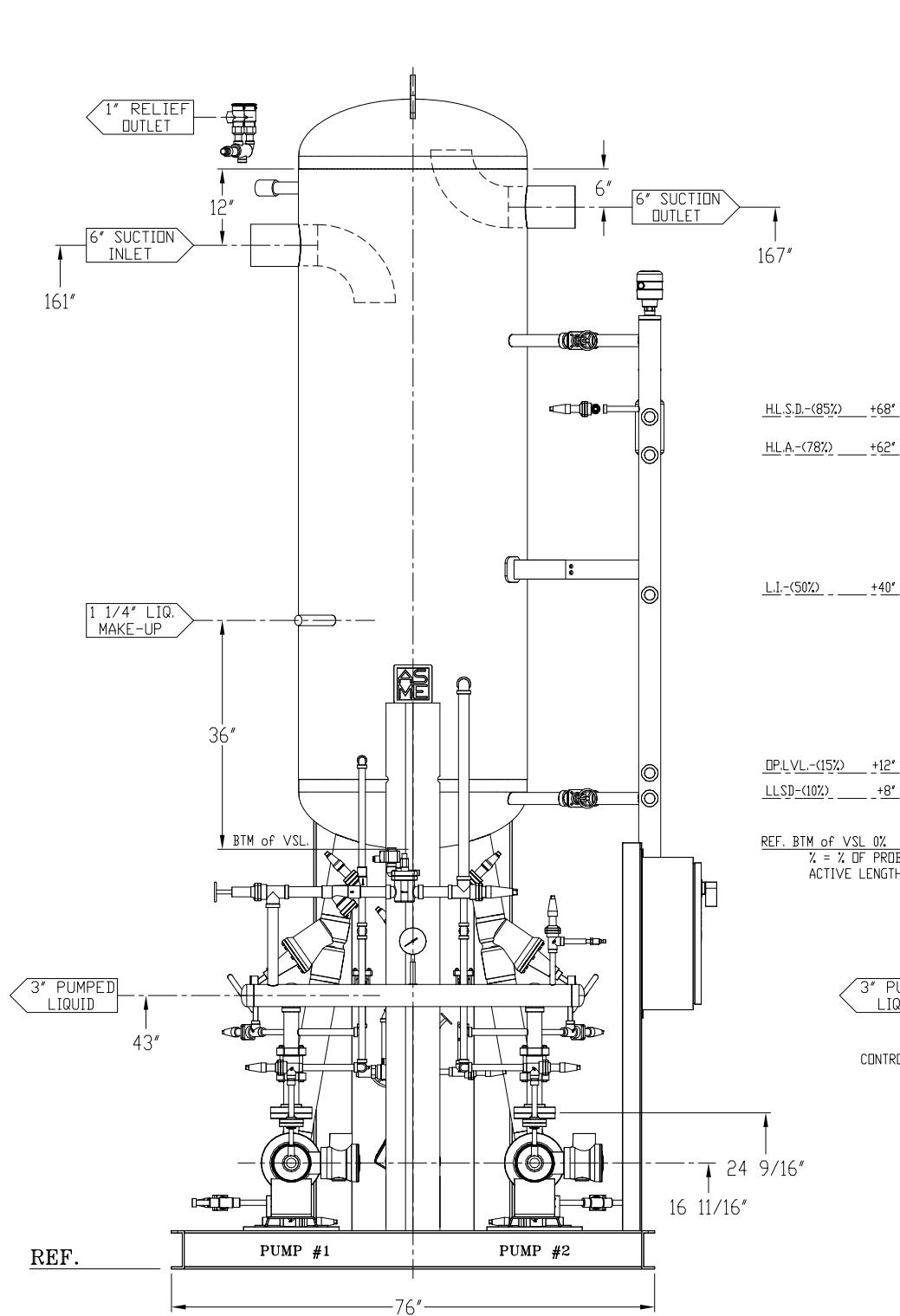
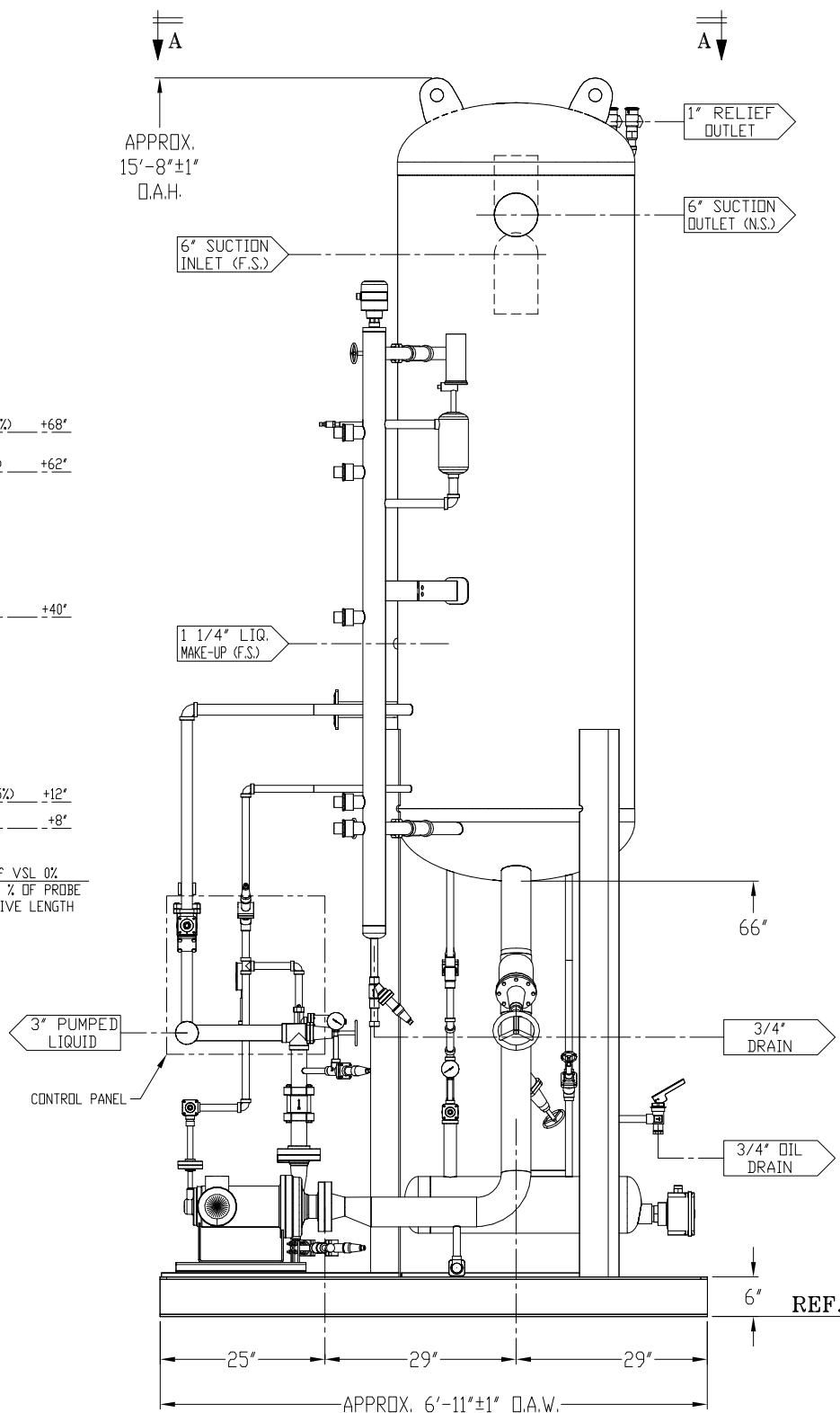


