

# Data

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**REVERSE OSMOSIS RO 7000 VERTICAL TURBINE PUMP SPECIFICATIONS  
OPEN LINESHAFT CONSTRUCTION**

**PART 1, GENERAL**

- 1.01 This specification includes the supply of \_\_\_\_ vertical turbine product lubricated open lineshaft pump(s). Each unit shall include a bowl assembly, suction strainer, column and open lineshaft, discharge head, sealing assembly, suction pot, and driver.
  
- 1.02 **QUALITY ASSURANCE**
  - A. All pumping equipment furnished under this Section shall be of a design and manufacture that has been used in similar applications, and it shall be demonstrated to the satisfaction of the Owner that the quality is equal to equipment made by that manufacturer specifically named herein.
  - B. Unit responsibility. Pump(s) complete with motor, suction pot, necessary guards and all other specified accessories and appurtenances shall be furnished by the pump manufacturer to insure compatibility and integrity of the individual components, and provide the specified warranty for all components.
  - C. The vertical turbine pump(s) specified in this section shall be furnished by and be the product of one manufacturer.
  - D. Pumps are to be engineered and manufactured under a written Quality Assurance program. The Quality Assurance program is to be in effect for at least ten years, to include a written record of periodic internal and external audits to confirm compliance with such program.
  - E. Pump(s) are to be engineered and manufactured under the certification of ISO-9001:2000.

1.03 **PERFORMANCE**

- A. The pump(s) shall be designed for continuous operation and will be operated continuously under normal service.
- B. **OPERATION CRITERIA**

	Flow (GPM)	TDH (ft.)	Max. Pump Speed (RPM)	Max. Shutoff Head (ft.)	Minimum Submergence (inches)
Design Condition					
Secondary Condition					

- C. Total dynamic head shall be as measured at the discharge of the pump and shall include velocity head and vertical static head from the minimum water level to the centerline of the pump discharge.
- D. Minimum water level shall be at elevation \_\_\_\_\_ feet.
- E. Pump(s) are to be mounted at \_\_\_\_\_ feet elevation with the sump floor at \_\_\_\_\_ feet elevation.
- F. Pump discharge centerline shall be at \_\_\_\_\_ feet elevation.
- G. Maximum pump speed shall not exceed \_\_\_\_\_ RPM.
- H. Driver size shall be limited to \_\_\_\_\_ HP maximum.
- I. Liquid pumped is \_\_\_\_\_ with a maximum temperature of \_\_\_\_ deg. F.

## PART 2, PRODUCTS

### 2.01 PUMPS

#### A. Manufacturers

1. Pump(s) shall be the product of Fairbanks Morse Pump.
2. Manufacturer shall have installations of like or similar application with a minimum of 5 years service for this pump size.

#### B. Design

##### 1. Rotation

- a. The pump will be counterclockwise rotation when viewed from the driver end looking at the pump.

##### 2. Impeller

- a. The impeller shall be of stainless steel construction conforming to ASTM A743 Gr CF8M. They shall be of one-piece construction, single suction, enclosed \_\_\_\_\_-vane, and radial flow design. The waterways through the impeller shall have extremely smooth contours, devoid of sharp corners, so as to promote maximum efficiency.
- b. The impeller is to be balanced and secured to the shaft by means of a stainless steel gib key. Impellers shall be adjustable by means of a top shaft-adjusting nut.

##### 3. Bowls

- a. The bowls shall be made of stainless steel conforming to ASTM A743 Gr CF8M. Castings shall be free from blowholes, sand holes and shall be accurately machined and fitted to close dimensions.
- b. Bowls shall be flange connected
- c. Bowls shall be designed with smooth passages to ensure efficient operation
- d. The casing shall be hydrostatically tested to 1.5 times the design head or 1.25 times the shutoff head whichever is greater.

##### 4. Impeller Shaft

- a. Impeller shaft shall be of 17-4ph stainless steel construction conforming to ASTM A564
- b. The shaft shall be supported by Rulon 123 bearings.
- c. Impeller shaft coupling shall be of 17-4ph stainless steel construction conforming to ASTM A564.

##### 5. Wear Rings

- a. Wear rings shall be of the radial type and provided on the bowls so that clearances can be maintained throughout the life of the rings and minimize recirculation.
- b. Bowl wear rings shall be attached to the bowls using an interference fit and set screw.
- c. Wear rings shall be stainless steel conforming to ASTM A743 Gr CA-15 and have a minimum hardness of 350 BHN.

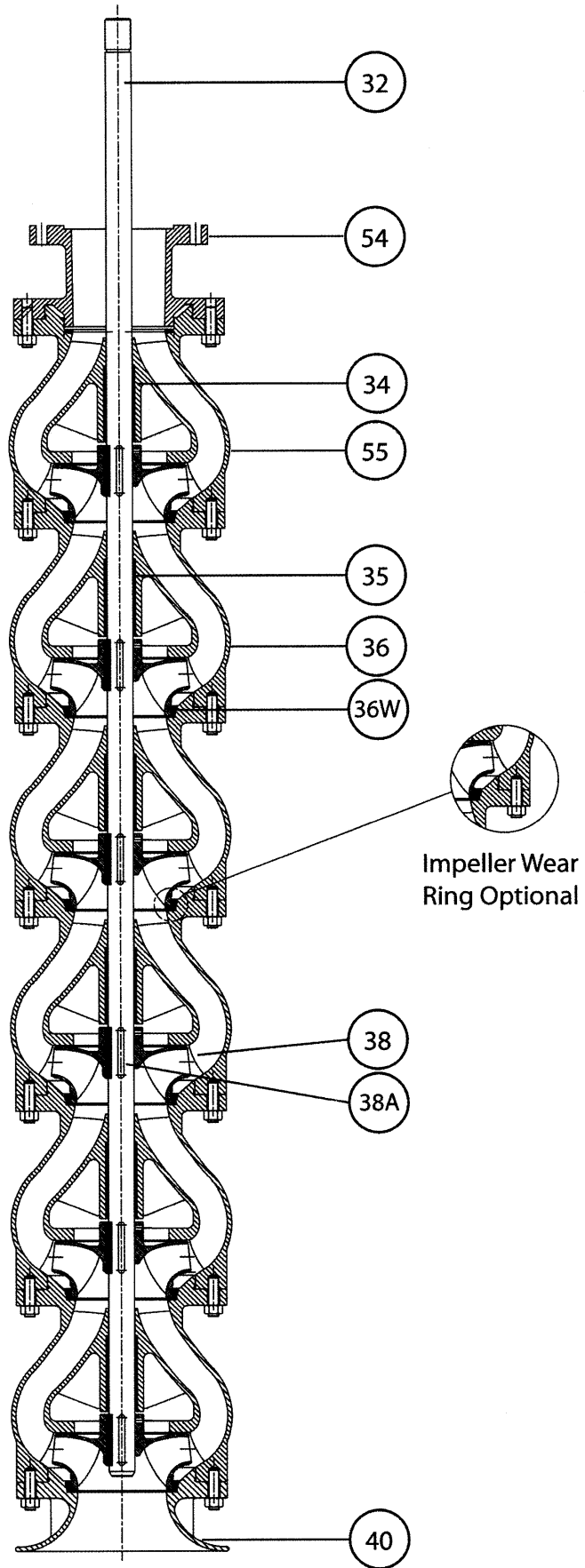
##### 6. Column

- a. Total length of discharge column shall be \_\_\_ feet, \_\_\_\_\_ inches.
- b. Column pipe shall be not less than \_\_\_ inches inside diameter and weigh not less than \_\_\_ pounds per foot.
- c. Column pipe in sizes 4" through 14" diameter shall be furnished in interchangeable sections not over ten feet in length, and shall be flange connected.

