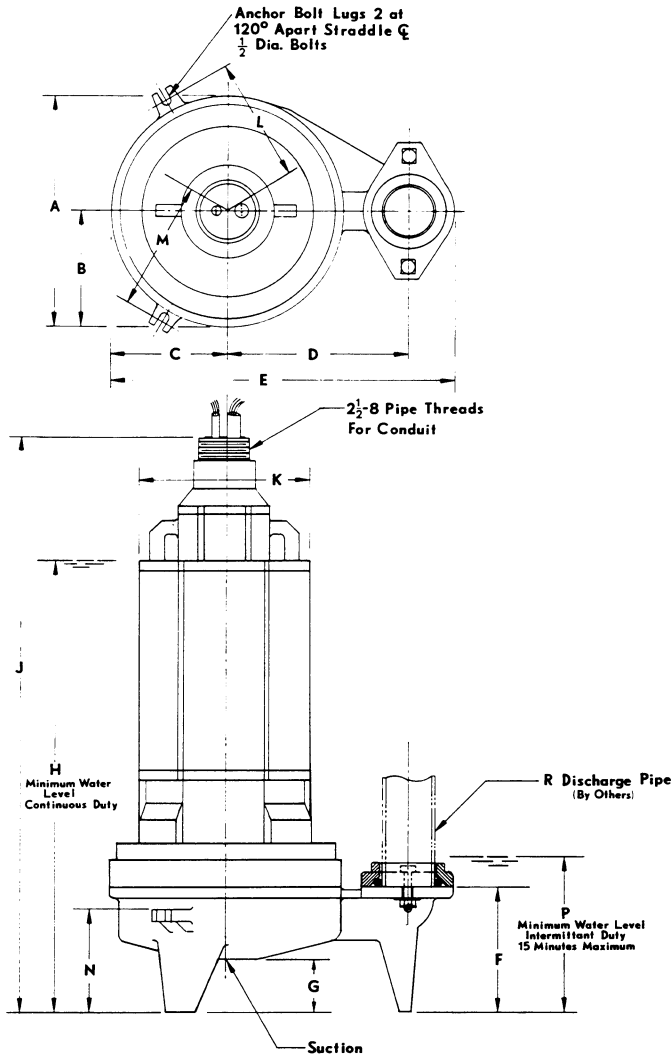


SUBMERSIBLE SEWAGE PUMPS

Type UW

3 Phase Unit Outline Dimensions



- Standard 30 Feet of 4 Conductor Motor Lead and Control Cables
- Optional _____ Feet of 4 Conductor Motor Lead and Control Cables

Motor Frame Selection		
Hp.	1750 RPM	1150 RPM
3/4	—	140TY
1	140TY	140TY
1 1/2	140TY	140TY
2	140TY	140TY
3	140TY	180TY
5	180TY	180TY
7 1/2	180TY	210TY
10	210TY	210TY
15	210TY	—
20	210TY	—

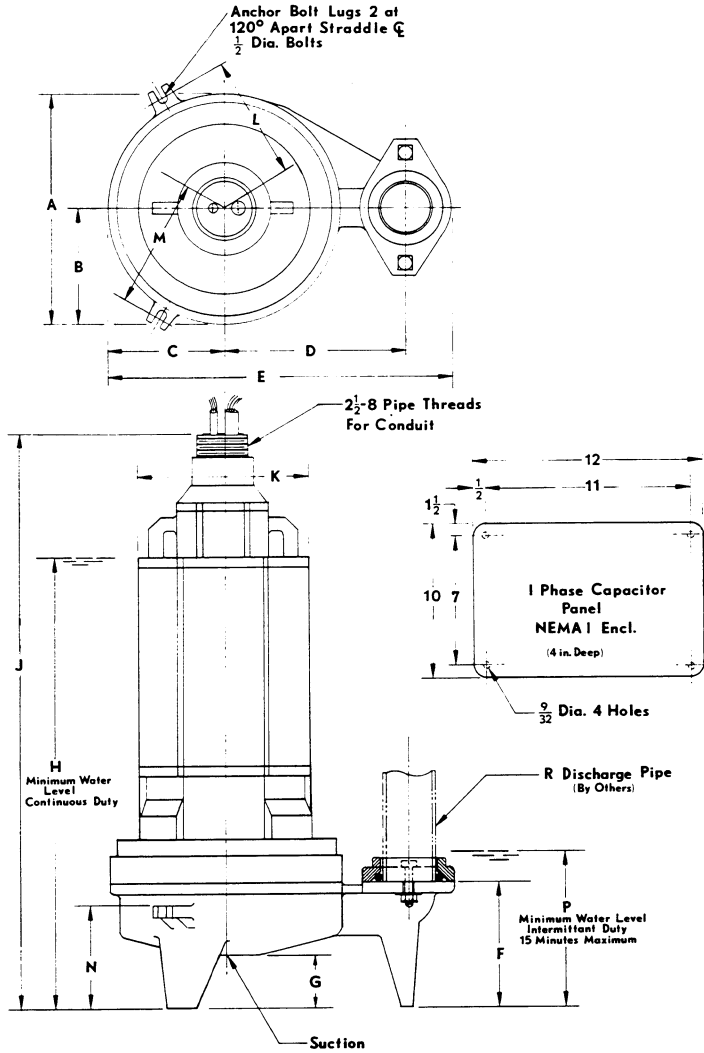
✓ Pump Type & Size	Specific Dimensions
	R
UWNSB3	3
UWNSBC4	4
UWLMB3	3
UWLMBC4	4
UWLLB3	3
UWLLBC4	4
UWLMB4A	4

Pump Type & Size	✓	Motor Frame	UNIT DIMENSIONS													Wt. Lbs.	
			A	B	C	D	E	F	G	H	J	K	L	M	N		P
UWNSB3		140TY	12 7/8	5 3/4	5 3/4	10 3/4	19	6 3/4	2 1/2	23 3/4	31 1/2	8	6 5/8	5 3/4	5 1/2	10	240
UWNSBC4		180TY	12 7/8	5 3/4	5 3/4	10 3/4	19	6 3/4	2 1/2	25 1/2	32 5/8	9 5/8	6 5/8	5 3/4	5 1/2	10	287
UWLMB3		140TY	13 3/4	6 5/8	6 5/8	10 3/4	20	8	2 1/2	25 1/2	33 3/4	8	7 1/8	6 5/8	6 1/2	11	258
UWLMBC4		180TY	13 3/4	6 5/8	6 5/8	10 3/4	20	8	2 1/2	26 3/4	33 7/8	9 5/8	7 1/8	6 5/8	6 1/2	11	305
UWLLB3		140TY	16	7 3/4	7 5/8	12	22 3/4	8 1/2	3 1/2	25 7/8	32 7/8	8	8 3/4	8	6 5/16	12	302
UWLLBC4		180TY	16	7 3/4	7 5/8	12	22 3/4	8 1/2	3 1/2	27	34 1/8	9 5/8	8 3/4	8	6 5/16	12	349
		210TY	16	7 3/4	7 5/8	12	22 3/4	8 1/2	3 1/2	34	39 1/4	11 1/2	8 3/4	8	6 5/16	12	453
UWLMB4A		140TY	16 1/2	7 3/4	8	12	23	10 1/16	3 1/2	26 3/4	34 1/2	8	8 3/4	8	7 3/16	13	318
		180TY	16 1/2	7 3/4	8	12	23	10 1/16	3 1/2	28 1/2	35 5/8	9 5/8	8 3/4	8	7 3/16	13	365
		210TY	16 1/2	7 3/4	8	12	23	10 1/16	3 1/2	35 5/8	40 3/4	11 1/2	8 3/4	8	7 3/16	13	469

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ SERIAL NO. _____
MOTOR MFR. Reliance TYPE Submersible Class 1 Group D HP _____ FRAME _____ VOLTS _____ PH. 3 HZ. 60
PUMP TYPE & SIZE _____ RPM _____ G.P.M. _____ TOTAL HD. FT. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS
Type UW
1 Phase Unit Outline Dimensions



- Standard 30 Feet of 4 Conductor Motor Lead and Control Cables
- Optional _____ Feet of 4 Conductor Motor Lead and Control Cables

Motor Frame Body Selection		
Hp.	1750 RPM	1150 RPM
3/4	—	140TY (140TY)
1	140TY (140TY)	180TY (140TY)
1 1/2	140TY (140TY)	180TY (140TY)
2	180TY (140TY)	210TY (180TY)
3	180TY (140TY)	210TY (180TY)
5	210TY (210TY)	—

(xxxTY) Motor Frame Mounting Flange

Pump Type & Size	Specific Dimension
	R
UWNSB3	3
UWNSBC4	4
UWLMB3	3
UWLMB4	4
UWLLB3	3
UWLLBC4	4
UWLLB4A	4

Pump Type & Size	✓	Motor Frame Body	Motor Frame Mtg. Flg.	UNIT DIMENSIONS														Wt. Lbs.
				A	B	C	D	E	F	G	H	J	K	L	M	N	P	
UWNSB3		140TY	140TY	12 7/8	5 3/4	5 3/4	10 3/4	19	6 3/4	2 1/2	23 3/4	31 1/2	8	6 5/8	5 3/4	5 1/2	10	240
UWNSBC4		180TY	140TY	12 7/8	5 3/4	5 3/4	10 3/4	19	6 3/4	2 1/2	25 1/2	32 5/8	9 5/8	6 5/8	5 3/4	5 1/2	10	285
		210TY	180TY	12 7/8	5 3/4	5 3/4	10 3/4	19	6 3/4	2 1/2	29 3/4	37 1/2	11 1/2	6 5/8	5 3/4	5 1/2	10	391
UWLMB3 UWLMB4		140TY	140TY	13 3/4	6 5/8	6 1/8	10 3/4	20	8	2 1/2	25 1/2	33 3/4	8	7 1/8	6 5/8	6 1/2	11	258
		180TY	140TY	13 3/4	6 5/8	6 1/8	10 3/4	20	8	2 1/2	26 3/4	33 3/8	9 5/8	7 1/8	6 5/8	6 1/2	11	305
		210TY	180TY	13 3/4	6 5/8	6 1/8	10 3/4	20	8	2 1/2	30 1/2	38 3/4	11 1/2	7 1/8	6 5/8	6 1/2	11	409
UWLLB3 UWLLBC4		140TY	140TY	16	7 3/4	7 5/8	12	22 3/4	8 1/2	3 1/2	25 7/8	32 7/8	8	8 3/4	8	6 5/16	12	302
		180TY	140TY	16	7 3/4	7 5/8	12	22 3/4	8 1/2	3 1/2	27	34 3/8	9 5/8	8 3/4	8	6 5/16	12	349
		210TY	180TY	16	7 3/4	7 5/8	12	22 3/4	8 1/2	3 1/2	34	39 1/4	11 1/2	8 3/4	8	6 5/16	12	453
		210TY	210TY	16	7 3/4	7 5/8	12	22 3/4	8 1/2	3 1/2	34	39 1/4	11 1/2	8 3/4	8	6 5/16	12	453
UWLMB4A		140TY	140TY	16 1/2	7 3/4	8	12	23	10 1/16	3 1/2	26 3/4	34 1/2	8	8 3/4	8	7 3/16	13	318
		180TY	140TY	16 1/2	7 3/4	8	12	23	10 1/16	3 1/2	28 1/2	35 5/8	9 5/8	8 3/4	8	7 3/16	13	365
		210TY	180TY	16 1/2	7 3/4	8	12	23	10 1/16	3 1/2	35 5/8	40 3/4	11 1/2	8 3/4	8	7 3/16	13	469
		210TY	210TY	16 1/2	7 3/4	8	12	23	10 1/16	3 1/2	35 5/8	40 3/4	11 1/2	8 3/4	8	7 3/16	13	469

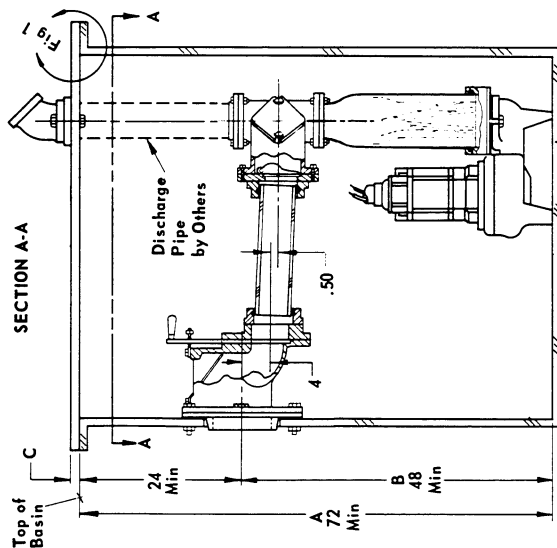
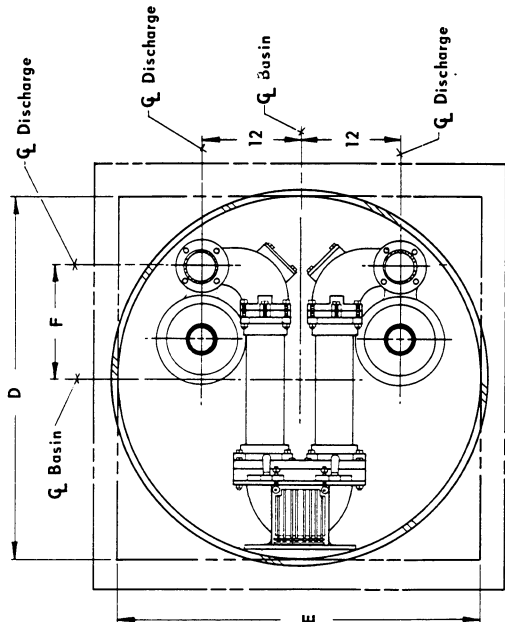
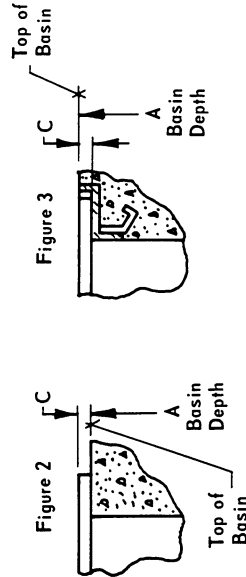
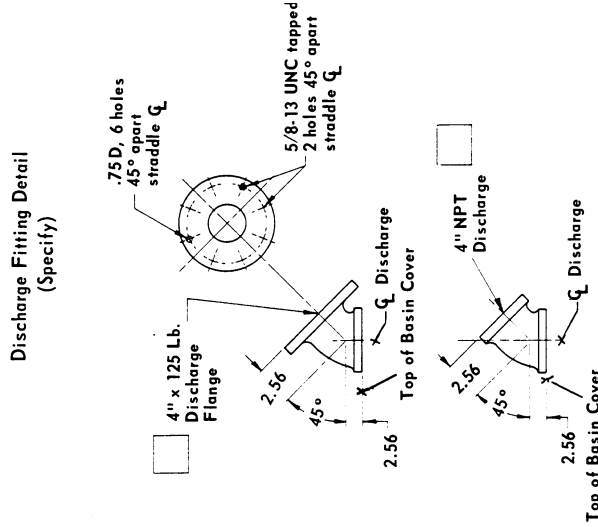
CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ SERIAL NO. _____
MOTOR MFR. Reliance TYPE Submersible Class 1 Group D HP _____ FRAME BODY _____ VOLTS _____ PH. 1 HZ. 60
PUMP TYPE & SIZE _____ RPM _____ G.P.M. _____ TOTAL HD. FT. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION



SUBMERSIBLE SEWAGE PUMPS
TYPE UW
FLUSH KLEEN® FITTINGS
Size 6 x 4 Type F Series P
Above Grade Discharge

TYPE	BASIN SIZE (INSIDE DIMENSION)			
	D	E	F	F
ROUND	48	48	13.25	13.25
	60	60	10.12	10.12
	72	72	18.00	18.00
SQUARE	48	48	13.25	13.25
	60	60	10.25	10.25
	72	72	10.25	10.25



TYPE BASIN	FIGURE NO.	TYPE COVER MOUNTING	TYPE COVER	DEPTH BASIN SPECIFY A	Q INLET SPECIFY B	COVER THICKNESS C
CAST IRON	1	TOP OF BASIN	STEEL			
CONCRETE (no curb ring)	2	FLUSH WITH FLOOR				
STEEL	1					
FIBERGLASS	1					
CONCRETE (w/steel curb ring)	3					

