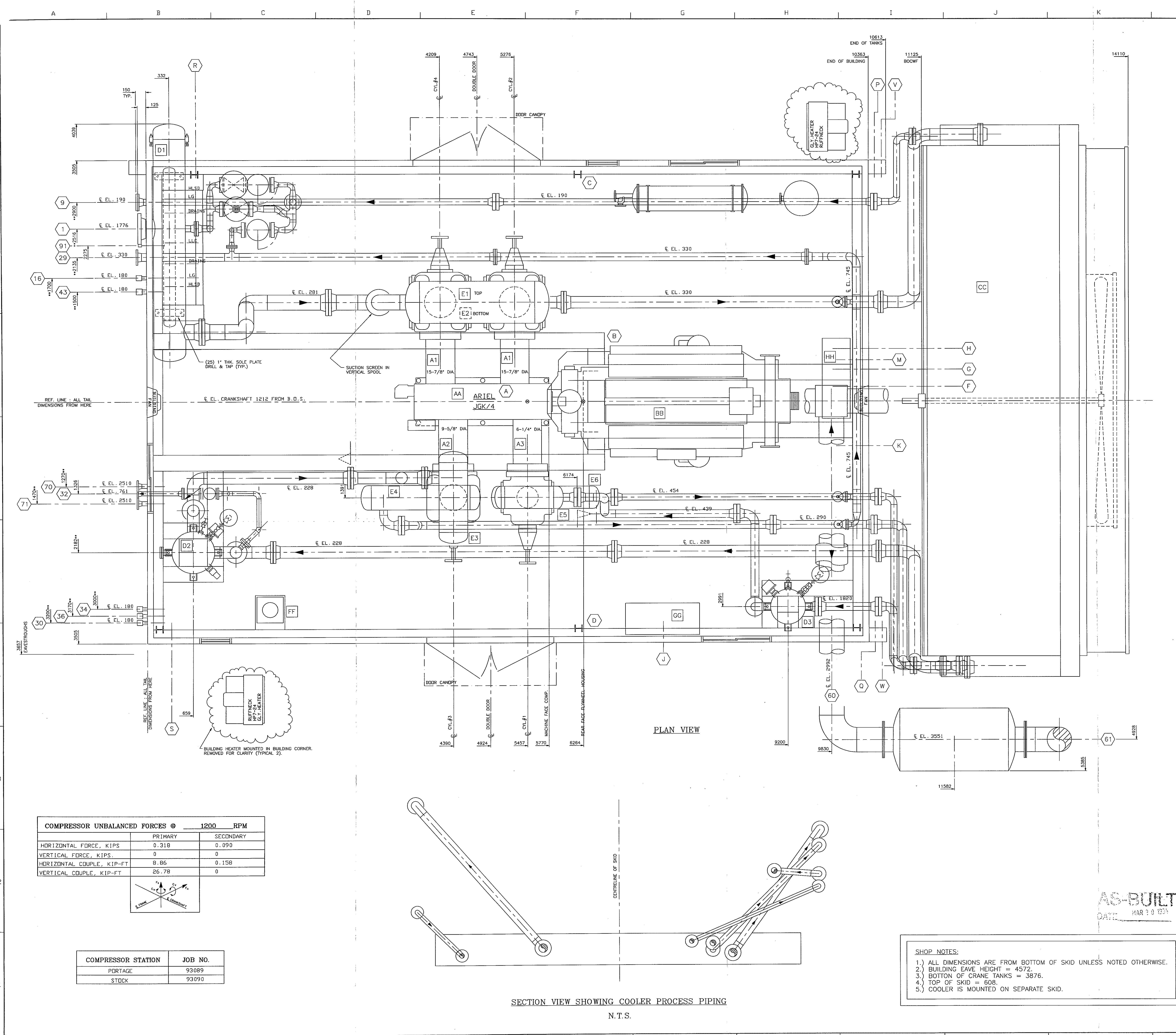


BILL OF MATERIAL									
ITEM	SEC.	QTY.	CODE No.	DESCRIPTION					
001	03	4	BTE-69TU167	TEMP SV,CCS,690TU16-7001 GP 185-315R,165-308F,SS,10' CAP					
002	03	2	BTE-TW7575	T'WELL,CCS,3/4', 7-1/2'U,304 SS 1/2' LAG,MOD. 6509TW34075104					
003	10	4	BF1-128P1	DUMP VALVE, 1' NPT FISHER #128PQC-1B, C.S. 1/4' DR, 0-20 PSI, N.C.					
004	10	4	BF1-2660R	LEVEL CONTROLLER, 2' NPT FISHER 2660A (NACE)PVC DISPLACER C/W FISHER 067 REGULATOR					
005	10	2	BMU-L12	LEVEL SWITCH, MURPHY L-1200 2' NPT XP CSA W1 BUDYGAS FLOAT, 0.50 MIN.SP. GR. 1500 PSIG					
006	10	4	BPE-RX17	LEVEL GAUGE, PENBERTHY RX-17-GS CS W1 REFLEX FLAT GLASS					
007	10	4	BPE-305NQ	SET GAUGE VALVES, PENBERTHY 305-NQ 3/4' NPTM CS, NACE.					
009	10	4	BNE-18T10	GATE VALVE, 1' NPT NEWCO 18TFS2 800# WDG CS					
010	10	8	BWK-13610	BALL VALVE, 1' NPT WKM B136-CS-02-CS-HL 2250# WDG RP WITH HANDLE					
011	10	6	BWK-13604	BALL VALVE, 1/2' NPT WKM B136-CS-02-CS-HL 2250# WDG RP WITH HANDLE					
012	13	1	NPN3-8800	AXELSDN PSV, 1-1/2" X 2'-J, 300/150RF, HF-46029, 1.287 DR. SET @ 450 PSIG					
013	13	1	NPN3-8801	AXELSDN PSV, 1' X 2'-G, 600/150RF, HF-46027, .503 DR. SET @ 900 PSIG					
014	13	1	NPN3-8802	AXELSDN PSV, 1' X 2'-F, 900RTJ/150RF, HF-46027, .307 SET @ 1800 PSIG					
015	13	1	BCS-0831	CONE STRAINER, 8'-300# CS, 100% AREA, 316SS, 40 MESH					
016	13	1	BCS-0631	CONE STRAINER, 6' 300# CS, 100% FLOW AREA 316SS, 40 MESH SCREEN TO SUIT 6' STD SCH PIPE.					
017	13	1	BCS-0461	CONE STRAINER, 4' 600# CS, 100% FLOW AREA 316SS, 40 MESH SCREEN TO SUIT 4' XS SCH PIPE.					
018	16	2	BTR-30602	TI, TREND 33060 6' STEM BM 3' D DUAL 50-500 DEG. F					