- d. Column joints are to be butted to insure perfect column alignment after assembly.
7. Lineshafts
    - a. Lineshafting shall be of ample size to transmit the torque and operate the pump without distortion or vibration.
    - b. Lineshafting shall be made of 17-4ph stainless steel conforming to ASTM A564 and be furnished in interchangeable sections not over ten feet in length.
    - c. Lineshafting shall be coupled with extra-strong threaded 17-4ph stainless steel couplings machined from solid bar steel.
  8. Discharge Head Assembly (above ground, mechanical seal)
    - a. The pump discharge head shall be of the above ground type of fabricated stainless steel construction with an ANSI 250# discharge flange.
    - b. The discharge head shall be of sufficient design to support the entire weight of the pump and driver.
    - c. If the application uses a variable frequency drive, the discharge head shall be specifically designed to elevate the discharge head natural frequency above the operating speed.
    - d. A drive shaft of the same material as the lineshaft shall extend through the sealing assembly of the discharge head and be coupled to a vertical solid shaft driver using a spacer type coupling to permit easy field removal of the mechanical seal.
    - e. The shaft sealing assembly shall consist of a stainless steel packing box, stainless steel packing gland, stainless steel packing box bushing, stainless steel packing gland nuts and bolts and mechanical seal.
    - f. Packing box shall be rated for 300 PSI.
    - g. Discharge head openings shall be fitted with stainless steel guards to prevent access to the rotating shaft and/or coupling.
  9. Suction pot
    - a. The suction pot shall be of fabricated stainless steel construction and conform to ANSI-HI 9.8 standards for intake design.
    - b. The suction pot suction flange shall be of 150# construction.
  10. Vibration Limitations (Field)
    - a. The limits of vibration as set forth in the standards of the Hydraulic Institute shall govern.
  11. Testing
    - a. A certified factory hydrostatic and performance test shall be performed on each bowl assembly in accordance with Hydraulic Institute Standards, latest edition. Tests shall be sufficient to determine the curves of head, input horsepower, and efficiency relative to capacity from shutoff to 150% of design flow. A minimum of six points, including shutoff, shall be taken for each test. At least one point of the six shall be taken as near as possible to each specified condition.
    - b. Results of the performance tests shall be certified by a Registered Professional Engineer and submitted for approval before final shipment.

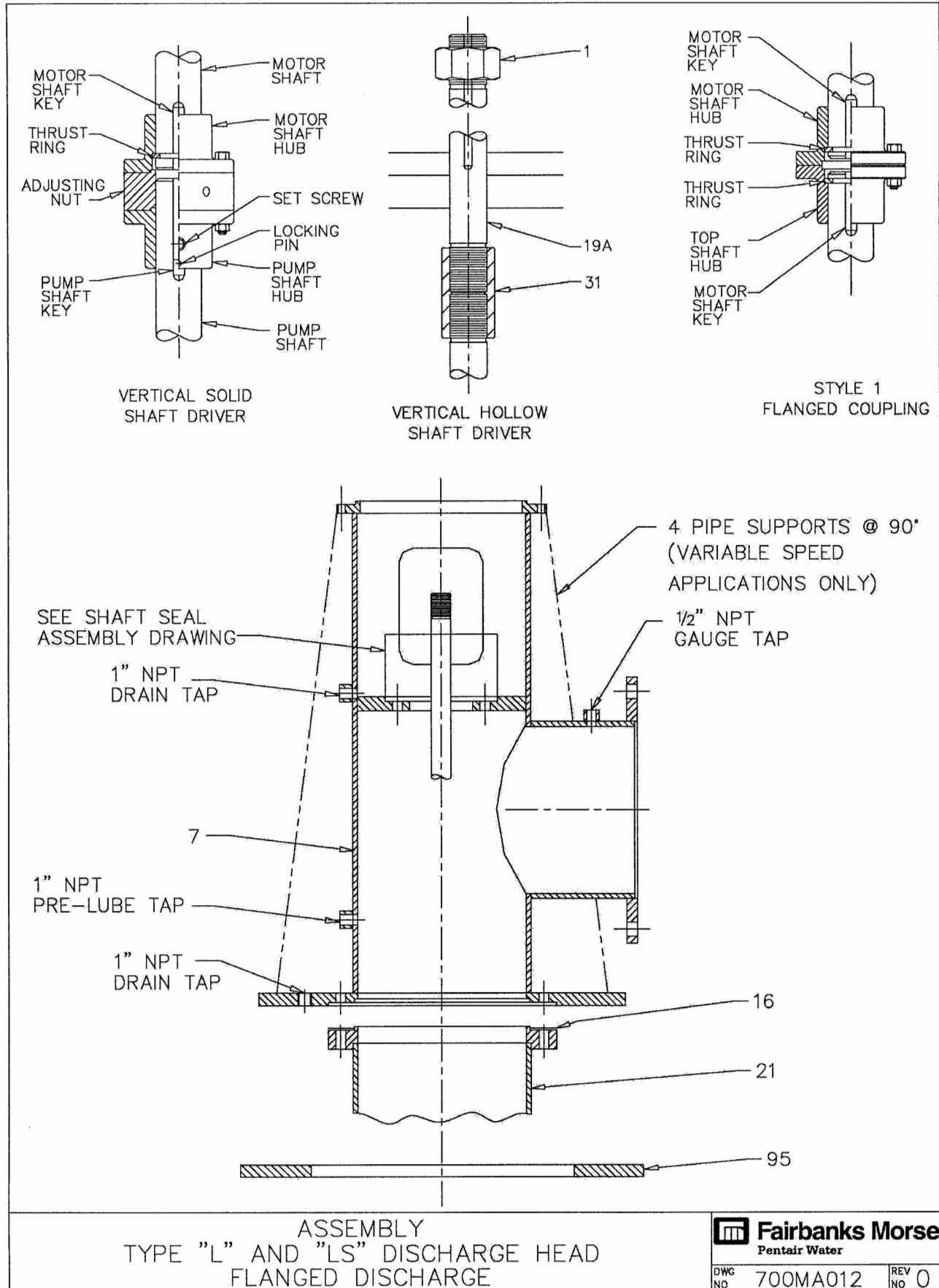
### Open Lineshaft Material Specifications