CUSTOMER _____ JOB NAME _____
 P.O. NO. _____ ITEM NO. _____
 S.O. NO. _____ SERIAL NO. _____
 MOTOR MFR. _____ ENCL. _____ FRAME _____ H.P. _____ VOLTS _____ PH. _____ HZ.
 PUMP TYPE & SIZE _____ RPM _____ G.P.M. _____ TOTAL HD. FT. _____
 CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

DT 4848667

Submersible Sewage Pumps
Type UW



Submersible Sewage Pumps
Type UW

Flush Kleen® Fittings
Size 6 x 4 Type F Series P
Below Grade Discharge

Basin Size (Inside Dimension)				
Type	D	E	F	
Round	60	60	10.12	
	72	72	18.00	
Square	48	48	13.25	
	60	60	10.25	
	72	72	10.25	

Figure 2

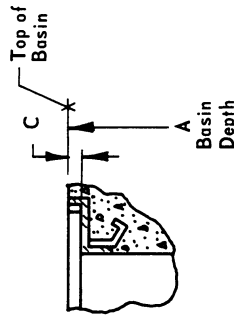
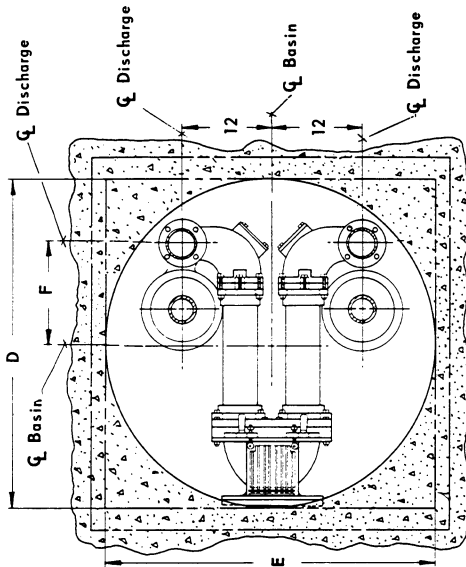


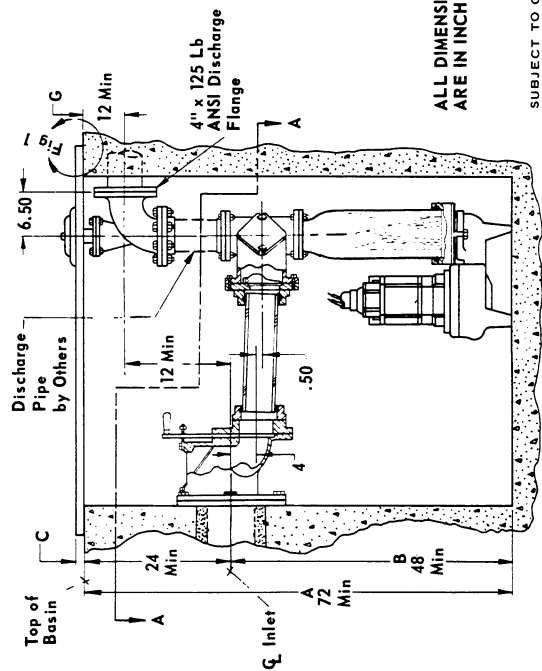
FIG. NO.	TYPE BASIN	TYPE COVER MOUNTING	DEPTH BASIN	COVER THICKNESS	INLET SPECIFY	DISCH. SPECIFY
1	CONCRETE (no curb ring)	TOP OF BASIN	A	C	B	G
2	CONCRETE (w/steel curb ring)	FLUSH WITH FLOOR		.44		

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ SERIAL NO. _____
MOTOR MFR. _____ ENCL. _____ FRAME _____ VOLTS _____ PH. _____ HZ. _____
PUMP TYPE & SIZE _____ RPM _____ G.P.M. _____ TOTAL HD. FT. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

DT 4848666



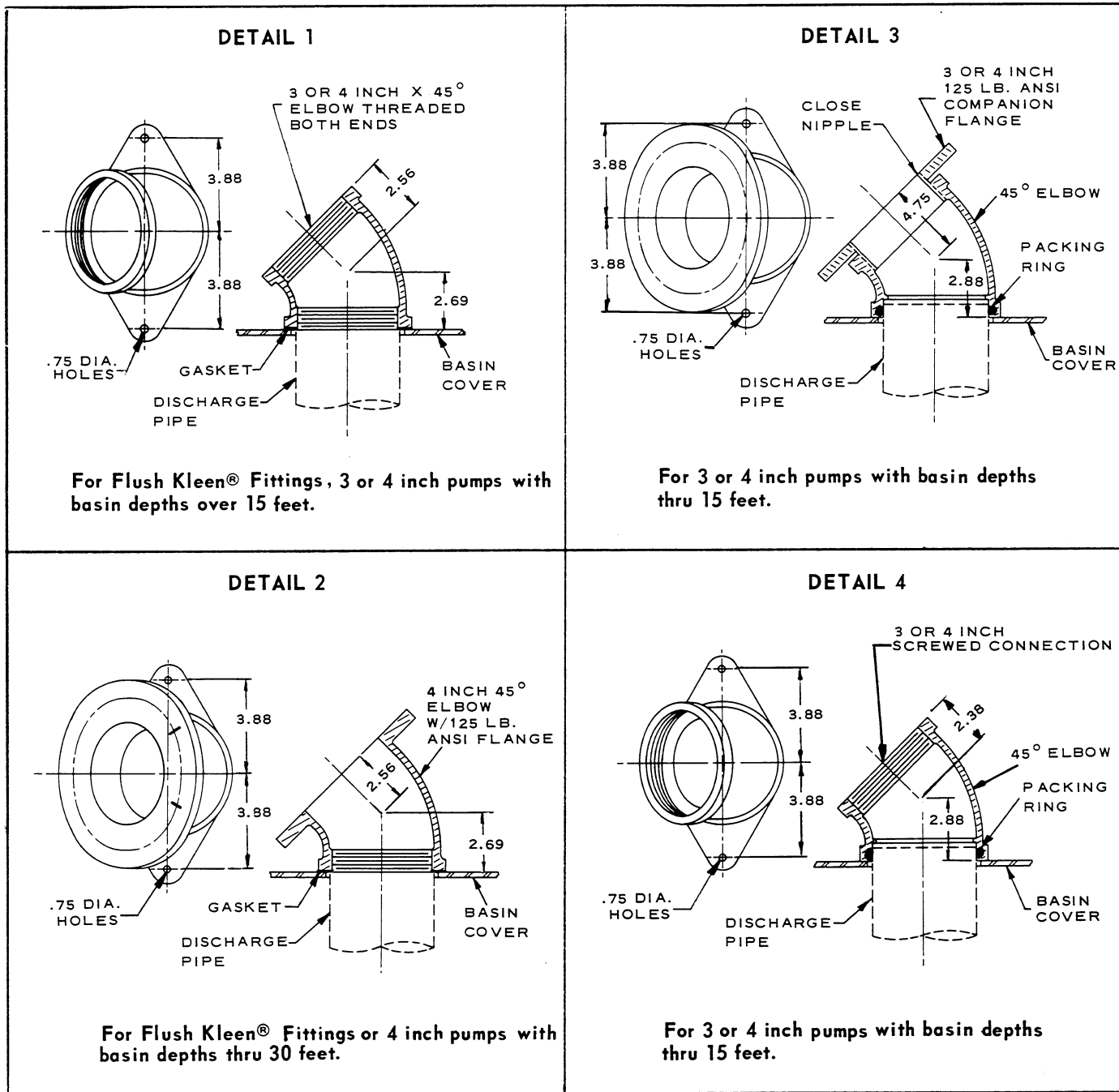
SECTION A-A



ALL DIMENSIONS ARE IN INCHES

SUBJECT TO CHANGE UNLESS CERTIFIED FOR CONSTRUCTION

Discharge Elbow Variants Used with UW Pump Basin Covers
(Optional Equipment)



SPECIFY DISCHARGE VARIANT

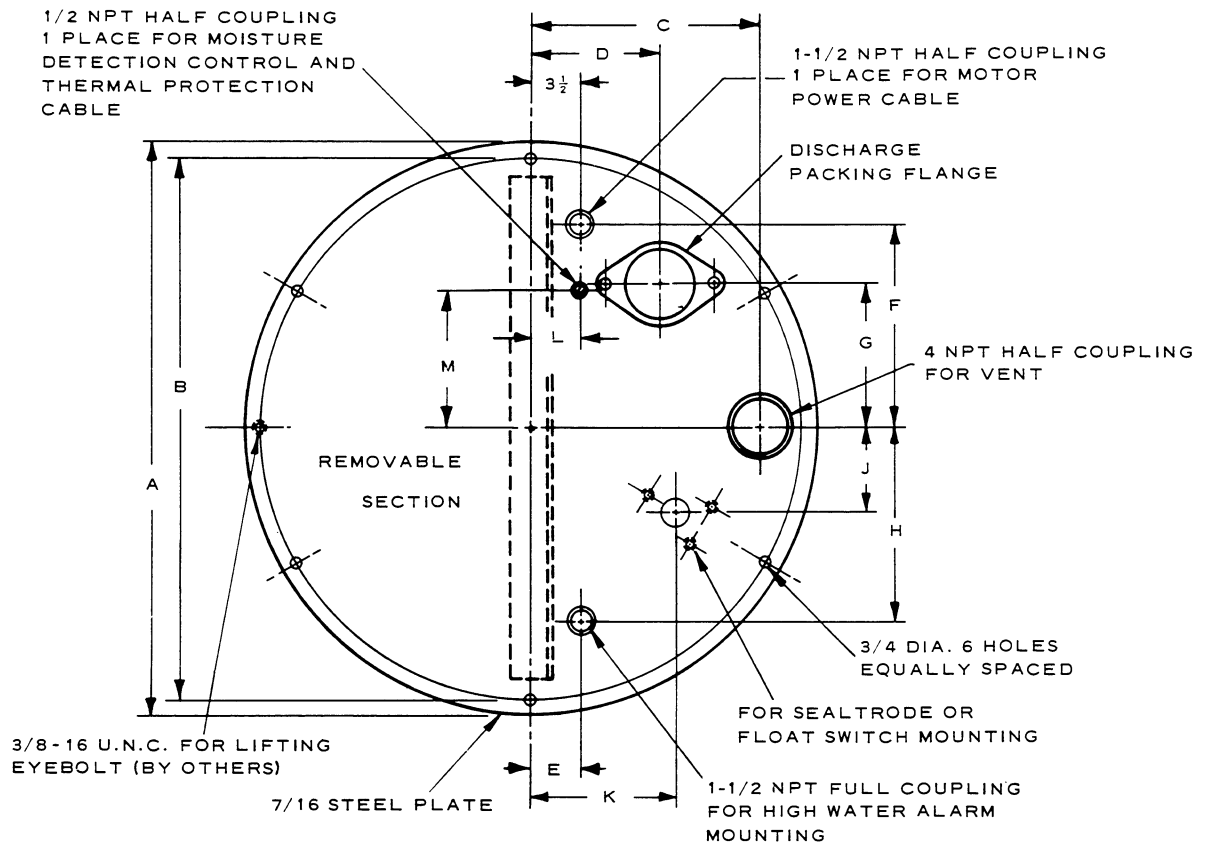
- Detail 1 Detail 3
 Detail 2 Detail 4

✓	Pump Type & Size	Disch. Pipe Size	✓	Pump Type & Size	Disch. Pipe Size
	UWNSB3	3		UWNSBC4	4
	UWLMB3			UWLMB4	
	UWLLB3			UWLLBC4	
			UWLLB4		
			Flush Kleen® Fittings		

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ SERIAL NO. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

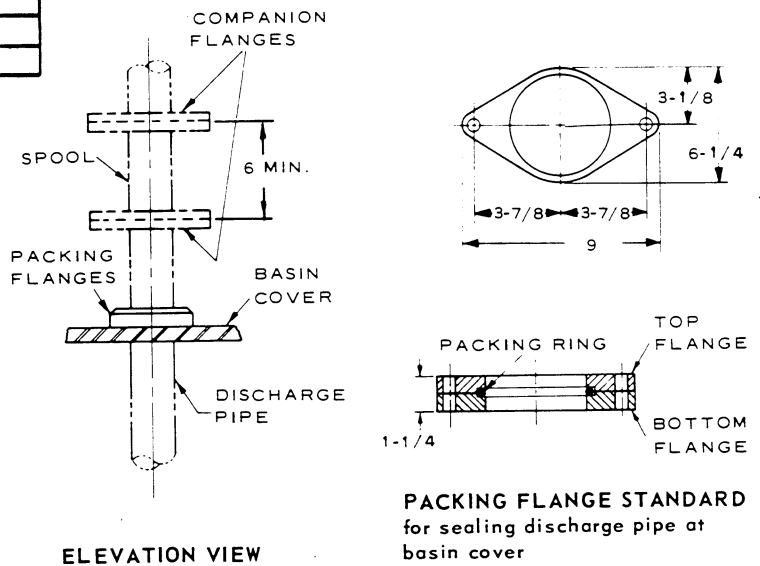
SUBMERSIBLE SEWAGE PUMPS
Type UW
Round Basin Cover
30 and 36 Inch Dia. Simplex



✓	BASIN SIZE	A	B	C	D	E	F	G	H	J	K	L	M	Wt. Lbs.
	30"	34	32½	13	7	3¼	12½	7	11½	4½	7¾	2	8½	96
	36"	40	38½	16	9	3⅝	14½	10	13½	6	10⅝	3½	10	134

NOTES:

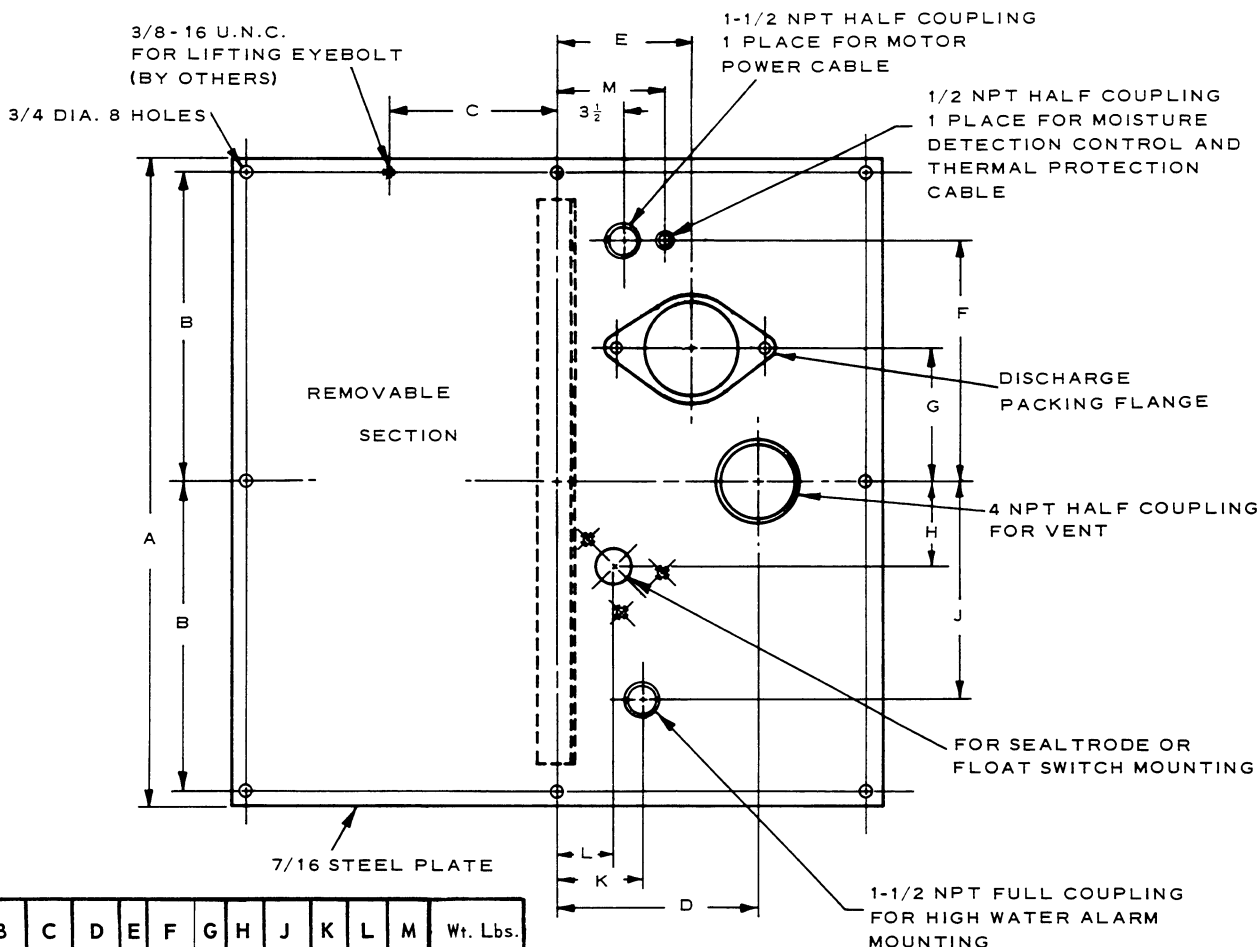
- (1) 3" or 4" packing flanges for basin cover mounting and for mounting pipe to pump are furnished by Pump Div. to match pump discharge pipe size.
- (2) 3" or 4" screw and flanged elbows are available as variants for replacing standard packing flanges at basin cover. See page DT 4846418 for details.
- (3) Discharge pipe and companion flanges shown in phantom furnished by others.
A spool in discharge piping above basin cover as shown in elevation view is recommended for ease in assembly and disassembly of installation.
- (4) Covers are furnished with black enamel paint.
- (5) For gastight installations use a gasket or non-hardening sealing compound to seal the basin cover to the basin or to the curb ring. (By others.)
- (6) Vent and high water alarm opening when not used to be plugged by others.



