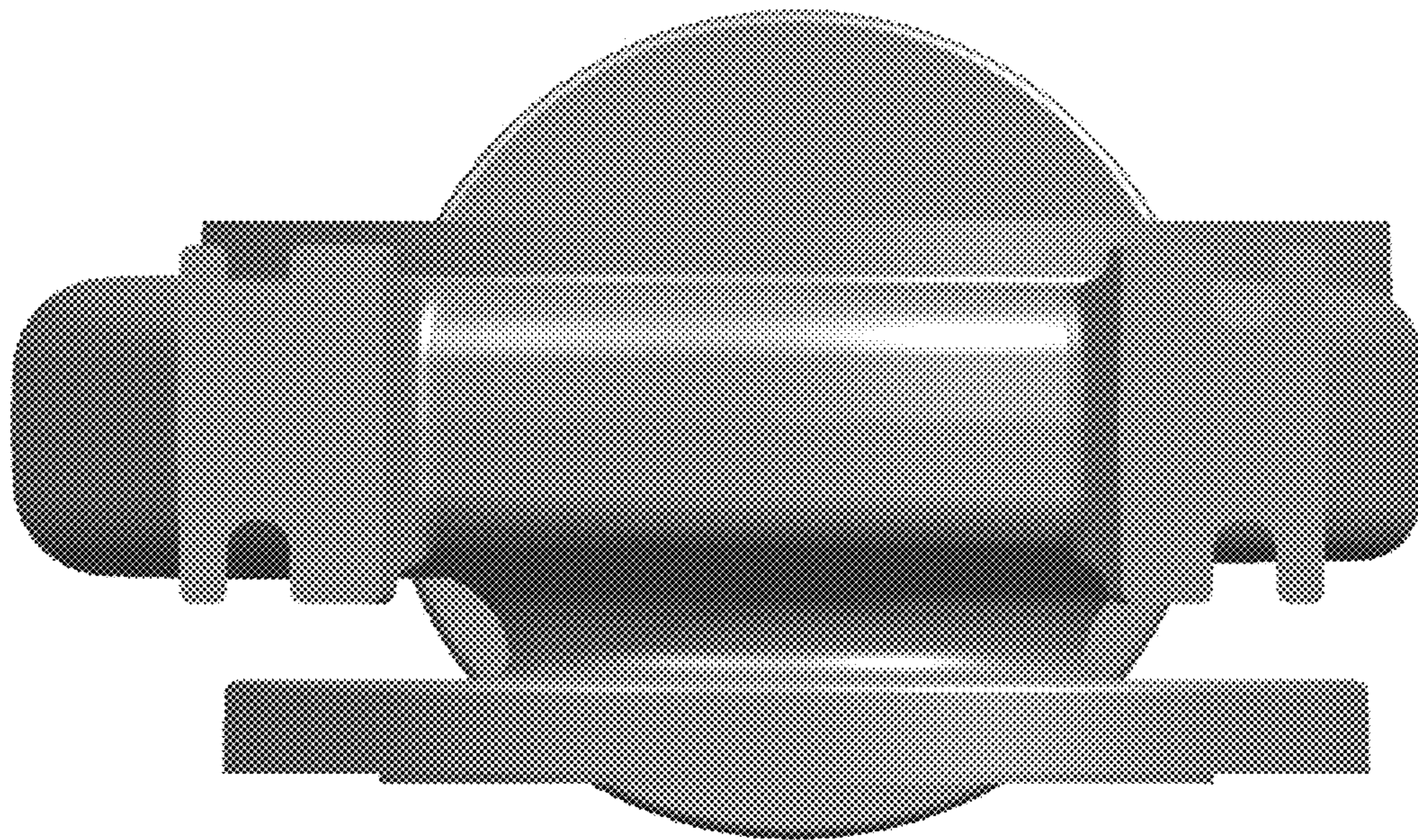


FIG. 34

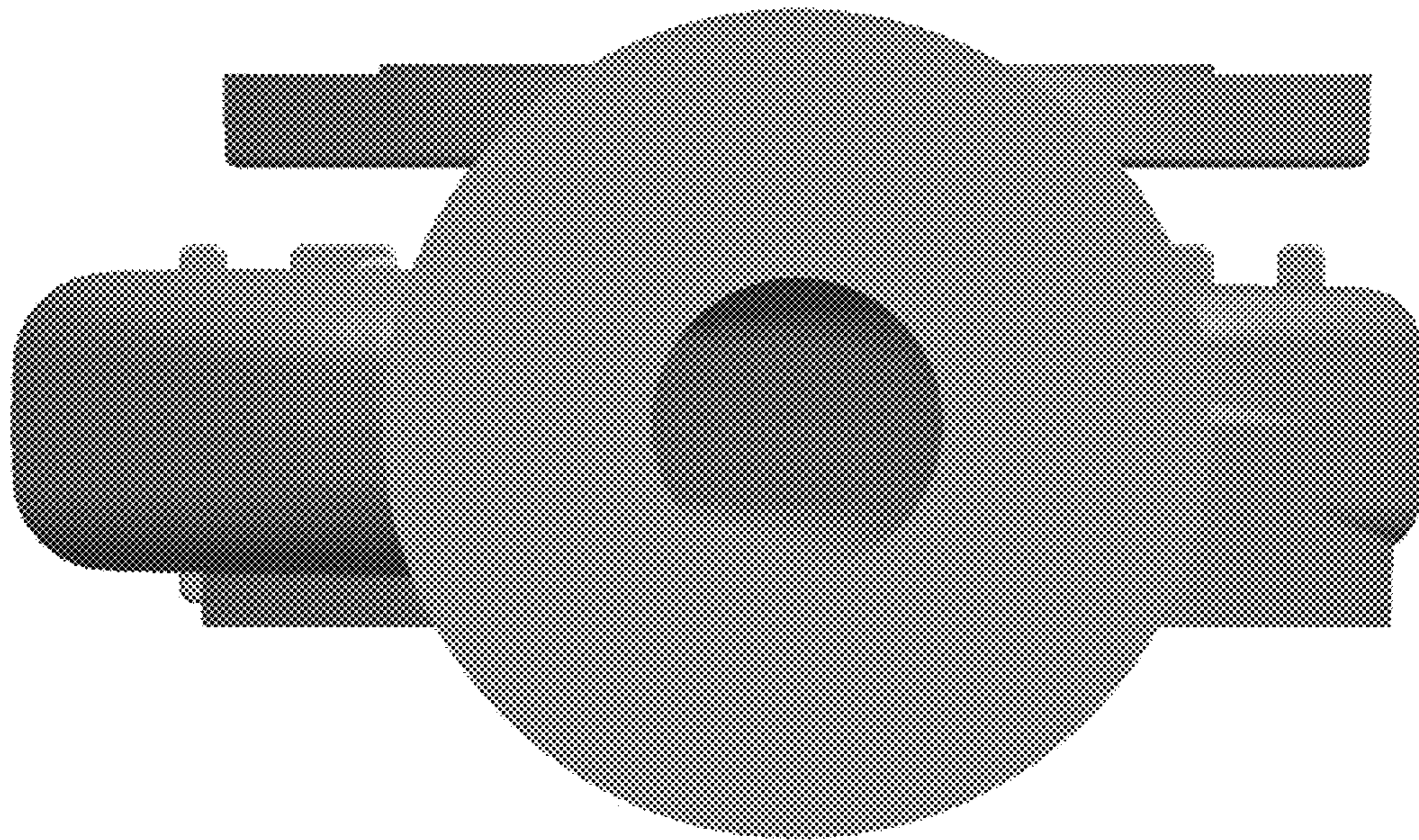


FIG. 35

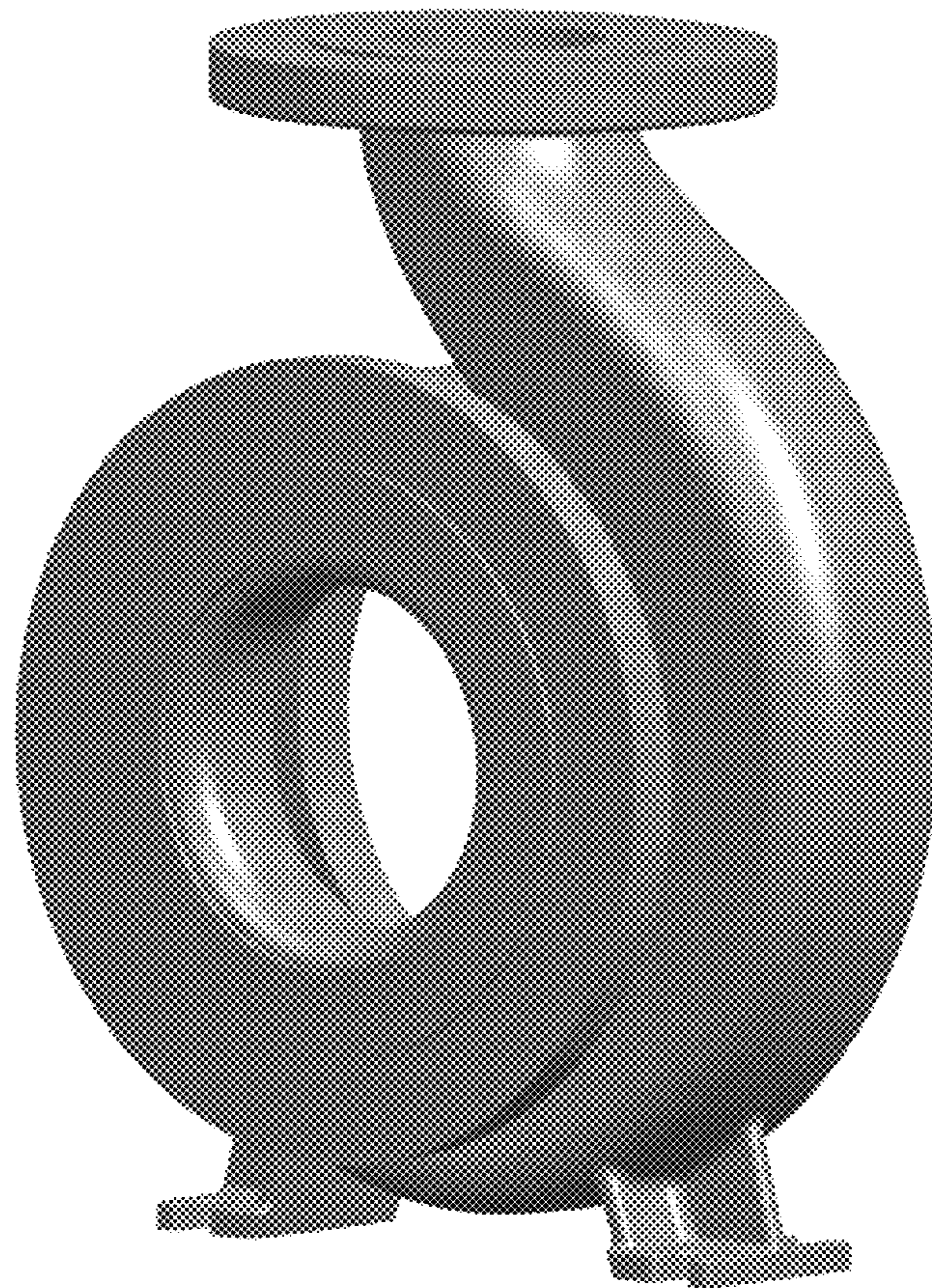


FIG. 36

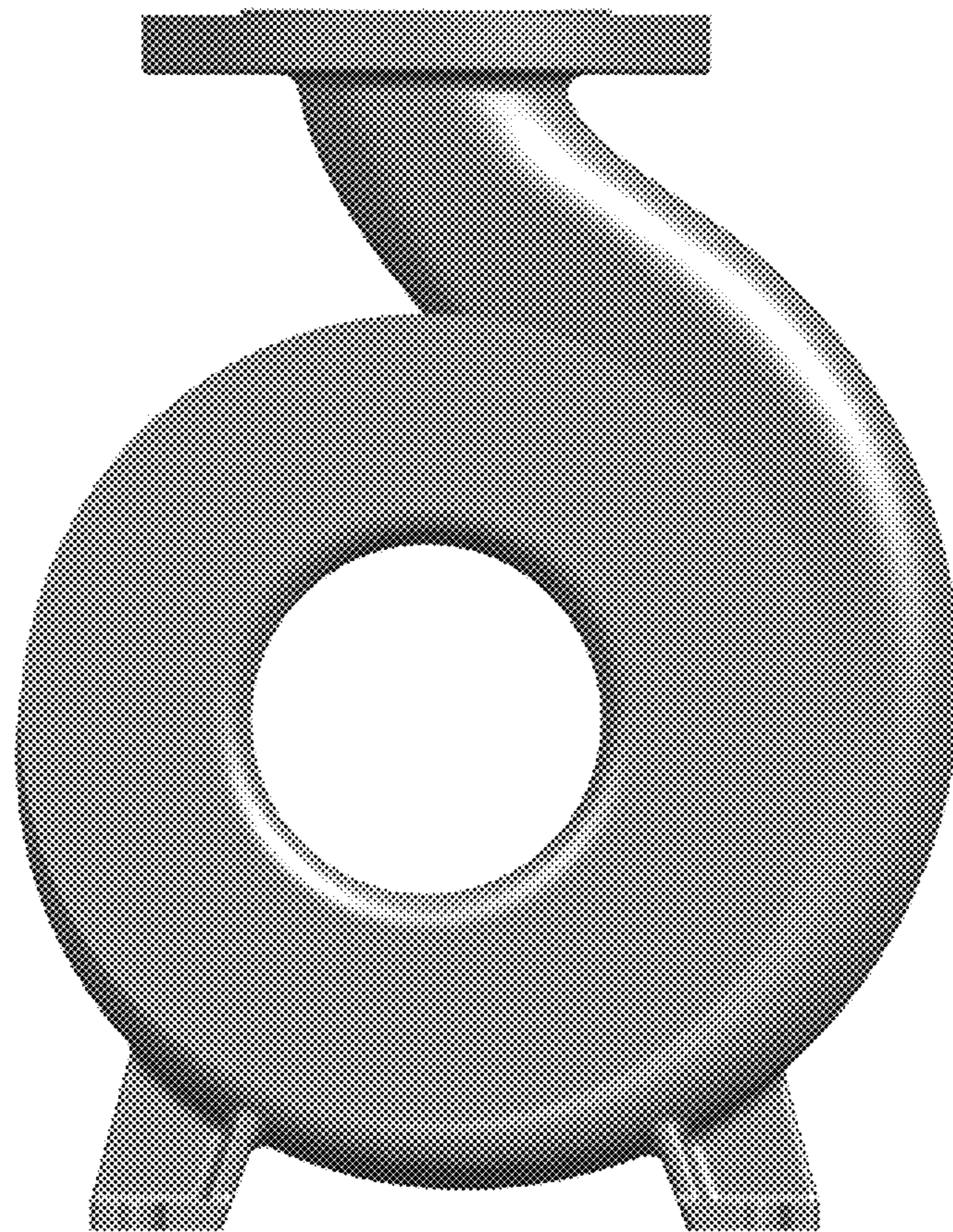


FIG. 37



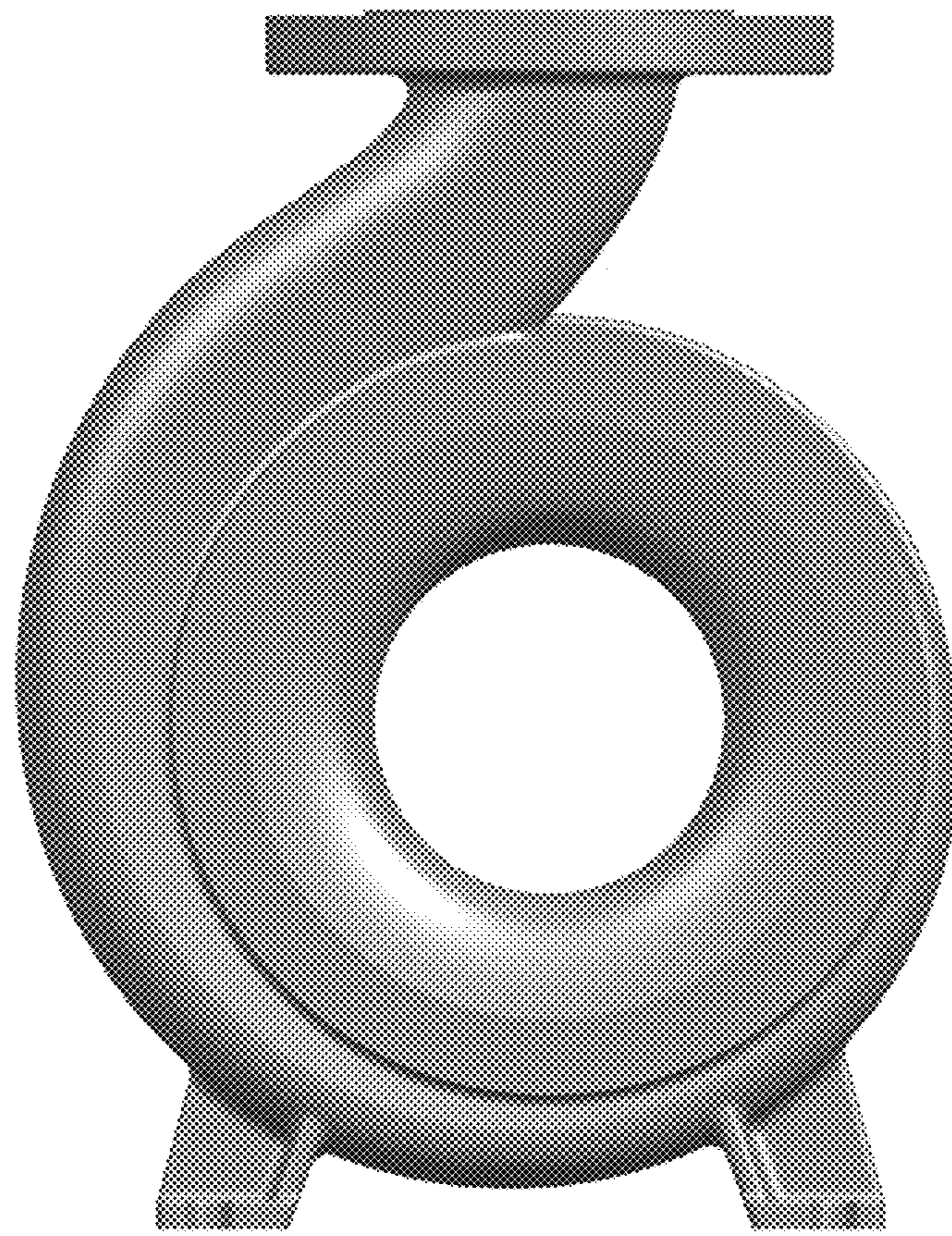


