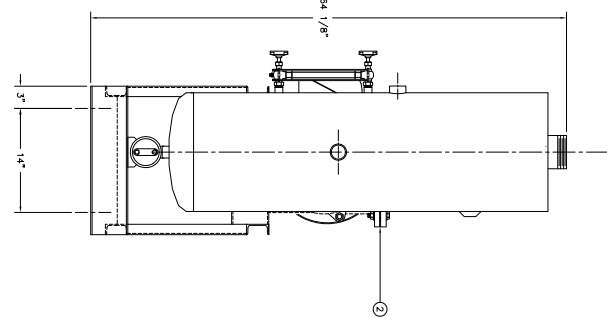
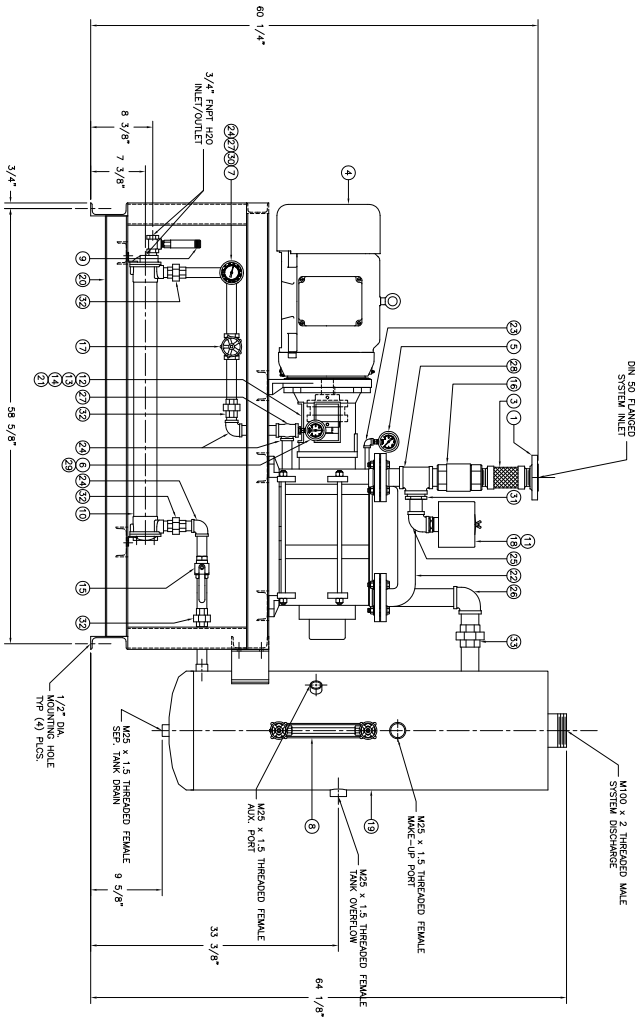


**SYSTEM NOTES:**

- 1) LOCATE AND SECURE VACUUM SYSTEM ON A FLAT
- 2) CLEARANCE REQUIRED TO SERVICE ELEMENT IS 6"
- 3) ALL WELDED COMPONENTS ARE TO BE 316 SS.
- 4) LOW FLUID FLOW SWITCH WILL BE INSTALLED ON COOLING WATER LINE INLET INTO THE HEAT EXCHANGER.
- 5) ELECTRICAL COMPONENTS WILL BE RATED FOR NEMA-4.



