



GENERAL ARRANGEMENT DRAWING (GAD)

CLIENT	:	Air Products Manufacturing LLC
PROJECT NAME/NO.	:	WEP Renewables
CLIENT PO NO	:	4505605360
HMD DOCUMENT NO	:	HMD-4505605360-B01-02
CLIENT DOCUMENT NO	:	
HMD PUMP NO	:	839917 A/B
EQUIPMENT TAG NO	:	18-P-252 A/B

REV	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY
3	10/10/2022	ISSUE FOR REVIEW	AFS	ARM	ARM
2	01/09/2022	ISSUE FOR REVIEW	ARM	KCM	AFS
1	06/06/2022	ISSUE FOR REVIEW	AN	AFS	NW
0	11/03/2022	ISSUE FOR REVIEW	JS	ARM	AFS

NOTE:

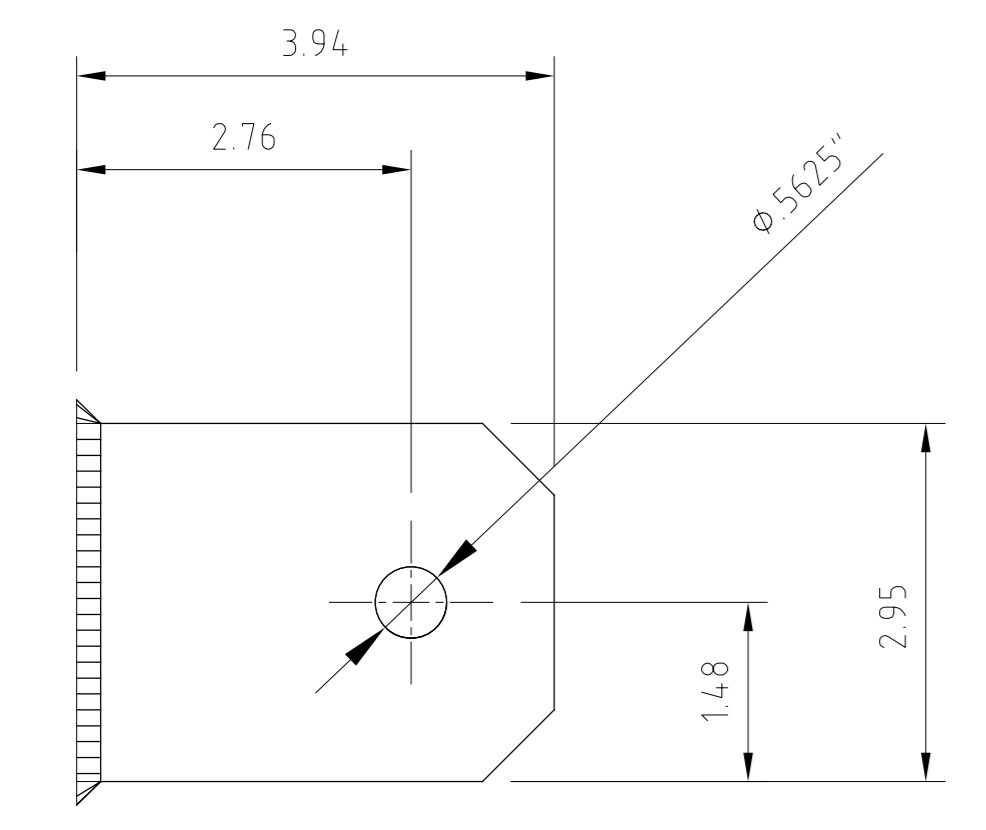


RESOLUTION SHEET

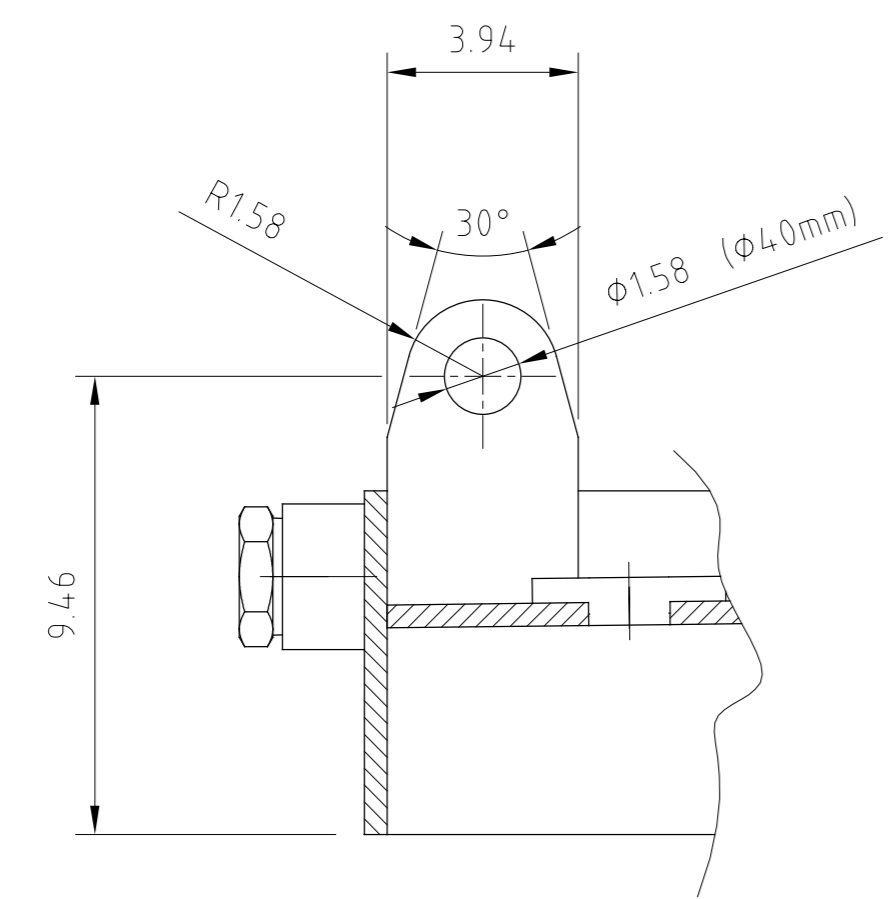
Comment Number	Document Name: General Arrangement Drawing		Revision from which comment first appeared	Comment Status: Open\Closed - (Date Closed:)
	CLIENT COMMENT	HMD RESPONSE	Current Rev:	
1	Show Anchor Bolt locations similar to previous revision. Also indicate distance between Anchor Bolts	These were taken off to avoid confusion as previously responded. Anchor bolts are shown in the Side view and Front view of the GAD. Distance between Anchor bolts can be found in these views. Noted & closed	2	Closed (10/10/2022)
2	Is this distance between Anchor Bolts or levelling screws?	Both are on the same centreline. Noted & closed	2	Closed (10/10/2022)
3	Provide distance between Anchor Bolts	Please refer to the Side view and Front view of the GAD. Noted & closed	2	Closed (10/10/2022)