FIG. 38

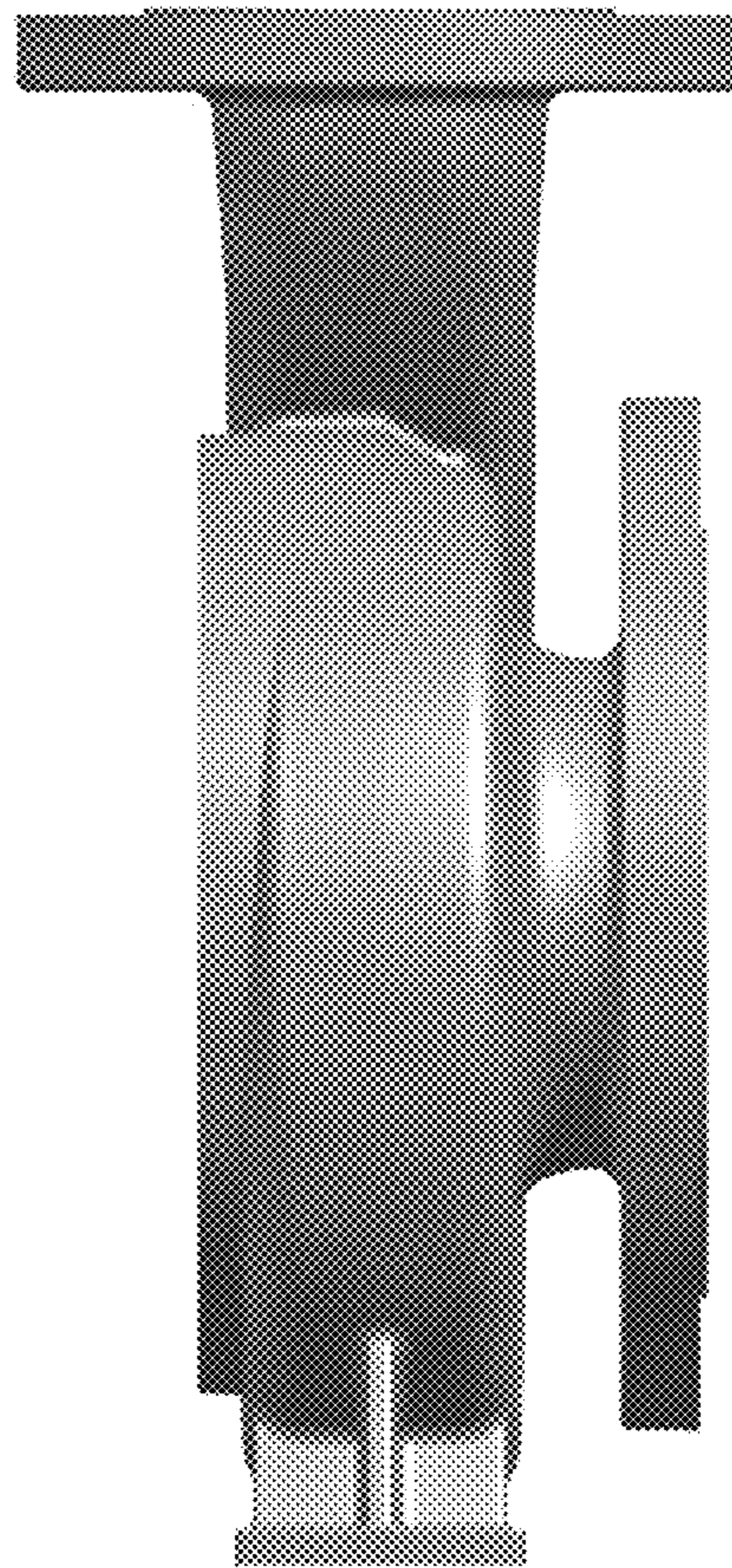


FIG. 39

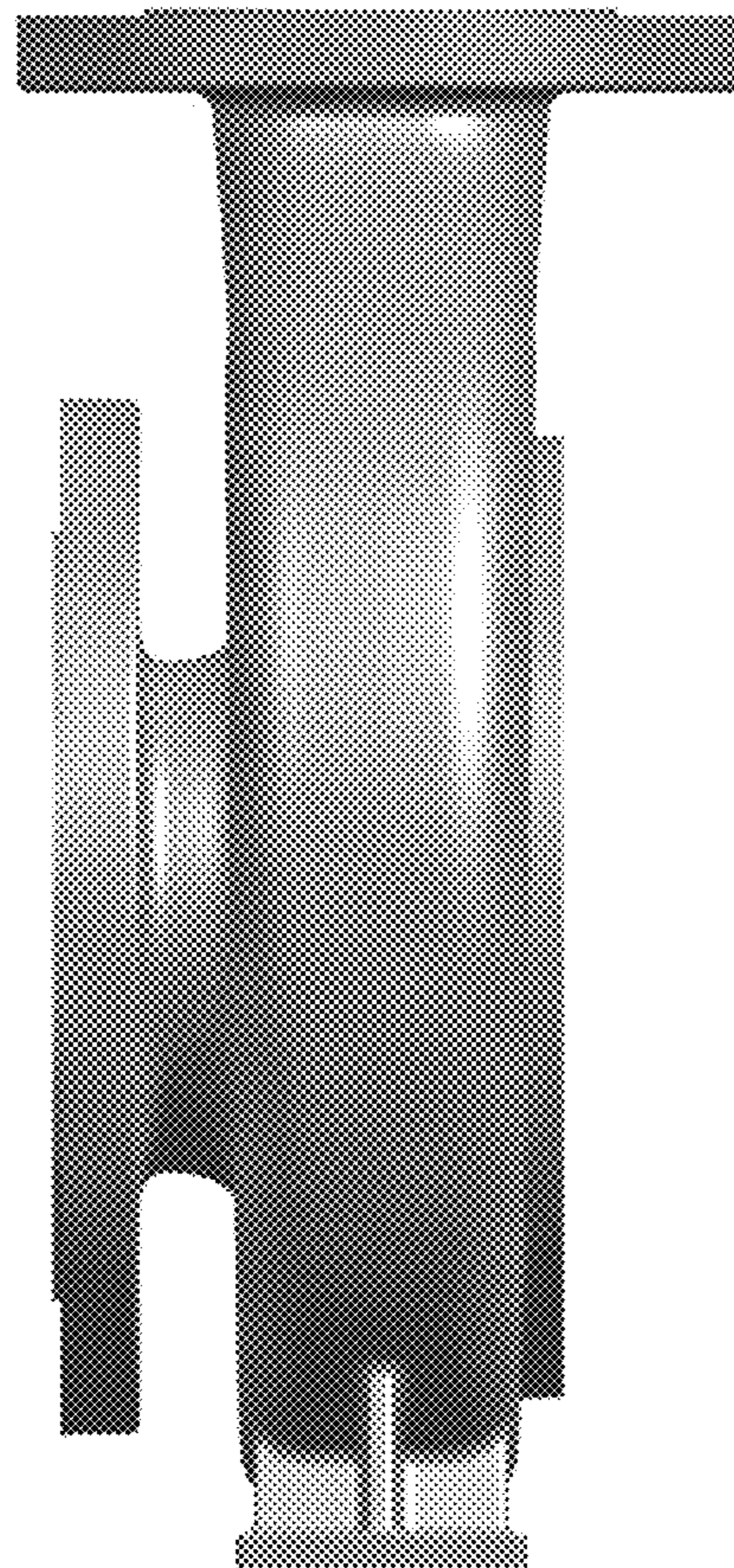


FIG. 40

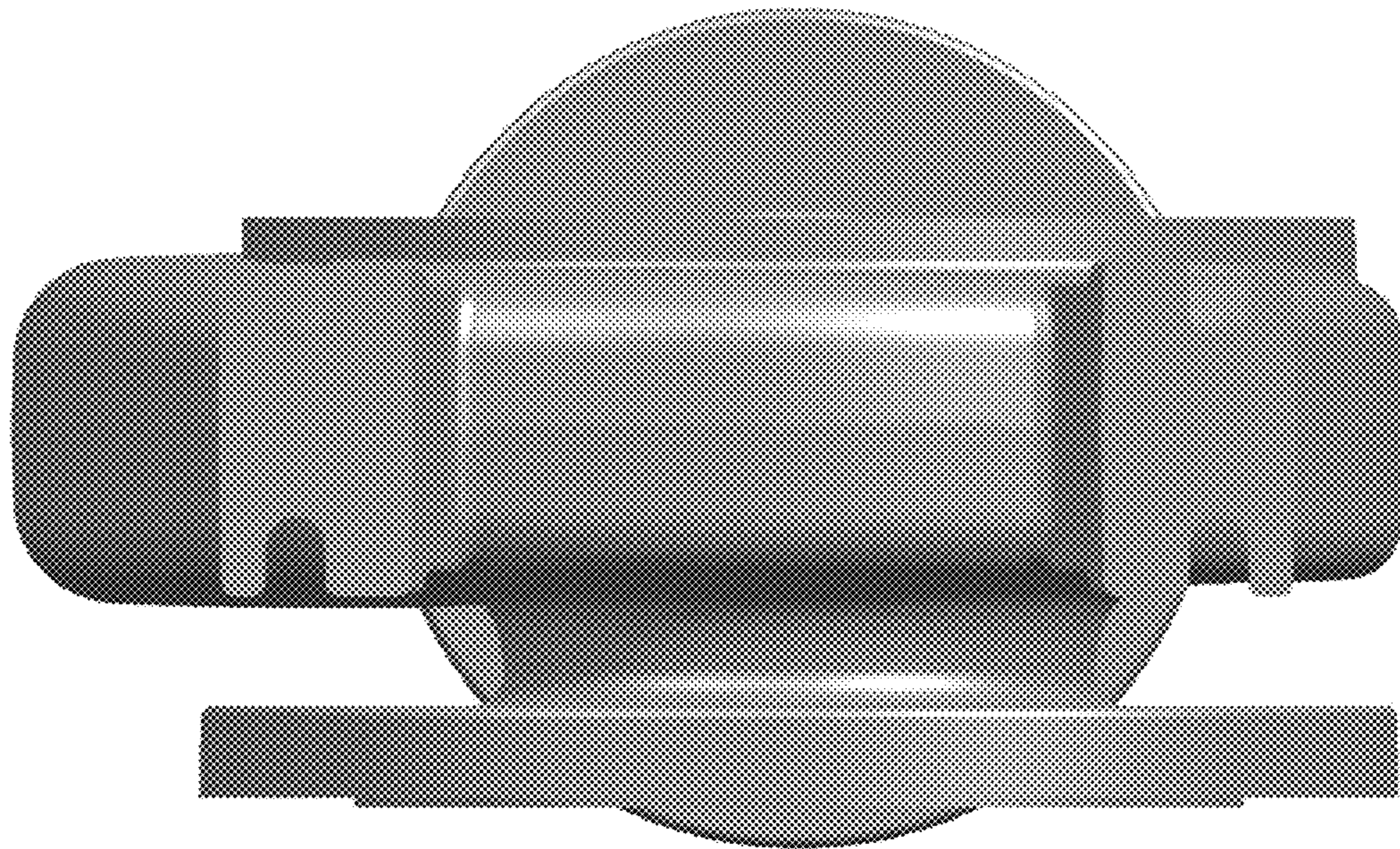


FIG. 41

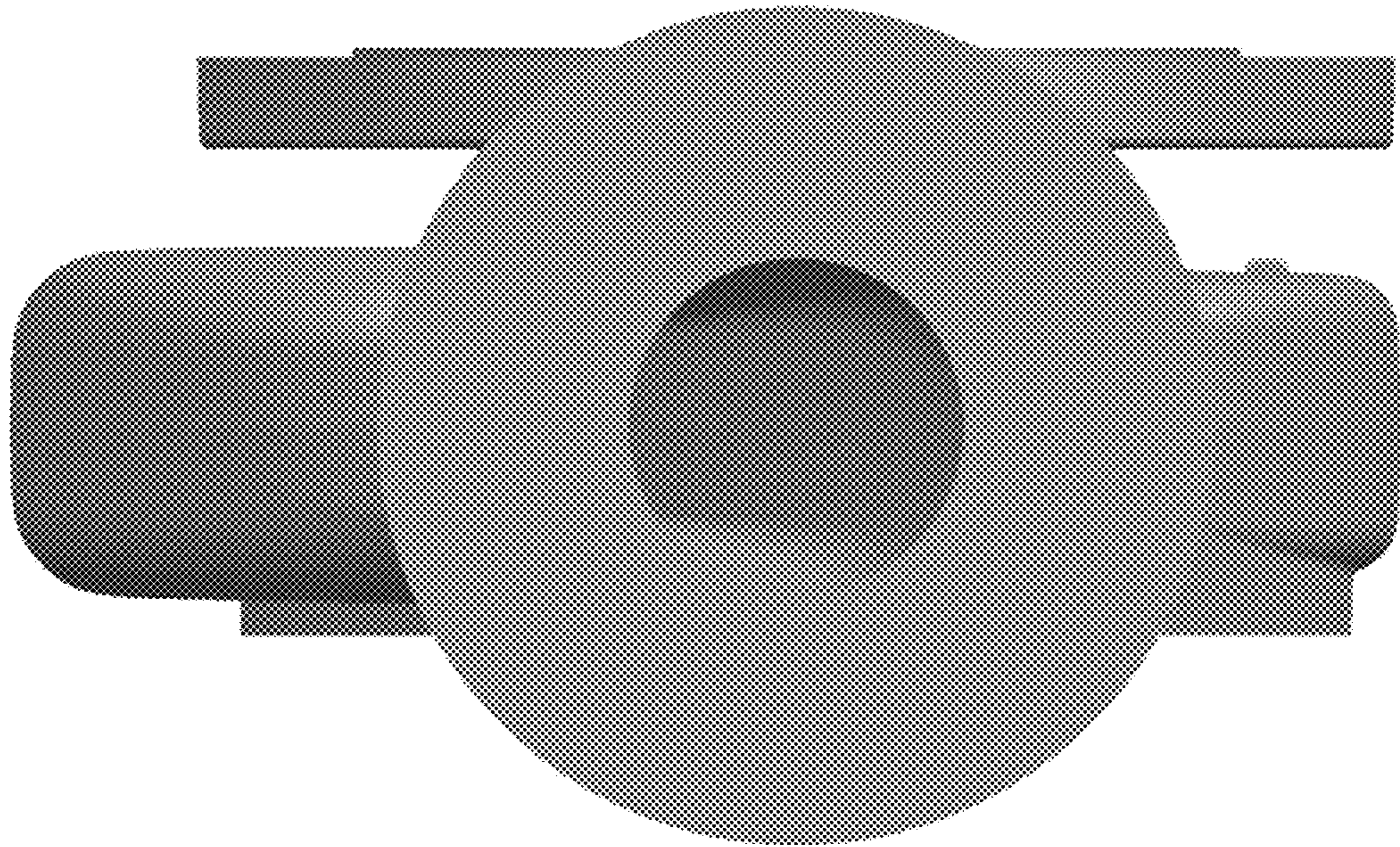


FIG. 42