**BILL OF MATERIALS**

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	ADAPTOR FLANGE, 2" ANSI THREAD/DN 50 BOLT CIRCLE	182-0200-0051
2	2	GASKET FLAT 4-1/8" OD X 2-1/4" ID TEFLON	176-4122-0001
3	1	FLEX CONNECTOR 2" X 8" 316 SST HEAD/BRAID	195-0200-0005
4	1	MOTOR, 15KW, TEC, 3/380V/50HZ, CE COMPLIANT	232-0200-C005
5	1	GAUGE VACUUM 1/4" NPT 0-307"Hg, 316 SST	400-0025-B002
6	1	GAUGE COMPOUND 1/4" NPT 30/0/15 PSI, 316 SST	401-0025-B002
7	1	GAUGE TEMP 1/2"NPT 20/240F-10/110C SST	410-0050-F001
8	1	GAUGE LEVEL 1/2" NPT X 12" LONG 316 SST/TEFLON	420-0050-A017
9	1	SWITCH, FLOW 3/4" NPT SST	460-0075-A001
10	1	HEAT EXCHANGER 3" X 36" 4 PASS ALL 316 SST	524-0356-A001
11	1	FLTR SILENCER 1-1/4" NPT 60 SCHW	602-0125-A001
12	1	DRIVE COUPLING BS 1-5/8" CI	702-0800-B162
13	1	PRNC COUPLING BS 32MM CI	702-0800-B022
14	1	COUPLING ELEMENT SIZE 8-A/E	752-0800-B001
15	1	VALVE BALL 1" NPT FP 316 SST	802-0100-C000
16	1	VALVE BALL CHECK 2" NPT 316SS/TEFLON	822-0200-B001
17	1	VALVE GLOBE 1" NPT 316 SST	825-0100-J000
18	1	VALVE VAC RELIEF 1-1/4" NPT 316 SST	882-0125-C000
19	1	SEPARATOR FR 2" INLET/BN100 OUTLET 316 SST	903-1308-1910
20	1	BASEPLATE WATERSEALED FR 60-1/8" X 20" X 24" CS	950-1308-1920
21	1	MONO-BLOCK ASSEMBLY TR665-256T	AMB-TR65-256T
22	1	VACUUM PUMP LIQUID RING 2 STAGE TEFLON MECH SEAL TRBB50-420/3-7	TRBB50-420/3-7
23	1	ELBOW 90° 1/4" NPT 316 SST	111-0025-0223
24	4	ELBOW 90° 1" NPT 316 SST	111-0100-0223
25	1	ELBOW 90° 1-1/4" NPT 316 SST	111-0125-0223
26	1	ELBOW 90° 2" NPT 316 SST	111-0200-0223
27	2	TEE, STRAIGHT 1" NPT 316 SST	121-0100-0223
28	1	TEE, STRAIGHT 2" NPT 316 SST	121-0200-0223
29	1	BUSHING REDUCING 1" MNPT X 1/4" FNPT SST	137-0602-0223
30	1	BUSHING REDUCING 1" MNPT X 1/2" FNPT SST	137-0604-0223
31	1	BUSHING REDUCING 2" MNPT X 1-1/4" FNPT SST	137-0907-0223
32	4	UNION STRAIGHT 1" NPT 316 SST	155-0100-0223
33	1	UNION STRAIGHT 2" NPT 316 SST	155-0200-0223