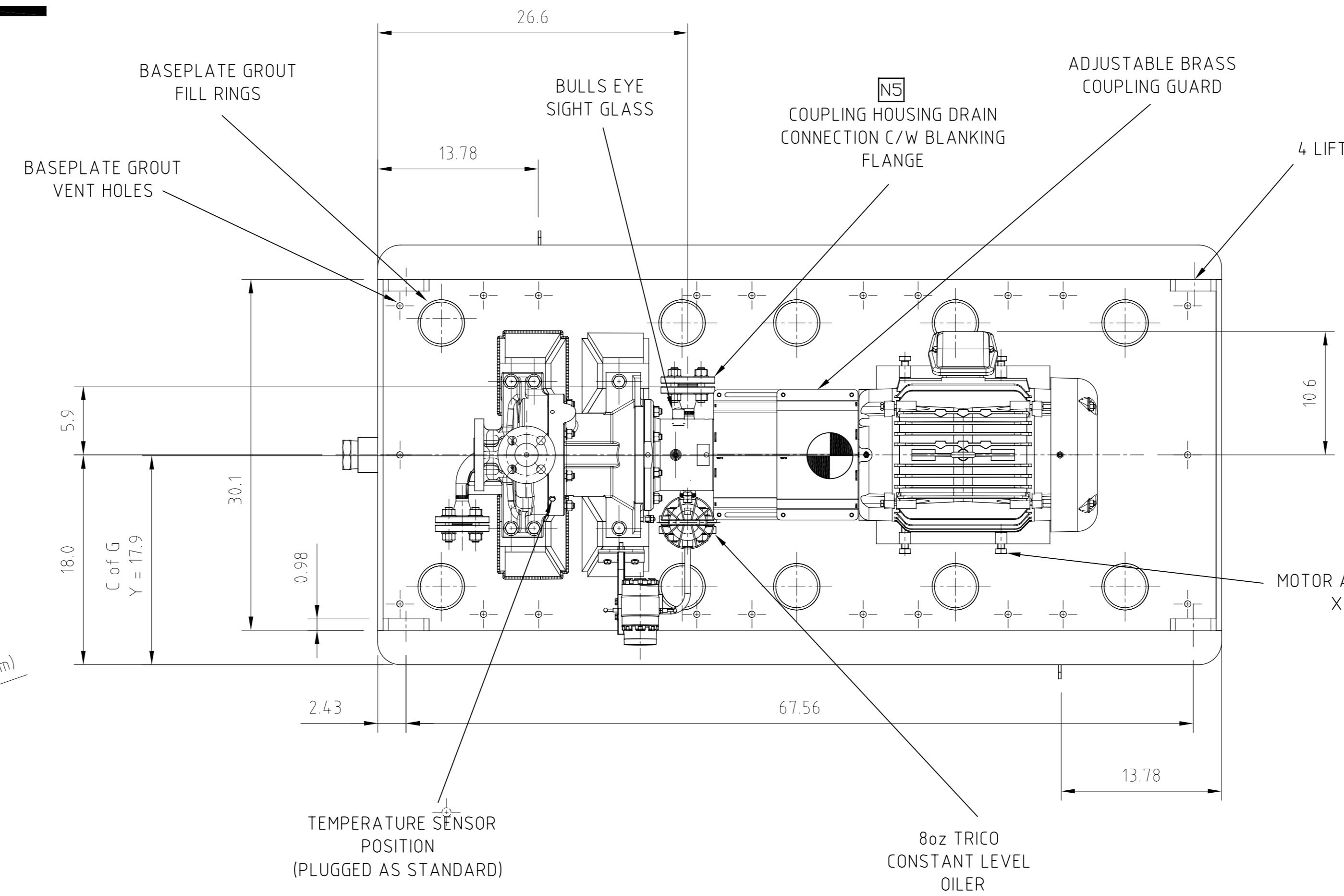
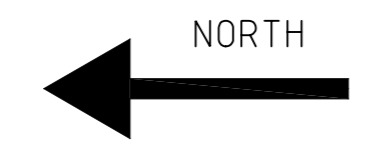
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EARTHING PLATE DETAIL
(1/4" THICK - MATERIAL 316L STAINLESS STEEL)
SCALE 1:2



VIEW THROUGH LIFTING LUG
IN 4 PLACES
(SCALE 1:5)



STRESS COMMENTS:
NOZZLE LOADS FORCES AND
MOMENTS MENTIONED
HERE ARE AS PER
2 TIMES API-685

HYDRAULIC	CONNECTIONS			
	ITEM	SIZE	DESCRIPTION	SERVICE
PK5 1.5 X 1 X 8	N1	1.5"	ASME B16.5 300lb RF	SUCTION
	N2	1"	ASME B16.5 300lb RF	DISCHARGE
	N3	3/4"	ASME B16.5 300lb RF	CASING DRAIN
	N4	2"	NPT	BASEPLATE DRAIN
	N5	3/4"	ASME B16.5 300lb RF	C'HS G DRAIN
	N6	1"	ASME B16.5 300lb RF	C'HS G INSTRUMENT

ALLOWABLE PIPING LOADS APPLIED TO NOZZLES (CONFORMS TO API 685)		
	FORCES (lbf)	
	1"	1.5"
SUCTION	FX	400
	FY	320
	FZ	260
	FR	580
	FX	320
	FY	260
DISCHARGE	FZ	400
	FR	580
	MOMENTS (ft.lbf)	
BOTH	MX	680 680
	MY	340 340
	MZ	520 520
	MR	920 920

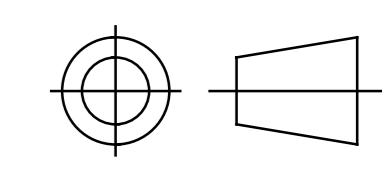
NOTE: PUMP PRESSURE CASINGS ARE DESIGNED FOR TWICE THE VALUES STATED IN TABLE 4A (4B) OF API 685, 2nd EDITION. THIS IS NOT APPLICABLE TO PIPING DESIGN NOZZLE LOADS WHICH ARE AS PER TABLE 4A (4B).