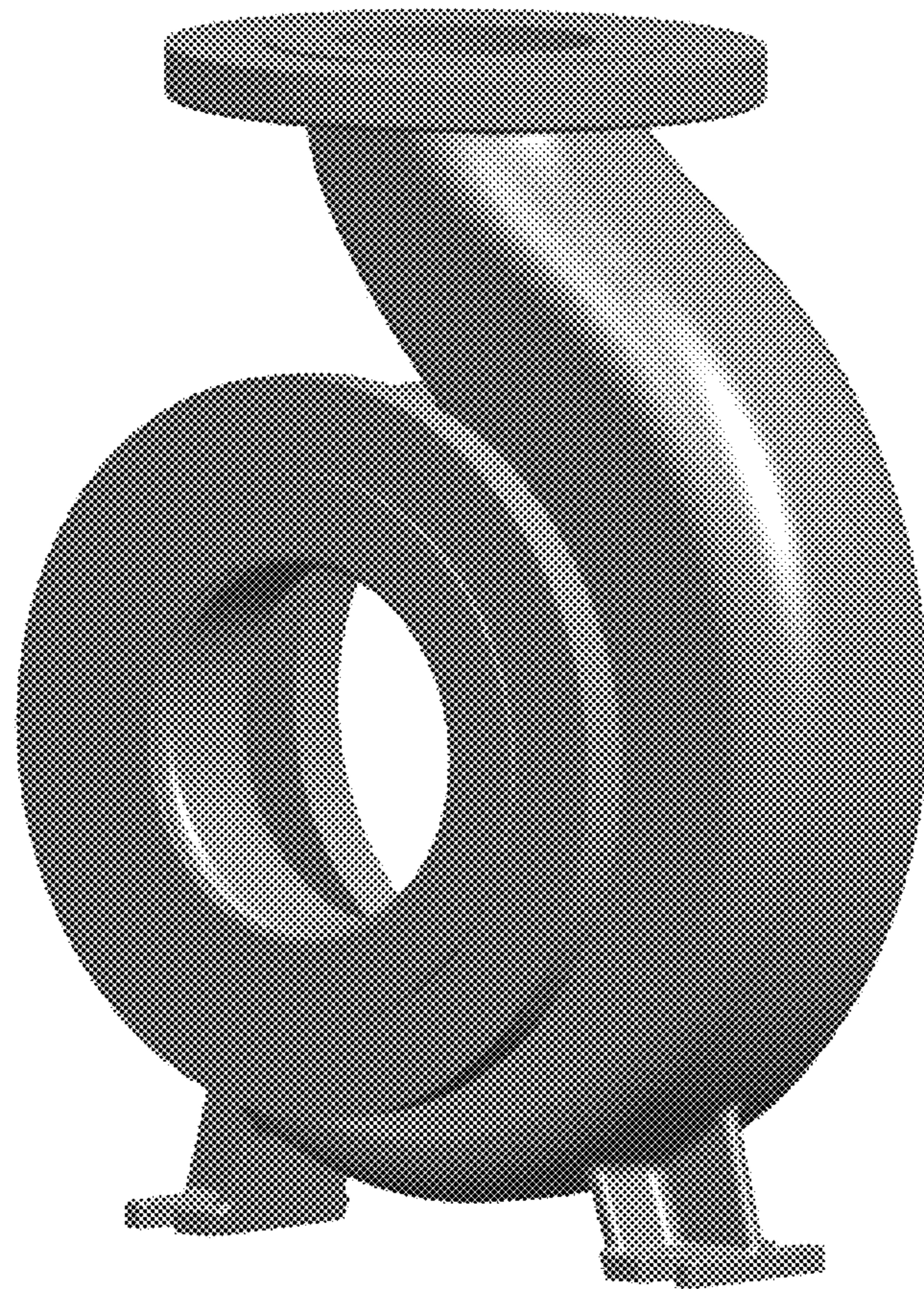


FIG. 43

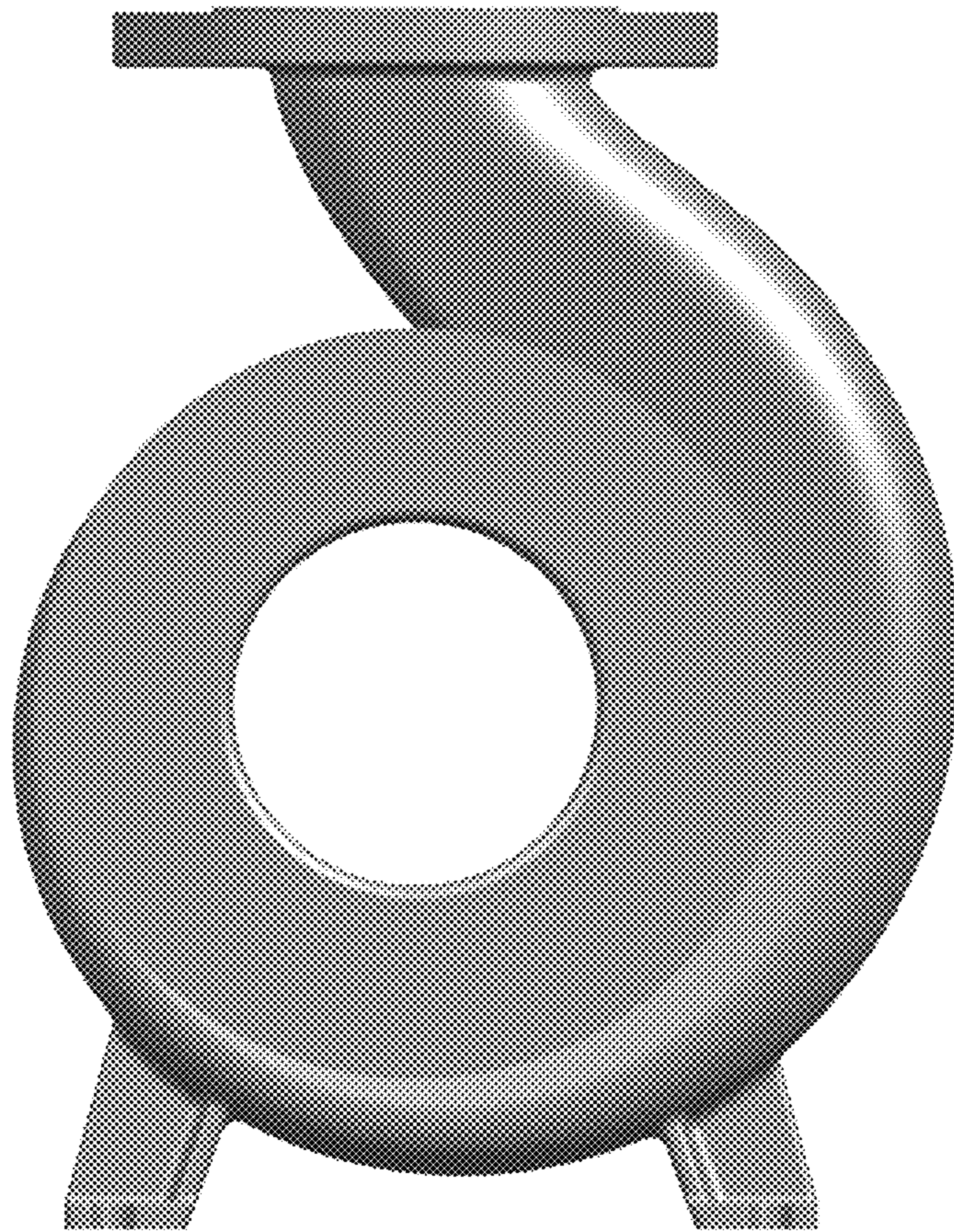


FIG. 44

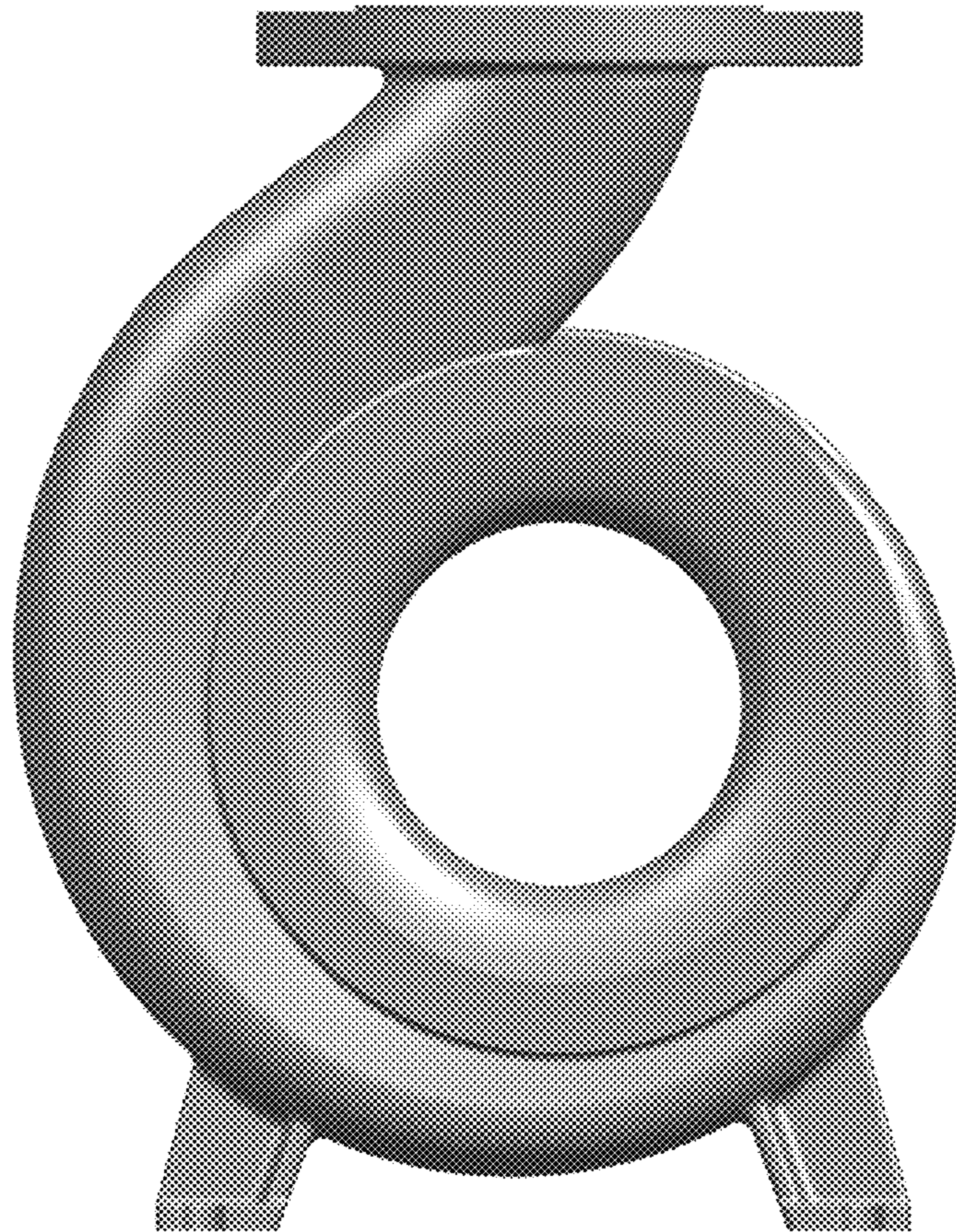


FIG. 45



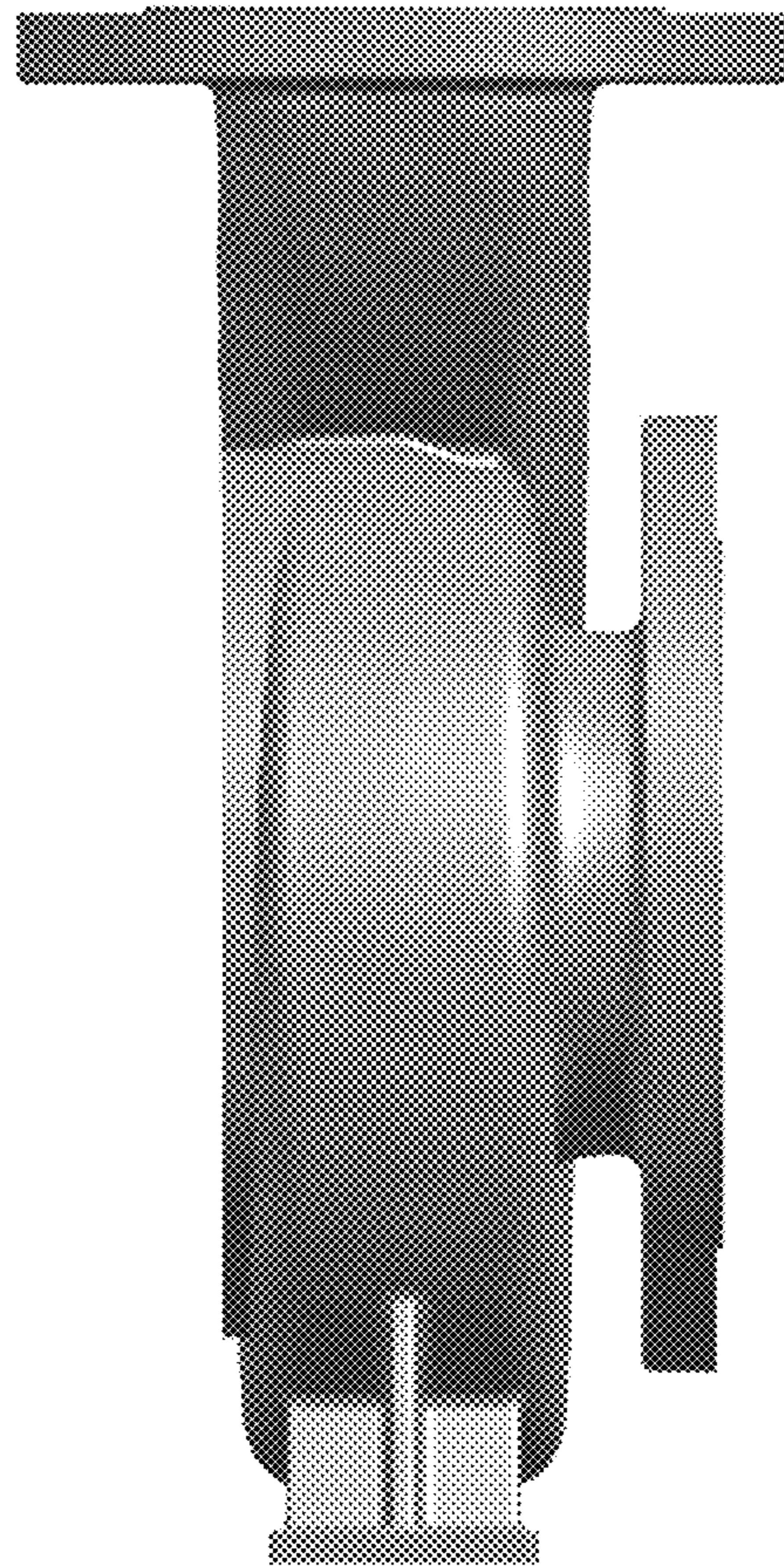


FIG. 46

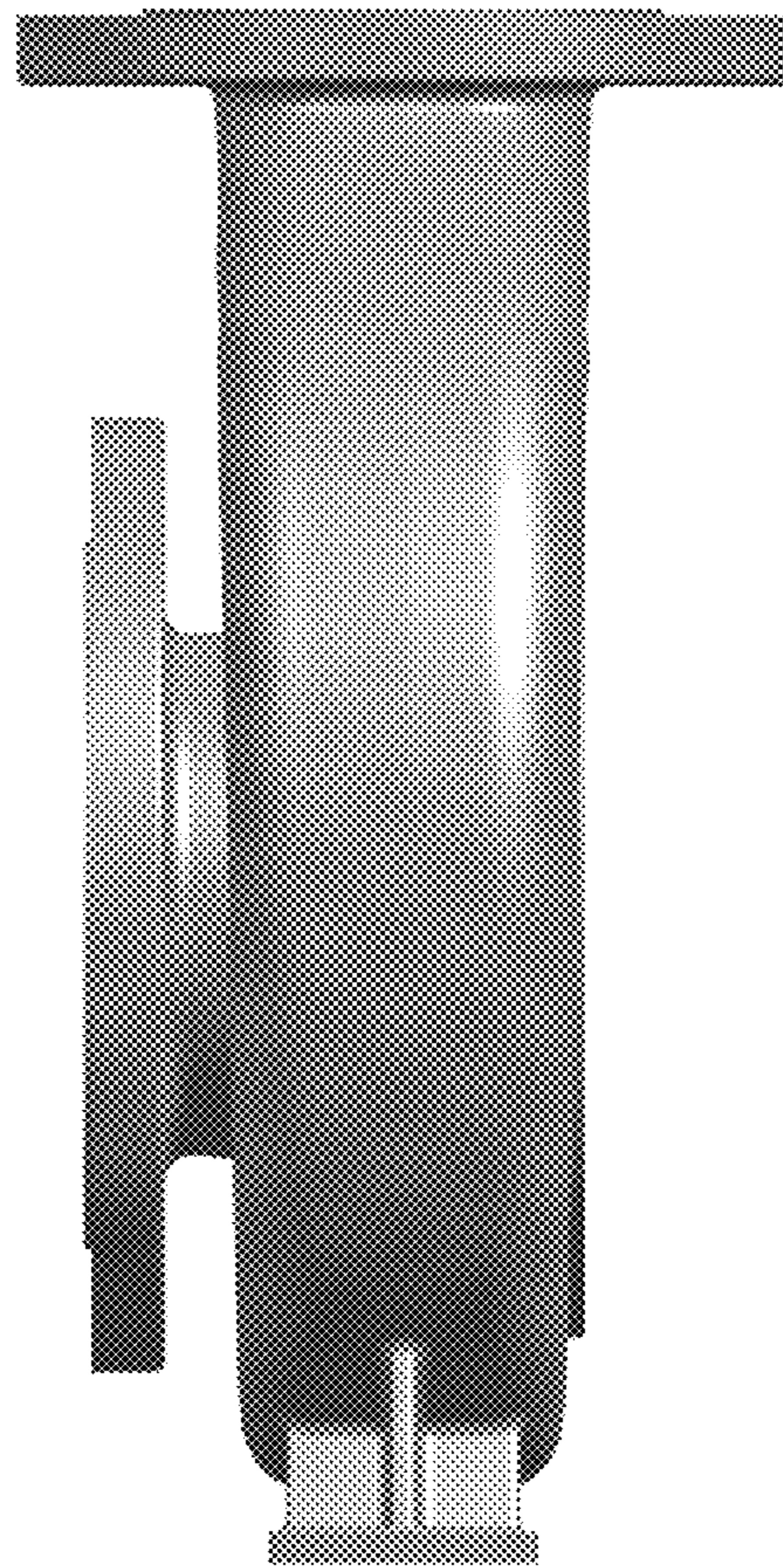