Item	Description	Material	Specification
6	Water Slinger	Rubber	Neoprene
7	Discharge Head	Stainless Steel	ASTM A167 S31600
8	Gland Bolt	Stainless Steel	18-8
8A	Gland Nut	Stainless Steel	18-8
11	Gasket	Tag Board	F104
13	Top Shaft Sleeve	Stainless Steel	AISI 304
16	Column Flange Gasket	Tag Board	F104
17	Packing Box	Stainless Steel	ASTM A743 Grade CF8M
17A	Packing Box Bushing	Stainless Steel	ASTM A743 Grade CF8M
19B	Top Shaft	Stainless Steel	ASTM A564
21	Top Column	Stainless Steel	ASTM A312 Type 316
23	Lineshaft	Stainless Steel	ASTM A564
24	Column Coupling	Stainless Steel	ASTM A312 Type 316
30	Column	Stainless Steel	ASTM A312 Type 316
31	Shaft Coupling	Stainless Steel	ASTM A564
32	Pump Shaft	Stainless Steel	ASTM A564
34	Top Bowl Bearing	Rulon 123	Commercial
35	Inter Bowl Bearing	Rulon 123	Commercial
36	Inter Bowl	Stainless Steel	ASTM A743 Grade CF8M
36W	Bowl Wear Ring	Stainless Steel	ASTM A743 Grade CA-15
38	Impeller	Stainless Steel	ASTM A743 Grade CF8M
38A	Impeller Gib Key	Stainless Steel	ASTM A276 S31600
38W	Impeller Wear Ring (Optional)	Stainless Steel	ASTM A743 Grade CA-15
40	Suction Bell	Stainless Steel	ASTM A743 Grade CF8M
54	Discharge Case	Stainless Steel	ASTM A743 Grade CF8M
55	Top Inter Bowl	Stainless Steel	ASTM A743 Grade CF8M
267	Coupling Guard	Stainless Steel	Commercial
431	Mechanical Seal Gland	Stainless Steel	ASTM A743 Grade CF8M
431A	Packing Box Capscrews	Stainless Steel	Commercial
431B	Lip Seal	Commercial	Commercial
456	Rotating Seat	As Required	As Required
456A	Stationary Seat	As Required	As Required
456B	Retainer	As Required	As Required
---	Suction Pot	Stainless Steel	ASTM A167 S31600