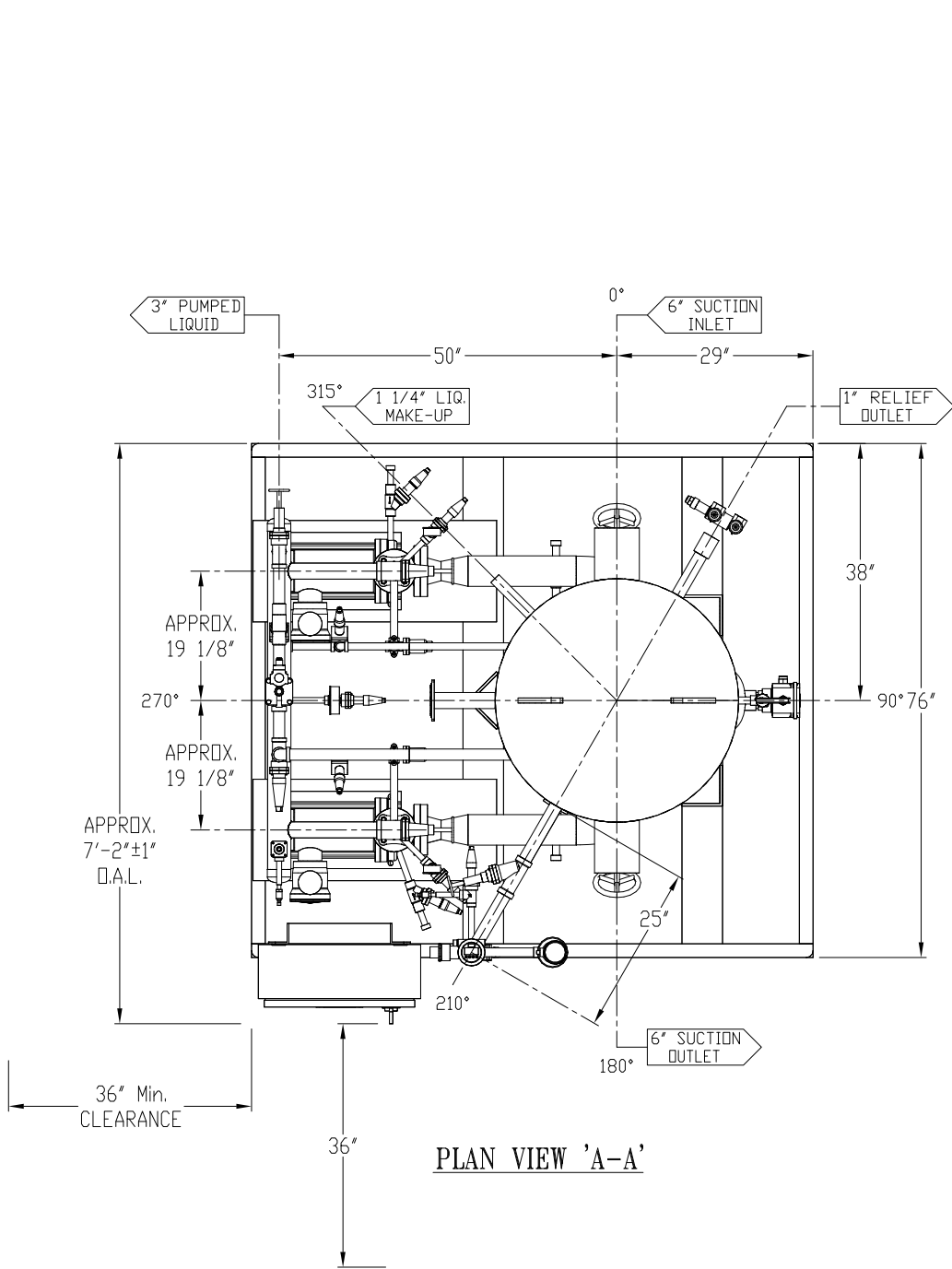


FRONT ELEVATION VIEW



RIGHT ELEVATION VIEW

(CONTROL PANEL SHOWN IN PHANTOM IN THIS VIEW FOR CLARITY)



PLAN VIEW 'A-A'

CERTIFIED

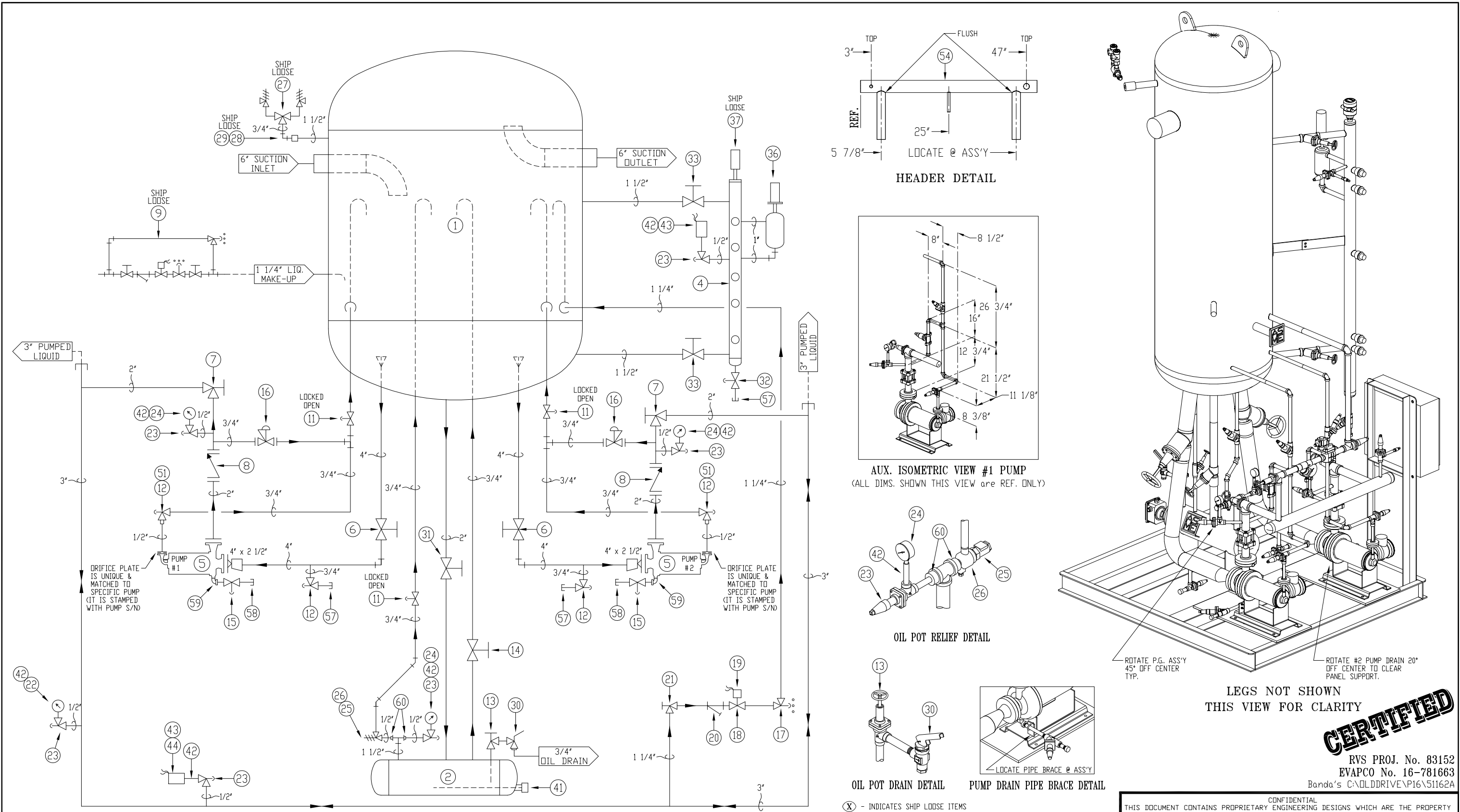
RVS PROJ. No. 83152
EVAPCO No. 16-781663
Banda's C:\OLDDRIVE\PI6\51162A

GENERAL NOTES:

- 1.) ALLOW 7" INSUL. CLEARANCE ON VESSEL.
- 2.) ALLOW 3" INSUL. CLEARANCE ON PIPING.
- 3.) LEVEL & GROUT ON SITE BY OTHERS.
- 4.) ITEM 37 - TRIM CABLE TO 86".

DESIGN PRESSURE		ELECTRICAL	
250 PSIG @ 300 °F		R.V.S. TO SUPPLY A NEMA 4 ELECTRICAL CONTROL PANEL	
DUAL STAMP FOR 85 PSIG @ -50 °F		R.V.S. TO SUPPLY MOTOR STARTER DISCONNECTS 5 Hp	
PNEUMATIC TEST @ 275 PSIG		R.V.S. TO FACTORY WIRE	
SPECIFICATIONS		MATERIAL	
REFRIGERANT: NH3		PIPE: SA106B	
MAX VESSEL CAPACITY 130 TR @ -40 °F		B.W. FITTINGS: SA234-WPB	
MAX SURGE VOLUME AVAILABLE: 25 CF		S.W. FITTINGS, CPLG'S & FLNG'S: SA105	
PUMP CAPACITY: 60 GPM @ 45 PSID		BOLTS: SA193-B7 NUTS: SA194-2H	
N.P.S.H. REQ'D: 4.0' H.P.: 4.5			
FINISH			
SANDBLASTED SSPC-SP6 & RVS HYPER BLUE PRIMER, DRAINED & NITROGEN CHARGED.			

SHIPPING DIMS: 7'-4" W1 x 7'-0" H1 x 15'-9" LNG x 4,915 Lbs DRY			
CUSTOMER PROTEC INDUSTRIAL P.O. 622.802			
REVISIONS			
Rev.	DATE	BY	DESCRIPTION
0	03-28-16	BANDA	RELEASED for FABRICATION.
TITLE 36" O.D. x 9'-10" 250# ASME Vrt. MRP-36 RECIRCULATOR ASSEMBLY w/ 2 TEIKOKU PUMPS			
DRAWN BY: BANDA CHK'D BY: JLB 03-28-16 S/N: 51162			
APR'D BY: D.S. 04-04-16 SCALE: 1'=1'-0" Thru			
PACKAGED VESSEL SYSTEMS and CONTROLS 1620 CROSSWIND DRIVE, BRYAN, TX. 77808			
DWG No. 51162A REV. 0			