FIG. 47

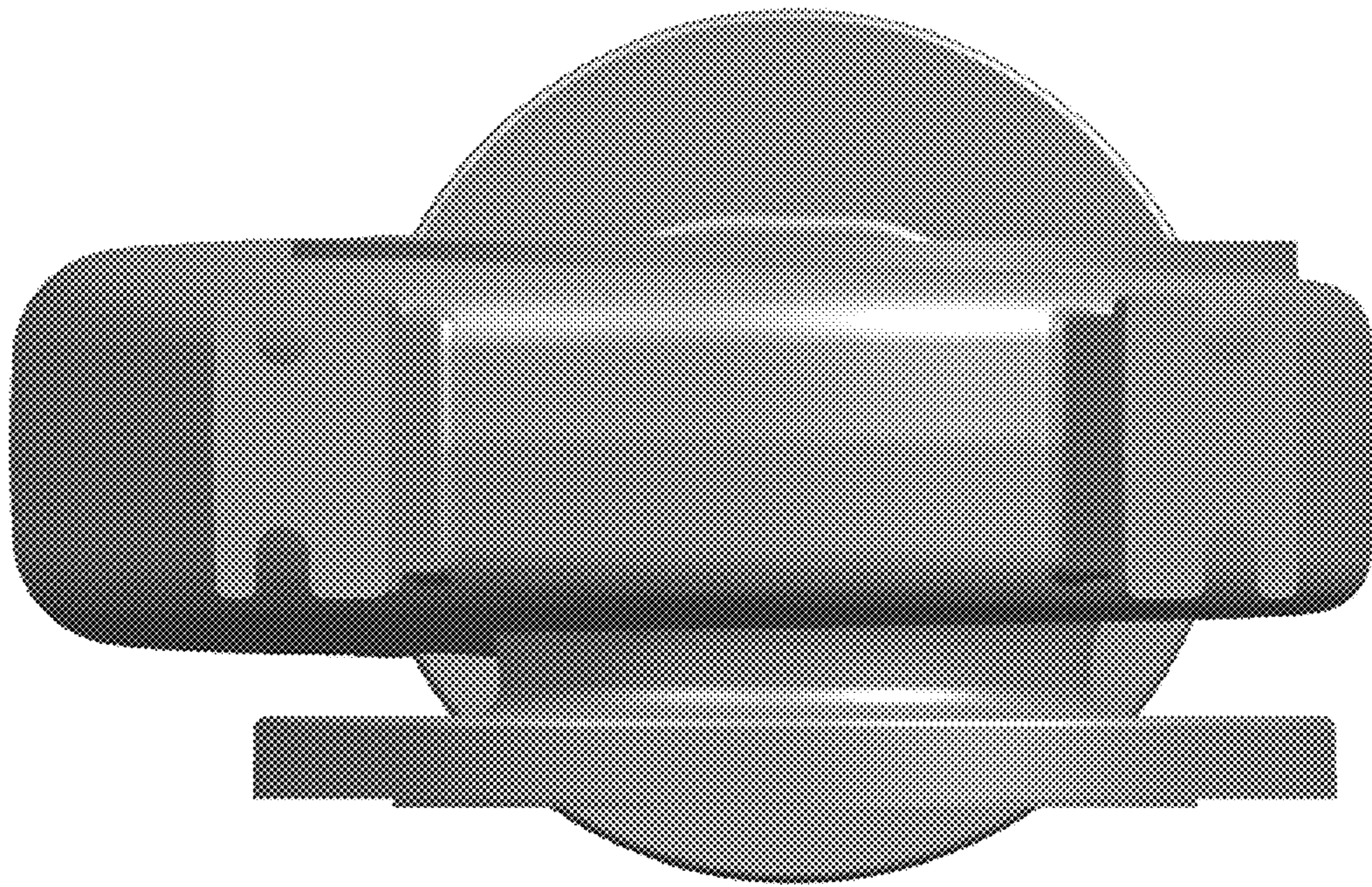


FIG. 48

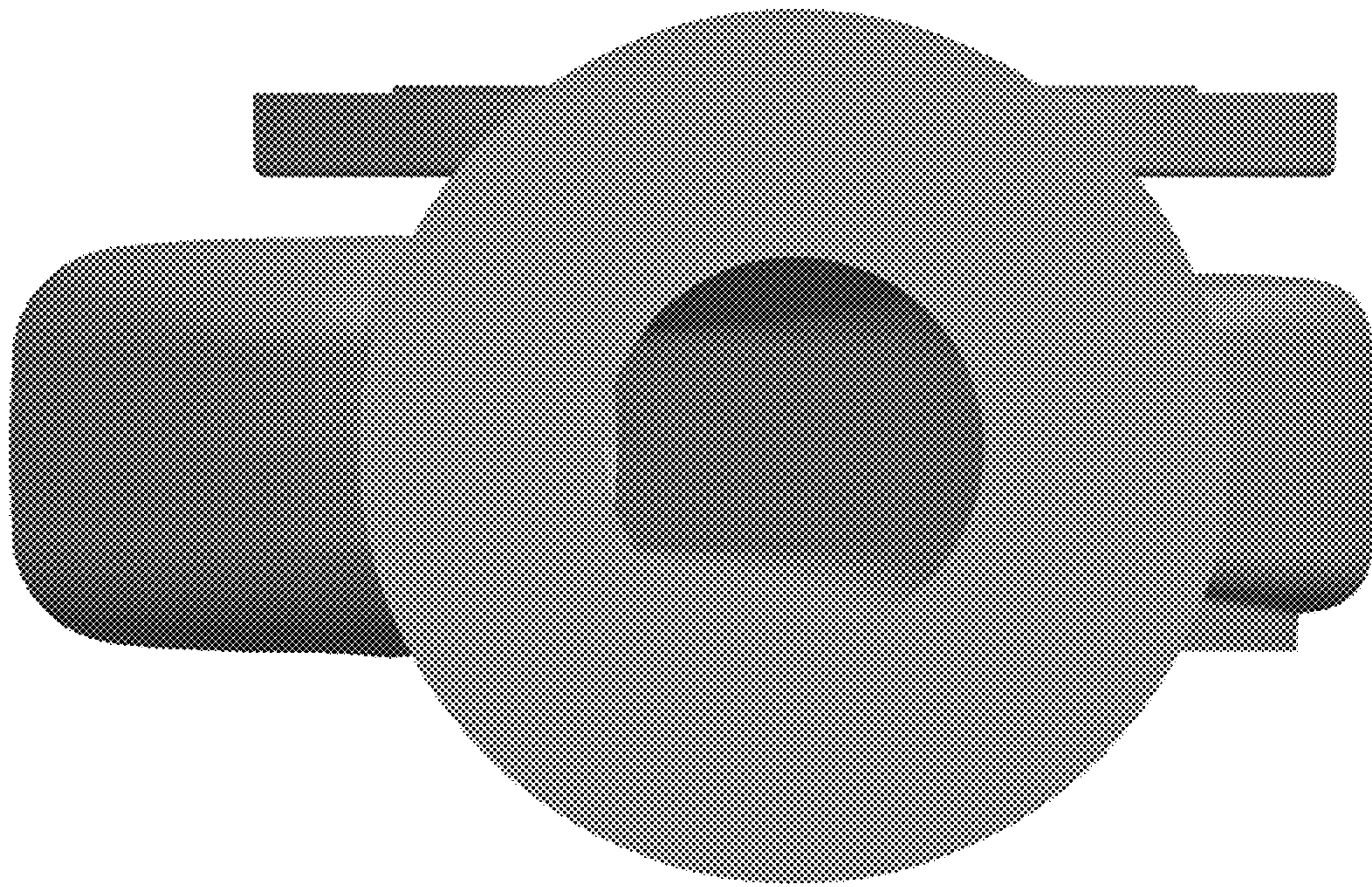


FIG. 49

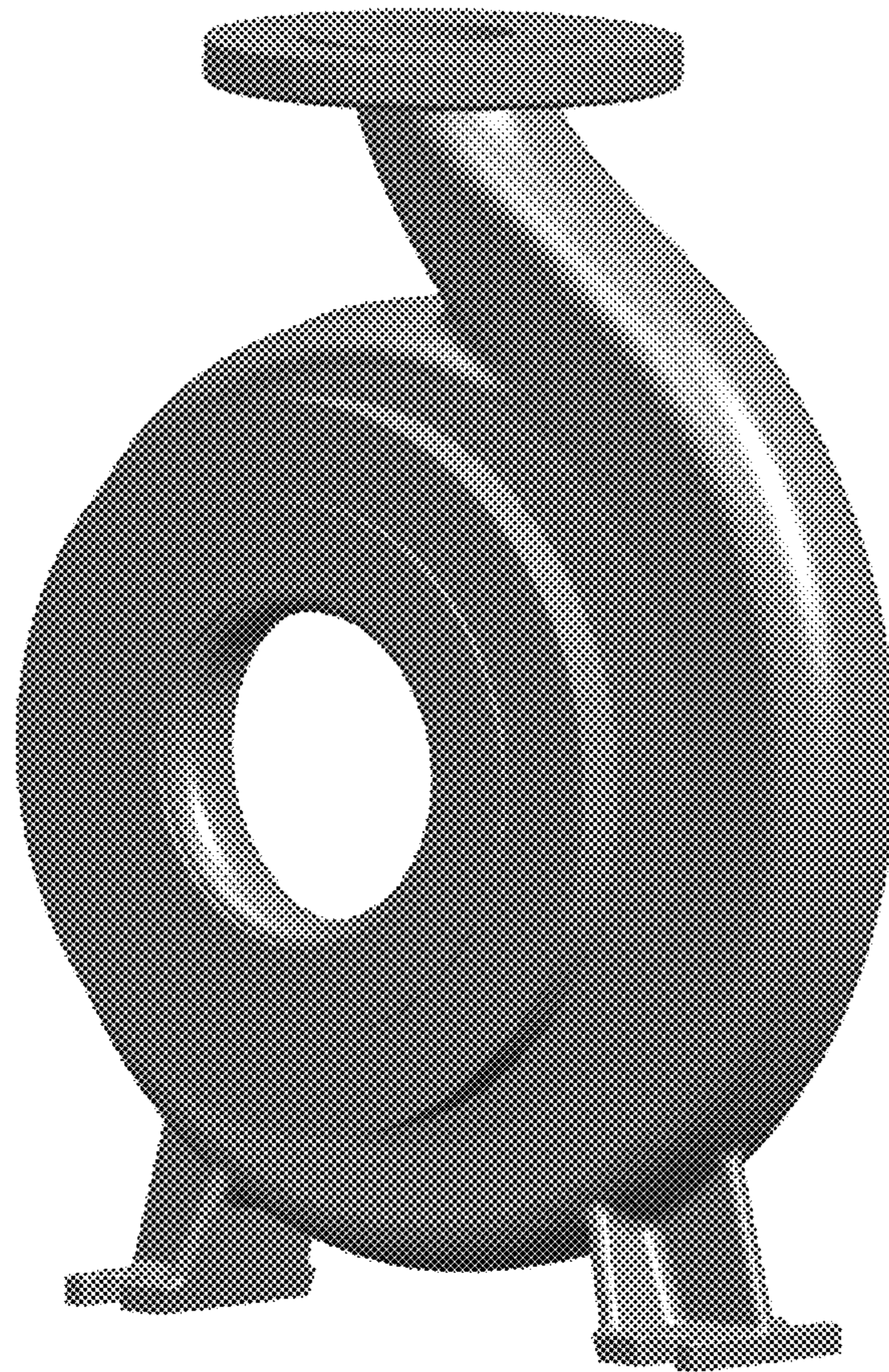


FIG. 50

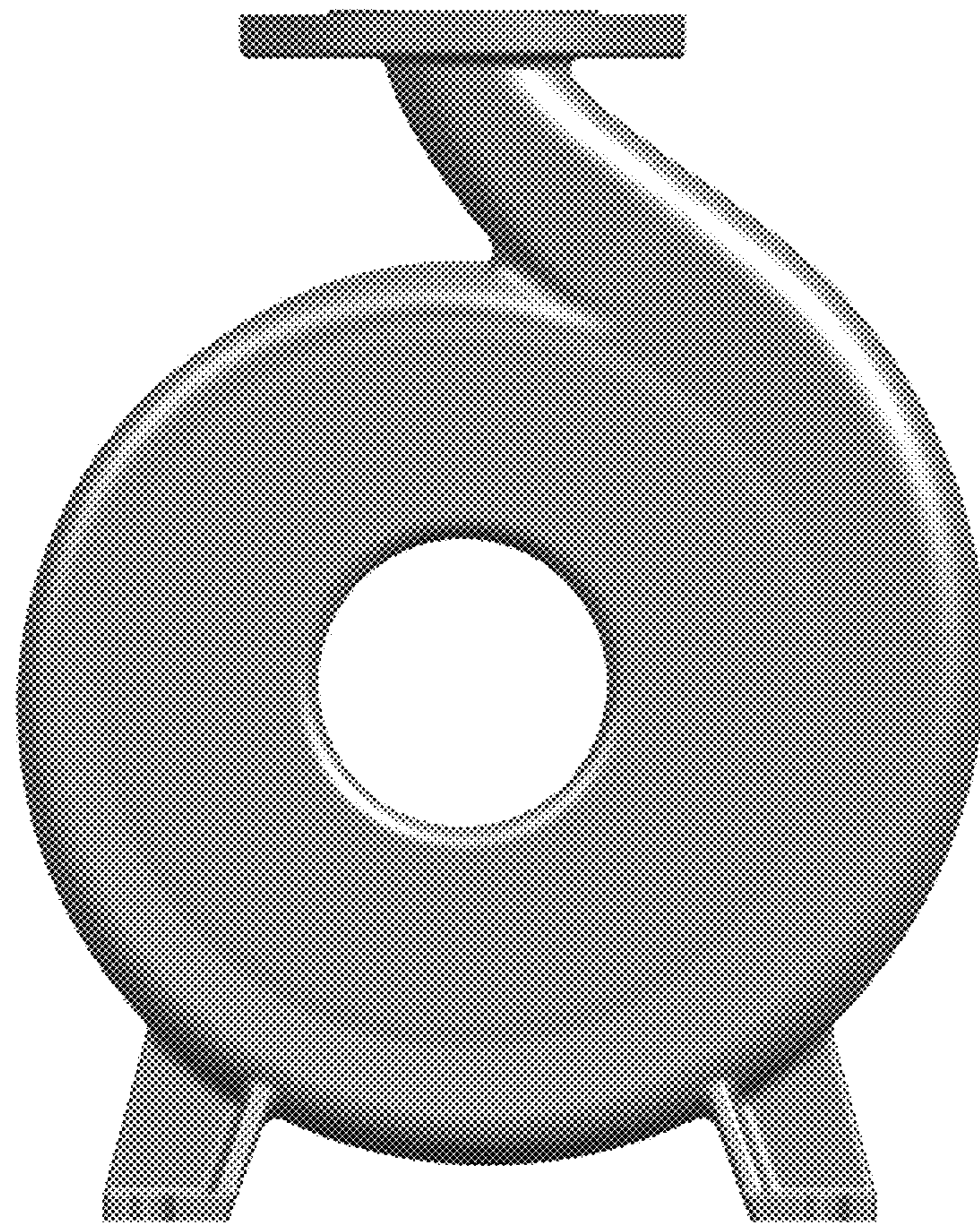


FIG. 51