ALL DIMENSIONS ARE IN INCHES

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ SERIAL NO. _____ Pump Model No. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

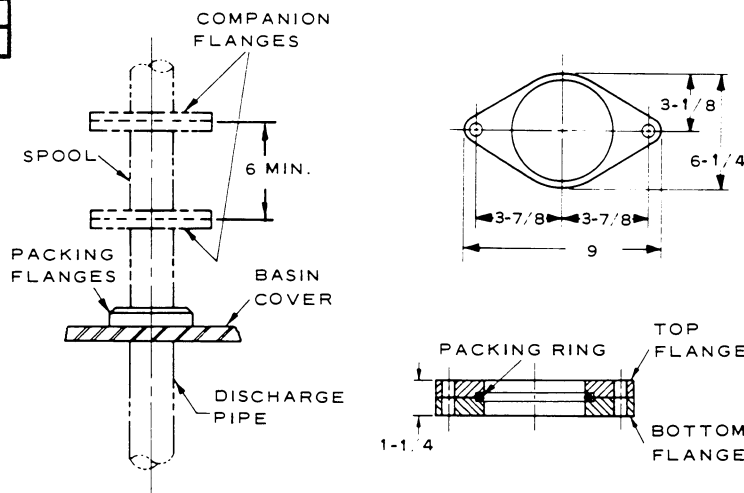


✓	BASIN SIZE	A	B	C	D	E	F	G	H	J	K	L	M	Wt. Lbs.
	30"	34	16 1/4	8 3/4	10 1/2	7	12 1/2	7	7 1/2	11 1/2	4 1/2	3 3/8	7	134
	36"	40	19 1/4	10	13	9	14 1/2	10	6	13 1/2	6	3 5/8	6 1/2	162

NOTES:

- (1) 3" or 4" packing flanges for basin cover mounting and for mounting pipe to pump are furnished by Pump Div. to match pump discharge pipe size.
- (2) 3" or 4" screw and flanged elbows are available as variants for replacing standard packing flanges at basin cover. See page DT 4846418 for details.
- (3) Discharge pipe and companion flanges shown in phantom furnished by others. A spool in discharge piping above basin cover as shown in elevation view is recommended for ease in assembly and disassembly of installation.
- (4) Covers are furnished with black enamel paint.
- (5) For gastight installations use a gasket or non-hardening sealing compound to seal the basin cover to the basin or to the curb ring. (By others.)
- (6) Vent and high water alarm opening when not used to be plugged by others.

ALL DIMENSIONS ARE IN INCHES



ELEVATION VIEW

PACKING FLANGE STANDARD for sealing discharge pipe at basin cover

CUSTOMER _____ JOB NAME _____

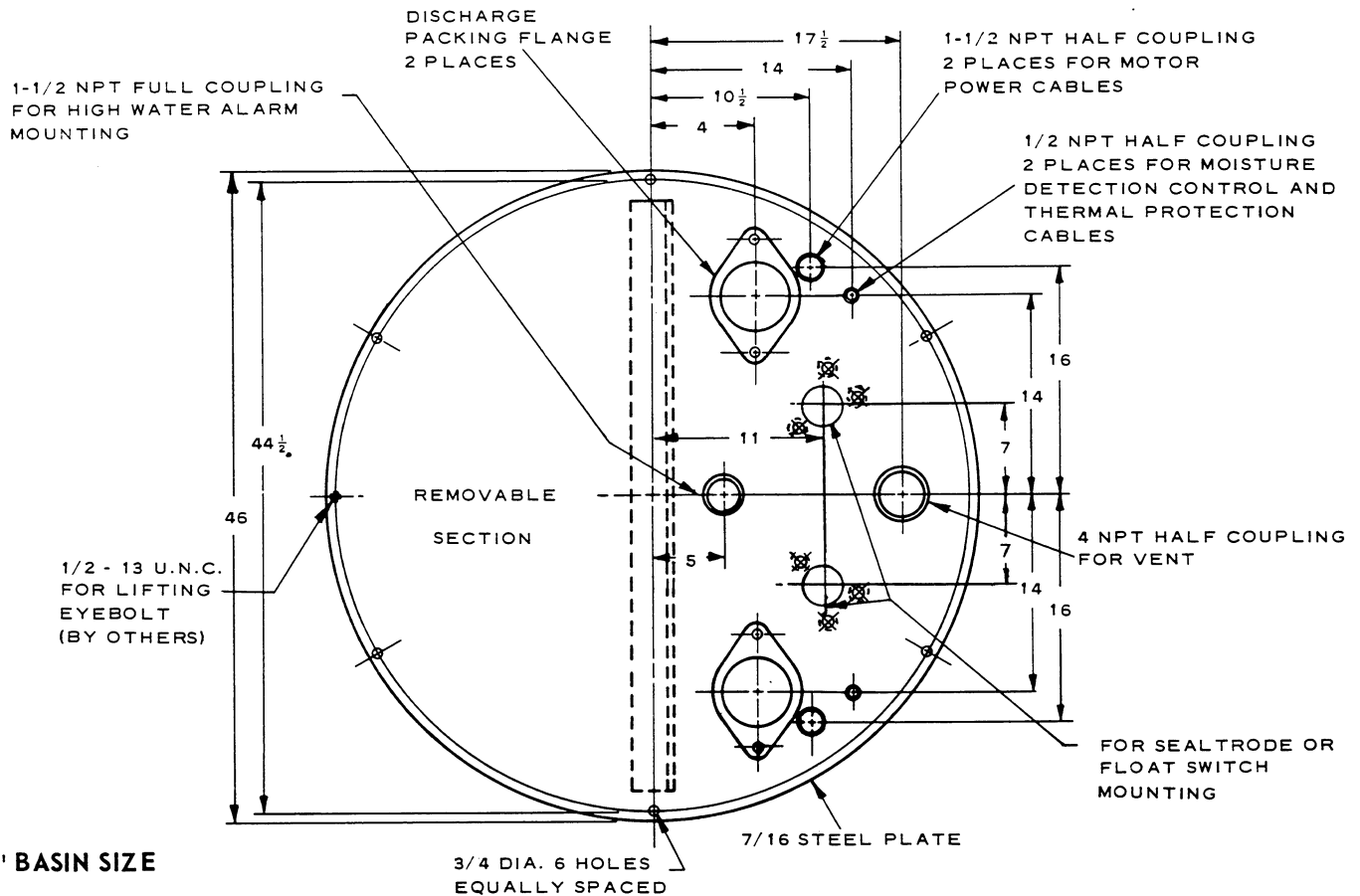
P.O. NO. _____ ITEM NO. _____

S.O. NO. _____ SERIAL NO. _____ Pump Model No. _____

CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS
Type UW
Round Basin Cover
42 Inch Dia. Duplex

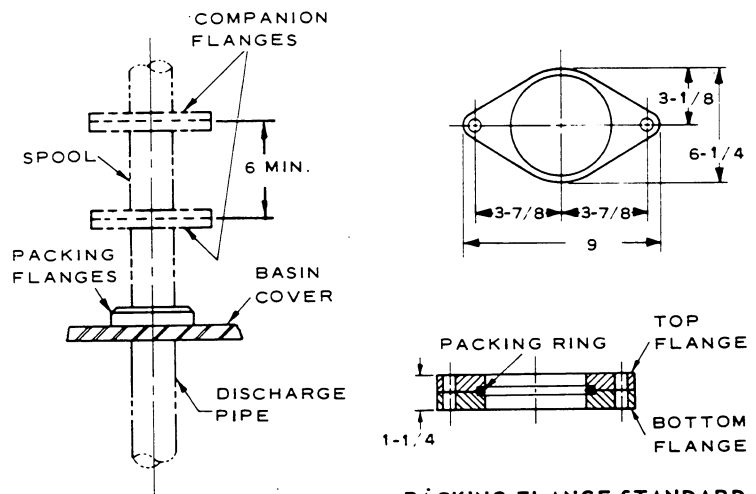


NOTES:

- (1) 3" or 4" packing flanges for basin cover mounting and for mounting pipe to pump are furnished by Pump Div. to match pump discharge pipe size.
- (2) 3" or 4" screw and flanged elbows are available as variants for replacing standard packing flanges at basin cover. See page DT 4846418 for details.
- (3) Discharge pipe and companion flanges shown in phantom furnished by others. A spool in discharge piping above basin cover as shown in elevation view is recommended for ease in assembly and disassembly of installation.
- (4) Cover is furnished with black enamel paint.
- (5) For gastight installations use a gasket or non-hardening sealing compound to seal the basin cover to the basin or to the curb ring. (By others.)
- (6) Vent and high water alarm opening when not used to be plugged by others.

OPTIONAL EQUIPMENT:

Discharge Blank-off Plate



ELEVATION VIEW

PACKING FLANGE STANDARD
for sealing discharge pipe at basin cover

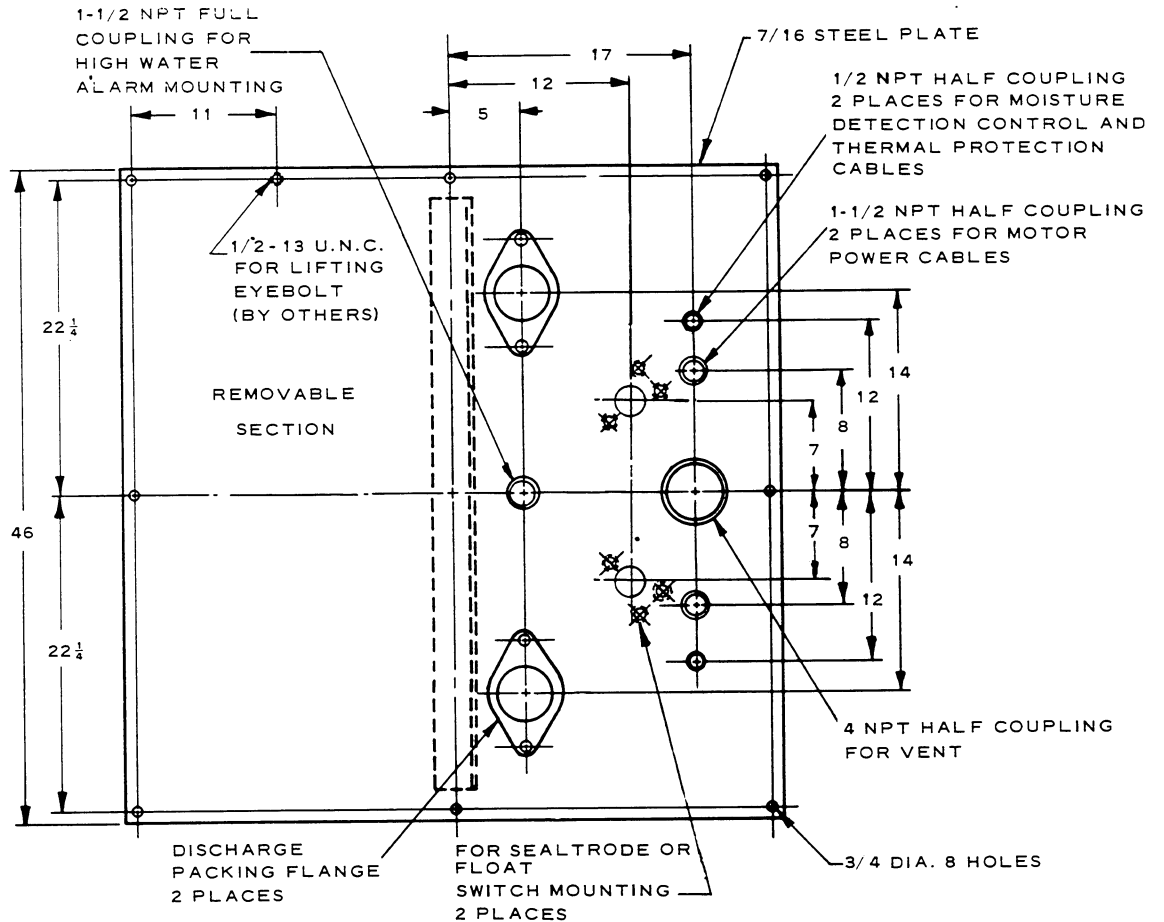
ALL DIMENSIONS ARE IN INCHES

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____ Wt. Lbs. **200**
S.O. NO. _____ SERIAL NO. _____ Pump Model No. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION



SUBMERSIBLE SEWAGE PUMPS
Type UW
Square Basin Cover
42 Inch Duplex



42" BASIN SIZE

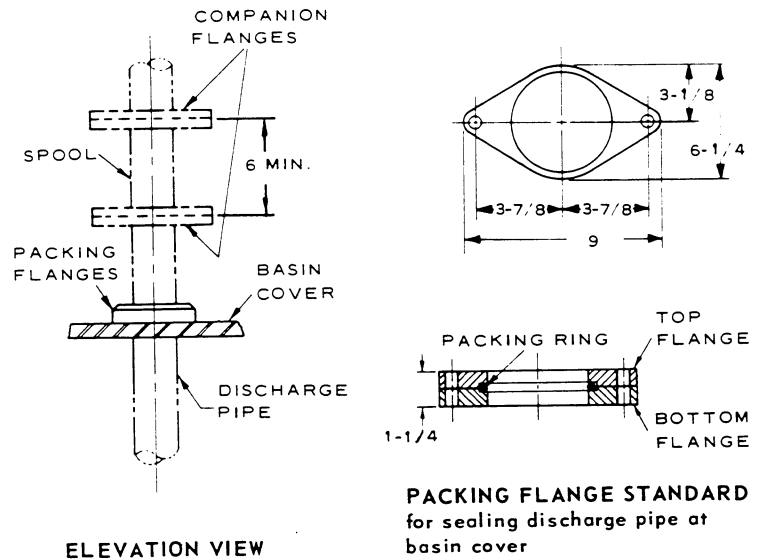
NOTES:

- (1) 3" or 4" packing flanges for basin cover mounting and for mounting pipe to pump are furnished by Pump Div. to match pump discharge pipe size.
- (2) 3" or 4" screw and flanged elbows are available as variants for replacing standard packing flanges at basin cover. See page DT 4846418 for details.
- (3) Discharge pipe and companion flanges shown in phantom furnished by others.
A spool in discharge piping above basin cover as shown in elevation view is recommended for ease in assembly and disassembly of installation.
- (4) Cover is furnished with black enamel paint.
- (5) For gastight installations use a gasket or non-hardening sealing compound to seal the basin cover to the basin or to the curb ring. (By others.)
- (6) Vent and high water alarm opening when not used to be plugged by others.