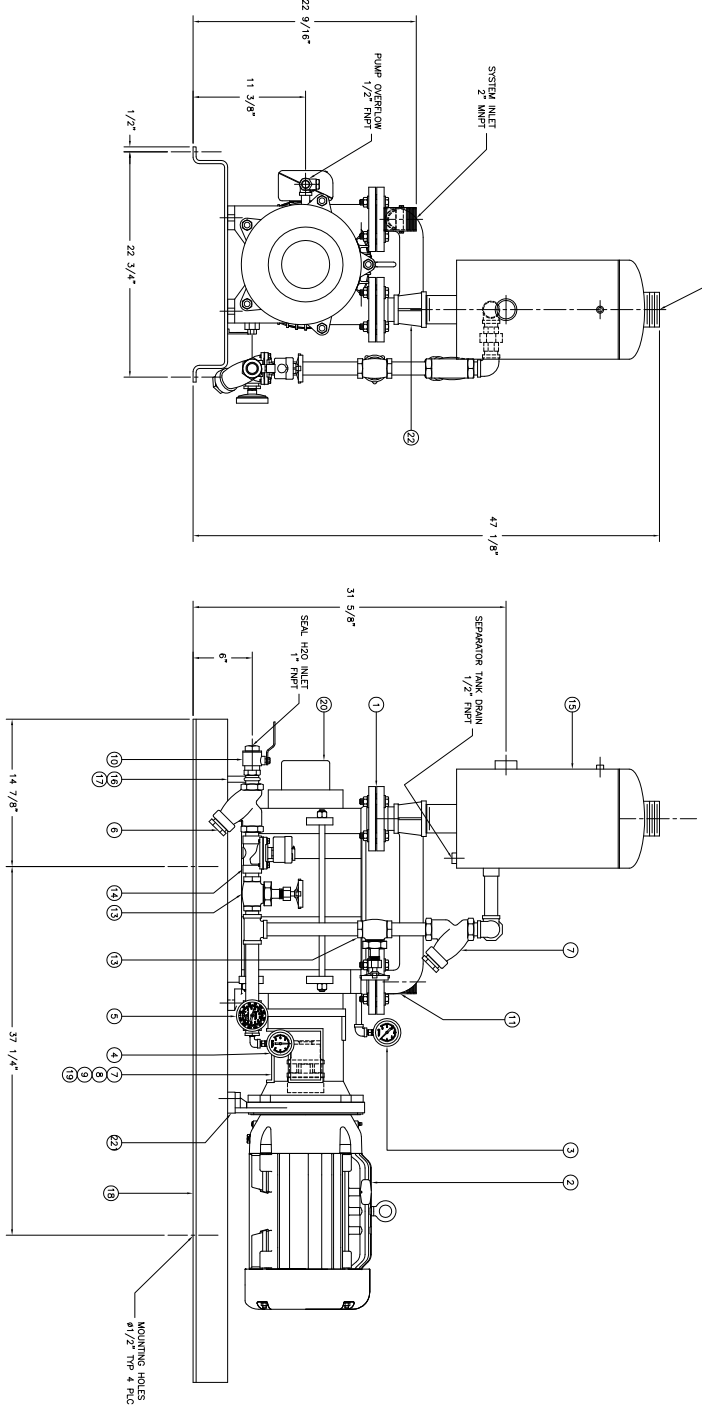
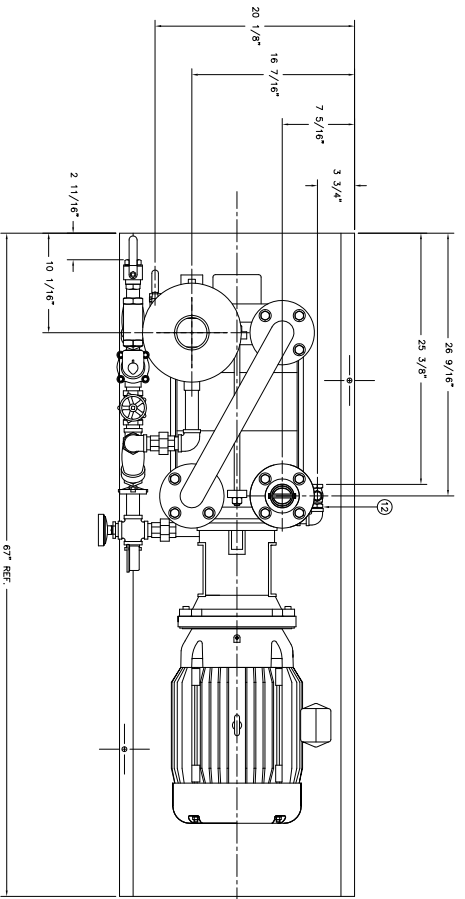
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**TOLERANCES**  
 DECIMAL .0025"  
 FRACTIONAL 1/8"  
 ANGULAR ± 0° 30' 00"  
 UNLESS OTHERWISE SPECIFIED IN DRAWINGS