019	16	4	BTR-30401	TEMPERATURE INDICATOR, TREND 33040, 4' STEM,BACK MOUNT, 3" DIAL, DUAL SCALE, 0 - 250°F					
020	16	2	BTW-066	THERMOWELL, 1/2" X 3/4" NPTM X 6' LONG 304SS C/W 1/2" LAG					
021	08	3	BF1-067	REGULATOR, 1/4" NPT FISHER #67AFR-362, 5-35 PSI					
022	13	1	NPN3-12010	CONTROL VALVE, 2'-1500# RTJ FISHER 657-D-45 FAIL OPEN 6-30 PSI, 3/4" DRIF. LCC STEEL BODY TFE PACKING					
023	13	4	BWK-13606	BALL VALVE, 3/4" NPT WKM B136-CS-02-CS-HL 2250# WDG RP WITH HANDLE					
024	07	3	AAX-LAG	AUTO LOUVER ACTUATOR GARZO, MOUNTED BY AIR-X					
025	3	BF0-43AP15		TEMP CON FOXBORO 43AP-FA42N, 15 FT CAP & ELEM, 1/2" BUSHING					
026	13	1	NPN-5010	GLOBE VALVE, NEWCO #215J-FS2, 2'-900# RTJ, ST D TRIM C/W WELDED FLANGES					
029	10	2	NPN-5014	LEVEL SWITCH MURPHY L-1100 1-1/2" NPT CSA W/BUDYGAS FLOAT					
030	08	3	BEN-RB	MOUNTING BRACKET FOR FISHER 67AFR REGULATOR PER STD. DWG. 9.8035					
031	1	1	NPN	LEVEL CONTROLLER CAGE FOR FISHER 2660A. SEE DWG. #MC92050K					
032	2	BWK-13614		BALL VALVE, WKM B136-CS-02-CS HL 1-1/2" RP W1 HANDLE					
033	16	1	BDR-1A30	DP GAUGE, ORANGE RESEARCH MDL 1201-PG-1A-2.5L, 0-30 PSID					
035	16	4	BWH-2NVS	NEEDLE VALVE, WHITEY S-1VS4, 1/4" TBG CS					
036	16	1	BWI-P4S060	PI, WKA 233.53, 4' LF 316 BT/STK PM 1/4" DUAL 0-600 PSI					
037	16	1	BWI-P4S100	PI, WKA 233.53, 4' LF 316 BT/STK PM 1/4" DUAL 0-1000 PSI					
039	1	BWK-13606		BALL VALVE, WKM B136-CS-02-CS HL 3/4" RP W1 HANDLE					
040	13	2	BNU-T390J20	BALL VALVE, 2'-900# RTJ, NUTRON-T3R20J09B-CS-RP.					
041	02	6	XV6GESUPPOR	BOTTLE WEDGE SUPPORTS BY ESL					
042	1	BWK-12020		BALL VALVE, WKM B120-CS-02-CS 2'-300# RP					
043	1	BDA-303A20		PISTON CHECK VALVE, 2'-300# DANIEL 303A CS					