BILL OF MATERIALS									
ITEM	QTY	DESCRIPTION	PART No.	MFTR	ITEM	QTY	DESCRIPTION	PART No.	MFTR
60	2	1 1/2" x 1/2" S.W. REDUCING INSERT, 3000#			45	1	MATRIX MICRO CONTROL PANEL , (MMP-2-5) See DWG	51162E	R.V.S.
59	2	1/2" THD. 90° STREET ELBOW, 3000#			44	1	MINIATURE RAY SNUBBER 0 to 15,000 PSI	022S	DMS, INC.
58	2	1/2" THD. PIPE CAP w/ 1/2" S/80 PIPE (T.B.E.) x 4" LONG			43	2	1/4" NPT PRESSURE TRANSDUCER		
57	3	3/4" THD. PIPE CAP w/ 3/4" S/80 PIPE (T.O.E.) x 4" LONG			42	6	1/4" LONG CPLG, 3000#, SA350-LF2 CL.1 @ 4" LONG		
56					41	1	1.5kW OIL HEATER AREMTO-3015SE4T1XX (460/1/60)	156-506H-662	CHROMALOX
55					40				
54	1	3" PIPE, S40 @ 50" LONG (HEADER)			39				
53	2	3" B.W. PIPE CAP, S/40			38				
52	2	4" B.W. 90° ELBOW, S/40, L.R.			37	1	LIQUID LEVEL SENSOR CABLE TYPE (TRIM LENGTH 86") - AKS-4100U	084H4521	DANFOSS
51	2	3/4" x 1/2" S.W. REDUCING INSERT, 3000#			36	1	L.L.L. FLOAT SWITCH		HANSEN
50					35				
49	2	4" x 2 1/2" B.W. ECCENTRIC REDUCER, S/40			34				
48	2	1/2"-300# RFSD FLANGE, w/ FULL FACE GSKT,(8)-5/8"-11 STUD BOLT x 2 1/2" LONG,(16)-1/2"-13 HVY HEX NUT			33	2	1 1/2" S.W. EXT. NECK GLOBE VALVE w/ HANDWHEEL	148B5672	DANFOSS
47	2	2"-300# RFSD FLANGE, w/ FULL FACE GSKT,(8)-5/8"-11 STUD BOLT x 3 1/2" LONG,(16)-5/8"-11 HVY HEX NUT			32	1	3/4" S.W. EXT. NECK GLOBE VALVE w/ SEALCAP	148B5373	DANFOSS
46	2	2 1/2"-300# RFSD FLANGE, w/ FULL FACE GSKT,(8)-5/8"-11 STUD BOLT x 3 1/2" LONG,(16)-5/8"-11 HVY HEX NUT			31	1	2" S.W. GLOBE VALVE w/ HANDWHEEL	148B5732	DANFOSS
30	1	3/4" FPT. QUICK CLOSING OIL DRAIN VALVE, TYPE QDV 15	148H3274	DANFOSS	29	1	3/4" THD. 90° ELBOW, 3000# (NOT SHOWN)		
29	1	3/4" THD. 90° ELBOW, 3000# (NOT SHOWN)			28	2	3/4" THD. NIPPLE, S/80, SA106B @ 3" LONG (NOT SHOWN)		
28	2	3/4" THD. NIPPLE, S/80, SA106B @ 3" LONG (NOT SHOWN)			27	1	3/4" x 1" DUAL RELIEF VALVE ASS'Y SET @ 250 PSI	H5632RD	HANSEN
27	1	3/4" x 1" DUAL RELIEF VALVE ASS'Y SET @ 250 PSI	H5632RD	HANSEN	26	1	EZ-SRV CARTRIDGE RELIEF VALVE SET @ 150 PSI	EZB-150H	HANSEN
26	1	EZ-SRV CARTRIDGE RELIEF VALVE SET @ 150 PSI	EZB-150H	HANSEN	25	1	1/2" x 3/4" S.W. EZ FITTING	BW1	HANSEN
25	1	1/2" x 3/4" S.W. EZ FITTING	BW1	HANSEN	24	3	2 1/2" x 0-300# PRESSURE GAUGE (GLYCERINE FILLED)	4H1FV-254H	E.S.P.
24	3	2 1/2" x 0-300# PRESSURE GAUGE (GLYCERINE FILLED)	4H1FV-254H	E.S.P.	23	6	1/2" S.W. EXT. NECK ANGLE VALVE w/ SEALCAP	148B5263	DANFOSS
23	6	1/2" S.W. EXT. NECK ANGLE VALVE w/ SEALCAP	148B5263	DANFOSS	22	1	4" x 0-300# PRESSURE GAUGE (GLYCERINE FILLED)	4H1FV-404H	E.S.P.
22	1	4" x 0-300# PRESSURE GAUGE (GLYCERINE FILLED)	4H1FV-404H	E.S.P.	21	1	1 1/4" S.W. EXT. NECK ANGLE VALVE w/ HANDWHEEL	148B5562	DANFOSS
21	1	1 1/4" S.W. EXT. NECK ANGLE VALVE w/ HANDWHEEL	148B5562	DANFOSS	20	1	1 1/4" S.W. GLOBE STRAINER (F1A32 SOC STR)	148X0129	DANFOSS
20	1	1 1/4" S.W. GLOBE STRAINER (F1A32 SOC STR)	148X0129	DANFOSS	19	1	110 VAC COIL w/ TERMINAL BOX & PILOT w/ LED FOR ITEM 18	018F6816	DANFOSS
19	1	110 VAC COIL w/ TERMINAL BOX & PILOT w/ LED FOR ITEM 18	018F6816	DANFOSS	18	1	1 1/4" PORT SOLENOID VALVE w/ 1 1/4" S.W. CONN. (ICS-32)	148X0214	DANFOSS
18	1	1 1/4" PORT SOLENOID VALVE w/ 1 1/4" S.W. CONN. (ICS-32)	148X0214	DANFOSS	17	1	1 1/4" S.W. EXPANSION ANGLE VALVE w/ SEALCAP	148B5504	DANFOSS
17	1	1 1/4" S.W. EXPANSION ANGLE VALVE w/ SEALCAP	148B5504	DANFOSS	16	2	1/2" RESEATING RELIEF REGULATOR w/ 3/4" S.W. FLNG, RANGE B 150 PSI	HA2BK	HANSEN
16	2	1/2" RESEATING RELIEF REGULATOR w/ 3/4" S.W. FLNG, RANGE B 150 PSI	HA2BK	HANSEN					

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CUSTOMER

PROTEC INDUSTRIAL

P.O. 622.802

REVISIONS

Rev.	DATE	BY	DESCRIPTION	APR'D
0	03-28-16	BANDA	RELEASED for FABRICATION.	D.S.

TITLE

PIPING & INSTRUMENTATION DIAGRAM
MRP-36V RECIRCULATOR ASSEMBLY
w/ 2 TEIKOKU PUMPS

DRAWN BY: BANDA
CHK'D BY: J.L.B.
APR'D BY: D.S.

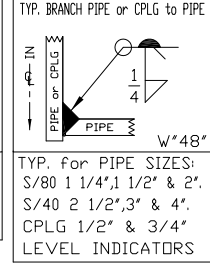
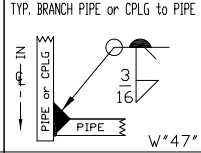
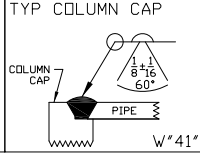
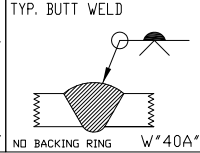
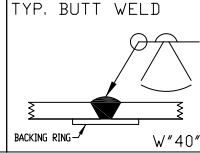
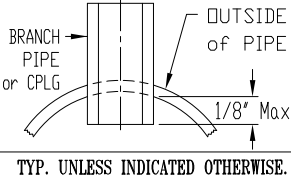
03-28-16
S/N: 51162
SCALE: N.T.S.
Thru

REFRIGERATION VALVES and SYSTEMS CORPORATION
A WHOLLY OWNED SUBSIDIARY OF EVAPCO INC.

PACKAGED VESSEL SYSTEMS and CONTROLS
1520 CROSSWIND DRIVE, BRYAN, TX. 77808

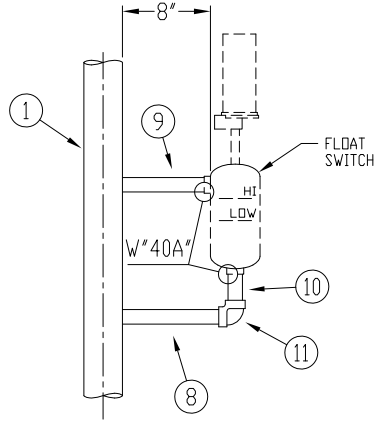
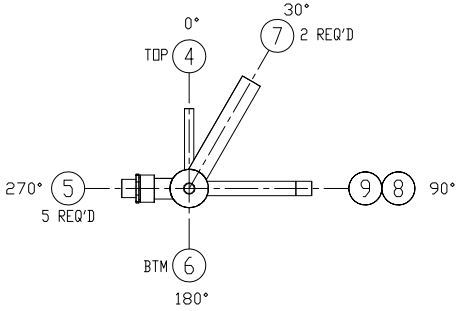
DWG No. 51162A
REV. 0

GENERAL NOTES
1.) SA53B SMLS PIPE MAY BE SUBSTITUTED FOR SA106B SEAMLESS PIPE.
2.) ALL BOLTS STRADDLE CENTERLINES.
3.) ALL GLOBE VALVE STEMS TO BE HORIZONTAL.
4.) AIR TEST at 275 PSI
5.) ALL WELDS:
CARBON STL. to CARBON STL.: WPS-1-1
STAINLESS STL. to STAINLESS STL.: WPS-8-8
CARBON STL. to STAINLESS STL.: WPS-1-8
6.) ALL HOLES SHALL BE DRILLED.

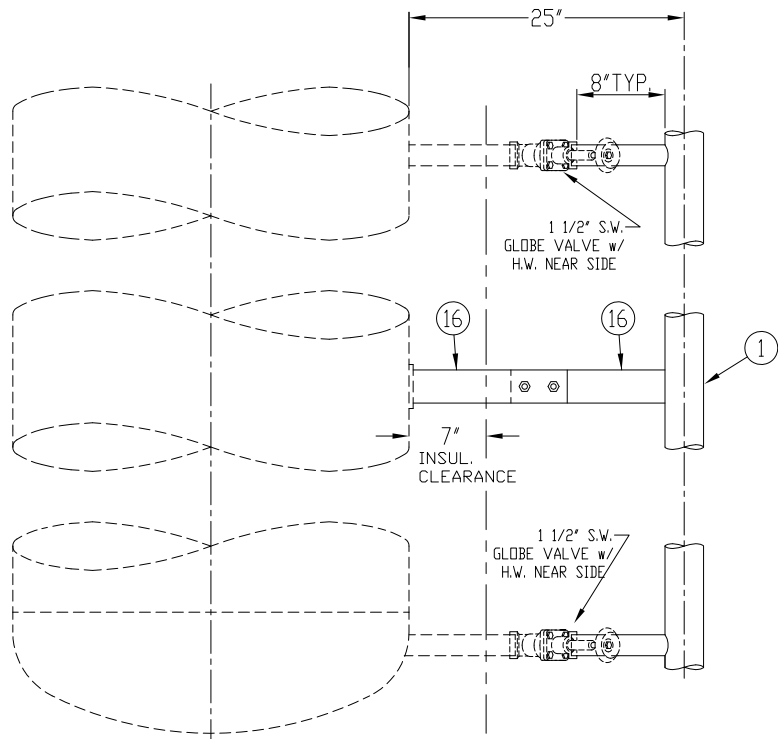
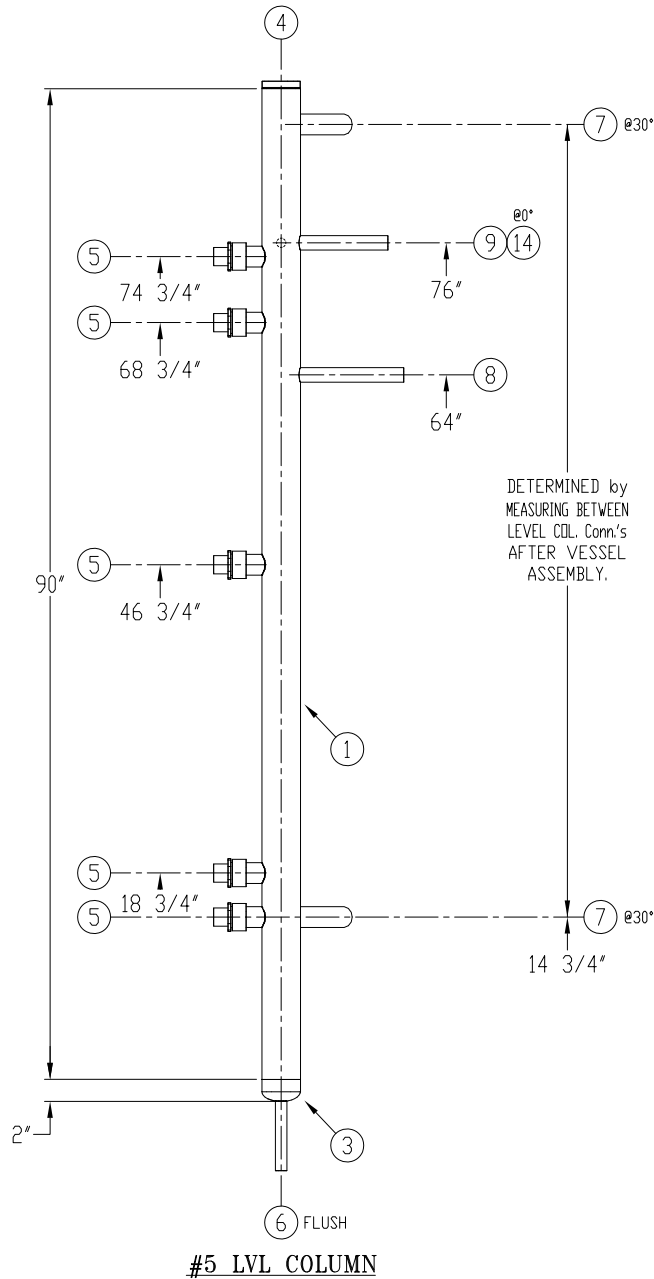