OPTIONAL EQUIPMENT:

Discharge Blank-off Plate

ALL DIMENSIONS ARE IN INCHES



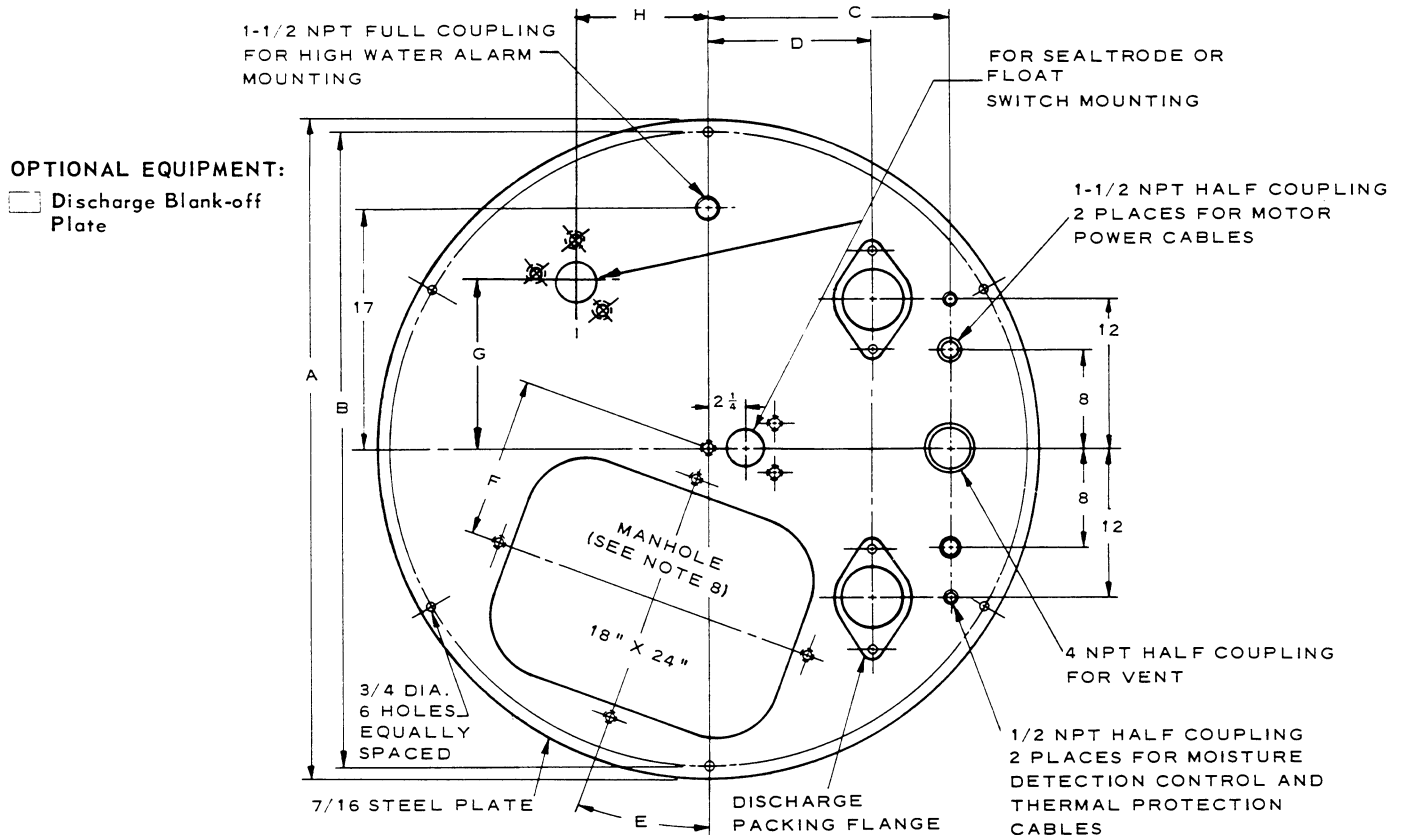
ELEVATION VIEW

PACKING FLANGE STANDARD
for sealing discharge pipe at basin cover

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____ Wt. Lbs. **214**
S.O. NO. _____ SERIAL NO. _____ Pump Model No. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS
Type UW
Round Basin Cover
48, 60 and 72 Inch Dia. Duplex

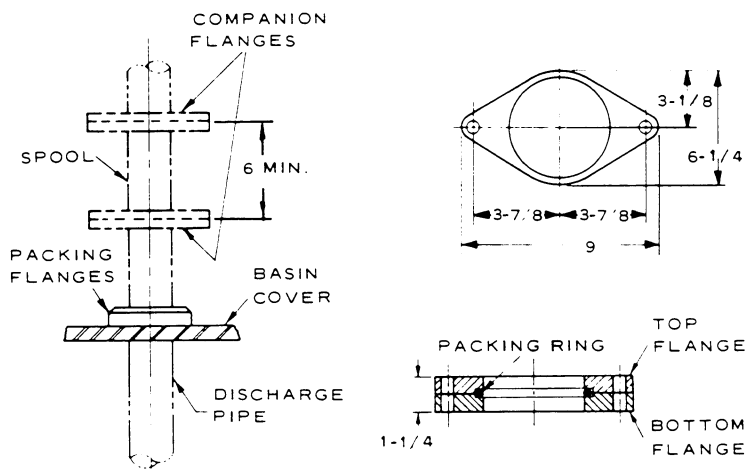


OPTIONAL EQUIPMENT:
 Discharge Blank-off Plate

✓	BASIN SIZE	A	B	C	D	E	F	G	H	Wt. Lbs.
	48"	53	51	19½	13¼	20°	13	10 7/8	13	270
	60"	66	63	21	10 3/8	30°	15	10 7/8	13	430
	72"	78	75	30	18	30°	21	19	14 9/16	560

NOTES:

- (1) 3" or 4" packing flanges for basin cover mounting and for mounting pipe to pump are furnished by Pump Div. to match pump discharge pipe size.
- (2) 3" or 4" screw and flanged elbows are available as variants for replacing standard packing flanges at basin cover. See page DT 4846418 for details.
- (3) Flush Kleen® System always uses 4" elbow in lieu of packing flanges.
- (4) Discharge pipe and companion flanges shown in phantom furnished by others. A spool in discharge piping above basin cover as shown in elevation view is recommended for ease in assembly and disassembly of installation.
- (5) Covers are furnished with black enamel paint.
- (6) For gastight installations use a gasket or non-hardening sealing compound to seal the basin cover to the basin or to the curb ring. (By others.)
- (7) Vent and high water alarm opening when not used to be plugged by others.
- (8) Manhole cover furnished by Pump Division.



ELEVATION VIEW

PACKING FLANGE STANDARD
for sealing discharge pipe at basin cover

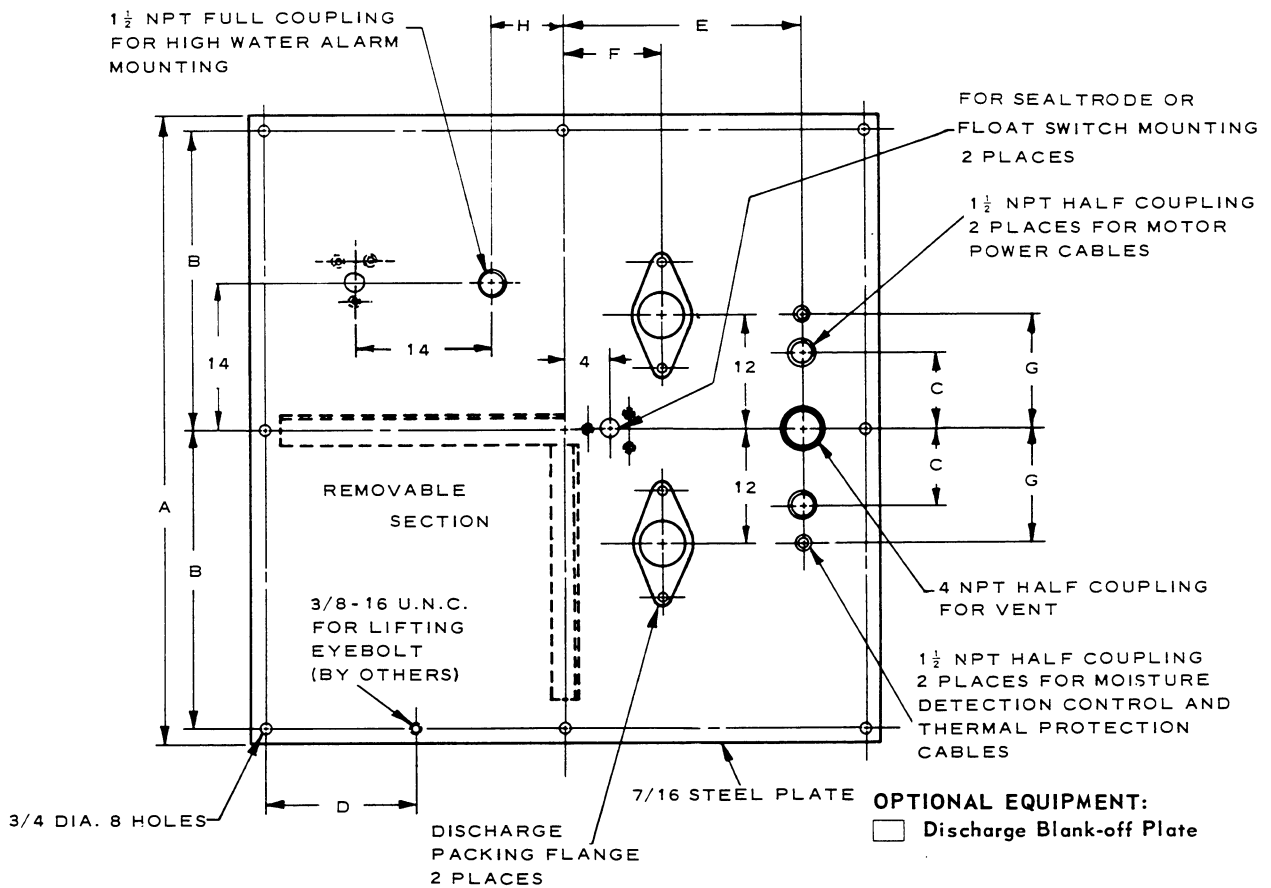
ALL DIMENSIONS ARE IN INCHES

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ SERIAL NO. _____ Pump Model No. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION



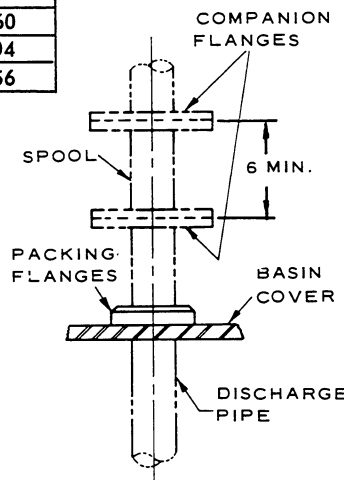
SUBMERSIBLE SEWAGE PUMPS
Type UW
Square Basin Cover
48, 60 and 72 Inch Duplex



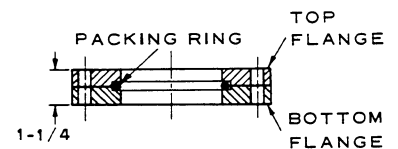
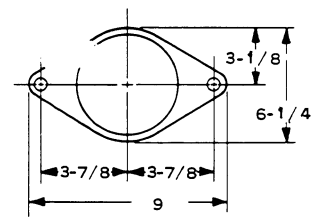
✓ BASIN SIZE	A	B	C	D	E	F	G	H	Wt. Lbs.
48"	53	25 1/2	8	12 3/4	19 1/2	13 3/4	12	10	360
60"	66	31 1/2	8	15 3/4	25	10 1/4	12	8	504
72"	78	37 1/2	12	18 3/4	31	10 1/4	16	8	756

NOTES:

- (1) 3" or 4" packing flanges for basin cover mounting and for mounting pipe to pump are furnished by Pump Div. to match pump discharge pipe size.
- (2) 3" or 4" screw and flanged elbows are available as variants for replacing standard packing flanges at basin cover. See page DT 4846418 for details.
- (3) Flush Kleen® System always uses 4" elbow in lieu of packing flanges.
- (4) Discharge pipe and companion flanges shown in phantom furnished by others.
A spool in discharge piping above basin cover as shown in elevation view is recommended for ease in assembly and disassembly of installation.
- (5) Covers are furnished with black enamel paint.
- (6) For gastight installations use a gasket or non-hardening sealing compound to seal the basin cover to the basin or to the curb ring. (By others.)
- (7) Vent and high water alarm opening when not used to be plugged by others.



ELEVATION VIEW



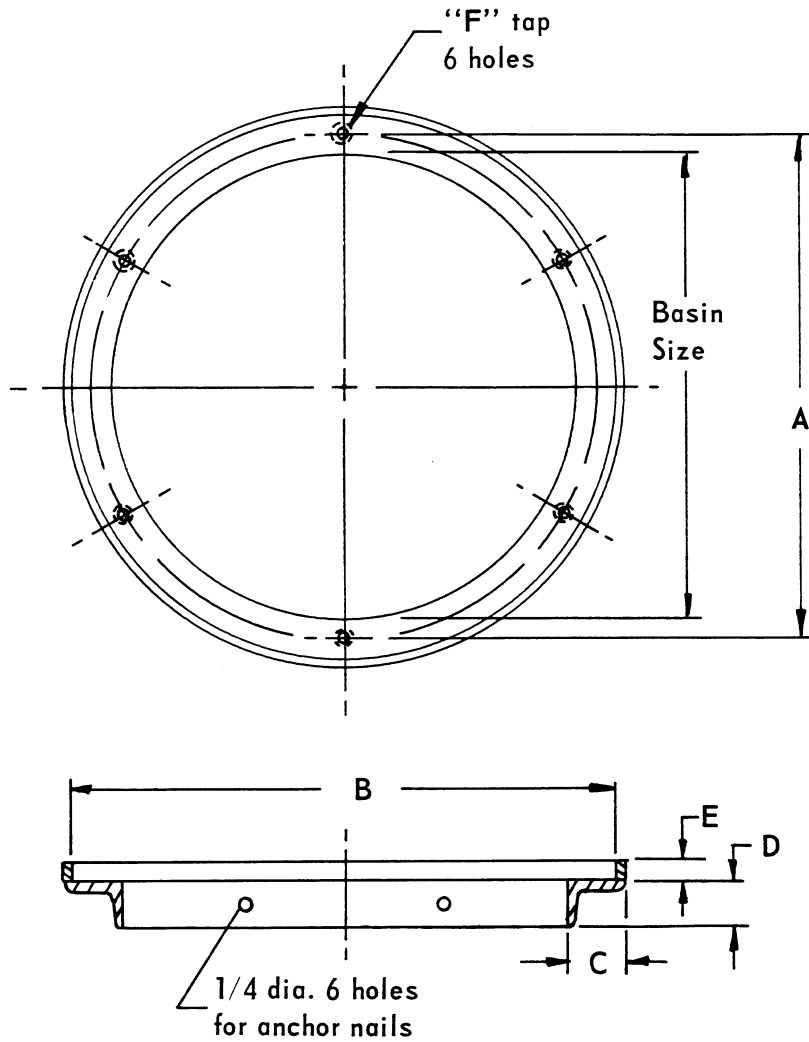
PACKING FLANGE STANDARD for sealing discharge pipe at basin cover

ALL DIMENSIONS ARE IN INCHES

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ SERIAL NO. _____ Pump Model No. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS
Type UW
Round Steel Curb Ring
30, 36, 42, 48 and 60 Inch Dia.