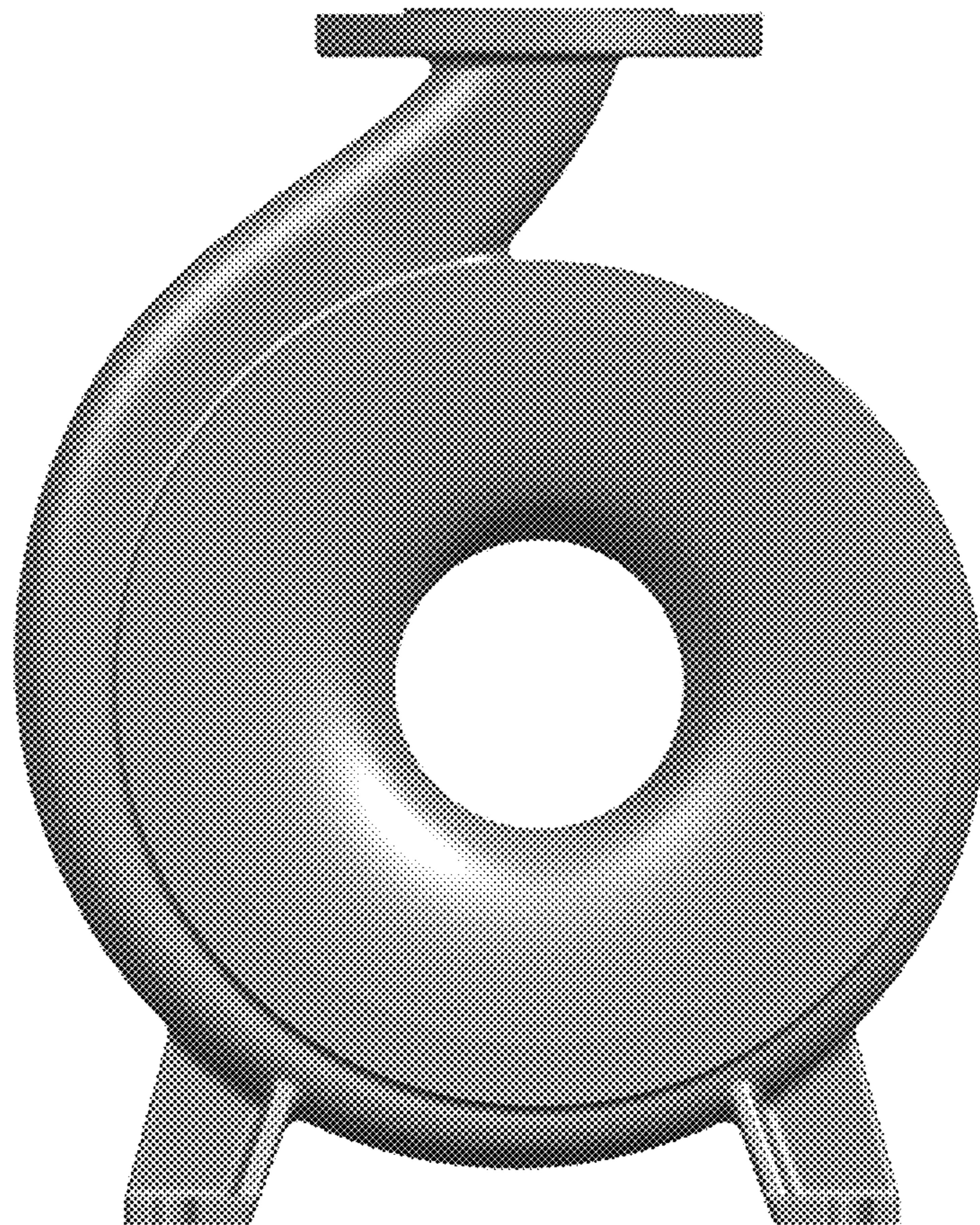


FIG. 52

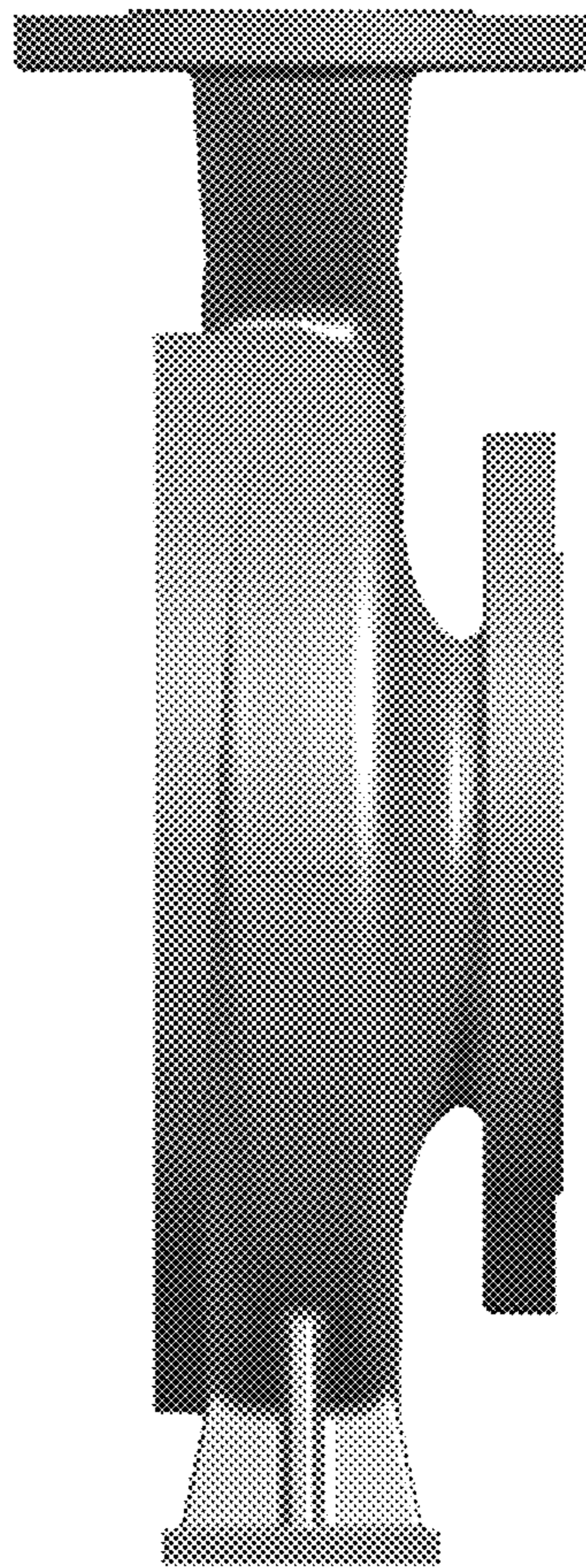


FIG. 53



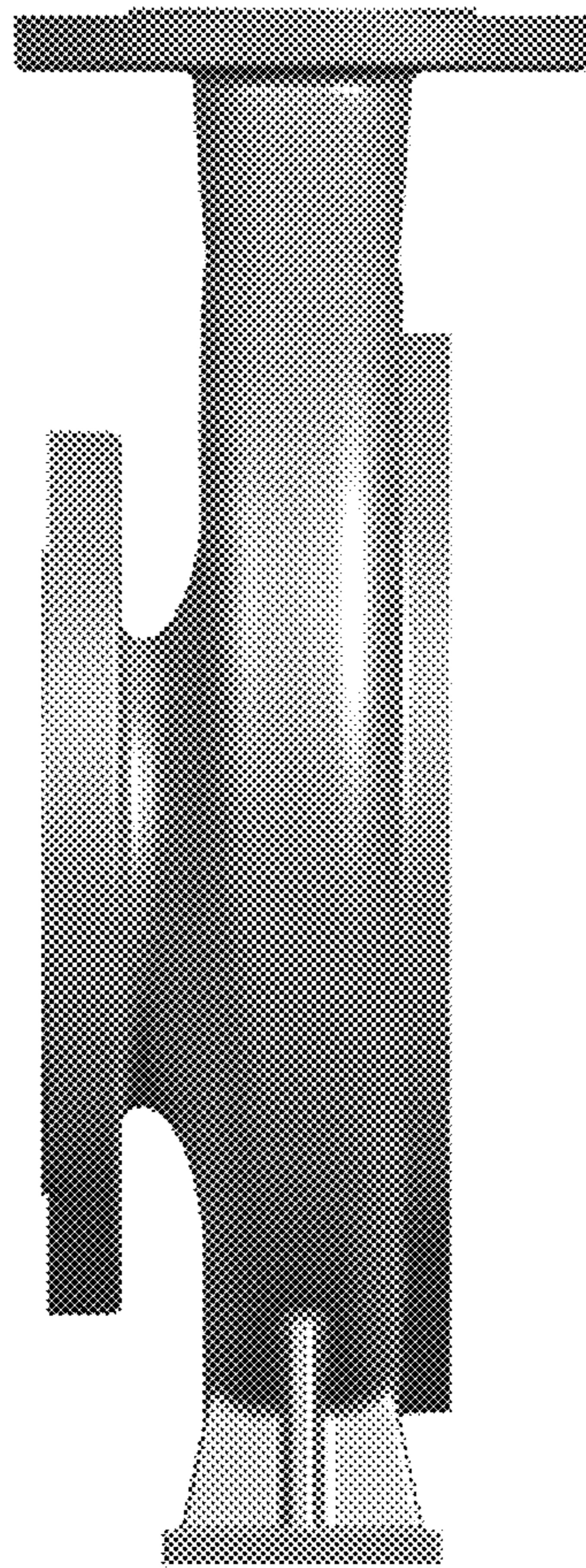


FIG. 54

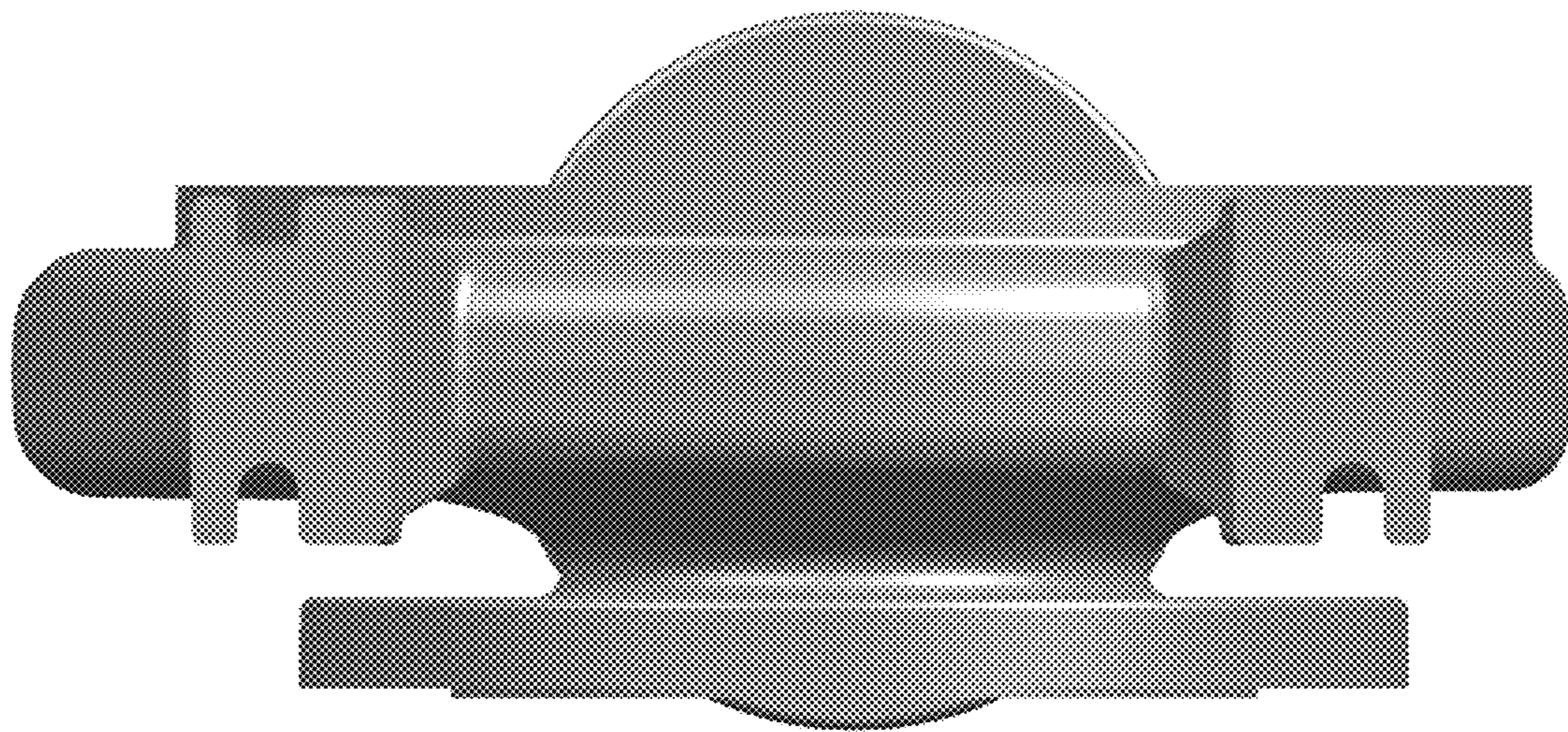


FIG. 55

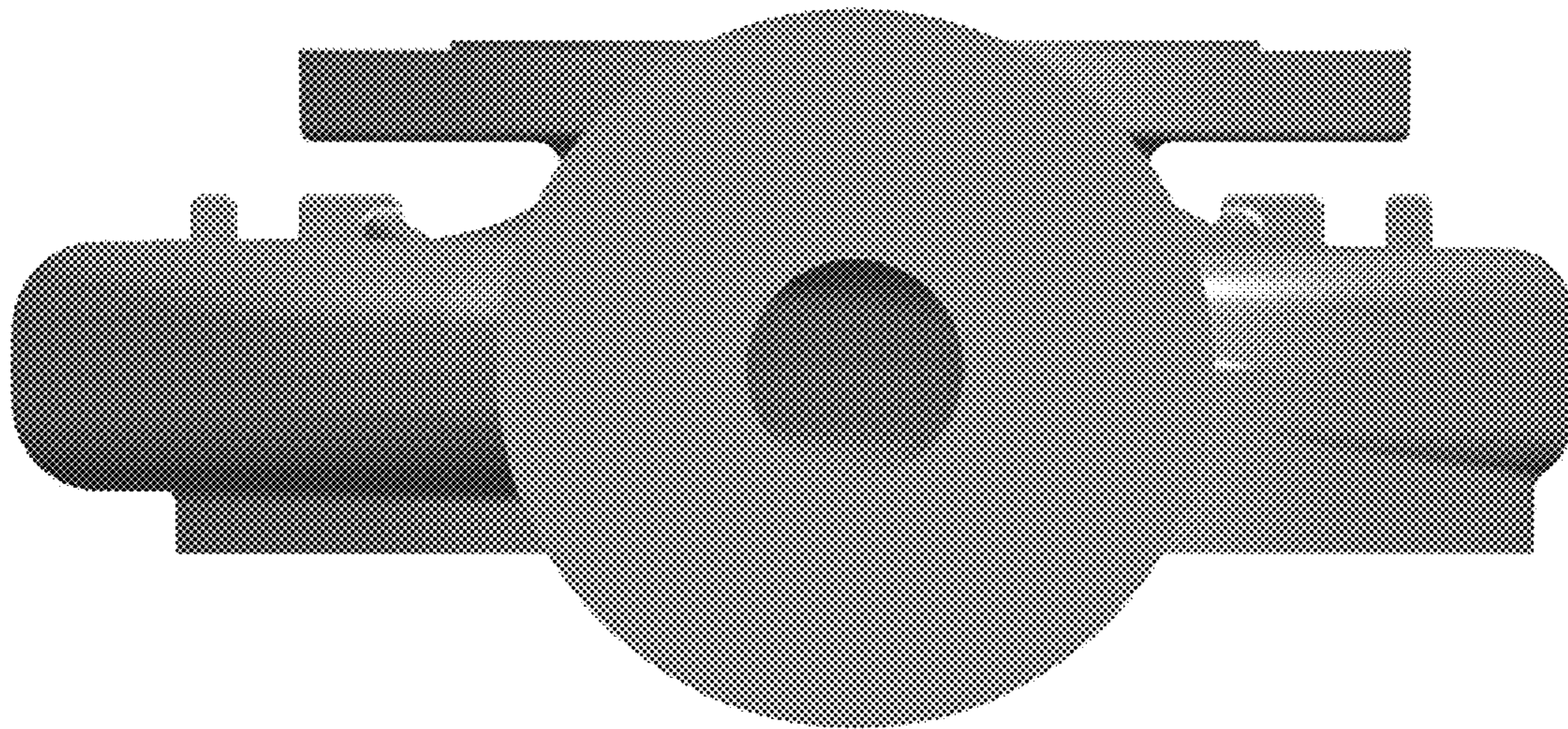