TYP. for PIPE SIZES:
S/80 3/8\",1/2\",3/4\" & 1\"
S/40 2\"
CPLG 3/8\",1/4\"

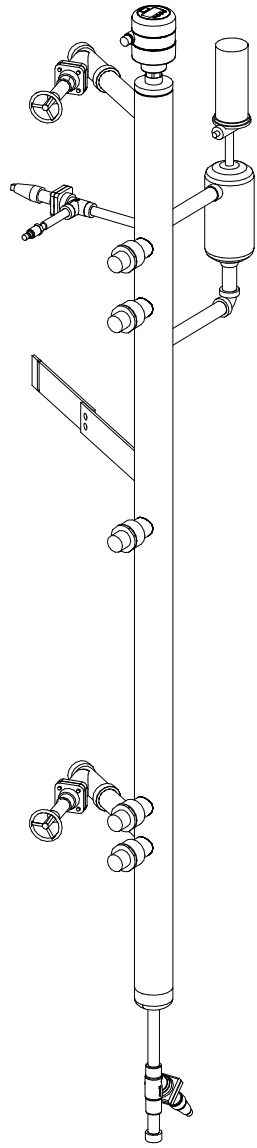
TYP. for PIPE SIZES:
S/80 1 1/4\",1 1/2\" & 2\"
S/40 2 1/2\",3\" & 4\"
CPLG 1/2\" & 3/4\"
LEVEL INDICATORS



LVL. COL. FLOAT SWITCH PIPING DETAIL



LEVEL COLUMN MOUNTING DETAIL



AUX. ISOMETRIC VIEW

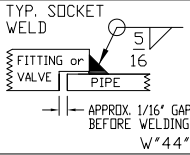
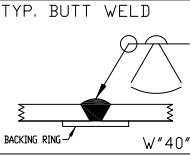
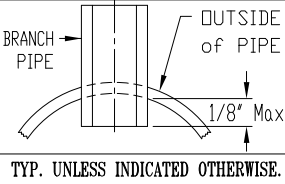
CERTIFIED

RVS PROJ. No. 83152
EVAPCO No. 16-781663
APPROX. WEIGHT: 100 Lbs.
Banda's C:\OLDDRIVE\PI6\51162A

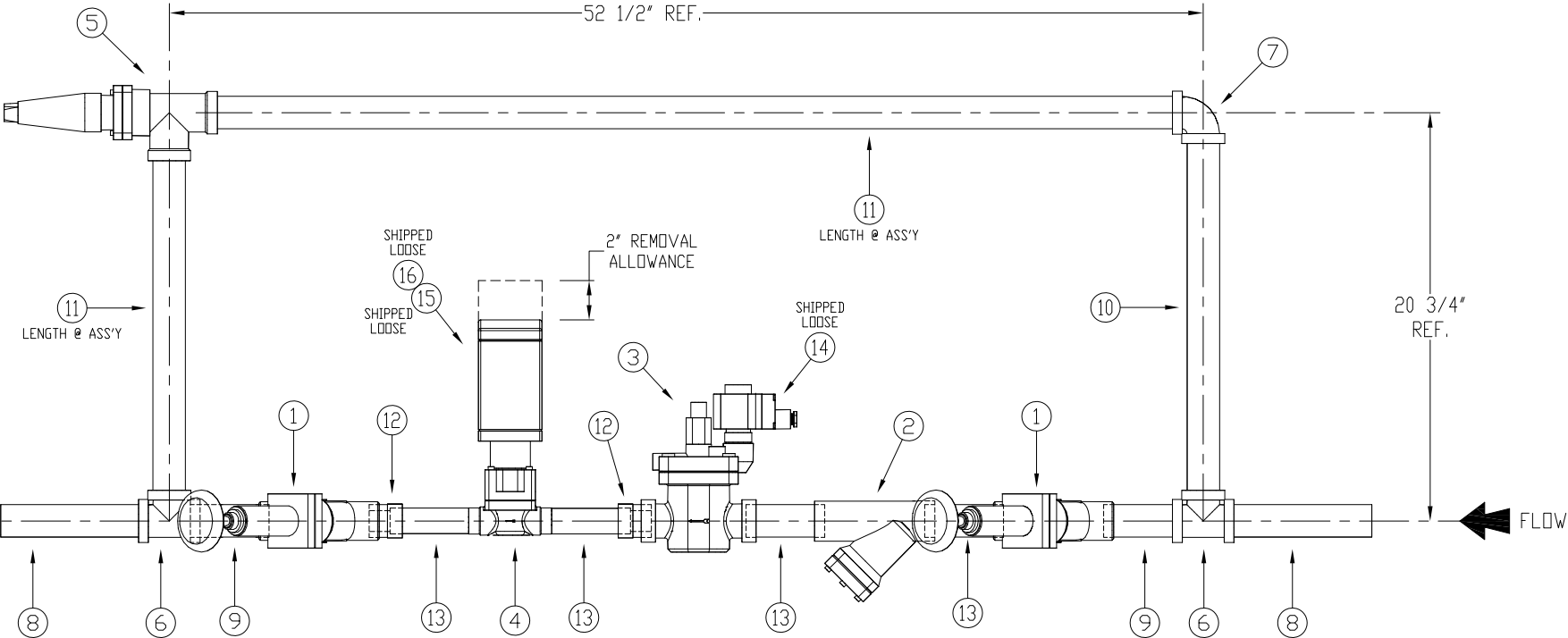
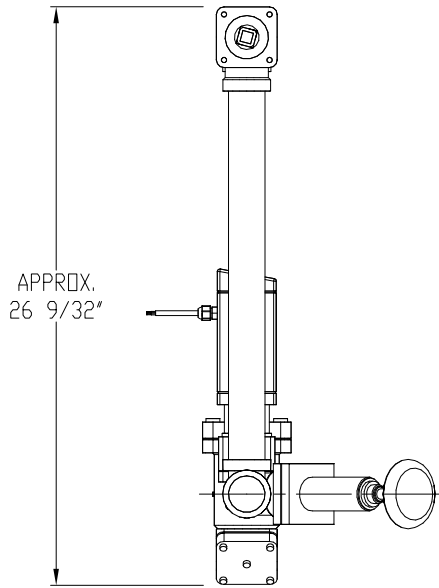
BILL of MATERIALS						
ITEM	QTY	SIZE	TYPE	RATING	MATERIAL	LENGTH
16	2	3"	FLAT BAR	1/4"	SA36	14"
15						
14	1	1/2"	PIPE	S/80	SA106B	4"
13						
12						
11	1	1"	S.W. 90° ELBOW	3000#	SA234-WPB	
10	1	1"	PIPE	S/80	SA106B	3 1/8"
9	1	1"	PIPE	S/80	SA106B	8 3/4"
8	1	1"	PIPE	S/80	SA106B	10"
7	2	1 1/2"	PIPE	S/80	SA106B	10"
6	1	3/4"	PIPE	S/80	SA106B	7 1/2"
5	5	H1100-RN	LIQ. IND. w/ SHIPPED LOOSE FROST SHIELD	HANSEN	SA36	
4	1	3 1/2" OD	THD HANSEN PROBE CAP	3/4" THK	P/N 77-0129	
3	1	3"	B.W. PIPE CAP	S/40	SA234-WPB	
2	1	3"	BACKING RING		SA414	
1	1	3"	PIPE (S7 #ea)	S/40	SA106B	90"

CUSTOMER					PROTEC INDUSTRIAL					P.O. 622.802		
Rev.	DATE	BY	DESCRIPTION	APRV'D	REFRIGERATION VALVES and SYSTEMS CORPORATION A WHOLLY OWNED SUBSIDIARY OF EVAPCO INC.  PACKAGED VESSEL SYSTEMS and CONTROLS 1520 CROSSWIND DRIVE, BRYAN, TX. 77808							
0	03-28-16	Banda	RELEASED for FABRICATION	D.S.								
1												
2												
3												
TITLE												
#5 LVL. COLUMN & FLOAT SWITCH DETAILS												
For 36" O.D. x 9'-10" Vrt. RECIRCULATOR												
DRAWN BY: BANDA		CHK'D BY: J.L.B. 03-28-16		TB SIZE: 1 1/2"=1'-0"		DWG No. 51162B					REV. 0	
APRV'D BY: D.S. 04-04-16		SHOP: 04-05-16		S/N: 51162								

GENERAL NOTES
1.) SA53B SMLS PIPE MAY BE SUBSTITUTED for SA106B SEAMLESS PIPE.
2.) ALL BOLTS STRADDLE CENTERLINES.
3.) ALL GLOBE VALVE STEMS to be HORIZONTAL.
4.) AIR TEST at 275 PSI
5.) ALL WELDS:
CARBON STL. to CARBON STL.: WPS-1-1
STAINLESS STL. to STAINLESS STL.: WPS-8-8
CARBON STL. to STAINLESS STL.: WPS-1-8
6.) ALL HOLES SHALL BE DRILLED.