046	16	2	BTR-30402	TI, TREND 33040 4' STEM BM 3' D DUAL 50-500 DEG. F					
047	16	6	BTW-064	THERMOWELL, 1/2" X 3/4" NPTM X 4' LONG 304SS					
049	13	2	XDRIFICEPLATE	DRIFICE PLATE,TYPE 520 1/8 THK 4'-1500# RF, FULL BORE					
050	10	6	NPN3-8808	GAUGE VALVE, CENTURY CM7-3-M64T-B-V					
051	10	1	BWI-B4S030	PI, WKA 233.53, 4' LF 316 BT/STK BM 1/2" DUAL 0-300 PSI					
052	10	1	NPN3-8807	NEEDLE VALVE, CENTURY CM1-3-M64T-A-V					
054	03	1	BTE-TW7545	T'WELL,CCS,3/4', 4 1/2'U,304 SS 113-35-1					
055	03	1	BTE-TW7525	T'WELL,CCS 3/4', 2 1/2'U,304SS #6509TW34025204 C/W 2' T LAG					
056	03	3	BWI-CB2C006	PI, WKA 111.10, 2' BM 1/4" DUAL 0-60 PSI					
057	03	2	XDRIFICEPLATE	DRIFICE PLATE,TYPE 520 1/8 THK 10'-300# RF, 6.875" BORE					
058	03	3	XDRIFICEPLATE	DRIFICE PLATE,TYPE 520 1/8 THK 6'-300# RF, 3.750" BORE					
059	03	1	XDRIFICEPLATE	DRIFICE PLATE,TYPE 520 1/8 THK 6'-600# RF, 4.750" BORE					
060	03	1	XDRIFICEPLATE	DRIFICE PLATE,TYPE 520 1/8 THK 6'-600# RF, 3.750" BORE					
GENERAL NOTES									
1. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS STAMPED 'RELEASED FOR MANUFACTURE'.									
2. ALL PROCESS PIPING TO BE CLAMPED AS NEAR TO ALL ELBOWS AS POSSIBLE. REFER TO DRAWING 12.8066.									
3. FOR DESIGN PARAMETERS REFER TO PROJECT SCOPE SUMMARY DRAWING NO. SS93036									
4. FOR CUSTOMER CONNECTIONS REFER TO GENERAL ARRANGEMENT DRAWING NO. GA93036									
5. PIPE NIPPLES 1-1/2" AND SMALLER TO BE MIN. XXH WALL THICKNESS.									
6. ALL PROCESS FLANGES AND PIPE OUTSIDE OF BUILDING ARE TO BE LOW TEMPERATURE MATERIAL.									
7. TUBE ALL INSTRUMENT VENTS OUTSIDE OF BUILDING.									
CAD MAKE NO REVISIONS TO THIS REPRODUCIBLE									