ELECTRIC MOTOR DETAILS	
MANUFACTURER	BALDOR
RATING/FRAME	15 HP / 256 T
ENCLOSURE	Cl.1 Div.2 Gr.A,B,C,D T3C
SUPPLY/SPEED	460 V / 3~ / 60 Hz / 3500 RPM
MTT (IF APPLICABLE)	N/A
MTL (IF APPLICABLE)	10.6
MTR (IF APPLICABLE)	N/A
MOTOR LENGTH (ML)	24.8

FLEXIBLE COUPLING DETAILS	
MANUFACTURER	METASTREAM
SIZE TYPE	TSKS 13 - 14.0mm

	WEIGHTS (lb)	
	DRY	OPERATING
PUMP	265	275
MOTOR	677	677
BASEPLATE	820	820
ANCILLARIES	44	44
TOTAL	1806	1816

PROJECTION



NOTES:

NOTE 1 MAXIMUM MAINTENANCE WEIGHTS ARE THE SAME AS DRY STRAIGHT LINE PIPING BEFORE SUCTION, N1, SHOULD BE 5x PIPE DIAMETER

NOTE 2 STRAIGHT LINE PIPING AFTER DISCHARGE, N2, SHOULD BE 3x PIPE DIAMETER

NOTE 3 MAINTENANCE SPACE AROUND PUMP SHOULD BE 18-36" ON A MINIMUM OF ONE SIDE AND SUFFICIENT SPACE TO REMOVE THE PUMP OR MOTOR TO THE SIDE. HEIGHT ABOVE THE BASEPLATE SHALL ALLOW REMOVAL OF PUMP OR MOTOR WITH SITE LIFTING EQUIPMENT.