TYP. for PIPE SIZES:
S/40 2 1/2\" & 3\"
S/80 3/4\" 1\", 1 1/4\", 1 1/2\" & 2\".



CERTIFIED

RVS PROJ. No. 83152
EVAPCO No. 16-781663
Banda's C:\OLDDRIVE\PI6\51162A

EST. SHIPPING WEIGHT: 85 LBS

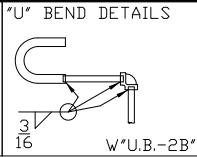
CONFIDENTIAL THIS DOCUMENT CONTAINS PROPRIETARY ENGINEERING DESIGNS WHICH ARE THE PROPERTY OF REFRIGERATION VALVES & SYSTEMS CORPORATION. IT SHOULD NOT BE DISCLOSED OR USED TO REPLICATE THE PRODUCT WITHOUT PRIOR WRITTEN AUTHORIZATION.				
CUSTOMER				P.O.
PROTEC INDUSTRIAL				622.802
Rev.	DATE	BY	DESCRIPTION	APRV'D
0	03-28-16	Banda	RELEASED for FABRICATION.	J.B.
1				
2				
3				
TITLE				
1 1/4" LIQUID FEED ASSEMBLY with 3/4" MOTORIZED REGULATING VALVE (PLF100H)				
DRAWN BY:	BANDA	CHK'D BY:	J.L.B. 03-28-16	T" SIZE 3"=1'-0"
APRV'D BY:	D.S. 04-04-16	TO SHOP:	04-05-16	S/N: 51162
DWG No.				REV.
51162C				0

REFRIGERATION VALVES and SYSTEMS CORPORATION
A WHOLLY OWNED SUBSIDIARY OF EVAPCO INC.



PACKAGED VESSEL SYSTEMS
and CONTROLS
1520 CROSSWIND DRIVE, BRYAN, TX. 77808

- 1) WELDING SHALL BE IN ACCORDANCE WITH:
WPS-1 (CARBON STL. TO CARBON STL.)
WPS-8 (CARBON STL. TO STAINLESS STL.)
WPS-9 (STAINLESS STL. TO STAINLESS STL.)
- 2) FABRICATION TOLERANCES SHALL BE IN ACCORDANCE WITH SHOP PROCEDURE NO. T-701.
- 3) ALL WELDS SHALL MEET VISUAL ACCEPTANCE CRITERIA OF QAP-704.
- 4) PRESSURE TESTING SHALL BE IN ACCORDANCE WITH QAP-701 OR QAP-702 AS APPLICABLE.
- 5) COATING SHALL BE IN ACCORDANCE WITH MAP-606.
- 6) BOLT TORQUES SHALL BE IN ACCORDANCE WITH MAP-608.
- 7) SAGINAW PIPE MAY BE SUBSTITUTED FOR SAGINAW SEAMLESS PIPE.
- 8) SAGINAW FLANGE MAY BE SUBSTITUTED FOR SAGINAW PLATE.
- 9) ALL BOLT HOLES STRADDLE CENTERLINES.
- 10) PADS & REPAIRS SHALL HAVE A 1/4" WEEPHOLE UNLESS OTHERWISE INDICATED ON THE DRAWING.



TYP. UNLESS NOTED OTHERWISE



RVS PROJ. No. 83152
EVAPCO No. 16-781663
Banda's C:\OLDDRIVE\N15\51162A

CONFIDENTIAL THIS DOCUMENT CONTAINS PROPRIETARY ENGINEERING DESIGNS WHICH ARE THE PROPERTY OF REGISTRATION VALVES & SYSTEMS CORPORATION. IT SHOULD NOT BE DISCLOSED OR USED TO REPLICATE THE PRODUCT WITHOUT PRIOR WRITTEN AUTHORIZATION.	ESTIMATED	WIDTH:	54'	HEIGHT:	48'
	SHIPPING				
	DIMENSIONS	LENGTH:	184'	DRY WEIGHT:	2475

VESSEL DESIGN SPECIFICATIONS			
DESIGN & CONSTRUCTION IN ACCORDANCE WITH SECTION VII DIV. 1 ASME CODE FOR PRESSURE VESSELS 2015 EDITION & ADDENDA TO - - -			
SHELL: t = 0.319"		CA: 0	
HEADS: t = 0.261" t = 0.3125" Min After Forming		CA: 0	
M.A.W.P.: 250 P.S.I.	HYDROSTATIC TEST: 325 P.S.I.		
-20°F to 300 °F	TO DUAL STAMP 85 PSI @ -50 °F		
RT: NONE	HT: NONE		
PAINT: SANDBLAST SSPC-SP6, R.V.S. HYPER BLUE PRIMER			

TITLE 36" O.D. x 9'-10" 250# ASME Vrt. MRP RECIRCULATOR VESSEL		PACKAGED VESSEL SYSTEMS and CONTROLS 1520 CROSSWIND DRIVE, BRYAN, TX. 77808	
DRAWN BY: BANDA CHK'D BY: D.S. 04-04-16	"D" SIZED SHT SCALE: S/N: 51162	DWG No. 51162D	REV. 0