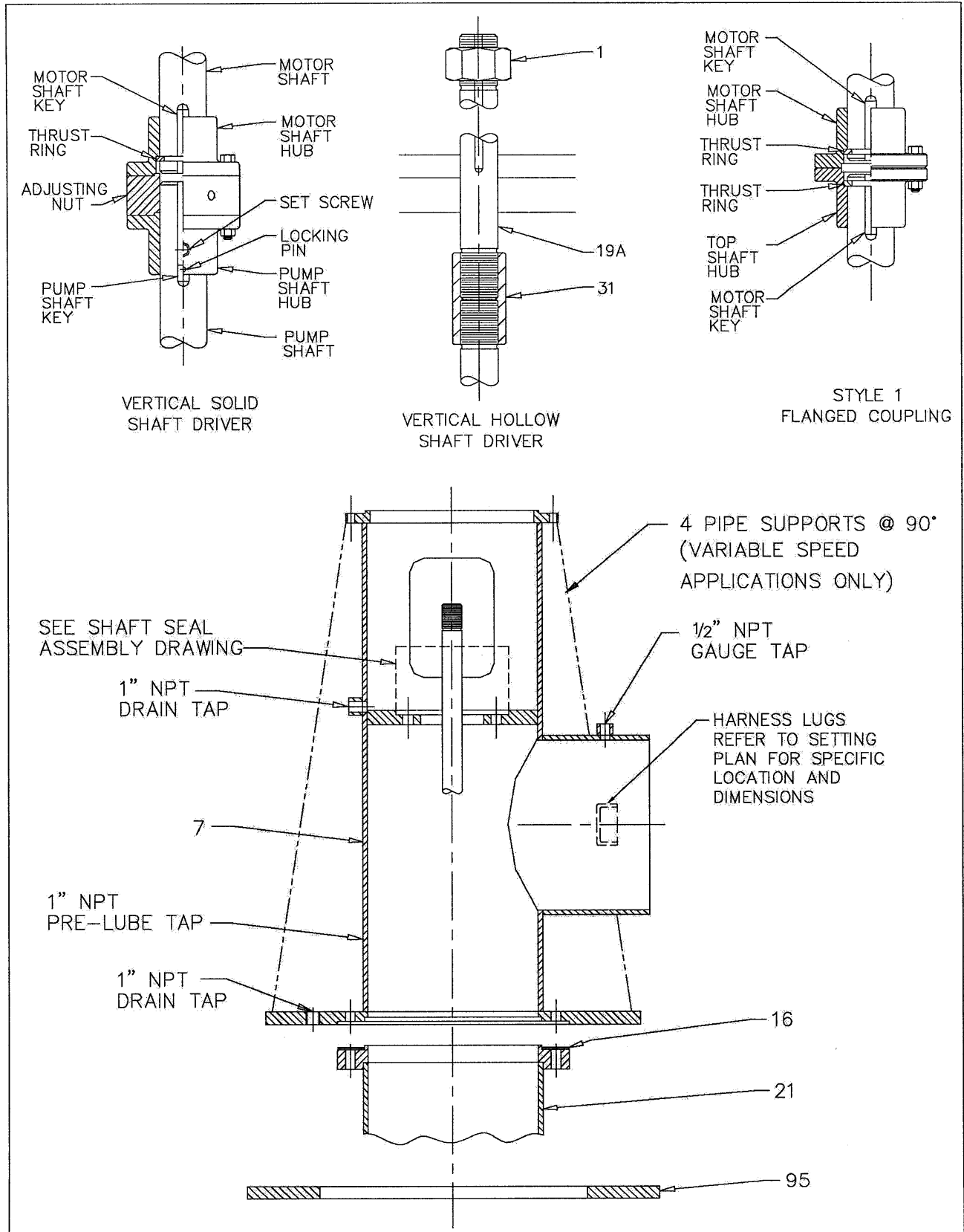


<b>Bowl Size</b>	<b>10HRO</b>	<b>14HRO</b>	<b>16HRO</b>	<b>17HRO</b>	<b>18HRO</b>
Pump Shaft Diameter - Inches	1.187	1.688	1.938	2.187	2.187
Bowl Weight, 1st Stage - Lbs.	85	244	328	425	525
Bowl Weight, Ea. Add. Stage - Lbs.	62	177	237	307	380
Maximum Working Pressure - PSI	364	364	364	364	364
Maximum Hydro Pressure - PSI	546	546	546	546	546
Impeller Eye Area - Sq. In.	10.5	23.1	28.21	34.5	40.4
Rotor Weight 1st/add stages, K <sub>a</sub> - Lbs.	6	16	22	28	35
Maximum Sphere Size - Inches	0.75	1.14	1.22	1.34	1.45
Thrust Factor, K <sub>t</sub>	4.5	9.8	12	14.5	17.2
WR - Lb-ft	0.10	0.80	1.30	2.10	3
Running Position (above seat) - In.	0.133	0.133	0.133	0.133	0.133
Submergence - In.	30	31	36	40	45
Max. Bowl Brg Clearance - In. Diam.	0.014	0.016	0.016	0.016	0.016
Max Wear Ring Clearance - In. Diam.	0.020	0.022	0.022	0.022	0.024
Max Bowl O.D. - In.	9.6	14.1	15.6	17.2	18.57
Suct. Bell O.D. - In.	9.5	14	15.5	17	18



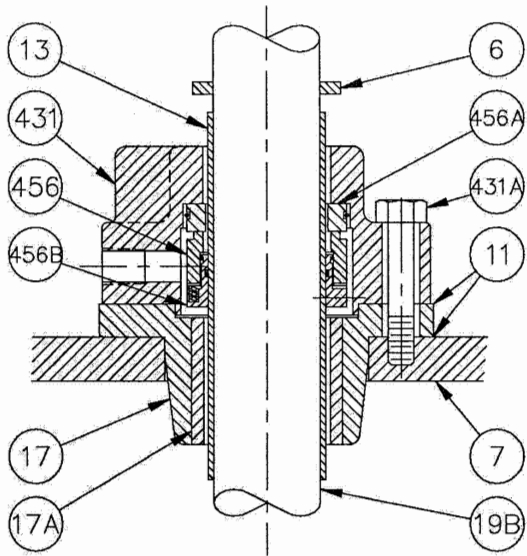




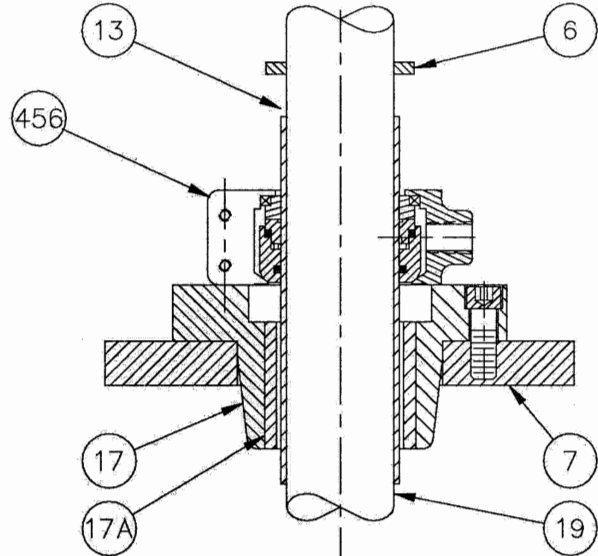


ASSEMBLY  
 TYPE "L" AND "LS" DISCHARGE HEAD  
 PLAIN END DISCHARGE

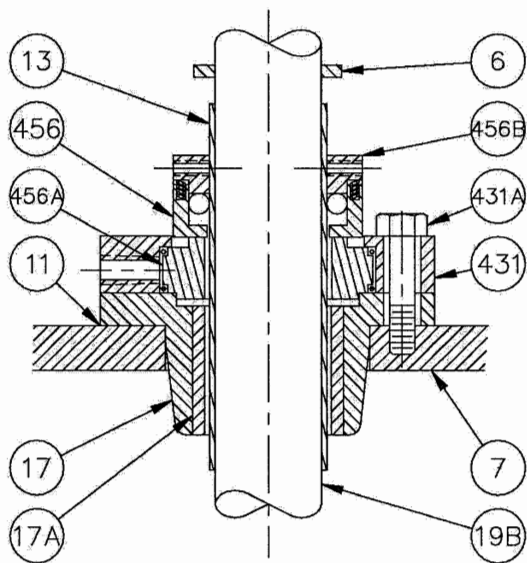
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REV No.	0