FIG. 56

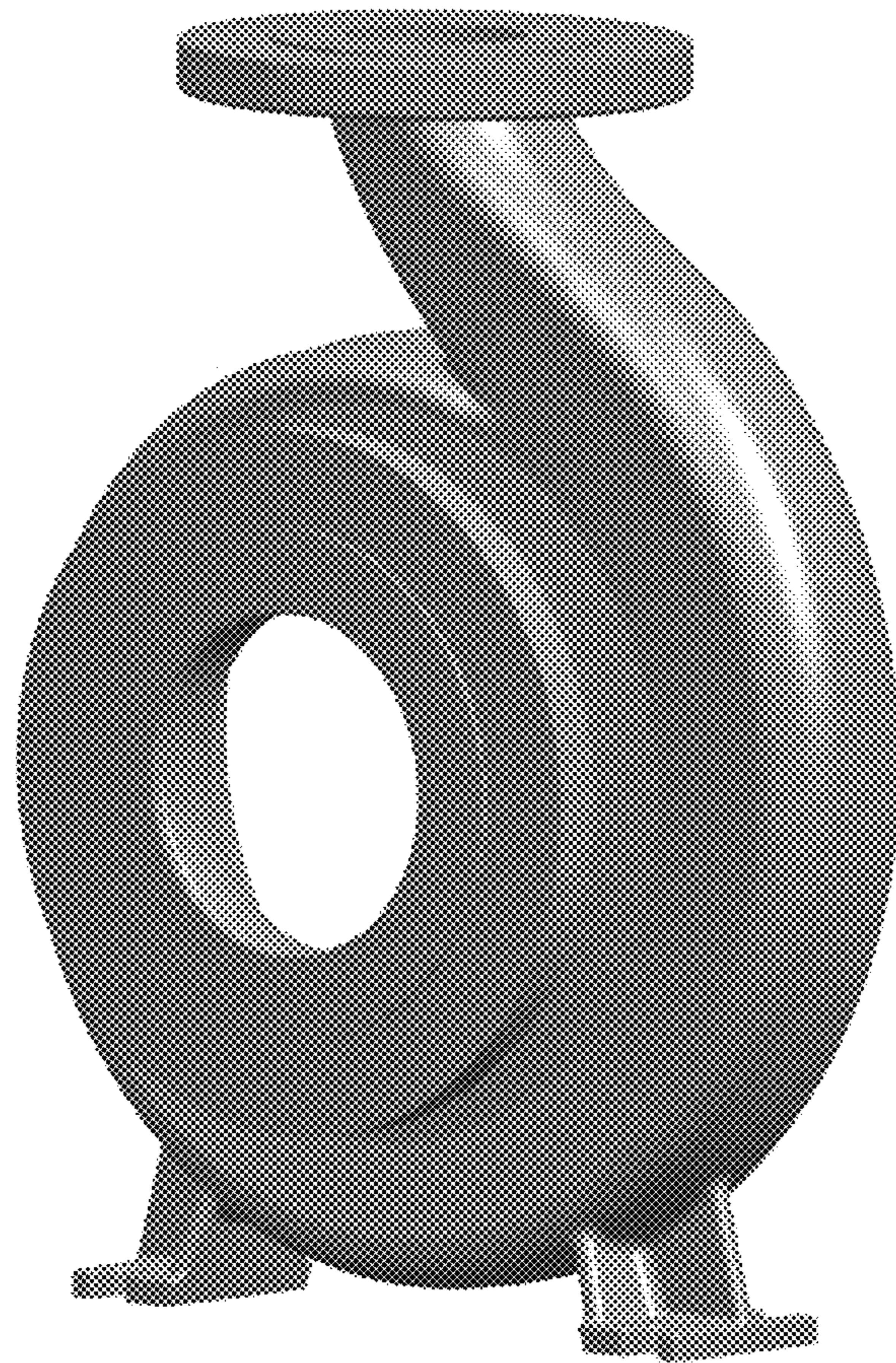


FIG. 57

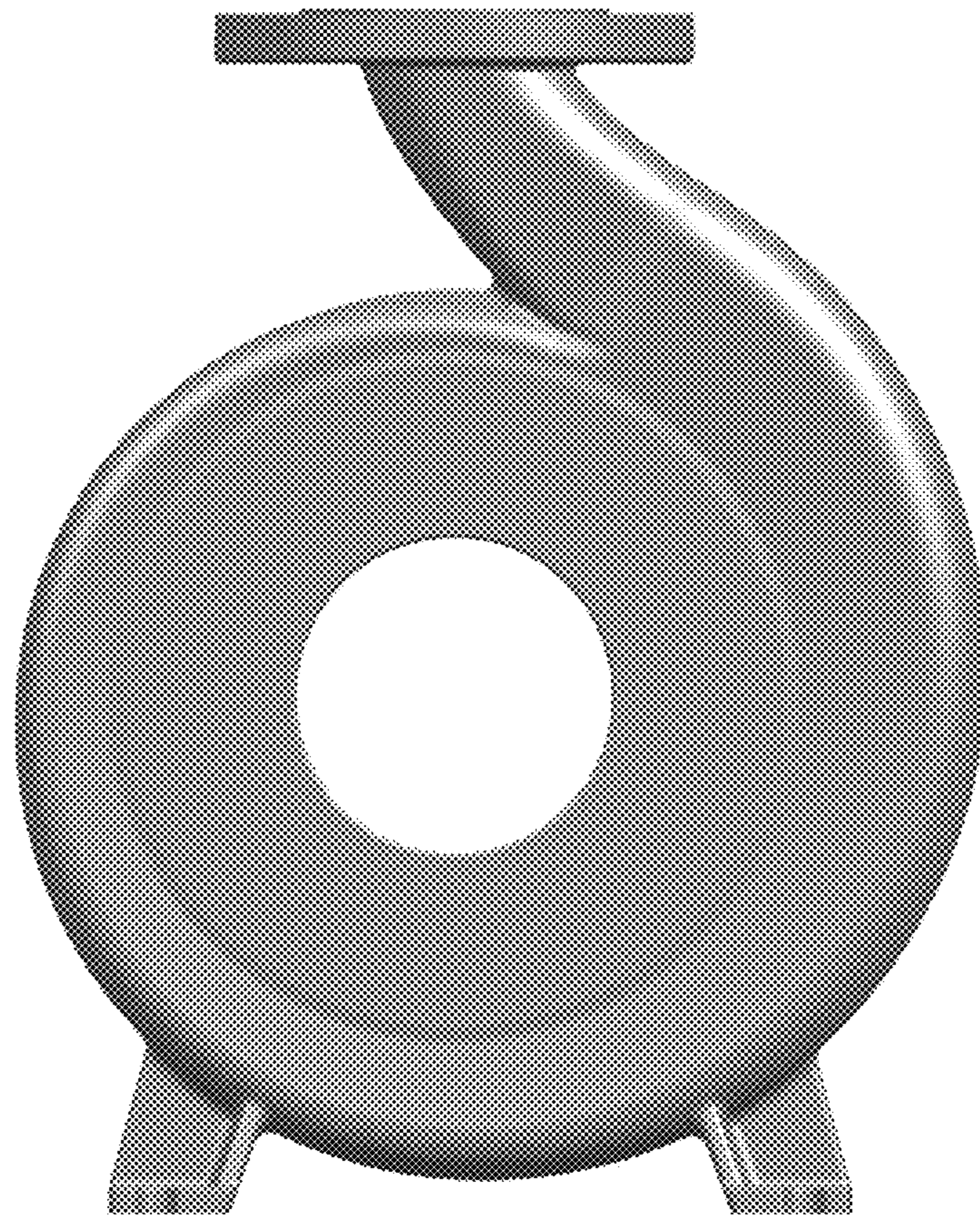


FIG. 58



FIG. 59

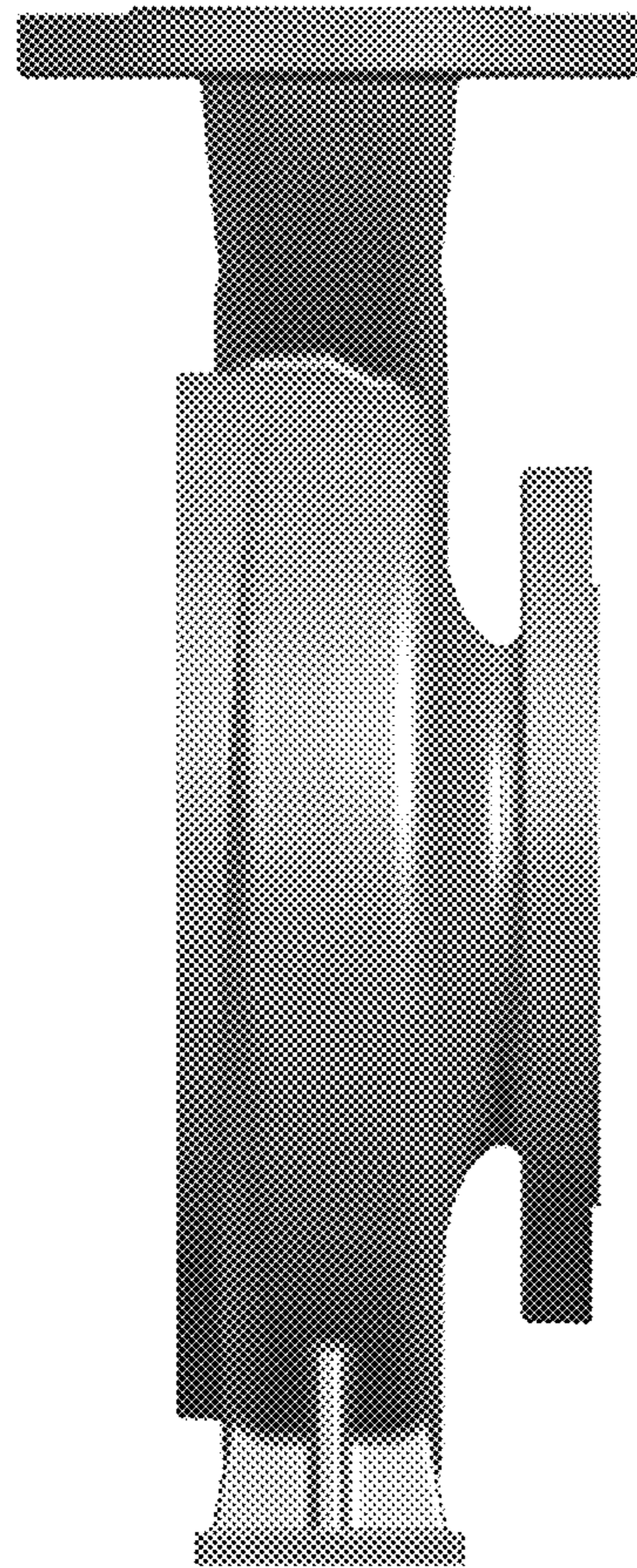


FIG. 60

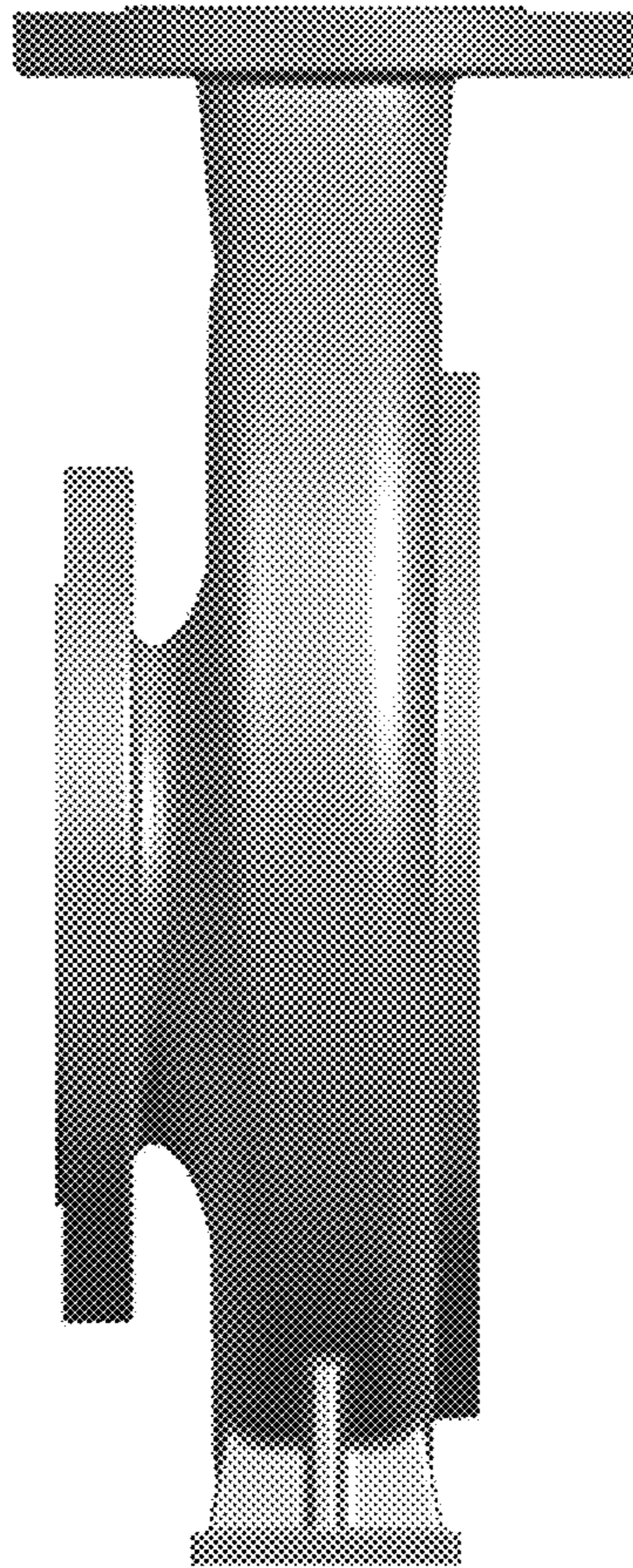


FIG. 61