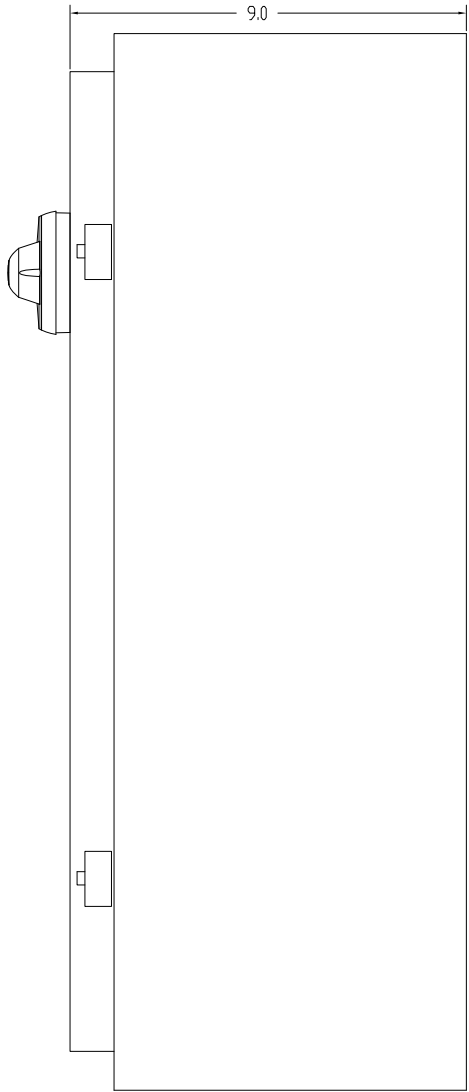
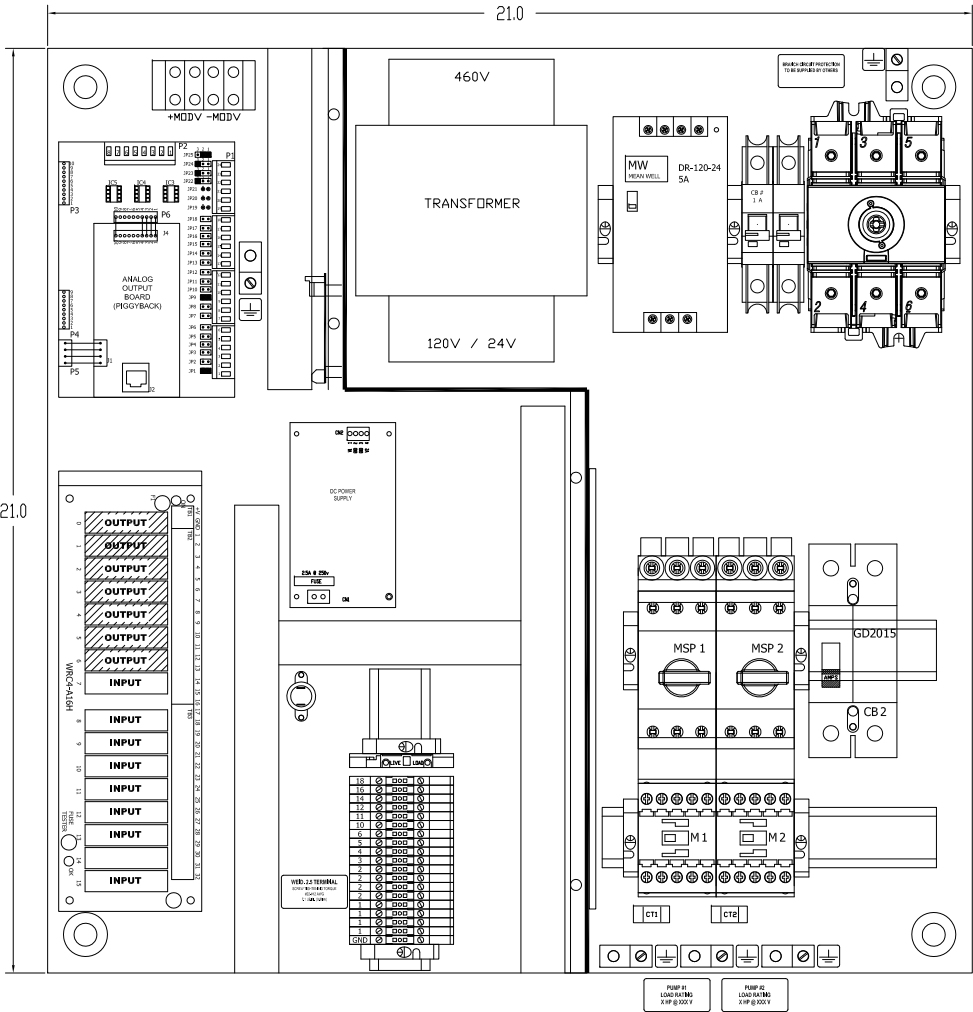
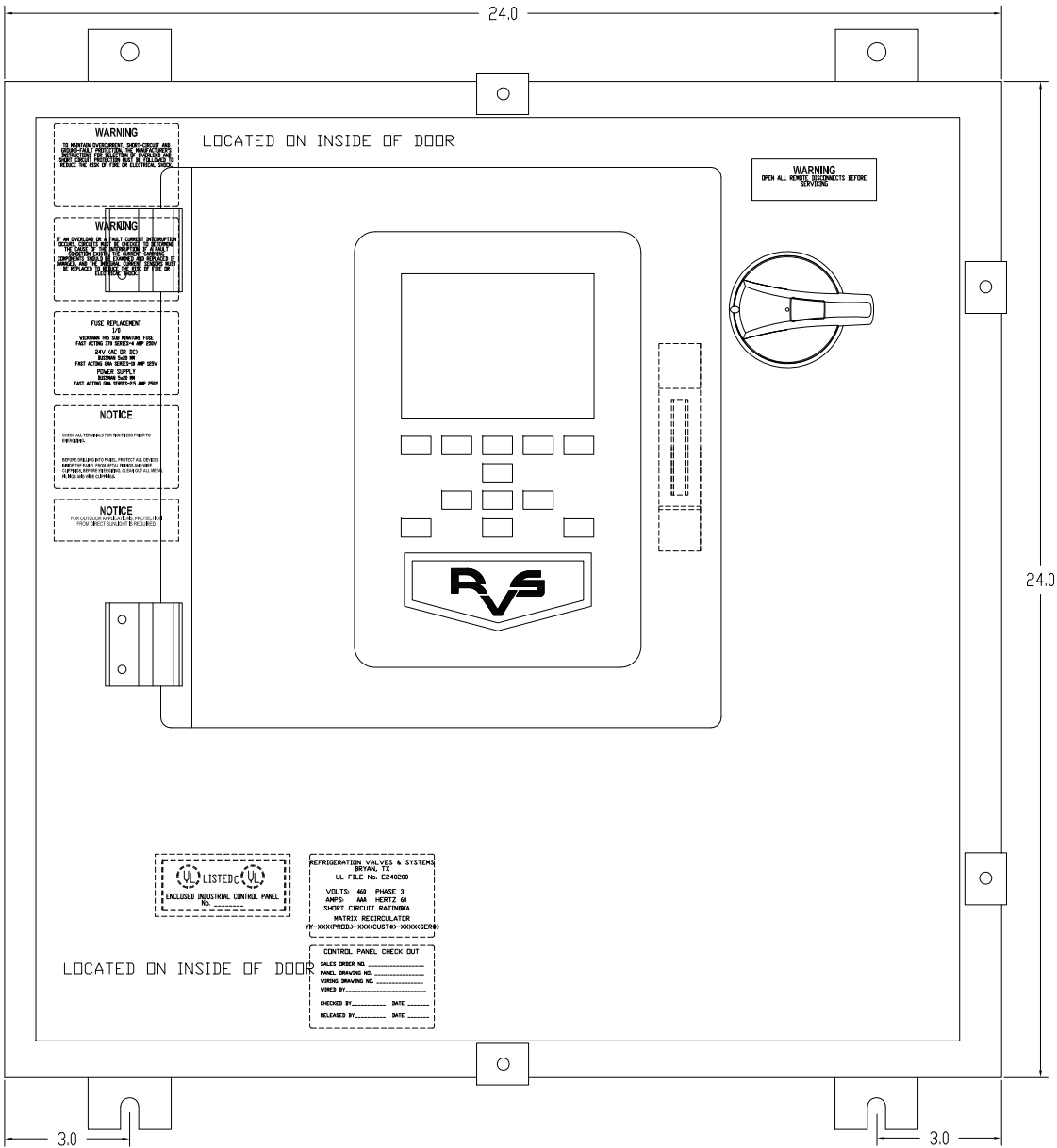


ASME
U
W

B

TEST with
NOZZ."F"
on BTM.

NOZZLE SCHEDULE								SHELL, HEADS, INTERNALS, & SUPPORTS							
Q								16	1	1 1/4"	PIPE	S/80	SA106B	47 1/2"	
P								15	1	1 1/4"	S.W. 90° ELBOW	3000#	SA105		
O								14							
N								13	2	6" OD	PLATE (VORTEX TOP)	3/16"	SA36		
M	1	3/4"	PIPE (T.D.E.)	S/80	SA106B	OIL PDT RELIEF VENT	19 1/4"	12	4	6" x 3 3/4"	PLATE (VORTEX)	3/16"	SA36		
L	1	3/4"	PIPE (T.D.E.)	S/80	SA106B	OIL PDT VENT	19 1/4"	11							
K	2	3/4"	PIPE (T.D.E.)	S/80	SA106B	MOTOR RECIRC. CONN.	23"	10	1	1 1/4"	S.W. 90° ELBOW	3000#	SA105		
J	1	1 1/4"	PIPE	S/80	SA106B	MIN. FLOW BY-PASS	19"	9	2	6"	B.W. 90° ELBOW w/ 3/8" WEEP HOLE	S/40	SA234-WPB	L.R.	
H	1	1 1/4"	PIPE	S/80	SA106B	LIQUID MAKE-UP	10 1/2"	8							
G	1	1 1/2"	PIPE	S/80	SA106B	RELIEF	9 1/2"	7	3	6" x 6"	ANGLE (103 #eo)	3/8"	SA36	83"	
F	1	1 1/2"	PIPE	S/80	SA106B	TOP LVL CCL CONN.	10 1/2"	6	2	36" OD	2:1 ELLIP. HEAD (192 #eo)	3/8"	SA516-70		
E	1	1 1/2"	PIPE	S/80	SA106B	BTM LVL CCL CONN.	12 1/2"	5							
D	1	2"	PIPE	S/80	SA106B	DRAIN	9 1/2"	4	1	36" OD	ROLLED SHELL (1146#)	3/8"	SA516-70	96"	
C	2	4"	PIPE	S/40	SA106B	PUMP SUCTION	14 3/4"	3	2	1 1/2"	STRIP		SA36	114"	
B	1	6"	PIPE	S/40	SA106B	SUCTION OUTLET	10 1/2"	2	1	6" x 6"	PLATE	3/8"	Stnl Stl 304		
A	1	6"	PIPE	S/40	SA106B	SUCTION INLET	10 1/2"	1	1	2"	WELDED PIPE w/ 1/4"ø WEEP HOLE	S/40	Stnl Stl 304	9"	
ITEM	QTY	SIZE	TYPE	RATING	MATERIAL	SERVICE	LENGTH	ITEM	QTY	SIZE	TYPE	RATING	MATERIAL	LENGTH	