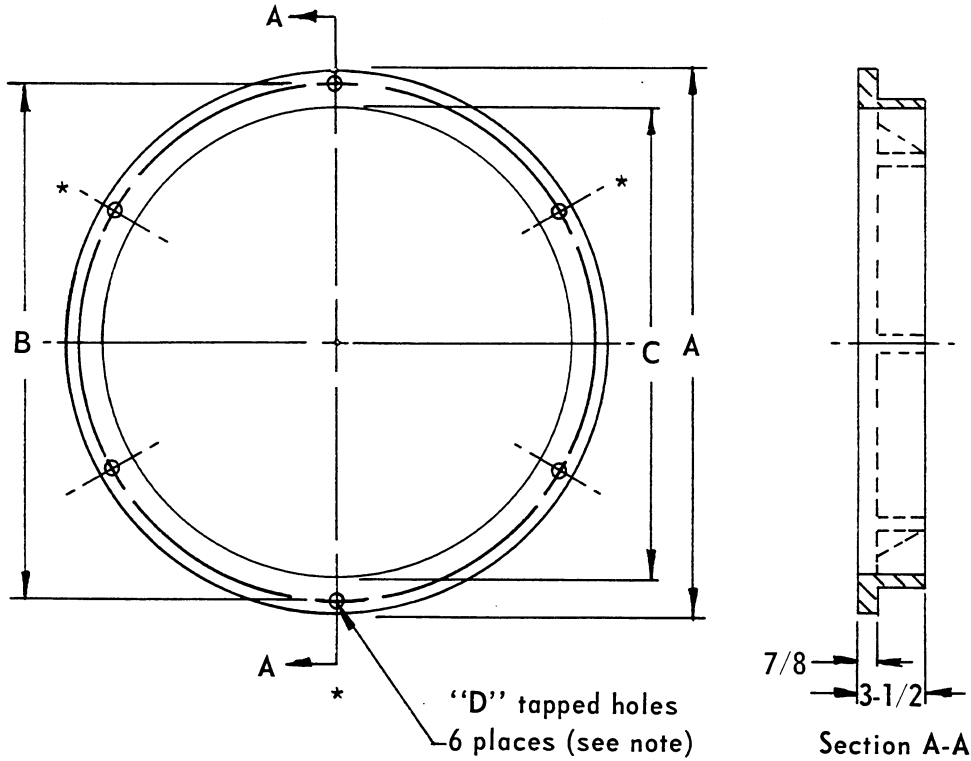
✓	TABLE OF DIMENSIONS							Wt. Lbs.
	Basin Size	A	B	C	D	E	F	
	30	32-1/2	34-1/2	2-1/2	1-1/2	1/2	3/8	35
	36	38-1/2	40-1/2	2-1/2	2	1/2	5/8	45
	42	44-1/2	46-1/2	2-1/2	2	1/2	5/8	55
	48	51	53-1/2	3	2-1/2	1/2	5/8	95
	60	63	66-1/2	3-1/2	2-1/2	1/2	5/8	105

All dimensions are inches

CUSTOMER _____ JOB NAME _____
 P.O. NO. _____ ITEM NO. _____
 S.O. NO. _____ SERIAL NO. _____
 CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
 UNLESS CERTIFIED
 FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS
Type UW
Round Cast Iron Curb Ring
30, 36, 42, 48, and 60 Inch Dia.



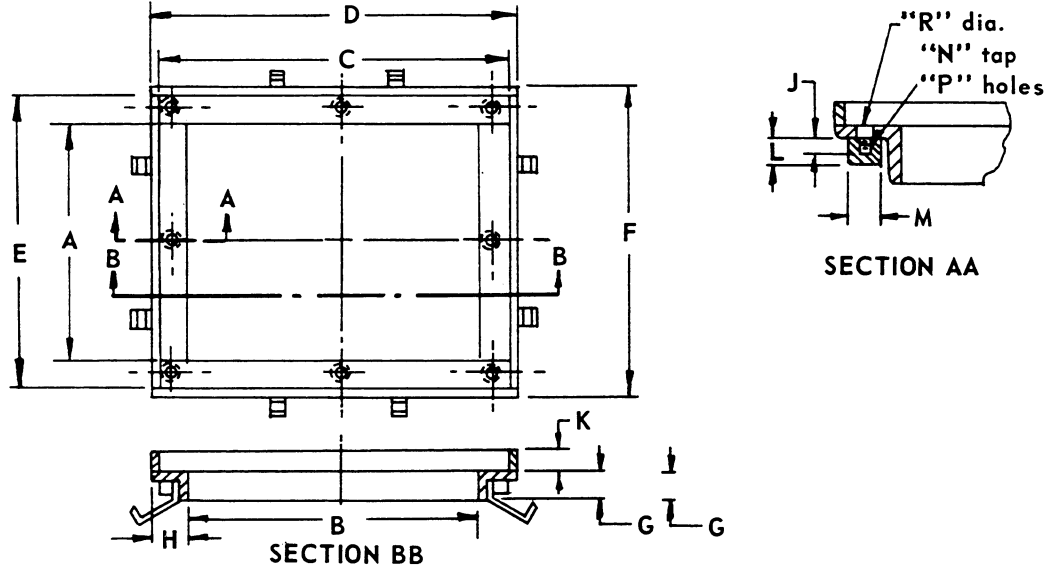
√	TABLE OF DIMENSIONS					W _t Lbs
	Basin Size	A	B	C	D	
	30	34	32-1/2	30	3/8	80
	36	40	38-1/2	36	5/8	125
	42	46	44-1/2	42	5/8	142
	48	53	51	48	5/8	172
	60	66	63	60	5/8	260

All dimensions are inches

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ PUMP MODEL NO. _____ WEIGHT LBS. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS
 Type UW
 Square Steel Curb Ring
 30, 36, 42, 48 and 60 Inch



All dimensions are inches

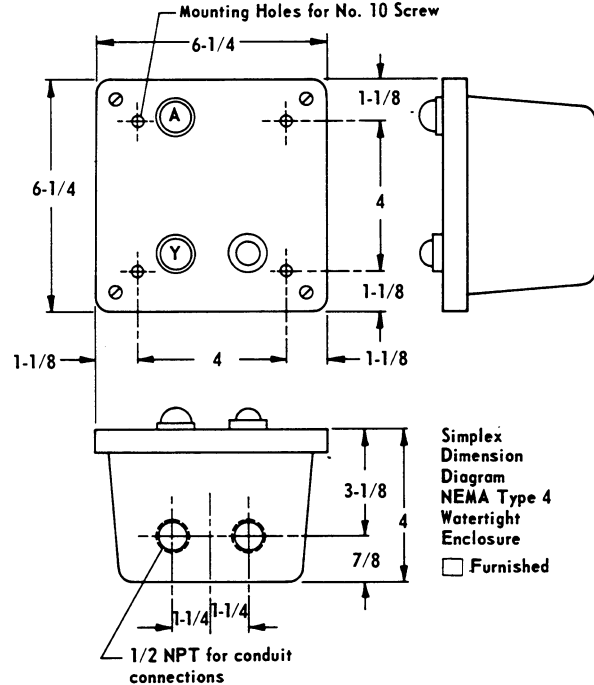
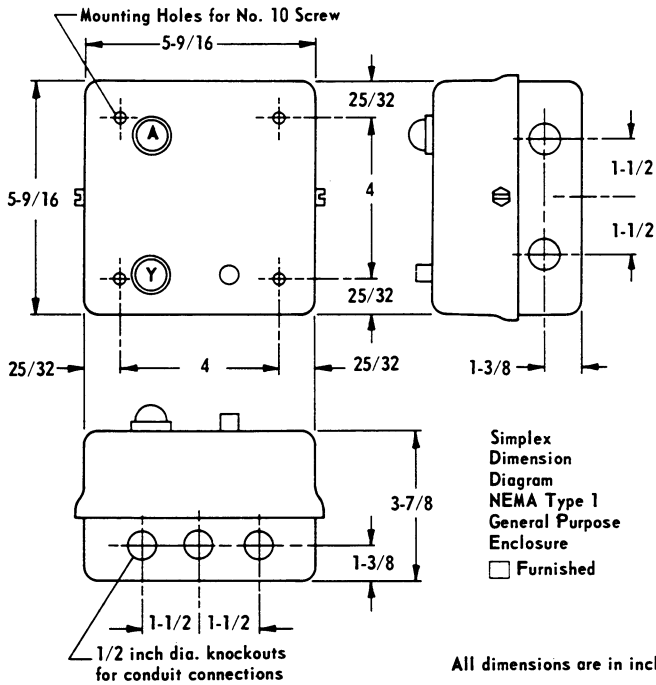
TABLE OF DIMENSIONS																	Wt. Lbs.		
SQUARE CURB RING	✓	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R			
		30	30	34½	35	34½	35	2			5/8	½	1	1	3/8	8	3/4	½	50
		36	36	40½	41	40½	41				7/8		1 3/8	1 1/4	5/8			3/4	60
		42	42	46½	47	46½	47	2½	3	7/8	1 3/8	1 1/4	5/8	8	3/4			70	
		48	48	53½	54	53½	54											3 1/2	115
		60	60	66½	67	66½	67												125

CUSTOMER _____ JOB NAME _____
 P.O. NO. _____ ITEM NO. _____
 S.O. NO. _____ PUMP MODEL NO. _____ WEIGHT LBS. _____
 CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
 UNLESS CERTIFIED
 FOR CONSTRUCTION



SUBMERSIBLE SEWAGE PUMPS
Type UW
Simplex Moisture Detection Controller



All dimensions are in inches.

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

General

The Moisture Detection Controller is a conductance actuated control for detecting moisture in the oil chamber of a submersible pump motor. It is used as a warning device to indicate a seal leakage and to signal the need for preventative maintenance.

Installation

Mount control box vertically on wall or other solid structure and accomplish all indicated wiring. Terminals on the control are numbered and are in the same relative position as shown on the wiring diagram. Terminal pair 1-2 must be continuously energized from an A.C. supply line of electrical characteristics shown on the data plate. Contacts 5-6 and/or 7-8 are available for load duty, and if required, must be wired in Series with the load device or devices, and that series branch circuit connected across a power source compatible with the load. Terminals 9-10 are connected to the moisture sensing probes in the motor marked W1-W2 via the cable provided with the motor.

Operation

Normally the oil surrounding the probes is nonconductive, and the control and seal leakage indicator light will be de-energized. An influx of moisture past the outer seal and into the oil reservoir will change the conductivity of the

oil and this condition will cause the relay to energize, and the seal leakage light will energize to indicate a seal leakage. Load contacts 5-6 and/or 7-8 will also change from their normally open or normally closed position when the control energizes.

Test Procedure

A normally closed pushbutton and neon indicating lamp are provided as a part of the control for testing the moisture sensing components. The motor manufacturer has provided a 330,000 ohm resistor across the probes inside the motor to complete the test. When the test pushbutton is depressed, the neon indicating lamp will be illuminated to indicate:

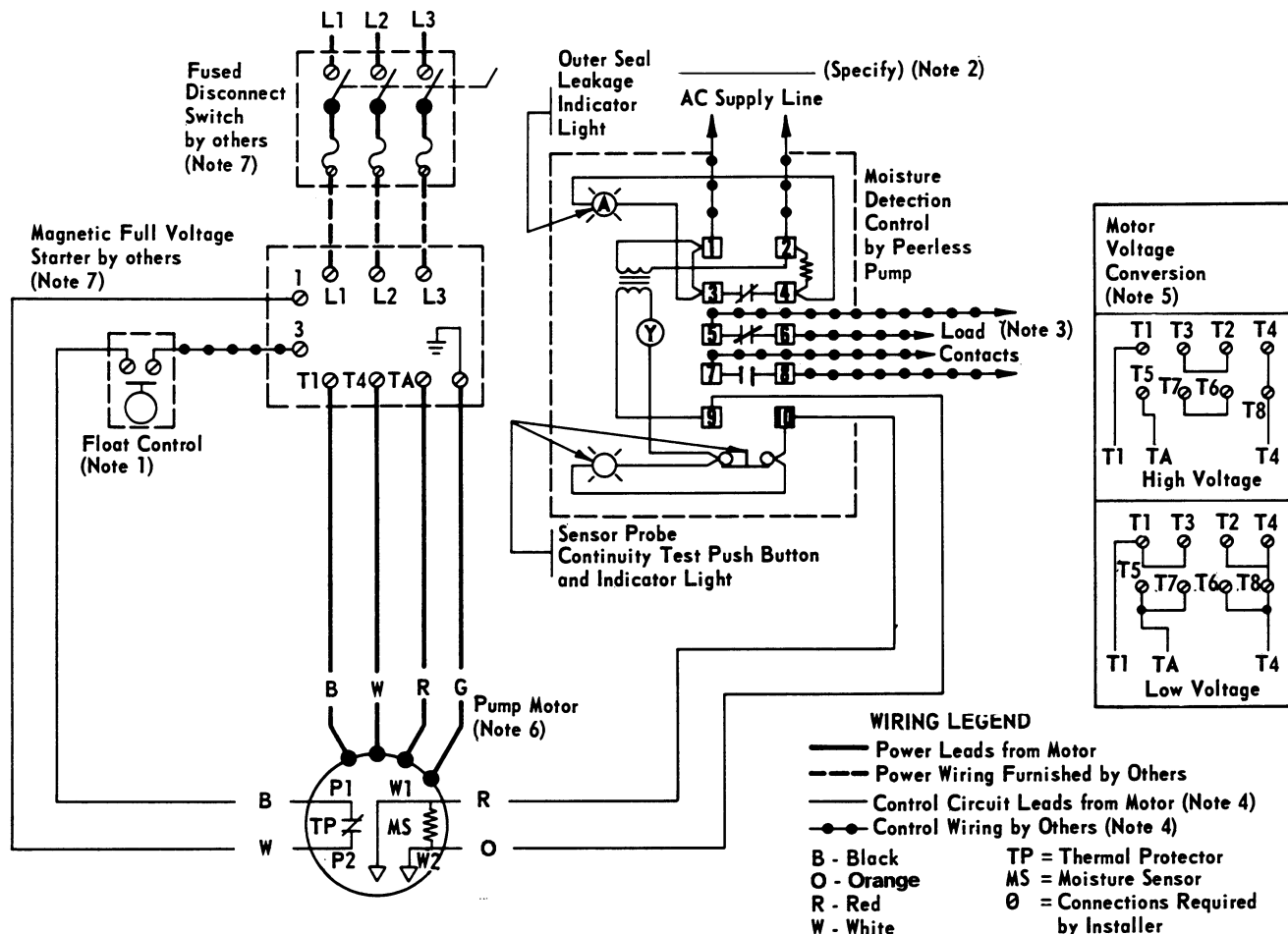
- (a) Power is supplied to the control.
- (b) The control is operative.
- (c) The wiring to the moisture sensing probes in the motor is intact.

This check does not simulate a seal leakage. An additional check can be made by removing the enclosure cover and momentarily placing a jumper (or 20,000 ohm resistor) across terminals 9-10 on the control. This will energize the control, and test out the neon indicating lamp and associated voltage dropping resistor across terminal 2 and 4.

CAUTION: Voltage will be present at all terminals on the control when this test is being made.

CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ PUMP MODEL NO. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____
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UNLESS CERTIFIED
FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS
Type UW
Three Phase Wiring Diagram
C84A or C93A Float Controls



NOTES:

1. Float Control must be wired in series with P1 & P2 and set to open circuit when liquid level drops no lower than minimums shown on pump dimension drawings.
2. Connect to A.C. supply line of voltage required. All wiring must be in accordance with N.E.C. and/or local electrical codes.
3. Connect terminals 7 & 8 to remote alarm device (by others). Terminals 5 & 6 can be wired in series with float control to shut pump down if moisture is detected.
4. Combined length of control circuit leads and control wiring to moisture detection control must not exceed 100 feet.
5. Motors are furnished by factory with motor leads connected for specified voltage. If it is necessary for voltage to be changed in the field reconnect terminals in motor terminal head in accordance with conversion diagrams. Splices must be watertight (see motor instructions for further information).
6. The motor warranty is valid only if moisture detection and thermal protection system is connected and operable. Failure to utilize these voids warranty.
7. Connections to motor starter and disconnect switch are typical only. All equipment furnished by others is to be in accordance with N.E.C. and/or local electrical codes.