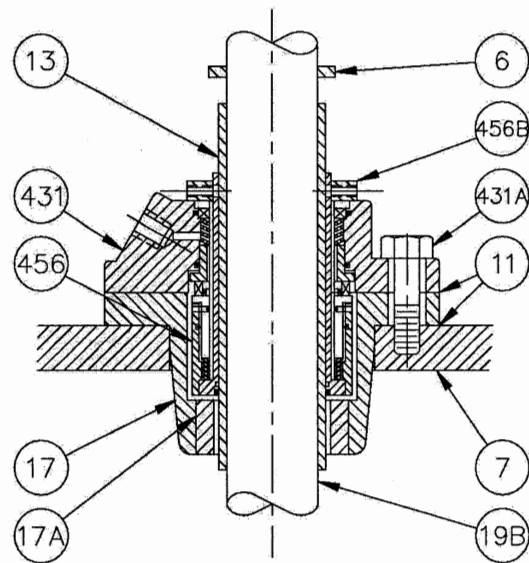
BASIC MECHANICAL SEAL ASSEMBLY



CARTRIDGE OR SPLIT MECHANICAL SEAL ASSEMBLY



OUTSIDE MECHANICAL SEAL ASSEMBLY

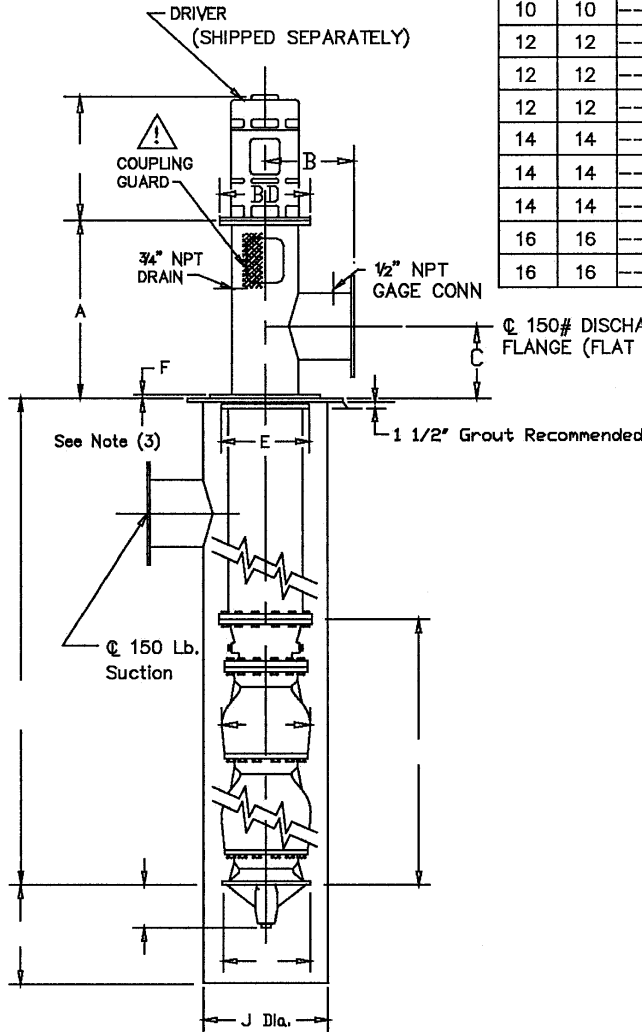
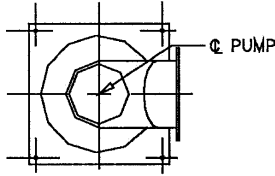


CARTRIDGE MECHANICAL SEAL ASSEMBLY

MECHANICAL SEALS

  
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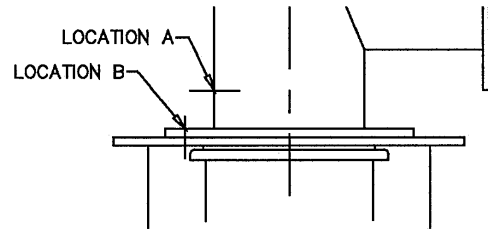
**⚠ WARNING**  
 DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.



DISCH SIZE	COL SIZE	DISCHARGE HEAD DIMENSIONS													
		A**					B			C	S	T	E	F	"J" CAN FLANGE
		MTR	BASE	DIA	(BD)	CONST SPD	VAR SPD								
4	4	28	28	---	---	---	10 1/2	13 1/2	7	3/4	A	6 5/8	1 1/4	12	
4	4	28	28	---	---	---	11 1/2	14 1/2	7	3/4	A	6 5/8	1 1/4	14	
6	6	30	30	---	---	---	10 1/2	13 1/2	8	3/4	A	9	1 1/4	12	
6	6	30	30	---	---	---	11 1/2	14 1/2	8	3/4	A	9	1 1/4	14	
6	6	30	30	---	---	---	12 3/4	16	8	3/4	A	9	1 1/4	16	
8	8	32	32	32	---	---	12 3/4	16	9	3/4	A	11 1/2	1 1/4	16	
8	8	---	32	32	---	---	13 1/2	16 1/2	9	3/4	A	11 1/2	1 1/2	18	
8	8	---	32	32	---	---	14 3/4	17 1/2	9	3/4	A	11 1/2	1 1/2	20	
10	10	---	35	35	---	---	13 1/2	16 1/2	11	3/4	A	13 3/4	1 1/2	18	
10	10	---	35	35	---	---	14 3/4	17 1/2	11	1	B	13 3/4	1 1/2	20	
10	10	---	35	35	38	---	17	20	11	1	B	13 3/4	1 1/2	24	
12	12	---	37	37	---	---	14 3/4	17 1/2	12	1	B	16 1/4	1 1/2	20	
12	12	---	37	37	40	---	17	20	12	1	B	16 1/4	1 1/2	24	
12	12	---	37	37	40	---	20 3/8	23 1/2	12	1	B	16 1/4	1 3/4	30	
14	14	---	40	40	---	---	17	20	14	1	B	17 1/2	1 1/2	24	
14	14	---	40	40	43	---	20 3/8	23 1/2	14	1	B	17 1/2	1 3/4	30	
14	14	---	40	40	43	---	24	24 1/2	14	1	B	17 1/2	1 3/4	36	
16	16	---	42	42	45	---	20 3/8	23 1/2	15	1	B	19 1/2	1 3/4	30	
16	16	---	42	42	45	50	24	24 1/2	15	1	B	19 1/2	1 3/4	36	

\*\* ADD 4 1/2" FOR VSS DRIVER & SPACER CPLG

CAN VENT SIZE (S NPT)  
 AND LOCATION (T)

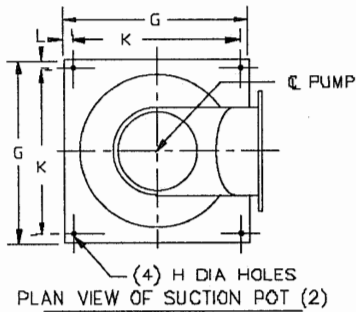


1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION POT MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

CUSTOMER				P.O.							
JOB NAME				SERVICE							
PUMP SIZE & MODEL		STAGES	GPM	TDH	RPM	ROT	SETTING PLAN TYPE "L" SURFACE HEAD				
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCL					
CERTIFIED FOR		CERTIFIED BY			DATE						
DWG. NO. 7000CS001		REV									