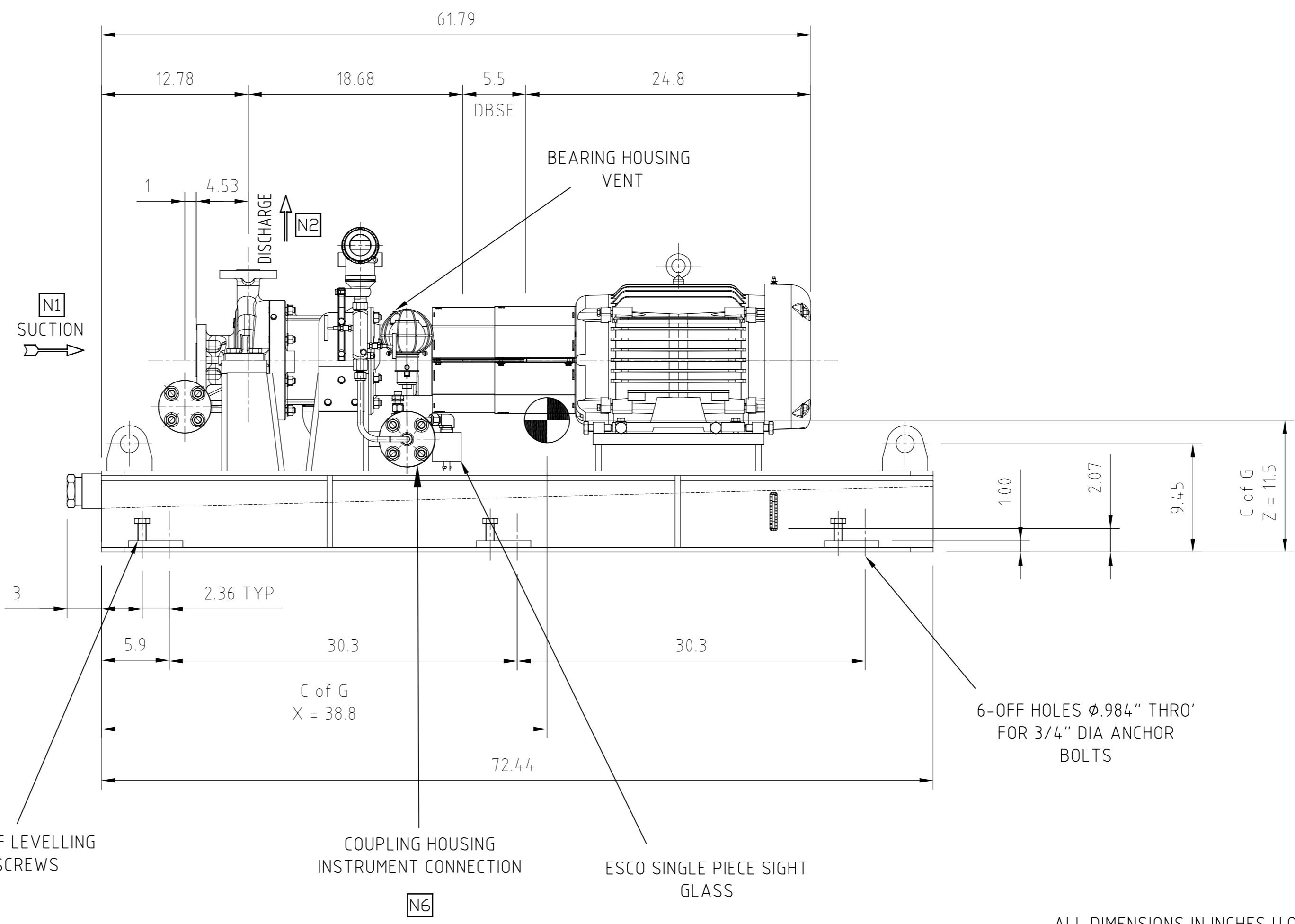
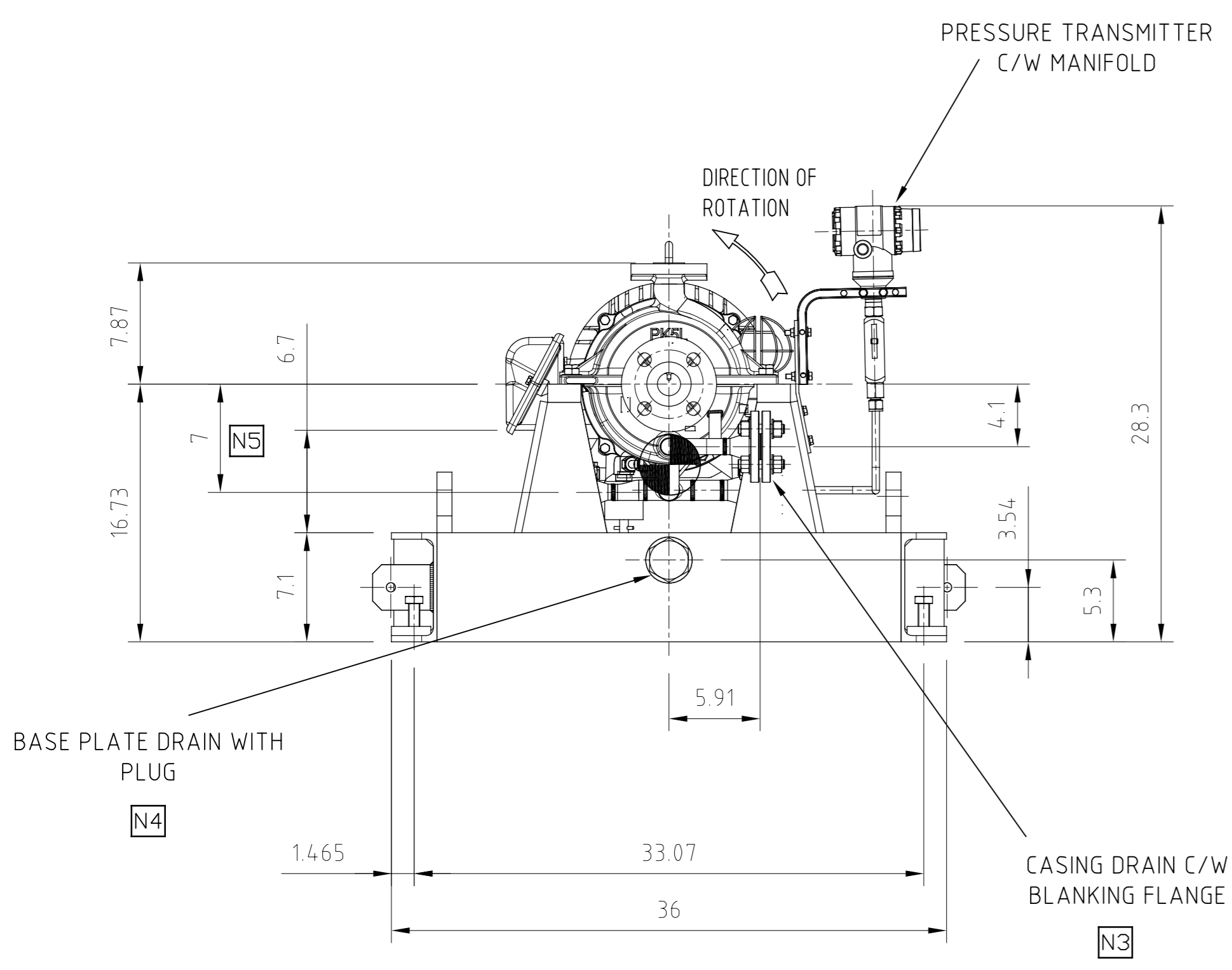
EQUIPMENT OWNER AIR PRODUCTS MANUFACTURING LLC