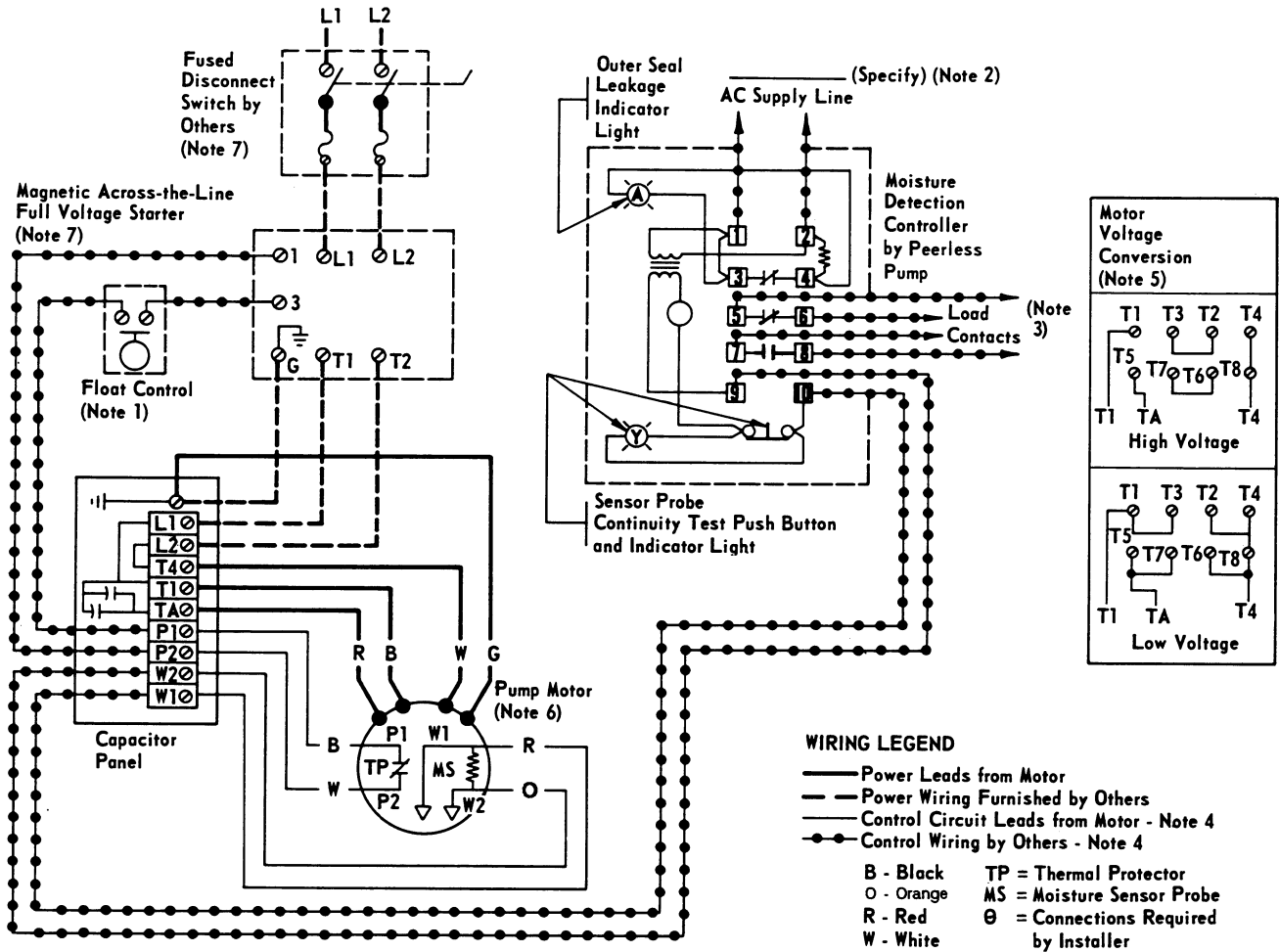
CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ PUMP MODEL NO. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS

Type UW

Single Phase Wiring Diagram C84A OR C93A Float Controls



NOTES:

- Float Control must be wired in series with P1 & P2 and set to open circuit when liquid level drops no lower than minimums shown on pump dimension drawings.
- Connect to A.C. supply line of voltage required. All wiring must be in accordance with N.E.C. and/or local electrical codes.
- Connect terminals 7 & 8 to remote alarm device (by others). Terminals 5 & 6 can be wired in series with float control to shut pump down if moisture is detected.
- Combined length of control circuit leads and control wiring to moisture detection control must not exceed 100 feet.
- Motors are furnished by factory with motor leads connected for specified voltage. If it is necessary for voltage to be changed in the field reconnect terminals in motor terminal head in accordance with conversion diagrams. Splices must be watertight (see motor instructions for further information).
- The motor warranty is valid only if moisture detection and thermal protection system is connected and operable. Failure to utilize these voids warranty.
- Connections to motor starter and disconnect switch are typical only. All equipment furnished by others is to be in accordance with N.E.C. and/or local electrical codes.

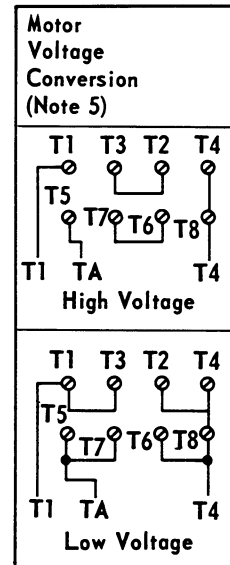
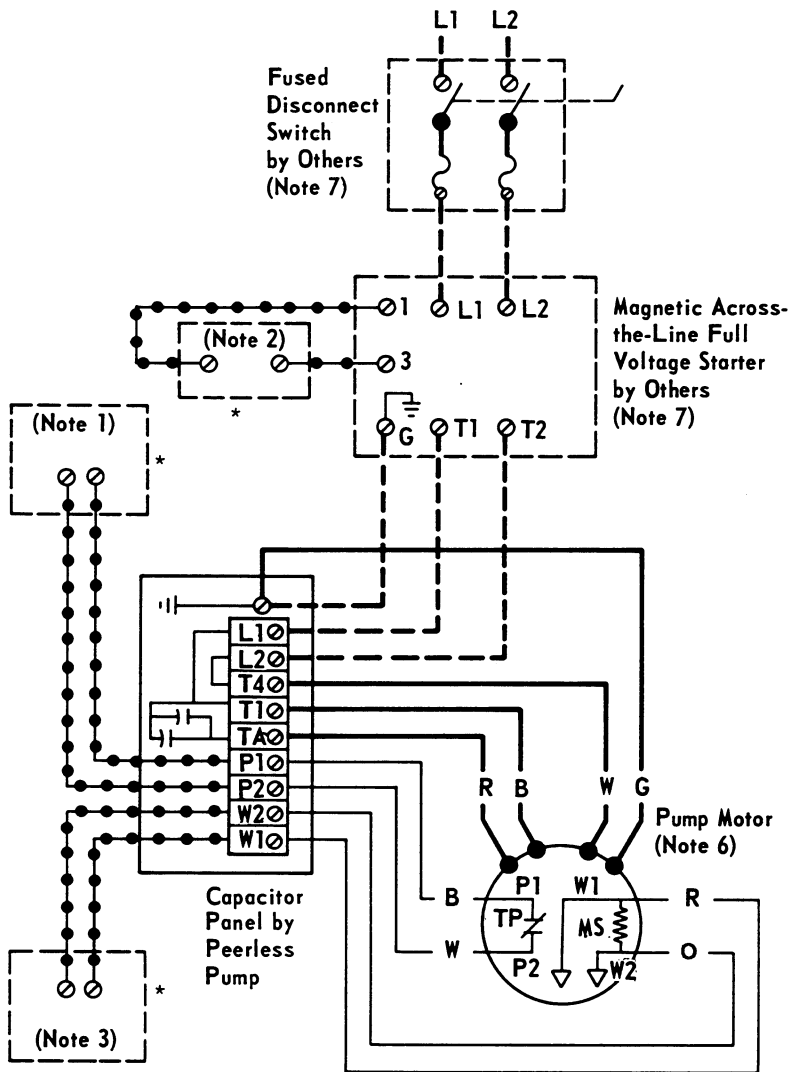
CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ PUMP MODEL NO. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS

Type UW

Single Phase Wiring Diagram Pilot Sealtrode® Controllers



WIRING LEGEND

- Power Leads from Motor
- - - Power Wiring Furnished by Others
- Control Circuit Leads from Motor - Note 4
- Control Wiring by Others - Note 4

- B - Black TP = Thermal Protector
- O - Orange MS = Moisture Sensor Probe
- R - Red θ = Connections Required by Installer
- W - White

* All Terminal Connections in Notes 1, 2 & 3 for Sealtrode Pilot Controller are in One Enclosure.

NOTES:

1. Connect to terminals P₁ & P₂ in simplex pilot Sealtrode controller. Connect to respective pairs of terminals P₁, P₂ & P₃, P₄ in duplex pilot Sealtrode controllers.
2. Connect to terminals 3 & 4 in simplex pilot Sealtrode controllers. Connect to respective pairs of terminals 3, 4 & 5, 6 in duplex pilot Sealtrode controller.
3. Connect to terminals W₁ & W₂ in simplex pilot Sealtrode controller. Connect to respective pairs of terminals W₁, W₂ & W₃, W₄ in duplex pilot Sealtrode controllers.
4. Combined length of control circuit leads and control wiring to moisture detection control in pilot controller must not exceed 100 feet.
5. Motors are furnished by factory with motor leads connected for specified voltage. If it is necessary for voltage to be changed in the field reconnect terminals in motor terminal head in accordance with conversion diagrams. Splices must be watertight (see motor instructions for further information).

6. The motor warranty is valid only if moisture detection and thermal protection system is connected and operable. Failure to utilize these voids warranty.
 7. Connections to motor starter and disconnect switch are typical only. All equipment furnished by others is to be in accordance with N.E.C. and/or local electrical codes.
- GENERAL: See Pilot Sealtrode Controller Wiring Diagrams for further wiring details.

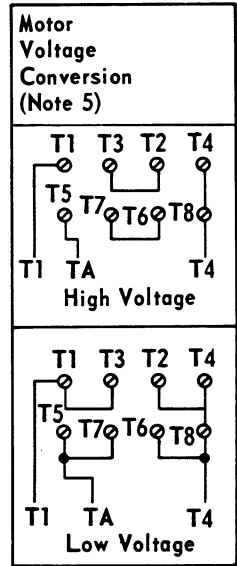
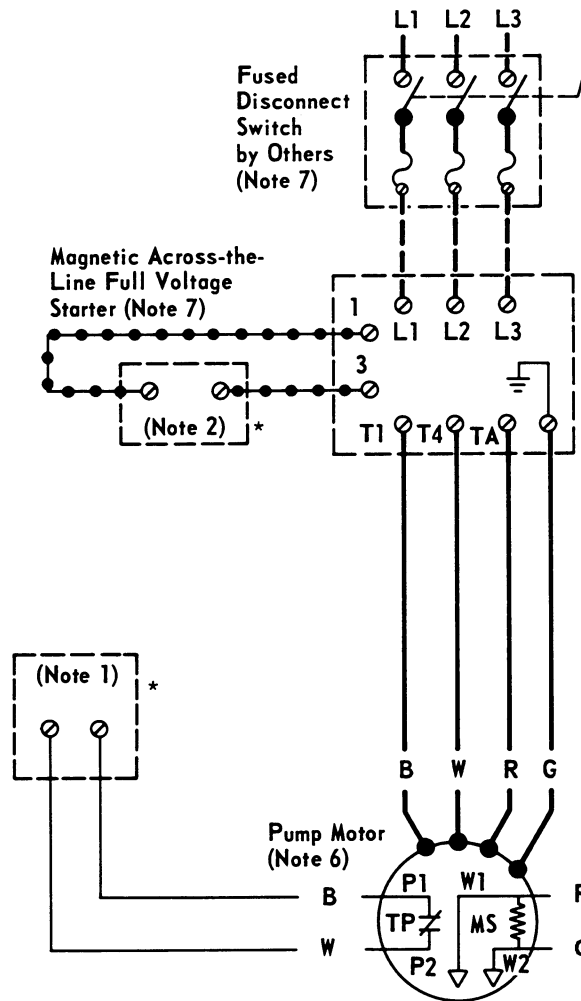
CUSTOMER _____ JOB NAME _____
P.O. NO. _____ ITEM NO. _____
S.O. NO. _____ PUMP MODEL NO. _____
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

SUBMERSIBLE SEWAGE PUMPS

Type UW

Three Phase Wiring Diagram Pilot Sealtrode® Controllers



WIRING LEGEND

- Power Leads from Motor
- Power Wiring Furnished by Others
- Control Circuit Leads from Motor - Note 4
- Control Wiring by Others - Note 4

B - Black TP = Thermal Protector
 O - Orange MS = Moisture Sensor Probe
 R - Red θ = Connections Required by Installer
 W - White

* All terminal connections in notes 1, 2 & 3 for Sealtrode Pilot Controller are in one enclosure.

NOTES:

1. Connect to terminals P1 & P2 in simplex pilot Sealtrode controller. Connect to respective pairs of terminals P1, P2 & P3, P4 in duplex pilot Sealtrode controllers.
2. Connect to terminals 3 & 4 in simplex pilot Sealtrode controllers. Connect to respective pairs of terminals 3, 4 & 5, 6 in duplex pilot Sealtrode controller.
3. Connect to terminals W1 & W2 in simplex pilot Sealtrode controller. Connect to respective pairs of terminals W1, W2 & W3, W4 in duplex pilot Sealtrode controllers.
4. Combined length of control circuit leads and control wiring to moisture detection control in pilot controller must not exceed 100 feet.
5. Motors are furnished by factory with motor leads con-

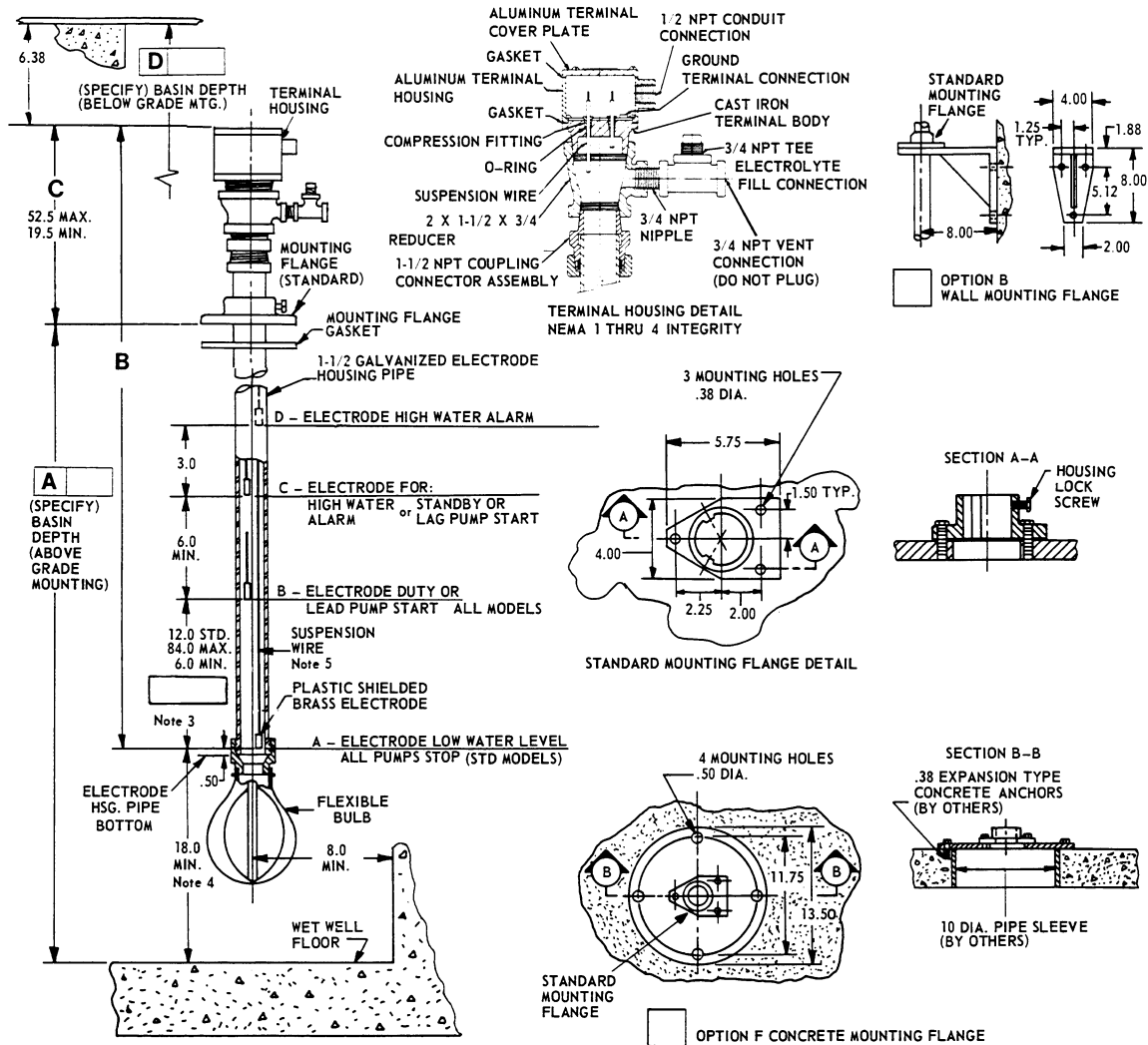
- ected for specified voltage. If it is necessary for voltage to be changed in the field reconnect terminals in motor terminal head in accordance with conversion diagrams. Splices must be watertight (see motor instructions for further information).
6. The motor warranty is valid only if moisture detection and thermal protection system is connected and operable. Failure to utilize these voids warranty.
7. Connections to motor starter and disconnect switch are typical only. All equipment furnished by others is to be in accordance with N.E.C. and/or local electrical codes.

GENERAL: See Pilot Sealtrode Controller Wiring Diagrams for further details.