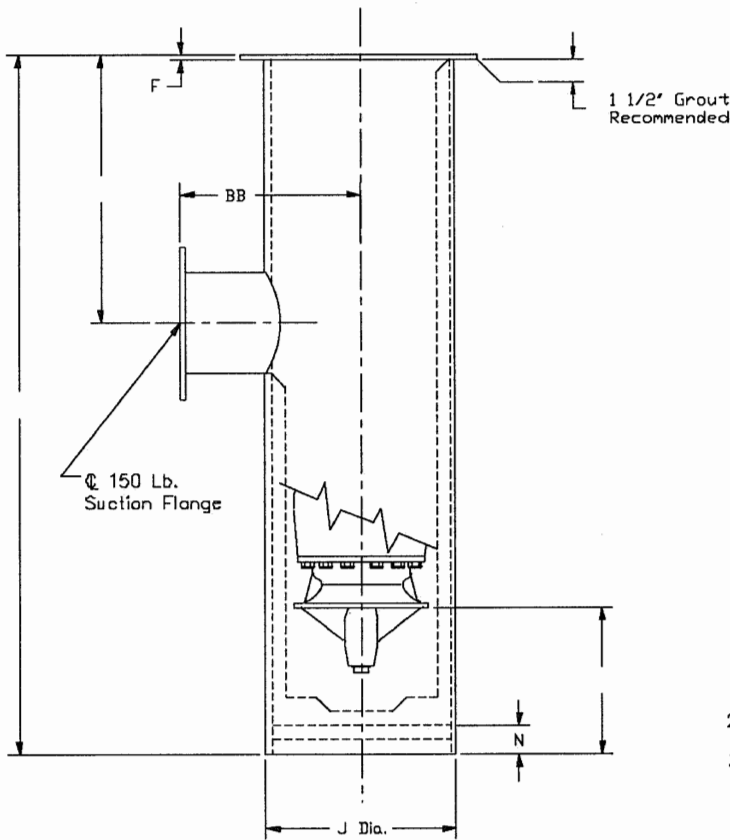
# WARNING

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Suction Pot Dimensions

"J" Pot Size	Suct.	BB	F	G	H	K	L	N
12	6	10	1 1/4	26	7/8	23	1 1/2	1 1/4
12	8	10	1 1/4	26	7/8	23	1 1/2	1 1/4
12	10	10	1 1/4	26	7/8	23	1 1/2	1 1/4
14	8	11	1 1/4	28	7/8	25	1 1/2	1 1/4
14	10	11	1 1/4	28	7/8	25	1 1/2	1 1/4
16	10	12	1 1/4	31	7/8	28	1 1/2	1 1/2
16	12	12	1 1/4	31	7/8	28	1 1/2	1 1/2
16	14	12	1 1/4	31	7/8	28	1 1/2	1 1/2
18	12	13	1 1/2	32	1	29	1 1/2	1 1/2
18	14	13	1 1/2	32	1	29	1 1/2	1 1/2
18	16	13	1 1/2	32	1	29	1 1/2	1 1/2
20	14	15	1 1/2	34	1	31	1 1/2	1 3/4
20	16	15	1 1/2	34	1	31	1 1/2	1 3/4
20	18	15	1 1/2	34	1	31	1 1/2	1 3/4



150# SUCTION FLG. DIM.					
NOM SIZE	FLG. DIA.	FLG. THK.	NO. BOLTS	HOLE SIZE	B C DIA
6	11	1	8	7/8	9 1/2
8	13 1/2	1 1/8	8	7/8	11 3/4
10	16	1 1/4	12	1	14 1/4
12	19	1 1/4	12	1	17
14	21	1 3/8	12	1 1/8	18 3/4
16	23 1/2	1 1/2	16	1 1/8	21 1/4
18	25	1 5/8	16	1 1/4	22 3/4

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2. SUCTION POT MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

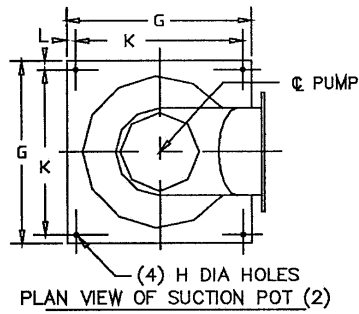


SETTING PLAN  
TYPE "L"  
SUCTION CAN DIMENSIONS

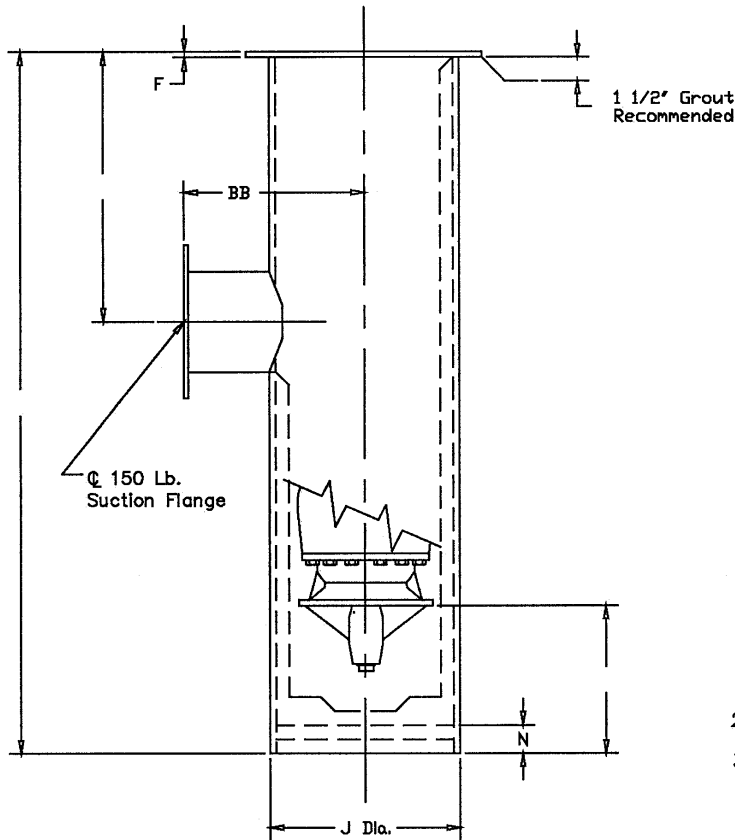
CUSTOMER		P.O.	
JOB NAME		SERVICE	
CERTIFIED FOR	CERTIFIED BY	DATE	

DWG. NO.	7000CS002	REV
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"J" Pot Size	Suct.	BB	F	G	H	K	L	N
24	16	17	1 1/2	39	1	36	1 1/2	2 1/2
24	18	17	1 1/2	39	1	36	1 1/2	2 1/2
24	20	17	1 1/2	39	1	36	1 1/2	2 1/2
30	16	21	1 3/4	46	1	43	1 1/2	3
30	18	21	1 3/4	46	1	43	1 1/2	3
30	20	21	1 3/4	46	1	43	1 1/2	3
30	24	21	1 3/4	46	1	43	1 1/2	3



NOM. SIZE	FLG. DIA.	FLG. THK.	NO. BOLTS	HOLE SIZE	B.C. DIA
12	19	1 1/4	12	1	17
14	21	1 3/8	12	1 1/8	18 3/4
16	23 1/2	1 1/2	16	1 1/8	21 1/4
18	25	1 5/8	16	1 1/4	22 3/4
20	27 1/2	1 3/4	20	1 1/4	25
24	32	1 7/8	20	1 3/8	29 1/2
30	38 3/4	2 1/8	28	1 3/8	36

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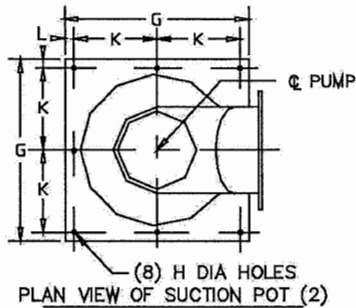
CUSTOMER		P.O.	
JOB NAME		SERVICE	
CERTIFIED FOR	CERTIFIED BY	DATE	