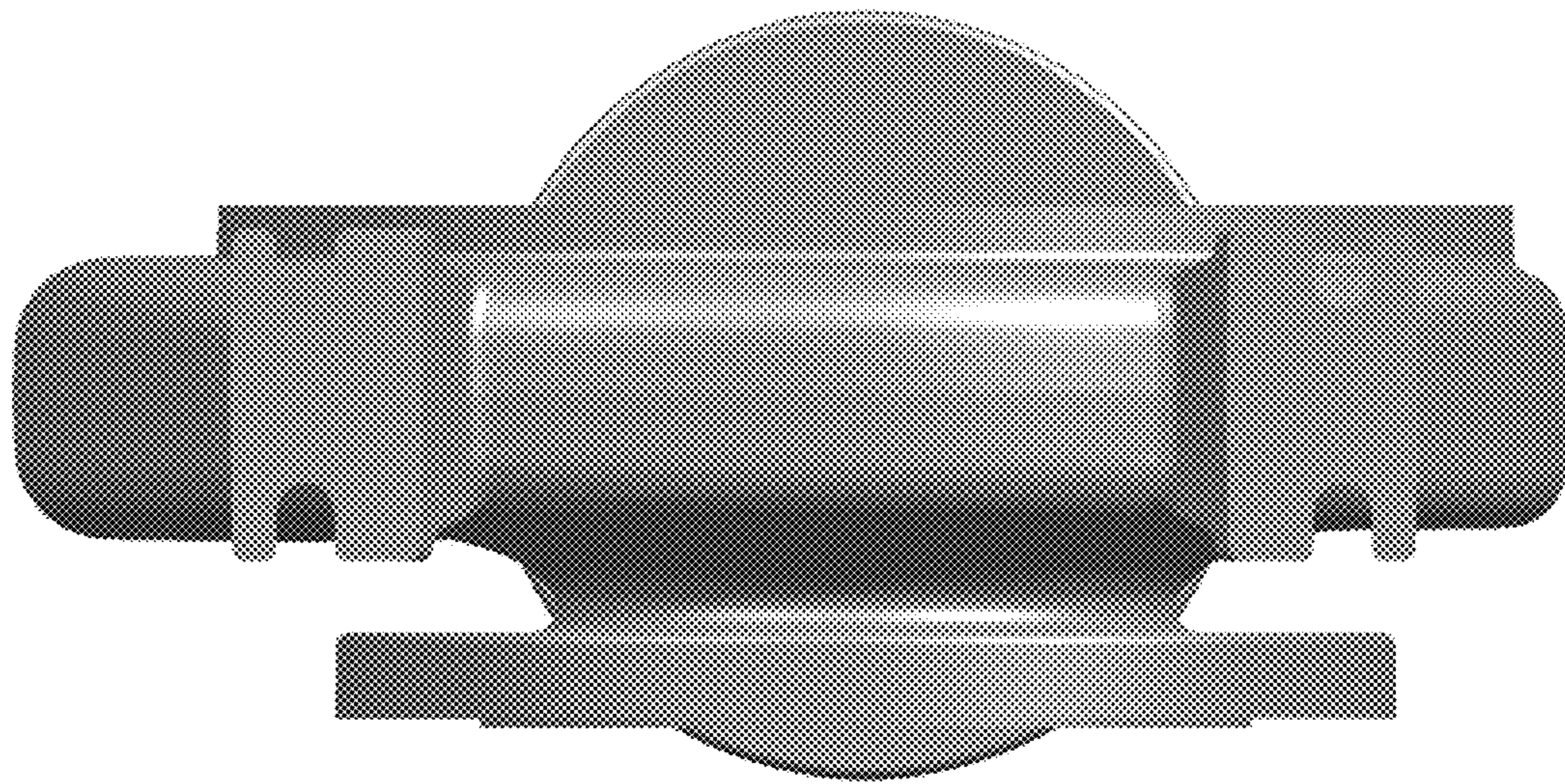


FIG. 62

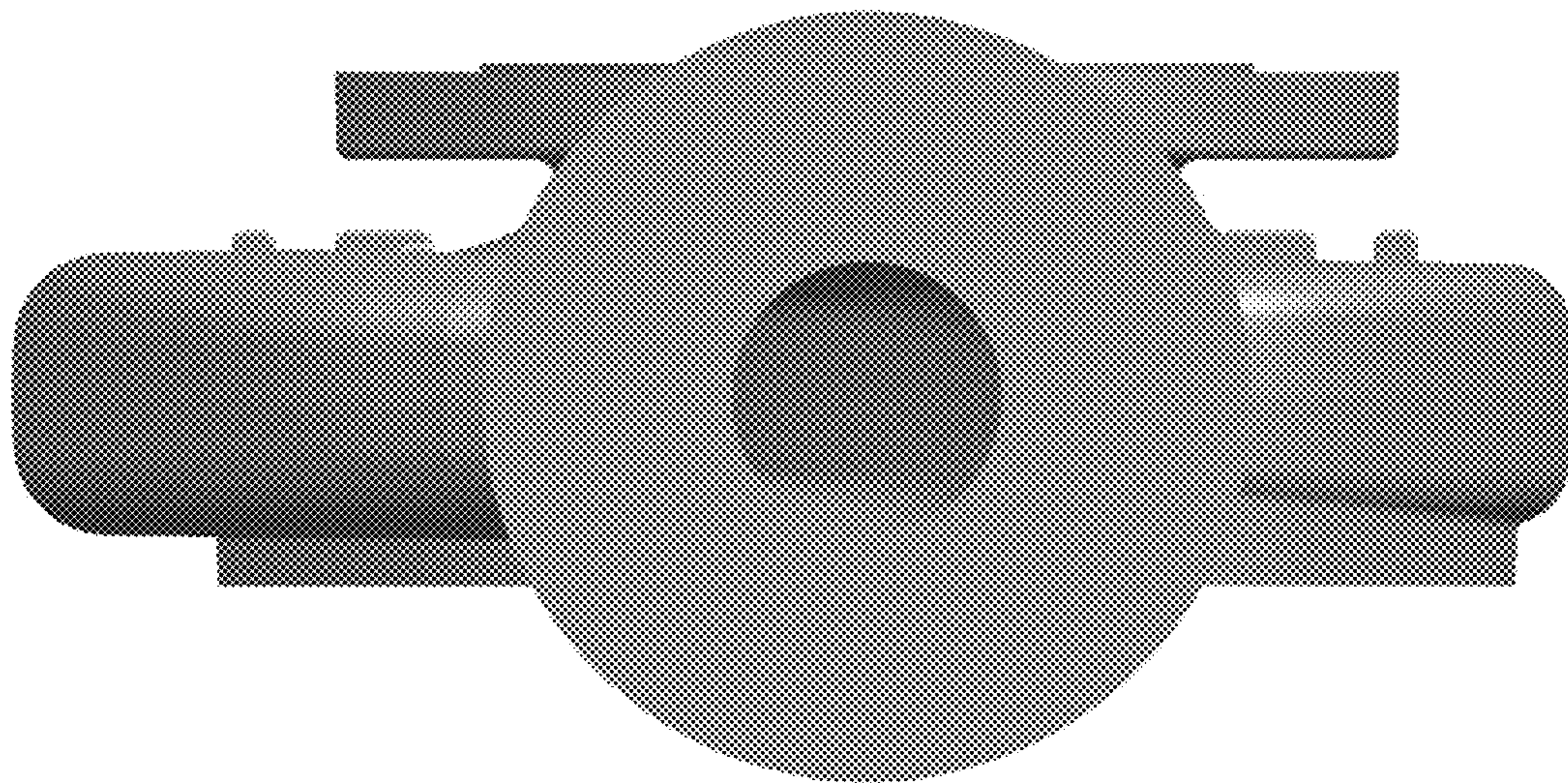


FIG. 63

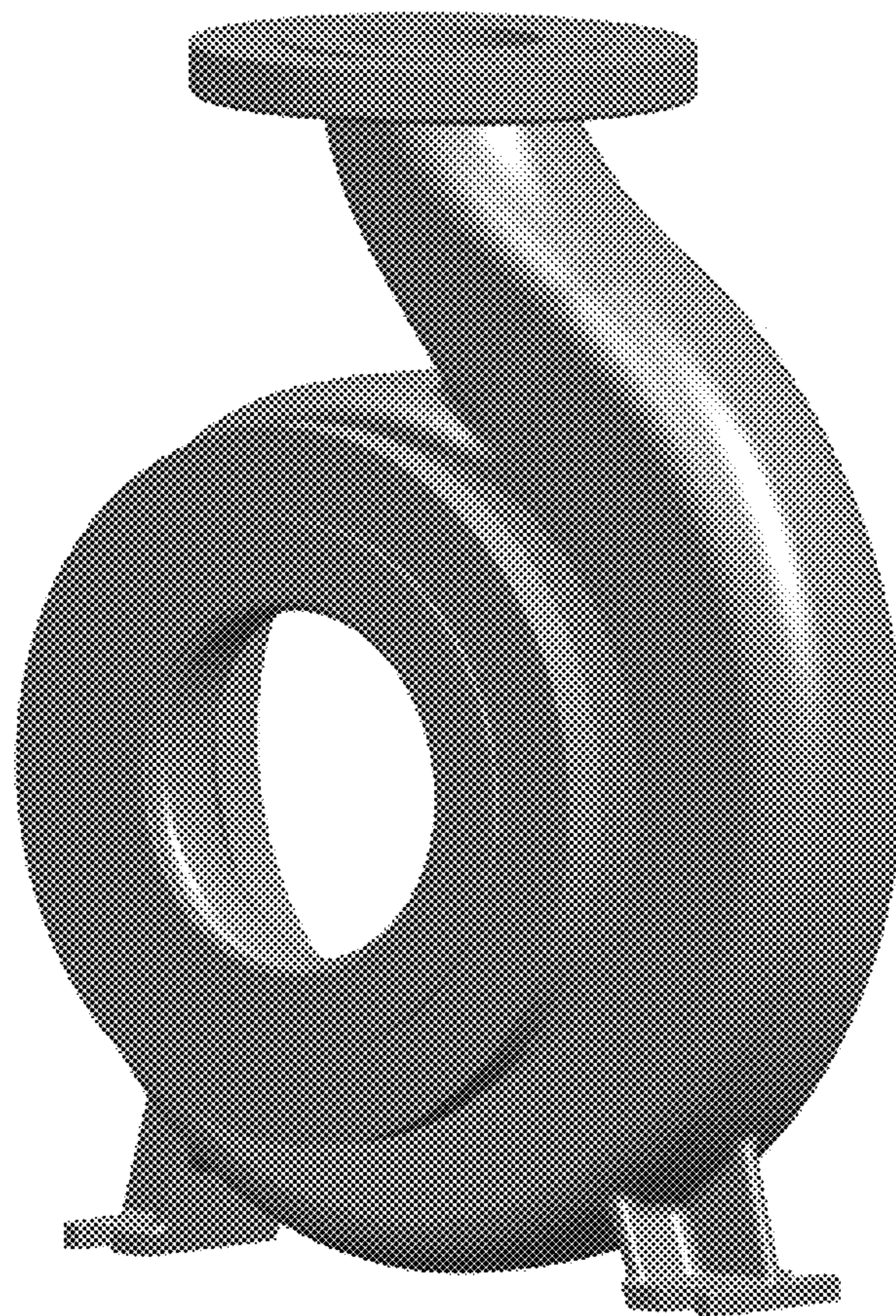


FIG. 64

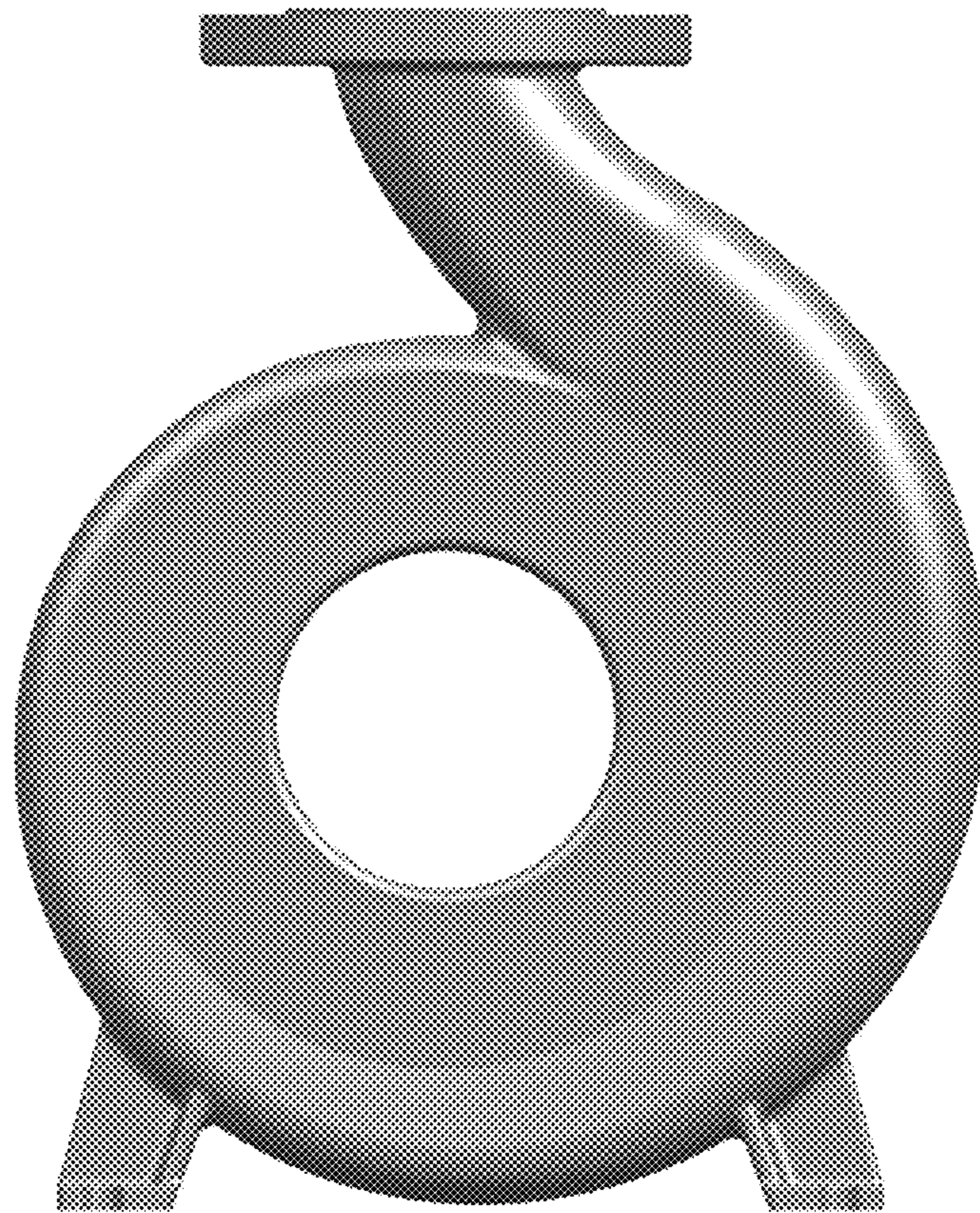


FIG. 65

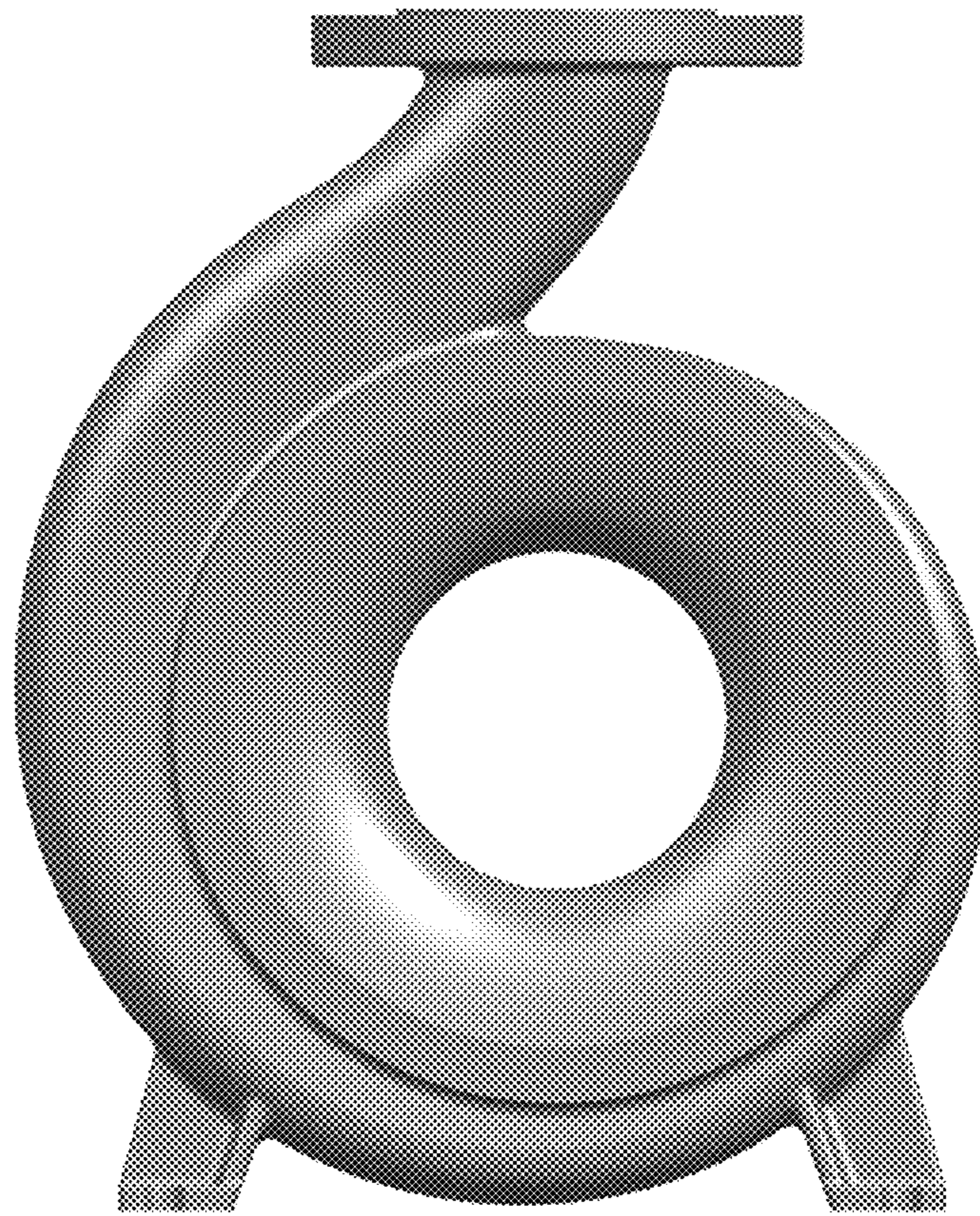