CUSTOMER _____ JOB NAME _____
 P.O. NO. _____ ITEM NO. _____
 S.O. NO. _____ PUMP MODEL NO. _____
 CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

SUBJECT TO CHANGE
UNLESS CERTIFIED
FOR CONSTRUCTION

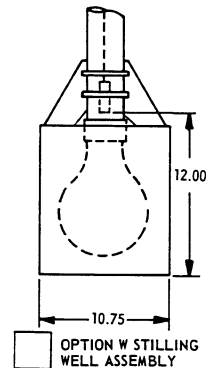
SEALTRODE® TERMINAL HOUSING ASSEMBLY
For Pilot or Duplex Combination Controllers
Series 27 and 67



Basin Depth From To Ft.-In. Ft.-In.	Option No.	Above Grade Mounting	C=B+18.0- Basin Depth	Weight Lbs.
3-0	5-9	53	70.5	20
6-0	8-9	83	106.5	30
9-0	11-9	113	142.5	40
12-0	14-9	143	178.5	50
15-0	17-9	173	214.5	60
18-0	20-9	203	250.5	70
21-0	23-9	233	286.5	80
24-0	26-9	263	322.5	90
27-0	29-9	293	358.5	100

Basin Depth	B=Basin Depth - 24.38 Minimum B Dim. is 43.62	C	Wt. Lbs.
	B	13.62	7 Lbs. + 3 Lbs. per each foot Basin Depth

- Notes:
- If terminal housing is installed in an explosive atmosphere, pipe vent connection to uncontaminated air. (Piping by others.)
 - Below grade mounting SEALTRODE is furnished with 48 inches of wire past the terminal housing. This allows the electrical connection to be made outside of the basin. DO NOT allow the liquid level in the basin to submerge the terminal housing when installed below grade.
 - Specify when other than standard setting is required.
 - The actual height must be set to keep pump casing flooded. Refer to pump dimensional drawing for minimum water level exceeding 18 inches.
 - Suspension wires in terminal housing are labeled A, B, C, D. Refer to wiring diagram for proper connections in controller.
 - Electrolyte solution consists of a mixture of 1 ounce sodium bicarbonate and 3.5 quarts of distilled water.
 - When basin depth exceeds 20 feet housing pipe must be supported by wall brackets (by others).
 - All dimensions are in inches.
 - The control panel must be installed in a non-hazardous area where explosive atmosphere will not exist at any time. Wire the Sealtrode electrode wires A, B, C, D and ground as shown in the specific application wiring diagram. A separate rigid conduit must be used to enclose the conductors of the intrinsically safe control circuit. A UL listed seal must be used at the point where the intrinsically safe control circuit wiring enters the hazardous area.



CUSTOMER _____ JOB NAME _____

P. O. NO. _____ ITEM NO. _____

S.O. NO. _____ CONTROLLER MODEL _____ NO. OF ELECTRODES _____ WT LB _____

ELECTRODE TERMINAL HSG. ENCL. _____ CONTROLLER ENCLS _____ BASIN DEPTH _____ TYPE _____

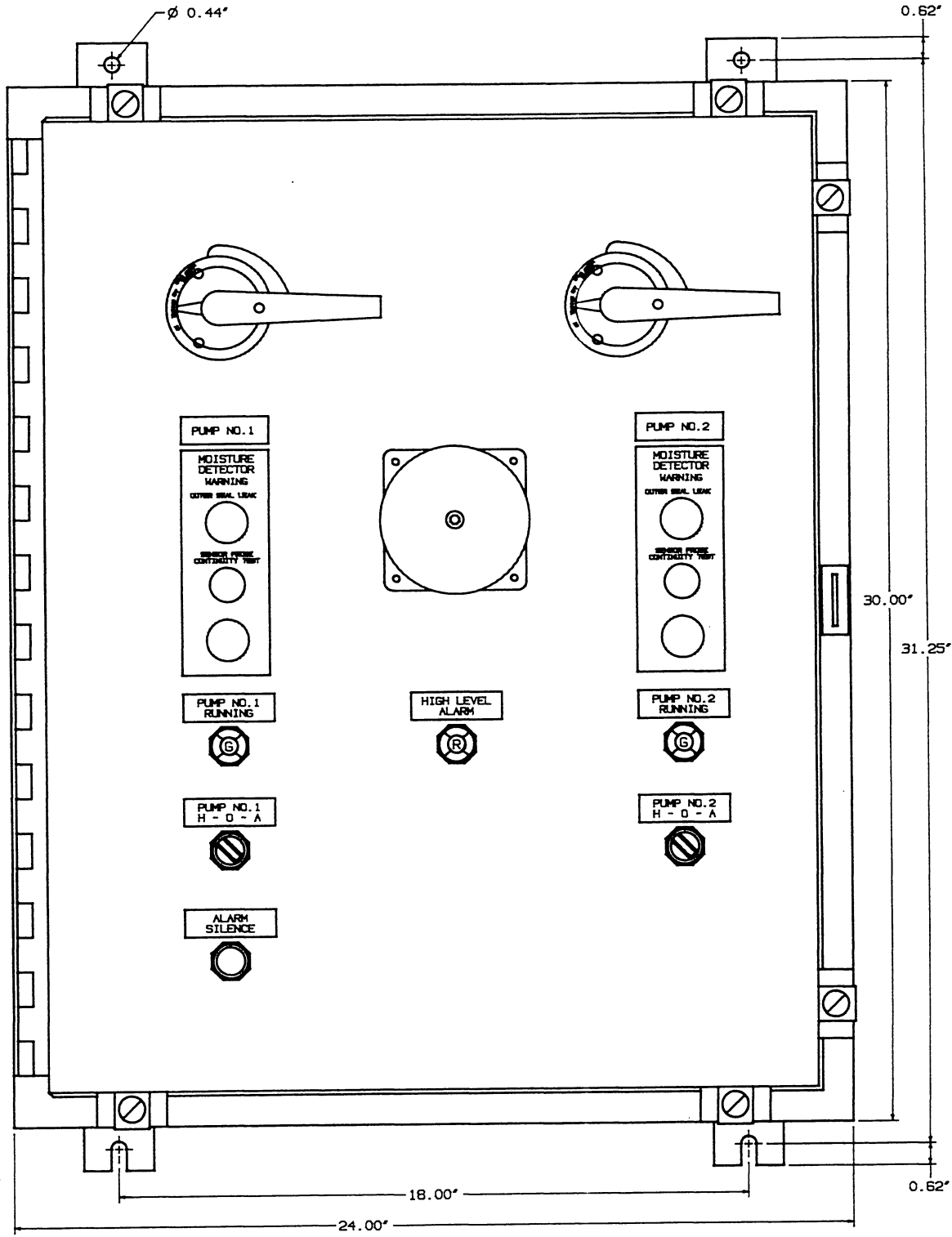
CERTIFIED FOR APPROVAL CONSTRUCTION BY _____ DATE _____

Subject to change unless certified for construction

DT 4853314



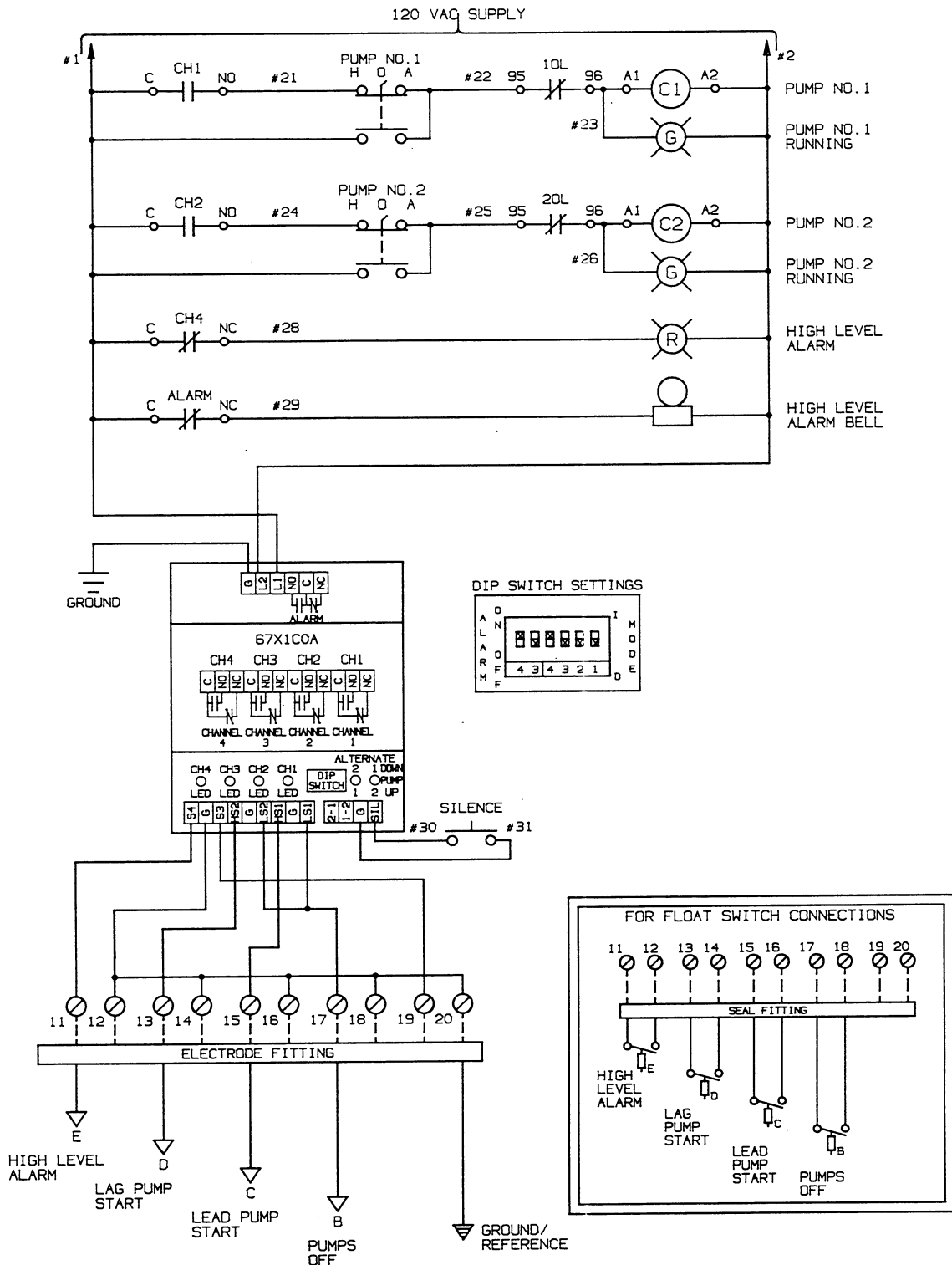
SEALTRODE® FLOATLESS CONTROLLERS
Model DY60UFD-67 Duplex Combination Pump Down
Controller with Solid State Circuitry, Fusible
Disconnect Switches, Motor Starters, H-O-A Selector
Switches, Automatic Alternator and Audible/Visible
High Water Alarm with Silencing Push Button Switch,
Moisture Detection Control Circuitry
Outline Dimensional Drawing NEMA 4 Enclosure



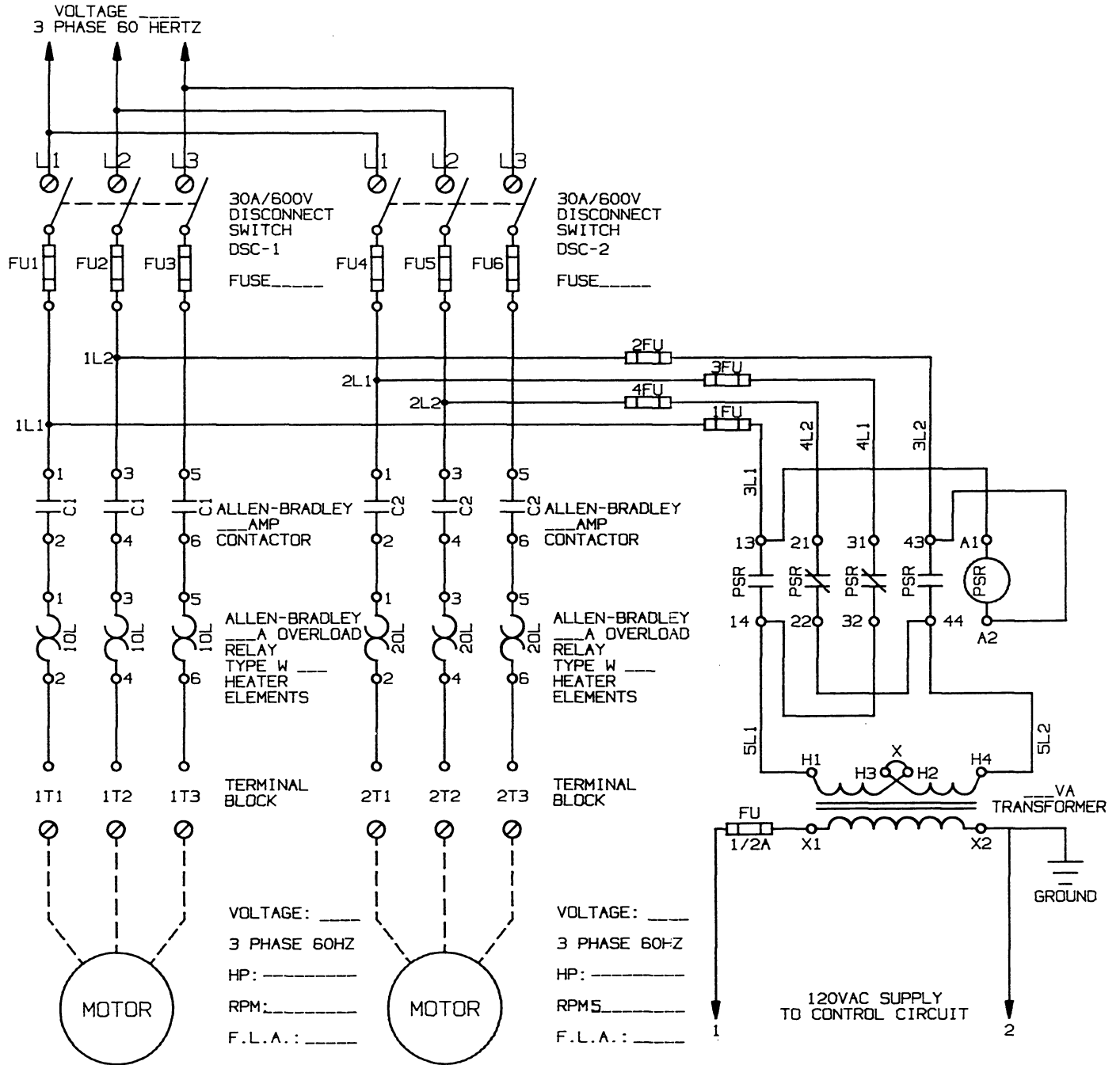
SEALTRODE® FLOATLESS CONTROLLERS
Model DY60UFD-67 Duplex Combination Pump Down
Controller with Solid State Circuitry, Fusible Disconnect
Switches, Motor Starters, H-O-A Selector Switches,
Automatic Alternator and Audible/Visible High Water
Alarm with Silencing Push Button Switch, Moisture
Detection Control Circuitry