COMPRESSOR UNBALANCED FORCES @ 1200 RPM		
	PRIMARY	SECONDARY
HORIZONTAL FORCE, KIPS	0.318	0.090
VERTICAL FORCE, KIPS	0	0
HORIZONTAL COUPLE, KIP-FT	8.86	0.158
VERTICAL COUPLE, KIP-FT	26.78	0

COMPRESSOR STATION	JOB NO.
PORTAGE	93089
STOCK	93090

SECTION VIEW SHOWING COOLER PROCESS PIPING

N.T.S.

CUSTOMER CONNECTIONS		
NO.	DESCRIPTION	SIZE
1	STAGE ONE INLET	8"-300# RF
15	SCRUBBER DRAIN HEADER	3"-900# RTJ
29	PSV VENT HEADER	1-1/2" NPT
30	FUEL GAS SUPPLY	4"-150# RF
32	RAW FUEL GAS SUPPLY TO OFF-SKID	1-1/2" NPT
34	START GAS SUPPLY	2"-300# RF
36	FUTURE INSTRUMENT AIR SUPPLY	1-1/2" NPT
43	ENGINE OIL DRAIN	2" NPT

OTHER CONNECTIONS		
CONN.	DESCRIPTION	SIZE
A	COMPRESSOR OIL FILL (LOCAL)	2" NPT
B	ENGINE OIL FILL (LOCAL)	2" NPT
C	COMPRESSOR OIL TANK FILL	1" NPT
D	ENGINE OIL TANK FILL	1" NPT
F	JACKET WATER (DEAERATION) FILL	2"-7# PRESS. CAP
G	JACKET WATER (SURGE) FILL	2"-7# PRESS. CAP
H	AUXILIARY WATER FILL	2"-7# PRESS. CAP
J	CONTROL PANEL VENT	1" NPT
K	START GAS VENT	1" STACK
M	CONTROL HEADER VENT	1" STACK
P	WASTE OIL TANK VENT	2" NPT
Q	GLYCOL TANK VENT	2" NPT
R	COMPRESSOR OIL TANK VENT (INTEGRAL w/ CRANE)	3/4" STACK
S	ENGINE OIL TANK VENT (INTEGRAL w/ CRANE)	3/4" STACK
V	WASTE OIL TANK PUMP OUT	2" NPT
W	GLYCOL TANK PUMP OUT	2" NPT
60	ENGINE AIR INLET	14"
61	ENGINE EXHAUST	14"
91	CONTROL PANEL - SUCTION VALVE CONTROL	1/4" TUBE