FIG. 66

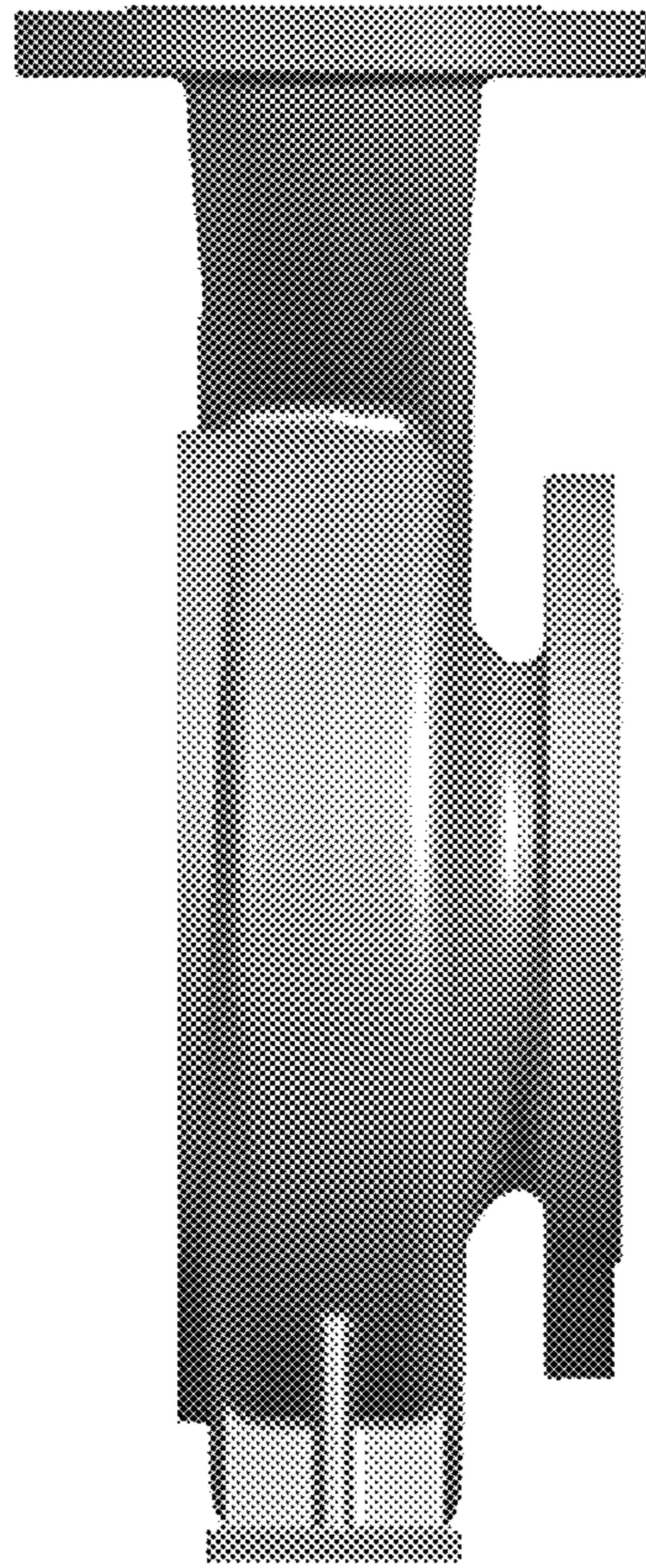


FIG. 67

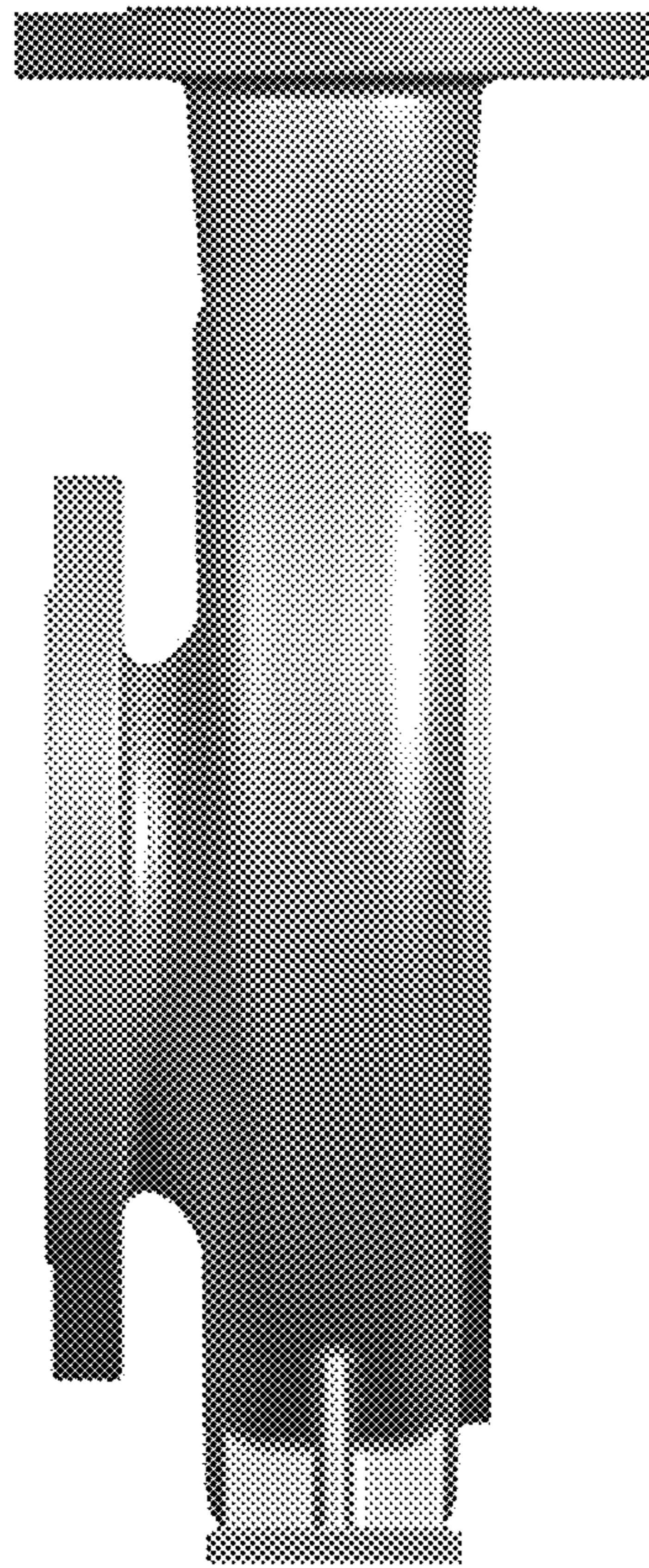


FIG. 68

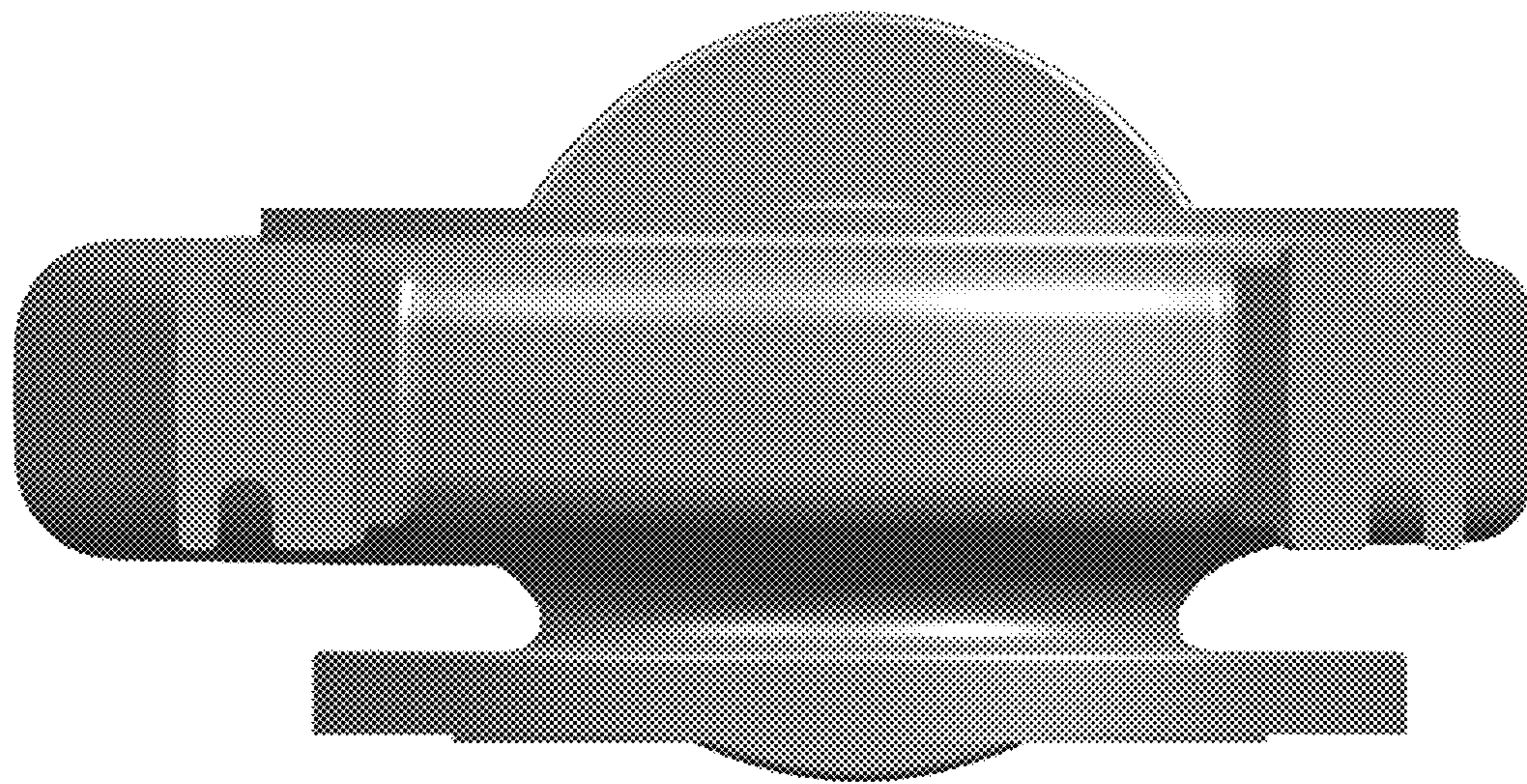


FIG. 69



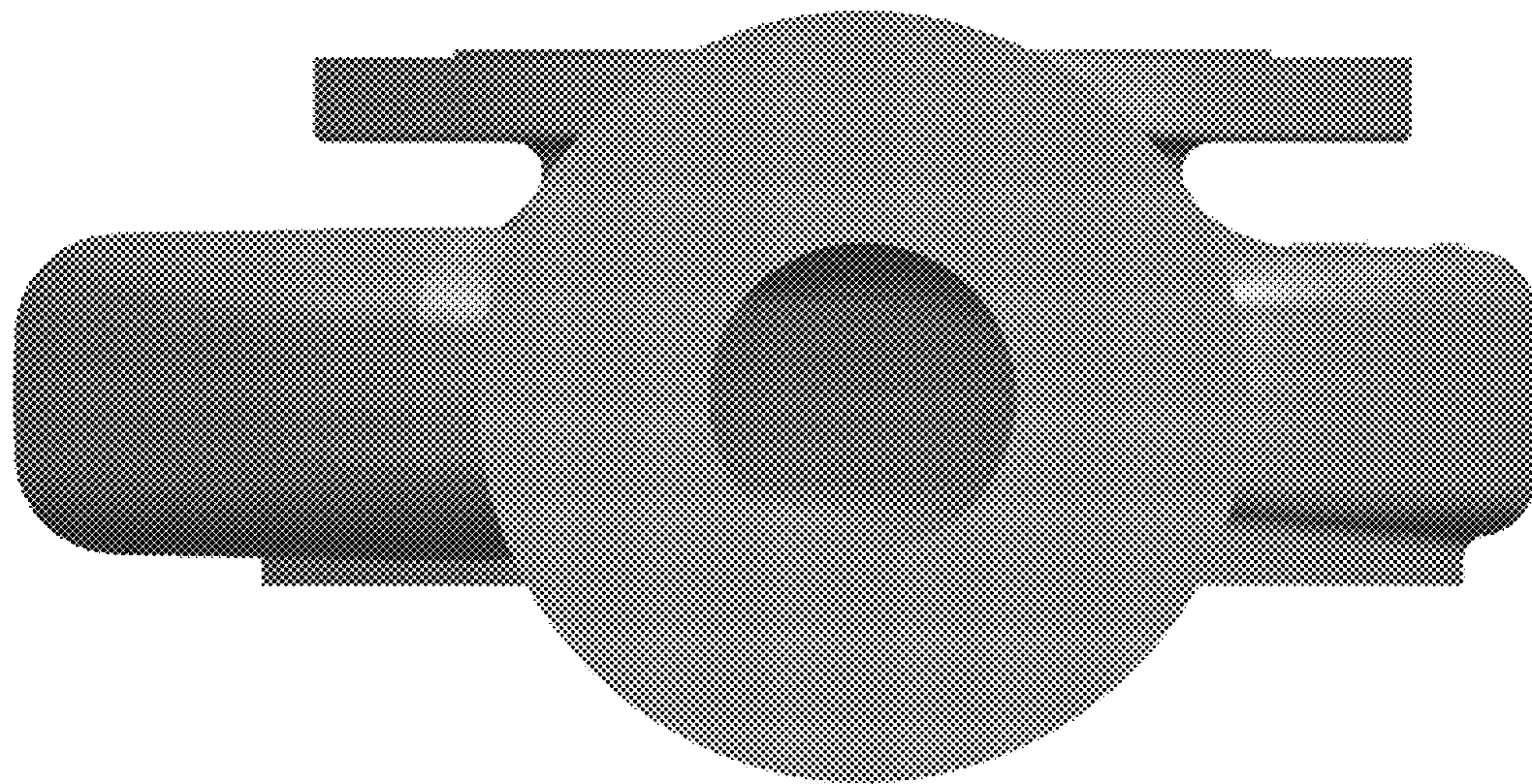


FIG. 70