SETTING PLAN TYPE "L" SUCTION CAN DIMENSIONS	
DWG. NO.	7000CS003
REV	



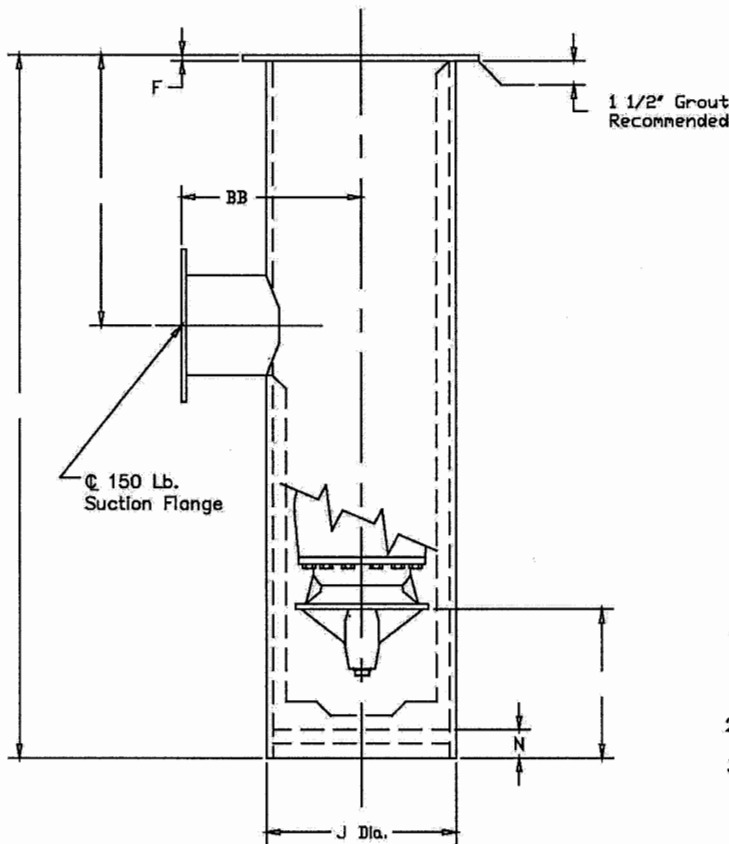
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Suction Pot Dimensions

"J" Pot Size	Suct.	BB	F	G	H	K	L	N
36	20	24	1 3/4	49	1 1/8	21 1/2	3	2 3/8
36	24	24	1 3/4	49	1 1/8	21 1/2	3	2 3/8
36	30	24	1 3/4	49	1 1/8	21 1/2	3	2 3/8
42	30	28	1 3/4	56	1 1/8	25	3	2 3/8
42	36	28	1 3/4	56	1 1/8	25	3	2 3/8
48	36	32	2	63	1 1/4	28 1/2	3	2 5/8
48	42	32	2	63	1 1/4	28 1/2	3	2 5/8
54	42	35	2 1/2	70	1 1/4	32	3	2 5/8
54	48	35	2 1/2	70	1 1/4	32	3	2 5/8
60	48	40	2 1/2	77	1 1/4	36	2 1/2	2 7/8
60	54	40	2 1/2	77	1 1/4	36	2 1/2	2 7/8
72	54	46	2 1/2	91	1 1/2	42	3 1/2	2 7/8
72	60	46	2 1/2	91	1 1/2	42	3 1/2	2 7/8



150# SUCTION FLG. DIM.					
NOM. SIZE	FLG. DIA.	FLG. THK.	NO. BOLTS	HOLE SIZE	B.C. DIA.
20	27 1/2	1 3/4	20	1 1/4	25
24	32	1 7/8	20	1 3/8	29 1/2
30	38 3/4	2 1/8	28	1 3/8	36
36	46	2 3/8	32	1 5/8	42 3/4
42	53	2 5/8	36	1 5/8	49 1/2
48	59 1/2	2 3/4	44	1 5/8	56
54	66 1/4	3	44	1 7/8	62 3/4
60	73	3 1/8	52	1 7/8	69 1/4
72	86 1/2	3 1/2	60	1 7/8	82 1/2

1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION POT MUST BE SUPPORTED ON ALL 4 SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY OR ADVISE OVERALL LENGTH PRIOR TO OR AT RELEASE.

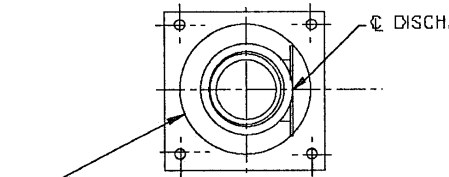


CUSTOMER		P.O.
JOB NAME	SERVICE	
CERTIFIED FOR	CERTIFIED BY	DATE

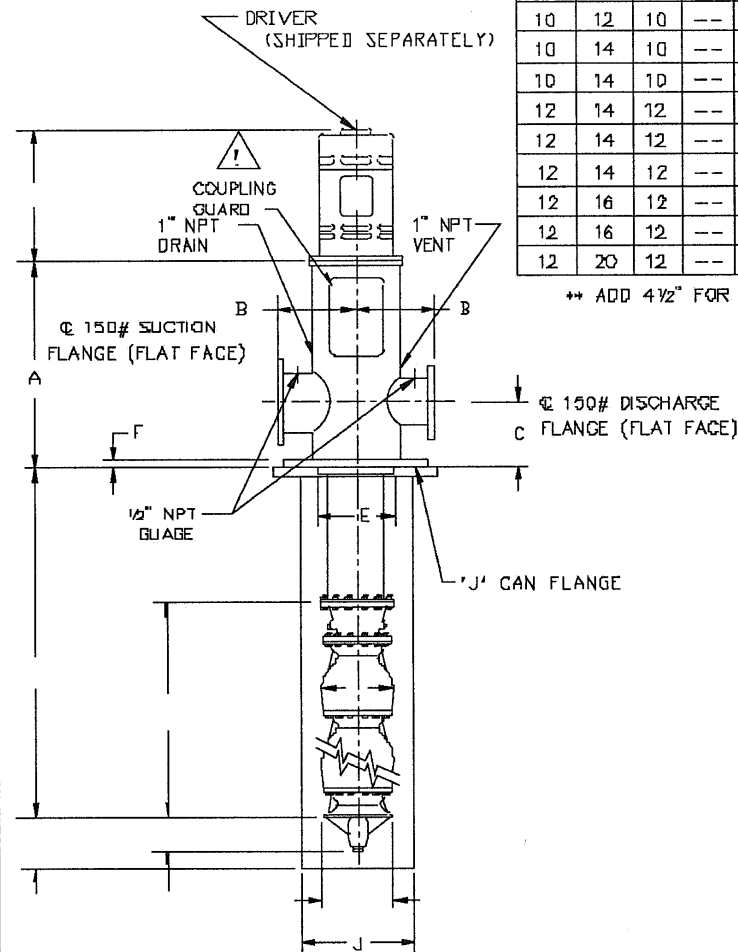
SETTING PLAN TYPE "L" SUCTION CAN DIMENSIONS	
DWG. NO.	7000CS008
REV	



**WARNING**  
 DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.



POT FLANGE-150# ANSI STD (FLAT FACE)  
 PLAN VIEW OF MOUNTING FLANGE (2)