CERTIFIED

RVS PROJ. No. 83152
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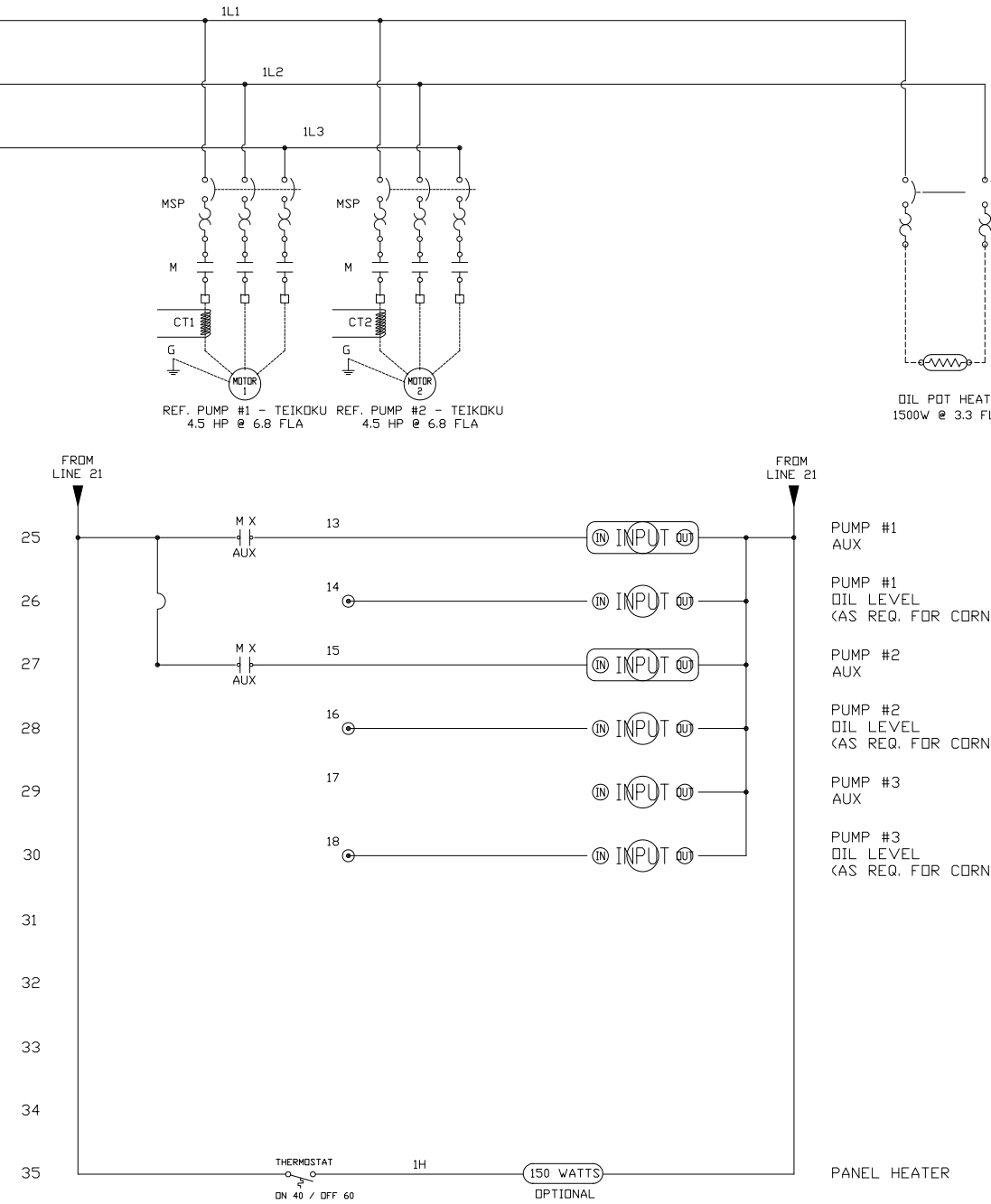
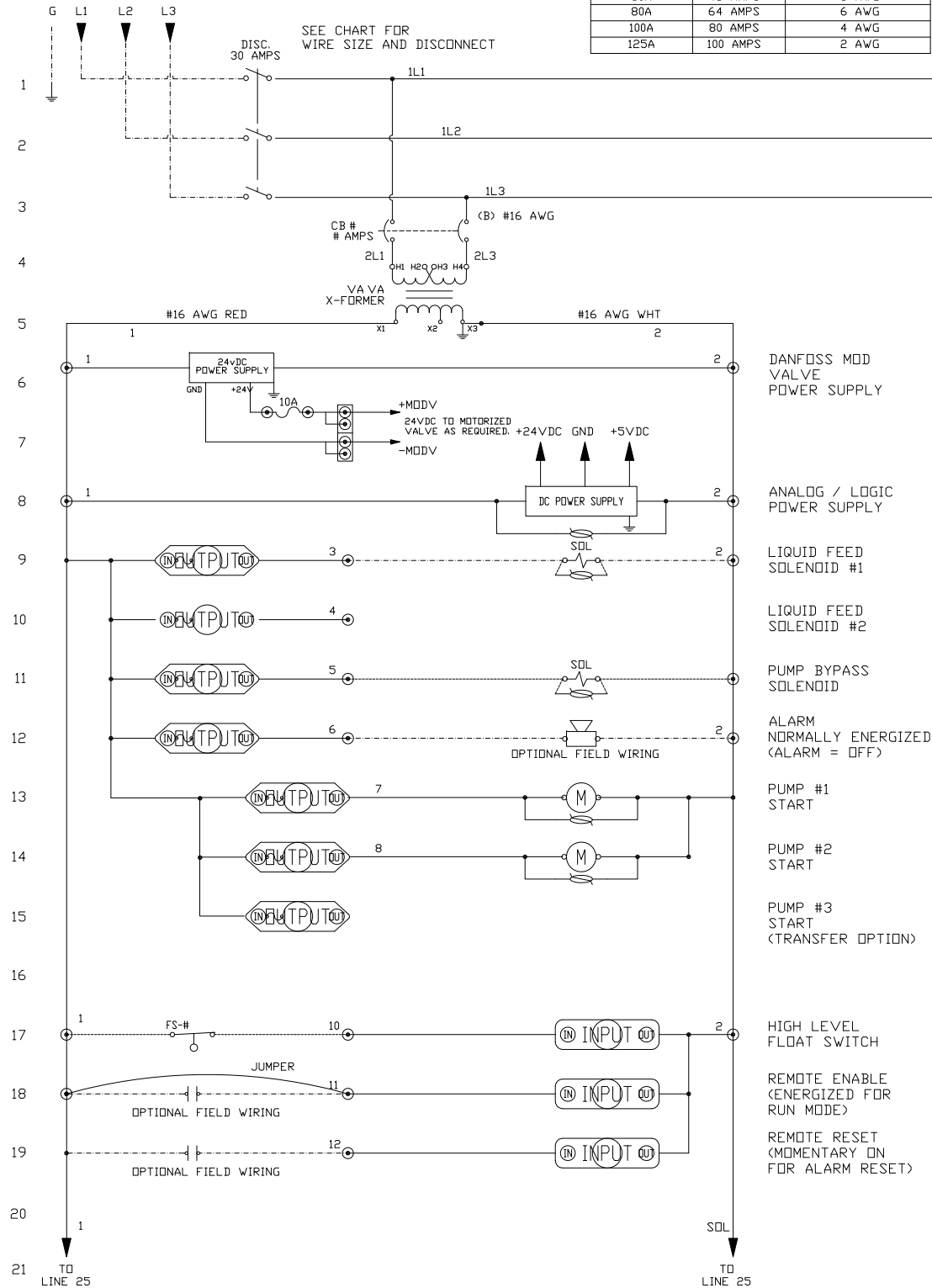
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CUSTOMER			PROTEC INDUSTRIAL		P.O. 622.802
REVISIONS					REFRIGERATION VALVES and SYSTEMS CORPORATION A WHOLLY OWNED SUBSIDIARY OF EVAPCO INC.  PACKAGED VESSEL SYSTEMS and CONTROLS 1620 CROSSWIND DRIVE, BRYAN, TX. 77808
Rev.	DATE	BY	DESCRIPTION	APRVD	
0	04-06-16	Banda	CERTIFIED & SENT TO CUSTOMER	K.B.	
TITLE MMP-2-5 MATRIX MICRO PANEL w/ TWO 4.5 H.P. TEIKOKU PUMPS PANEL LAYOUT					
DRAWN BY:	BANDA	CHK'D BY:	K.B. 04-06-16	S/N: 51162	DWG No. 51162E1
APRVD BY:	K.B. 04-06-16	SCALE:	N/A	Thru	REV. 0

WIRE TO CUSTOMER SUPPLIED LISTED FUSED DISCONNECT OR BREAKER SUPPLYING 460VAC, 3 PHASE, 60HZ FOR BRANCH CIRCUIT PROTECTION

DISCONNECT SIZE	MAX AMPS	MINIMUM WIRE SIZE*
25A	20 AMPS	12 AWG
40A	32 AMPS	10 AWG
60A	48 AMPS	8 AWG
80A	64 AMPS	6 AWG
100A	80 AMPS	4 AWG
125A	100 AMPS	2 AWG

*FIELD WIRING TO FOLLOW NEC OR LOCAL ELECTRICAL CODES

THREE PHASE WIRING TO MOTORS BASED ON CONDUIT FILL OF 6 WIRES IN CONDUIT
#8 AWG WHEN LOAD IS 25 TO 44 AMPS
#10 AWG WHEN LOAD IS 17 TO 24 AMPS
#12 AWG WHEN LOAD IS 13 TO 16 AMPS
#14 AWG WHEN LOAD IS 12 AMPS OR LESS

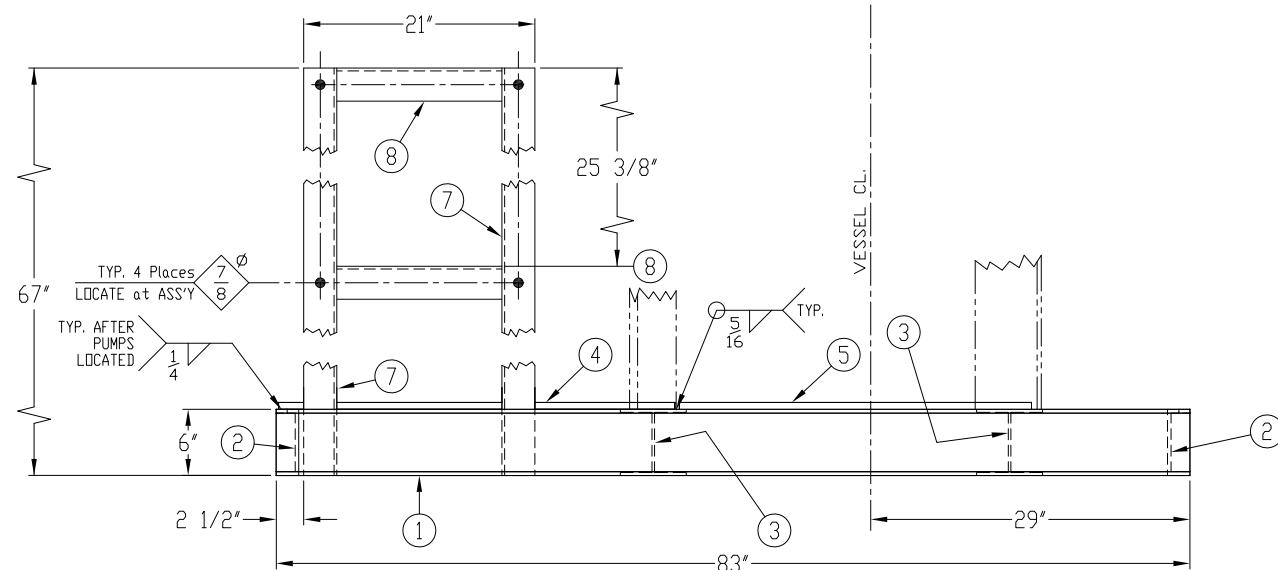
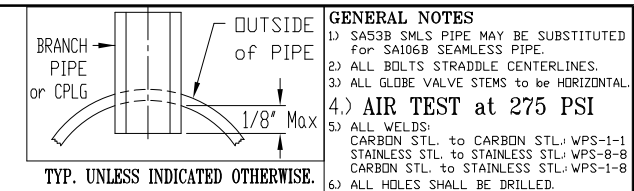


- DIGITAL OUTPUT MODULE BOARD POSITION AND TERMINALS SHOWN
- DIGITAL INPUT MODULE BOARD POSITION AND TERMINALS SHOWN
- NO MODULE INSERTED (OPTION) BOARD POSITION AND TERMINALS SHOWN
- VARISTOR OR SURGE SUPPRESSION DEVICE. (NOT SUPPLIED BY MANUFACTURER)
- INDICATES RED WIRE
(W) INDICATES WHITE WIRE
(G) INDICATES GREEN WIRE
(Y) INDICATES YELLOW WIRE
- TERMINAL ON MOTOR CONTACTOR
- TERMINAL IN CONTROL PANEL
- INDICATES PANEL WIRING
- INDICATES WIRING BY VESSEL MANUFACTURER (AS APPLICABLE)
- INDICATES FIELD WIRING BY OTHERS; AS REQUIRED.
- INDICATES OPTIONAL WIRING.