REV	DESCRIPTION	DATE	APPR
A	REMOVED DN50 FLANGE AND PIPE NIPPLE	09/16/13	RR

REVISIONS		SCALE		MODEL NO.		DWG NO.	
		1	8	TRW-300H-1FR-SS-SF	1307241-0		



BILL OF MATERIALS			
ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	GASKET FLAT 4-1/8" OD X 2-1/4" ID X 3/32" THK.	176-4122-0000
2	1	MOTOR 20HP 4P TEC 256TC	232-0200-C002
3	1	GAUGE VACUUM 0-30" HG BRASS	400-0025-F000
4	1	Gauge compound 30/0/15 BRASS 2-1/2" DIA.	410-0025-F000
5	1	GAUGE TEMPERATURE 20/240-10/110 3" DIA.	410-0025-F001
6	2	STRAINER V 1" THD CI	660-0100-C000
7	1	COUPLING DRIVE 75 1-9/8" CI	702-0700-B162
8	1	COUPLING DRIVE 75 32MM CI	702-0701-B032
9	1	ELEMENT COUPLING SIZE 7-E	752-0200-B001
10	1	VALVE BALL 1" THD FP BRSS	802-0100-B000
11	1	VALVE CK HINGE 2" THD CS/BRNA	820-0200-A007
12	1	VALVE CK SWING 1/2" THD CS	821-0050-A001
13	2	VALVE GLOBE 1" THD BRONZE	835-0100-A000
14	1	VALVE SOLENOID 1" NI NC BRASS/BRNA	855-0100-B000
15	1	SEPARATOR - W/P/PR 10" OD W/2-1/2" INLET	901-9409-1310
16	1	BRACKET PIPE 3" X 3" X 1"	948-9701-2740
17	1	BRACKET U BOLT 1" PIPE	948-9701-2750
18	1	BASEPLATE H20 67" X 21"	950-9509-0110
19	1	M-BLOCK ASST TRHB50-420 PMP/256T MTR	AMB-TRB5-256T
20	1	VACUUM PUMP LIQUID RING 2 SLICE MECH SPAL	TRHB50-420/RK
21	2	RISE BLOCK 2" X 2-1/8" X 3/4" THK.	NON-INVENTORY
22	1	BELL REDUCER 2-1/2" TO 2" THD. 316 SST	NON-INVENTORY

SYSTEM NOTES:  
 1) VERIFY ON A FLAT, LEVEL SURFACE.  
 2) FLUID ENTRY POINTS WITH SQUARE HEAD NPT PIPE PLUGS.  
 3) ROTATE V STRAINER (ITEM # 6) AS NEEDED.  
 4) CLEARANCE REQUIRED TO SERVICE ELEMENT IS 10".

# GENERAL ARRANGEMENT DRAWING ONLY

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**TOLERANCES**  
 DECIMAL 3.0625"  
 FRACTIONAL 3/16"  
 ANGLE 3/8" 30° 00"  
 UNLESS OTHERWISE SPECIFIED IN DRAWING

PART NO. SB20X420K13XXA  
 DECIMAL 3.0625"  
 FRACTIONAL 3/16"  
 ANGLE 3/8" 30° 00"  
 UNLESS OTHERWISE SPECIFIED IN DRAWING