Typical Wiring Diagram Control Circuitry



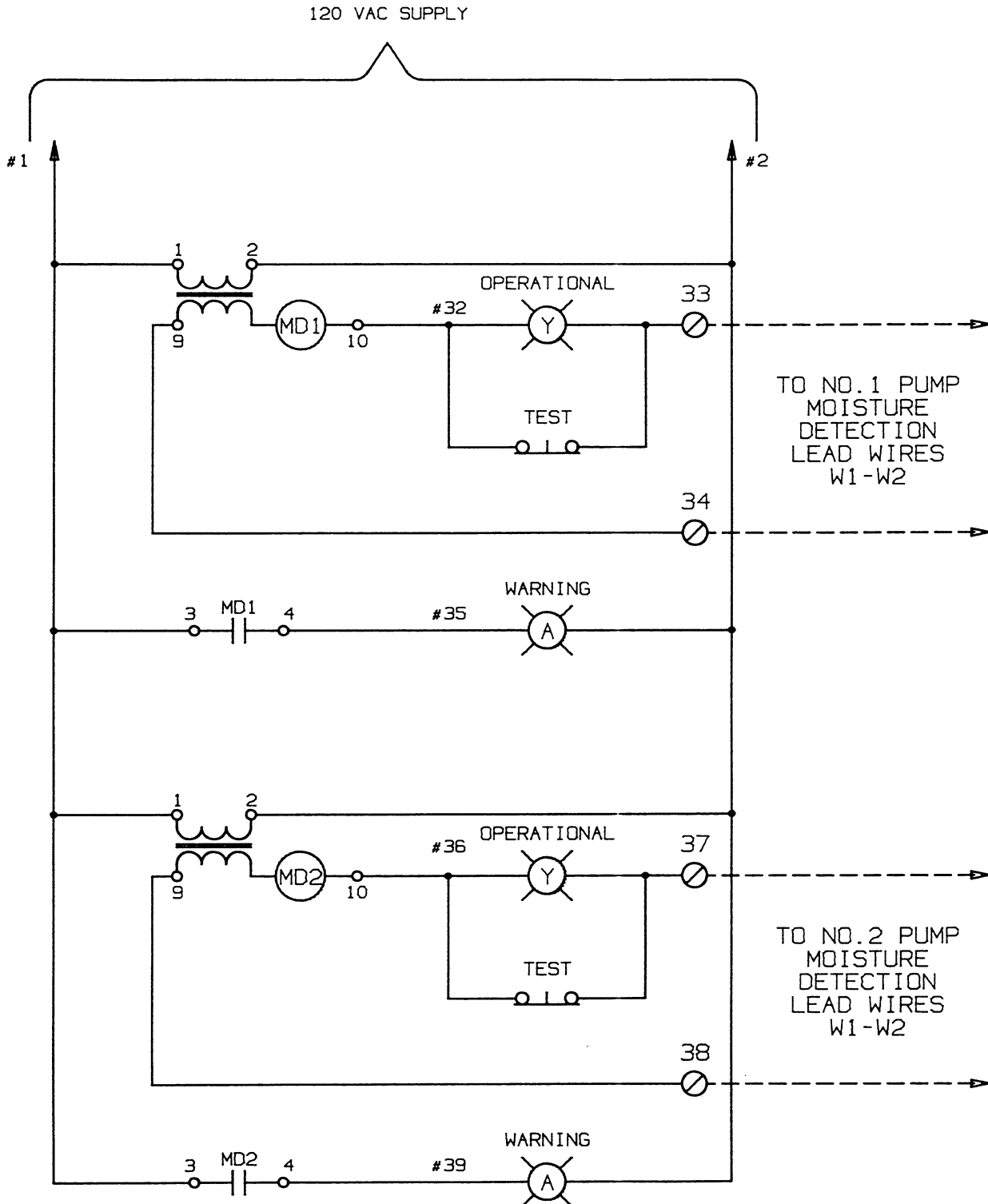
SEALTRODE® FLOATLESS CONTROLLERS
Model DY60UFD-67 Duplex Combination Pump Down
Controller with Solid State Circuitry, Fusible
Disconnect Switches, Motor Starters, H-O-A Selector
Switches, Automatic Alternator and Audible/Visible
High Water Alarm with Silencing Push Button Switch,
Moisture Detection Control Circuitry
Typical Wiring Diagram Power Supply



SEALTRODE® FLOATLESS CONTROLLERS
Model DY60UFD-67 Duplex Combination Pump Down
Controller with Solid State Circuitry, Fusible Disconnect
Switches, Motor Starters, H-O-A Selector Switches,
Automatic Alternator and Audible/Visible High Water
Alarm with Silencing Push Button Switch, Moisture
Detection Control Circuitry



Typical Wiring Diagram Moisture Detection Control Circuitry

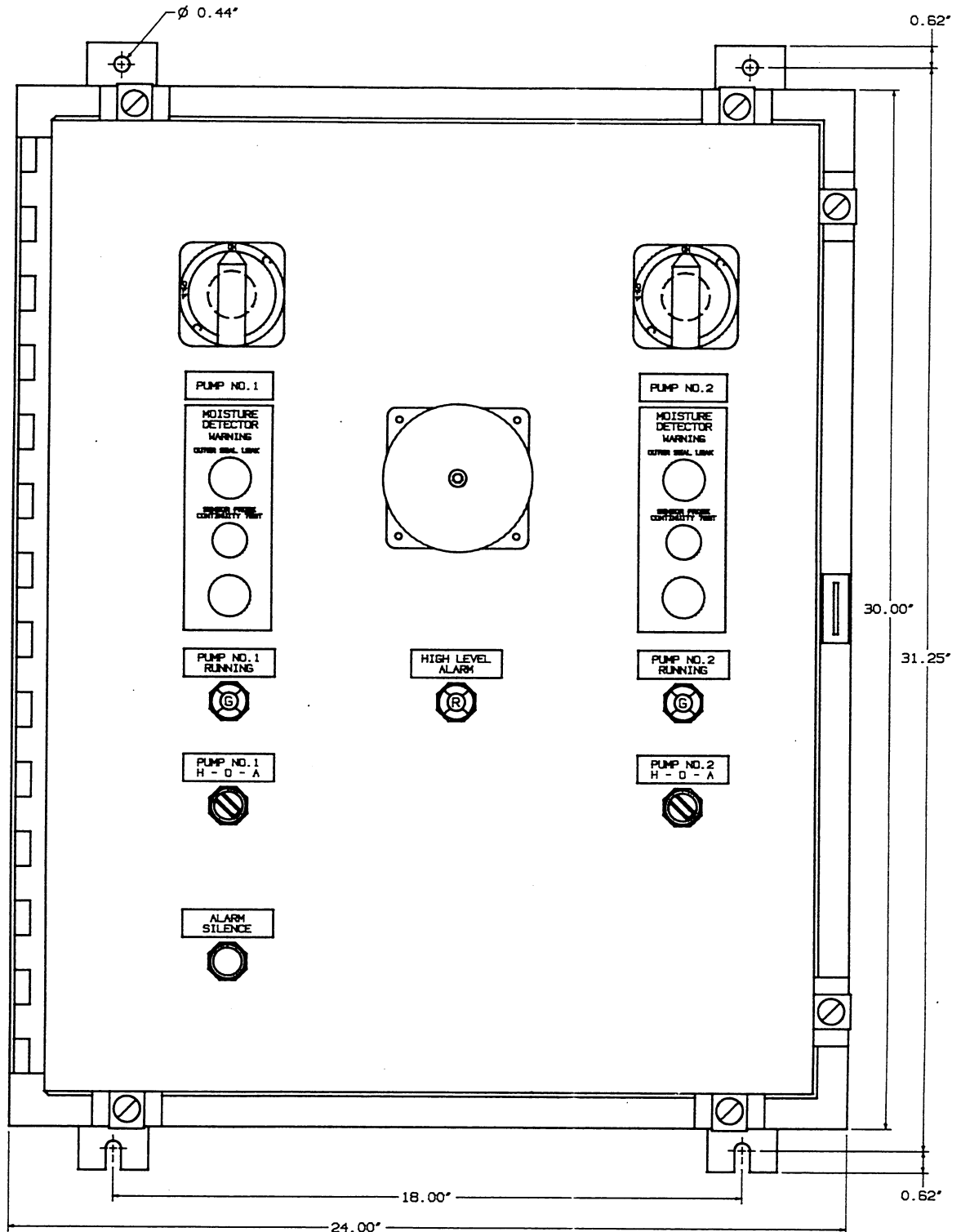




Peerless Pump Company
Indianapolis, IN 46207-7026

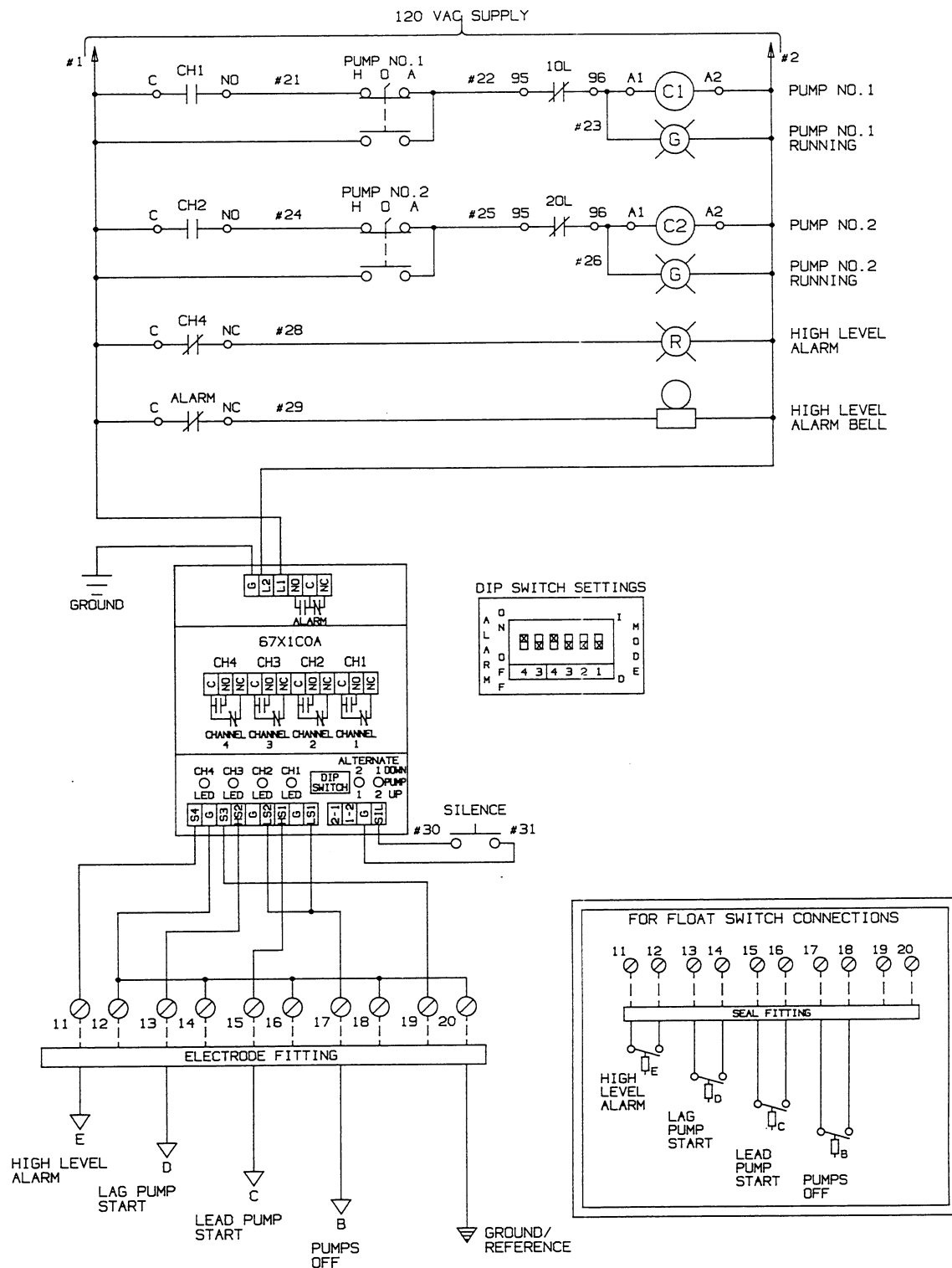
SEALTRODE® FLOATLESS CONTROLLERS
Model DY60UCB-67 Duplex Combination Pump Down
Controller with Solid State Circuitry, Thermal Magnetic
Circuit Breakers, Motor Starters, H-O-A Selector
Switches, Automatic Alternator and Audible/Visible
High Water Alarm with Silencing Push Button Switch,
Moisture Detection Control Circuitry
Outline Dimensional Drawing NEMA 4 Enclosure

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May 25, 1994

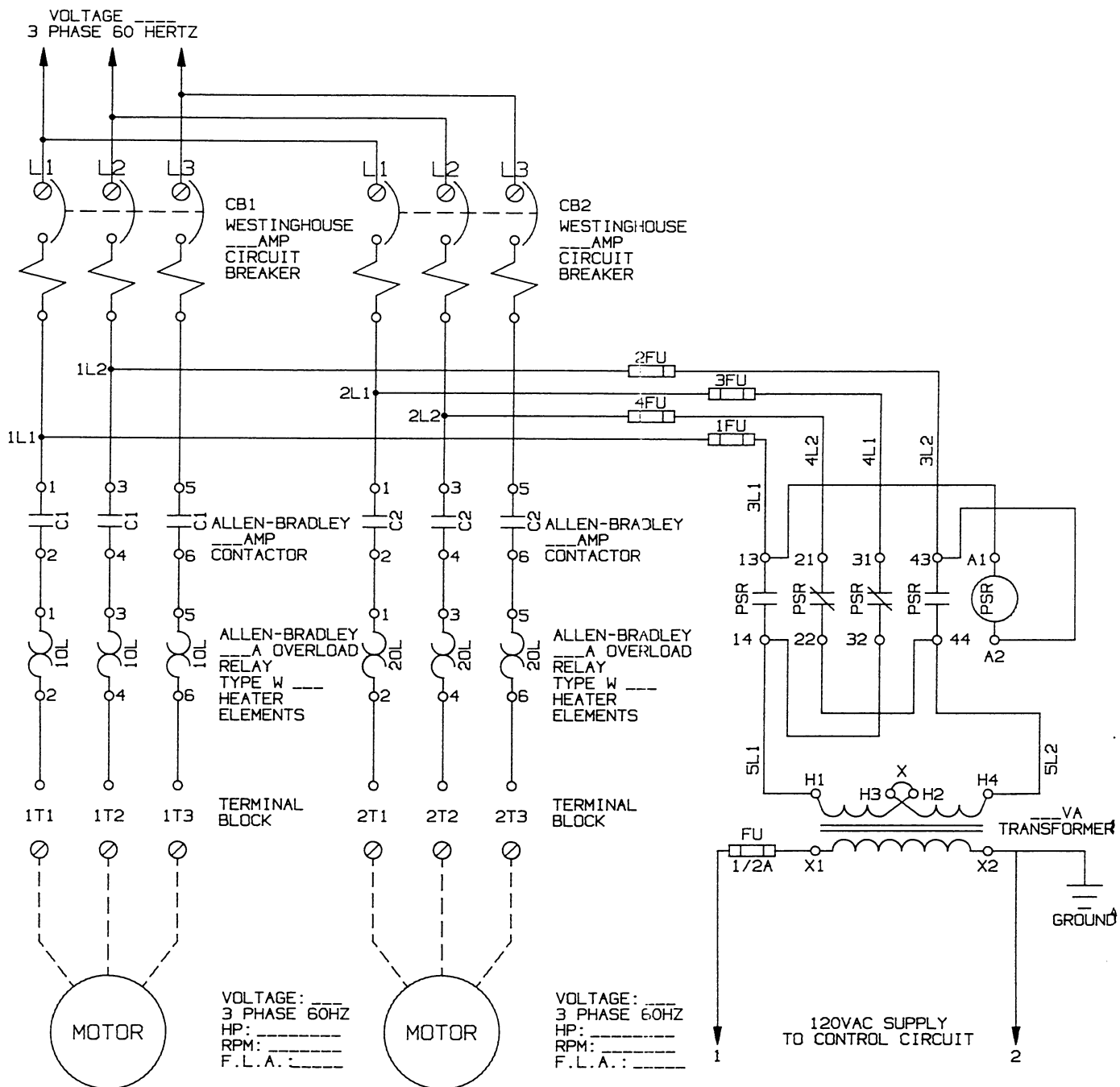


SEALTRODE® FLOATLESS CONTROLLERS
Model DY60UCB-67 Duplex Combination Pump Down
Controller with Solid State Circuitry, Thermal Magnetic
Circuit Breakers, Motor Starters, H-O-A Selector
Switches, Automatic Alternator and Audible/Visible High
Water Alarm with Silencing Push Button Switch, Moisture
Detection Control Circuitry

Typical Wiring Diagram Control Circuitry



SEALTRODE® FLOATLESS CONTROLLERS
Model DY60UCB-67 Duplex Combination Pump Down
Controller with Solid State Circuitry, Thermal Magnetic
Circuit Breakers, Motor Starters, H-O-A Selector
Switches, Automatic Alternator and Audible/Visible
High Water Alarm with Silencing Push Button Switch,
Moisture Detection Control Circuitry
Typical Wiring Diagram Power Supply



SEALTRODE® FLOATLESS CONTROLLERS
Model DY60UCB-67 Duplex Combination Pump Down
Controller with Solid State Circuitry, Thermal Magnetic
Circuit Breakers, Motor Starters, H-O-A Selector
Switches, Automatic Alternator and Audible/Visible High
Water Alarm with Silencing Push Button Switch, Moisture
Detection Control Circuitry

Typical Wiring Diagram Moisture Detection Control Circuitry

120 VAC SUPPLY