CERTIFIED

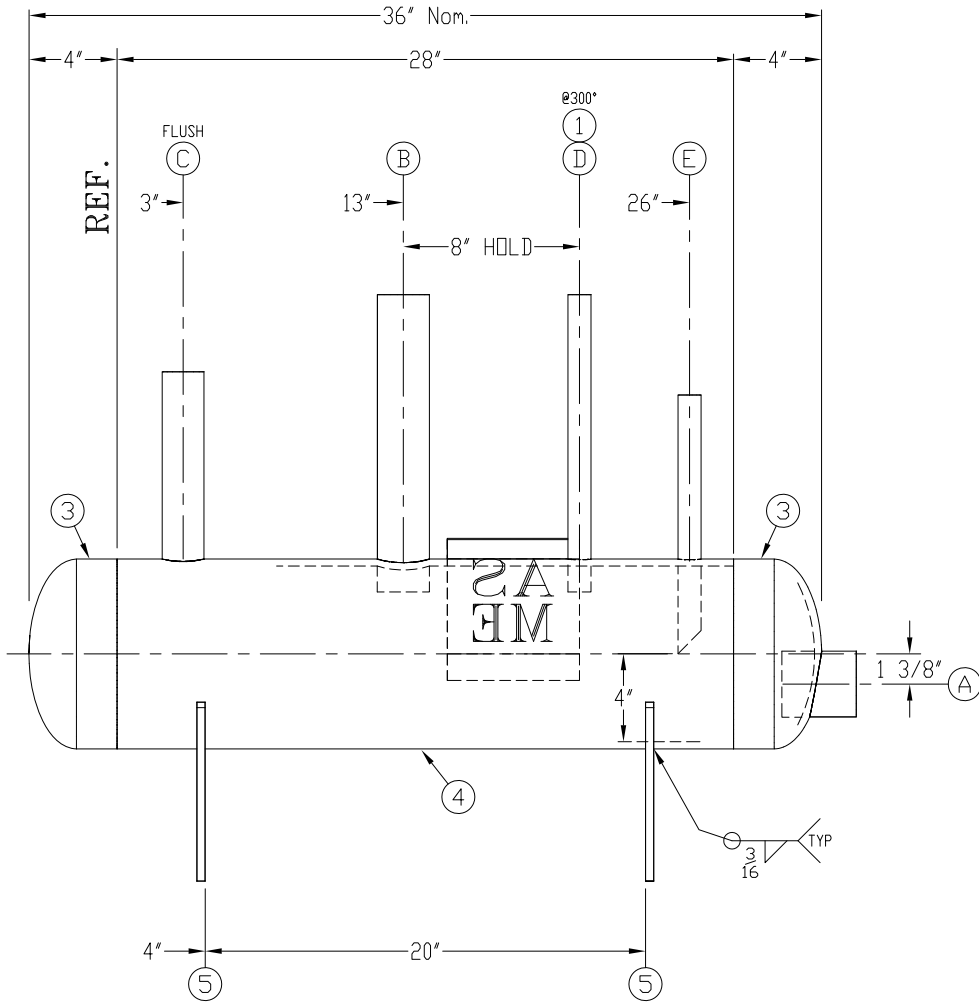
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CUSTOMER			PROTEC INDUSTRIAL P.O. 622.802	
REVISIONS				
Rev.	DATE	BY	DESCRIPTION	APR'D
0	04-06-16	Banda	CERTIFIED & SENT TO CUSTOMER	K.B.
REFRIGERATION VALVES and SYSTEMS CORPORATION A WHOLLY OWNED SUBSIDIARY OF EVAPCO INC.				
PACKAGED VESSEL SYSTEMS and CONTROLS 1620 CROSSWIND DRIVE, BRYAN, TX. 77808				
TITLE MMP-2-5 MATRIX MICRO PANEL w/ TWO 4.5 H.P. TEIKOKU PUMPS DIGITAL WIRING DIAGRAM				
DRAWN BY: BANDA	CHK'D BY: K.B.	S/N: 51162	REV. 0	
APR'D BY: K.B.	SCALE: N/A	Thru	DWG No. 51162E2	

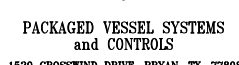


BILL of MATERIALS										CUSTOMER				PROTEC INDUSTRIAL				P.O. 622.802	
16										Rev.	DATE	BY	DESCRIPTION	APRV'D	REFRIGERATION VALVES and SYSTEMS CORPORATION A WHOLLY OWNED SUBSIDIARY OF EVAPCO INC.  PACKAGED VESSEL SYSTEMS and CONTROLS 1520 CROSSWIND DRIVE, BRYAN, TX. 77806				
15										0									
14										1									
13										2									
12										3									
11										TITLE					SKID , PANEL SUPPORT & SUN SHIELD DETAILS for 36" I.D. x 9'-10" Vrt. RECIRCULATOR				
10										DRAWN BY: <i>BANDA</i> CHK'D BY: <i>J.L.B.</i> 03-29-16 APRV'D BY: <i>D.S.</i> 04-04-18 TO SHOP: 04-05-16 S/N: 51162									
9										T" SIZED SHY SCALE 1 1/2"=1'-0"									
8	2	3' x 3"	ANGLE (7 #ea)	1/4"	SA36	15'													
7	2	3' x 3"	ANGLE (28 #ea)	1/4"	SA36	67'													
6										TITLE					PACKAGED VESSEL SYSTEMS and CONTROLS 1520 CROSSWIND DRIVE, BRYAN, TX. 77806				
5	1	32" x 8"	PLATE (46 #ea)	5/8"	SA36														
4	2	36" x 15"	PLATE (96 #ea)	5/8"	SA36														
3	2	6"	WIDE FLANGE (90 #ea)	15#	A572 Gr 50	71 7/8"													
2	2	6"	CHANNEL (63 #ea)	10.5#	SA36	71 7/8"													
1	2	6"	CHANNEL (73 #ea)	10.5#	SA36	83"									DWG No. 51162S REV. 0				
ITEM	QTY	SIZE	TYPE	RATING	MATERIAL	LENGTH													

- 1) WELDING SHALL BE IN ACCORDANCE WITH:
WPS-1-1 (CARBON STL. TO CARBON STL.)
WPS-1-8 (CARBON STL. TO STAINLESS STL.)
WPS-2-1 (STAINLESS STL. TO STAINLESS STL.)
- 2) FABRICATION ERRORS - SEE R.V.S.
SHOP PROCEDURE NO. T-701.
- 3) ALL WELDS SHALL MEET VISUAL ACCEPTANCE
CRITERIA OF QAP-704.
- 4) PRESSURE TESTING SHALL BE IN ACCORDANCE
WITH QAP-701 or QAP-702 as APPLICABLE.
- 5) COATING SHALL BE IN ACCORDANCE WITH MAP-606.
- 6) BOLT TORQUES SHALL BE IN ACCORDANCE
WITH MAP-608.
- 7) SAS3B CWS PIPE MAY BE SUBSTITUTED FOR
SAS16B CWS LESS PIPE
- 8) SAS16-70 PLATE MAY BE SUBSTITUTED FOR
SAS36 PLATE.
- 9) ALL BOLT HOLES STRADDLE CENTERLINES.
- 10) PADS & REPAIRS SHALL HAVE A 1/4" WEEPHOLE
UNLESS OTHERWISE INDICATED ON THE DRAWING.



RVS PROJ. No. 83152
Banda's C:\OLDDRIVE\P16\51162A

0	03-29-16	RELEASED FOR FABRICATION.	D.S. 04-04-16	
Rev.	DATE	DESCRIPTION	CHK'D / DATE	
CONFIDENTIAL THIS DOCUMENT CONTAINS PROPRIETARY ENGINEERING DESIGNS WHICH ARE THE PROPERTY OF REFRIGERATION VALVES & SYSTEMS CORPORATION. IT SHOULD NOT BE DISCLOSED OR USED TO REPLICATE THE PRODUCT WITHOUT PRIOR WRITTEN AUTHORIZATION.		ESTIMATED WIDTH: 18'	HEIGHT: 35'	
		SHIPPING LENGTH: 3'-1'	DRY WEIGHT: 145	
CUSTOMER		PROTEC INDUSTRIAL		P.O. 622.802
VESSEL DESIGN SPECIFICATIONS			REFRIGERATION VALVES and SYSTEMS CORPORATION	
DESIGN & CONSTRUCTION IN ACCORDANCE WITH SECTION VII DIV. I ASME CODE FOR PRESSURE VESSELS 2015 EDITION & ADDENDA TO - - -			A WHOLLY OWNED SUBSIDIARY OF EVAPCO, INC.	
SHELL: t = 0.117"		CA: 0		
HEADS: t = 0.116" t = 0.282" Min. AFTER Forming		CA: 0		
M.A.W.P.: 400 P.S.I.		HYDROSTATIC TEST: 520 P.S.I.		
-50 °F		300 °F		
RT: NONE		HT: NONE		
PAINT: SANDBLAST, SSPC-SP6, R.V.S. HYPER BLUE PRIMER				
TITLE 8 5/8" O.D. x 3'-0" 400# ASME Hrz. OIL POT w/ HTR. Conn. (For MRP-V)			PACKAGED VESSEL SYSTEMS and CONTROLS	
			1520 CROSSWIND DRIVE, BRYAN, TX. 77808	
DRAWN BY: BANDA		7" SIZED SPT SCALE	3'-1'-0"	DWG No. 51163
CHK'D BY: D.S. 04-04-16		S/N:	51163	
				REV. 0