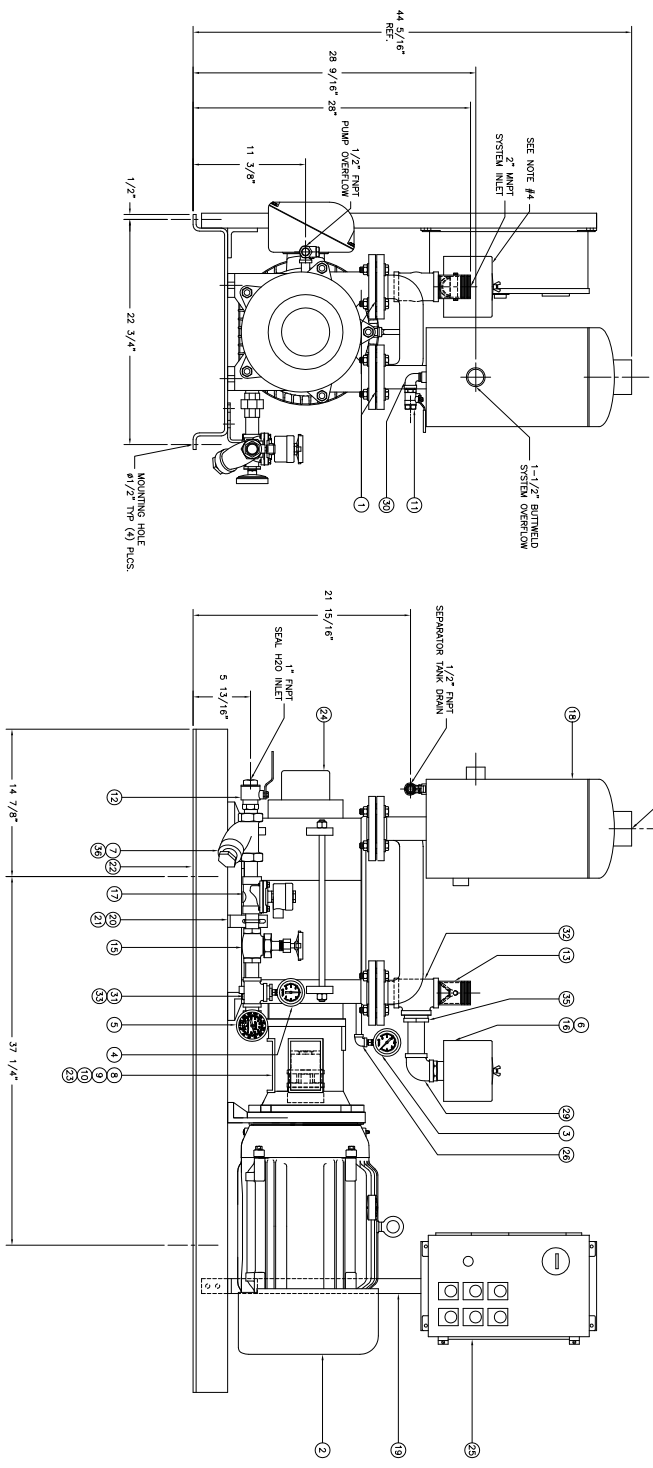
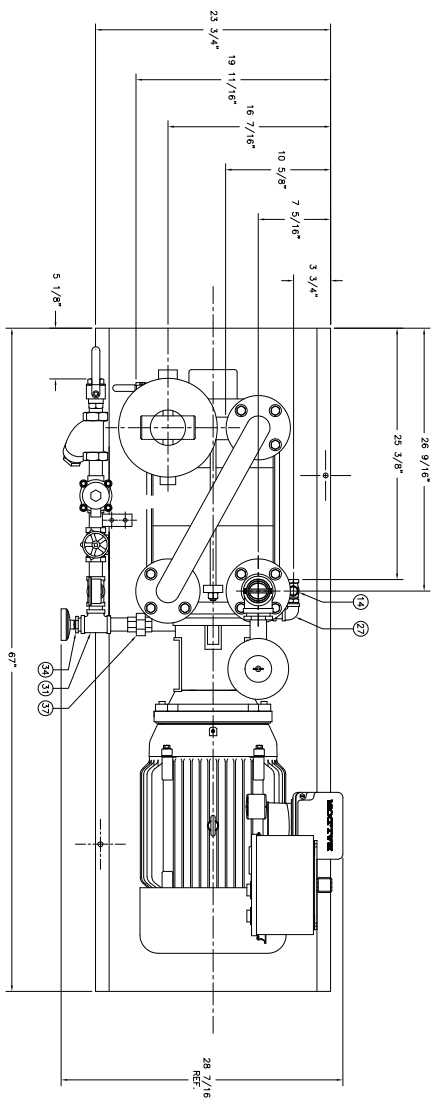
DATE 11/28/05  
 DRAWN BY TRW300H-TPR  
 SCALE 1 = 6