DISCH SIZE	SUCT SIZE	COL SIZE	A**					B	C	E	F	'J' CAN FLANGE
			MTR BASE DIA (BD)									
			12	16 1/2	20	24 1/2	30 1/2					
4	6	4	30	30	--	--	--	10 1/2	8	6 5/8	1 1/4	12 7/8
4	6	4	30	30	--	--	--	11 1/2	8	6 5/8	1 1/4	14
6	8	6	32	32	--	--	--	10 1/2	9	9	1 1/4	12 3/4
6	8	6	32	32	--	--	--	11 1/2	9	9	1 1/4	14
6	8	6	32	32	--	--	--	12 3/4	9	9	1 1/4	16
8	10	6	35	35	--	--	--	12 3/4	11	9	1 1/4	16
8	10	8	35	35	35	--	--	12 3/4	11	11 1/2	1 1/4	16
8	10	8	--	35	35	--	--	13 1/2	11	11 1/2	1 1/2	18
8	10	8	--	35	35	--	--	14 3/4	11	11 1/2	1 1/2	20
8	12	8	--	37	37	--	--	13 1/2	12	11 1/2	1 1/2	18
8	12	8	--	37	37	--	--	14 3/4	12	11 1/2	1 1/2	20
10	12	10	--	37	37	--	--	13 1/2	12	13 3/4	1 1/2	18
10	12	10	--	37	37	--	--	14 3/4	12	13 3/4	1 1/2	20
10	12	10	--	37	37	40	--	17	12	13 3/4	1 1/2	24
10	14	10	--	39	40	--	--	14 3/4	14	13 3/4	1 1/2	20
10	14	10	--	39	40	43	--	17	14	13 3/4	1 1/2	24
12	14	12	--	39	40	--	--	14 3/4	14	16 1/4	1 1/2	20
12	14	12	--	39	40	43	--	17	14	16 1/4	1 1/2	24
12	14	12	--	--	40	43	--	20 3/8	14	16 1/4	1 3/4	30
12	16	12	--	41	42	--	--	17	15	16 1/4	1 1/2	24
12	16	12	--	41	42	45	--	20 3/8	15	16 1/4	1 3/4	30
12	20	12	--	46	46	49	--	20 3/8	17	16 1/4	1 3/4	30

\*\* ADD 4 1/2" FOR VSS DRIVERS & SPACER QPLG

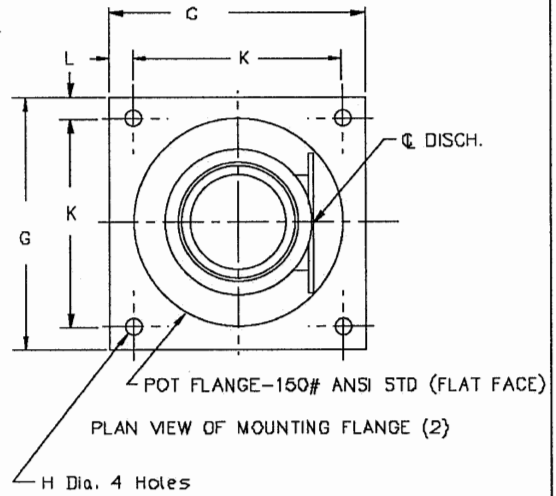
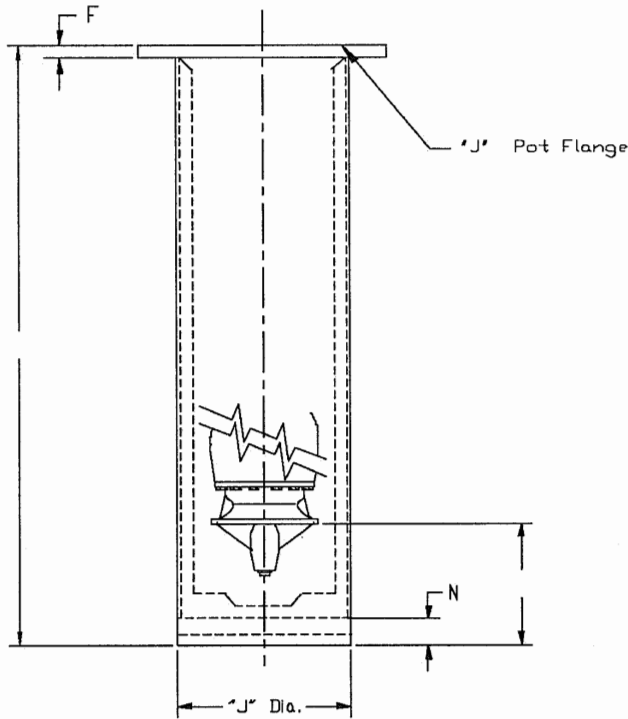
1. THIS DRAWING NOT FOR CONSTRUCTION OR INSTALLATION UNLESS CERTIFIED. DIMENSIONS SHOWN ARE TYPICAL AND MAY VARY DUE TO VARIOUS TOLERANCES.
2. SUCTION POT FLANGE MUST BE SUPPORTED ON ALL FOUR (4) SIDES AND GROUTED IN PLACE.
3. CUSTOMER TO VERIFY/ADVISE DIMENSIONS

CUSTOMER					P.O.				
JOB NAME				SERVICE					
PUMP SIZE & MODEL		STAGES	GPM	TDH	RPM	RDT		SETTING PLAN TYPE "T" SURFACE HEAD	
MOTOR		HP	FRAME	PHASE	HERTZ	VOLTS	ENCL		
CERTIFIED FOR		CERTIFIED BY			DATE				
								DWG NO. 7000CS004	REV

# ⚠ WARNING

DO NOT OPERATE THIS MACHINE WITHOUT PROTECTIVE GUARD IN PLACE. ANY OPERATION OF THIS MACHINE WITHOUT PROTECTIVE GUARD CAN RESULT IN SEVERE BODILY INJURY.

"J" Dia.	F	G	H	K	L	N
12 3/4	1 1/4	22	7/8	19	1 1/2	1 1/4
14	1 1/4	24	7/8	20	2	1 1/4
16	1 1/2	27	7/8	22	2 1/2	1 1/2
18	1 1/2	28	1	23	2 1/2	1 1/2
20	1 1/2	30	1	25	2 1/2	1 3/4
24	1 1/2	35	1	30	2 1/2	2 1/2
30	1 3/4	42	1	37	2 1/2	3
36	1 3/4	56	1	50	3	3 3/4



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CUSTOMER		P.O.
JOB NAME	SERVICE	
CERTIFIED FOR	CERTIFIED BY	DATE

SETTING PLAN TYPE "T" CAN DIMENSIONS	
DWG. NO. 7000CS006	REV