CLIENT		WORLD ENERGY PARAMOUNT	
ORDER NUMBER	4505605360	ITEM NUMBER	18-P-252A/B
HMD PUMP NUMBER	839917		AMMONIA STRIPPER REFLUX PUMPS

ISS	DATE	CHANGE	AUTH
2	01/09/2022	ISSUE FOR REVIEW	AFS
1	06/06/2022	ISSUE FOR REVIEW	AN
0	11/03/2022	ISSUE FOR REVIEW	AFS

CONTRACTS ISSUE NUMBER			
INTERNAL USE ONLY			
03	02/08/22	CN2022/184	ARM KCM
02	10/05/22	CN2022/106	ARM KCM
01	09/03/22	INITIAL ISSUE	JS ARM
ISS	DATE	CHANGE NUMBER	DRN CHK

ENGINEERING ISSUE NUMBER			
GENERAL ARRANGEMENT DRAWING			
TITLE:	GSP 1.5x1x8-L		
SUBTITLE:	SECONDARY CONTAINMENT, API DRAIN PAN, 256 T MOTOR		
DRAWING NUMBER	X13684		
ISSUE:	03	REVISION:	SHEET No. 1 OF 1



ALL DIMENSIONS IN INCHES U.O.S



Addendum: General Arrangement Drawing

Document Reference No: EN207122-SNDYN-9V3-00052 / HMD-4505605360-B01-02

Tag No.: 18-P-252 A/B (839917 A/B)

NACE Compliance (MR-01-03 Not L or I)

Additional Information:

1. Service: Ammonia Stripper Reflux Pumps
2. Liquid Type /Name: Ammonia Stripper Reflux
3. Operating Temperature: 120 °F
4. Rated Flow: 46 gpm
5. Discharged Pressure: Rated 115.5 psig
6. Suction Pressure: Rated 26 psig / max 82.3 psig
7. Differential Pressure: 89.5 psi
8. Differential Head: 246.9 ft
9. Absorbed Power: 9.39 HP

Reference Documents:

1. Equipment Data sheet – EN207122-SNDYN-9V3-00047 / HMD-4505605360-C04-02
2. Cross Sectional Drawing & Parts List – EN207122-SNDYN-9V3-00058 / HMD-4505605360-D01-02
3. Coupling Assembly Drawing & Parts List - EN207122-SNDYN-9V3-000 / HMD-4505605360-D03-01
4. Motor General Arrangements Drawing - EN207122-SNDYN-9V3-00065 / HMD-4505605360-B03-02
5. Motor Data Sheet - EN207122-SNDYN-9V3-00067 / HMD-4505605360-C11-02