DATE 11/28/05  
 DRAWN BY TRW300H-TPR  
 SCALE 1 = 6

DESCRIPTION: WATERSEALED 20HP SIMPLEX PARTIAL RECOVERY VACUUM SYSTEM

TRAWANI PUMPS USA  
 Liquid Ring & Heavy Vapor Vacuum Pumping and Systems

REV	DESCRIPTION	DATE	APP
REVISIONS			



ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	GASKET FLAT 4-1/8" OD X 2-1/4" ID X 3/32" THK.	176-4122-0000
2	1	MOTOR 25HP 4P TECO 284TC 3/230/460V FLTS.	231-0250-C000
3	1	GALVE VACUUM 0-30" HG/V 2-1/2" DIAL 316 SST	400-0025-A002
4	1	GALVE COMPOUND 30/0/15 2-1/2" DIAL 316 SST	401-0025-0000
5	1	GALVE TEMP 0/250 F 3" DIA 1/2" CONN 316 SST	410-0050-B000
6	1	FILTER, SINKOR 1-1/4" 60SCM W/PHE FLTR POLY.	602-0125-A001
7	1	STRAINER Y 1" THD 20 MESH 316 SST	660-0100-C001
8	1	COUPLING DRIVE BS 32MM CI	702-0802-B032
9	1	COUPLING DRIVE BS 1-7/8" CI	752-0800-B187
10	1	ELEMENT COUPLING SIZE 8-JC	801-0050-B001
11	1	VALVE BALL 1-1/2" THD 316 SST	802-0100-C001
12	1	VALVE BALL 1" THD FP 316 SST	802-0100-C001
13	1	VALVE CK HINGE 2" THD SS/SS/316/316	800-0200-B002
14	1	VALVE CK SWING 1/2" THD 316 SST	821-0050-L000
15	1	VALVE GLOBE 1" THD 316 SST	835-0100-J000
16	1	VALVE VAC REL 1-1/4" 316SS W/FERON BODY	852-0125-C000
17	1	VALVE SOLENOID 1" N1 NC 120V SST/316/316	885-0100-B012
18	1	SEPARATOR-HR/HR 10" OD W/2" INLET 3" OUTLET 316 SST	901-1090-2410
19	1	BRACKET, CTRL PNL 16X14" ENCLOSURE	948-0209-B820
20	1	BRACKET U BOLT 1" PIPE CS	948-9401-B250
21	1	BRACKET U BOLT 1" PIPE CS	948-9701-B250
22	1	M-BLOCK ASSY TRSSS 284T	950-9509-0110
23	1	VACUUM PUMP LIQUID RING 2 STAGE MECH SEAL	TRH550-420/JA3
24	1	CONTROL PANEL SIMPLEX NEMA 4 230V 16X14X8	Z1W-0500-0000
25	1	ELBOW, 90° 1-1/4" THD 316 SST	111-0025-0223
26	1	ELBOW, 90° 1-1/4" THD 316 SST	111-0025-0223
27	1	ELBOW, 90° 1-1/2" THD 316 SST	111-0050-0223
28	1	ELBOW, 90° 1-1/4" THD 316 SST (NOT SHOWN)	111-0100-0223
29	1	ELBOW, 90° 1-1/4" THD 316 SST	113-0050-0223
30	1	ELBOW, 90° STREET 1/2" THD 316 SST	121-0100-0223
31	2	TEE STRAIGHT 1" THD 316 SST	121-0200-0223
32	1	TEE STRAIGHT 2" THD 316 SST	137-0602-0223
33	1	REDUCER BUSHING 1" TO 1/4" THD 316 SST	137-0604-0223
34	1	REDUCER BUSHING 1" TO 1/2" THD 316 SST	137-0604-0223
35	1	REDUCER BUSHING 2" TO 1-1/4" THD 316 SST	142-0037-0223
36	1	PLUG, SQ HEAD SOLID 3/8" THD 316 SST	142-0037-0223
37	1	UNION 1" THD 316 SST	155-0100-0223

SYSTEM NOTES AND SECURE SYSTEM ON A FLAT, LEVEL SURFACE.  
 2) PLUG EMPTY PORTS WITH SQUARE HEAD NPT PIPE PLUGS.  
 3) ROTATE 'V' STRAINER (ITEM # 6) AS NEEDED.  
 4) CLEARANCE REQUIRED TO SERVICE ELEMENT IS 6".

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 FRACTIONAL 3. 1/2"  
 ANGLE 3. 0° 30' 00"  
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REV	DESCRIPTION	DATE	APPR
REVISIONS			

ITEM	QTY	DESCRIPTION	PART NUMBER