MAJOR COMPONENTS		
AA COMPRESSOR		
(1) ARIEL, JGK-4		
A1 (2) 14-1/8" DIA. BORE "K" CLASS CYLINDER, 635 PSIG MWP, c/w VVCP.		
A2 (1) 9-1/8" DIA. BORE "K" CLASS CYLINDER, 1270 PSIG MWP c/w VVCP.		
A2 (1) 5-7/4" DIA. BORE "K" CLASS CYLINDER, 2050 PSIG MWP c/w VVCP.		
BB ENGINE		
(1) WAUKESHA, 7042GL		
CC COOLER		
(1) AIR-X-CHANGERS, 156EH-112-26		
C1 (1) GLYCOL/WATER COOLING SECTION FOR TURBO INTERCOOLER.		
C2 (1) GLYCOL/WATER COOLING SECTION FOR ENGINE JACKET.		
C3 (1) 1st GAS INTERCOOLING SECTION, 450 PSIG MWP.		
C4 (1) 2nd GAS INTERCOOLING SECTION, 900 PSIG MWP.		
C5 (1) GAS AFTERCOOLING SECTION, 1800 PSIG MWP.		
DD SCRUBBERS		
D1 (1) 18" DIA. PECD HORIZONTAL INLET FILTER/SEPARATOR BY PETRO-EQUIP.		
D2 (1) 24" DIA. x 69" S/S, STAGE 2 SCRUBBER, 655 PSIG MWP @ 300°F c/w MESH PAD.		
D3 (1) 20" DIA. x 68" S/S, STAGE 3 SCRUBBER, 1000 PSIG MWP @ 350°F c/w MESH PAD.		
EE BOTTLES		
E1 (1) 24" DIA. x 65" S/S, STAGE 1 SUCTION BOTTLE, 655 PSIG MWP @ 300°F.		
E2 (1) 20" DIA. x 65" S/S, STAGE 1 DISCHARGE BOTTLE, 500 PSIG MWP @ 300°F.		
E3 (1) 16" DIA. x 40" S/S, STAGE 2 SUCTION BOTTLE, 500 PSIG MWP @ 300°F.		
E4 (1) 14" DIA. x 56" S/S, STAGE 2 DISCHARGE BOTTLE, 1000 PSIG MWP @ 300°F.		
E5 (1) 12-3/4" DIA. x 30" S/S, STAGE 3 SUCTION BOTTLE, 1000 PSIG MWP @ 300°F.		
E6 (1) 12-3/4" DIA. x 48" S/S, STAGE 3 DISCHARGE BOTTLE, 1925 PSIG MWP @ 350°F.		
FF FUEL GAS FILTER		
(1) ESL, STD 8-5/8" DIA., 285 PSIG MWP @ 100°F.		
GG CONTROL PANEL		
(1) ELECTRONIC MICRO GAUGE BY SEARTAN CONTROLS.		
HH SURGE TANK		
(1) ESL, 3 COMPARTMENT, 173/81/40L CAPACITY.		

GENERAL NOTES		
1. THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS STAMPED "RELEASED FOR MANUFACTURE".		
2. DO NOT SCALE THIS DRAWING.		
3. ALL DIMENSIONS ARE IN MILLIMETERS.		
4. FOR DESIGN PARAMETERS AND PAINT SPECIFICATION REFER TO PROJECT SCOPE SUMMARY DRAWING No. 3332089.		
5. ALL PIPING MUST BE SELF SUPPORTING BEYOND UNIT CONNECTIONS.		
6. LOCATIONS OF CUSTOMER CONNECTIONS ARE NOT GUARANTEED AS THESE DIMENSIONS MAY BE SUBJECT TO AN ACCUMULATION OF TOLERANCES ON SEVERAL COMPONENTS. MINOR CHANGES MAY ALSO BE MADE ON SERVICE PIPING IN ORDER TO FACILITATE INSTALLATION AND MAINTENANCE. ON COMPLETION A FINAL DRAWING WILL BE ISSUED WITH FIELD CONNECTIONS CORRECTED TO 5 mm.		
7. IT IS ESL'S RECOMMENDATION THAT ANY PRE-SPOLING TO THIS COMPRESSOR PACKAGE CONTAIN FIELD WELDS AT ALL CUSTOMER CONNECTIONS.		
8. DIMENSIONS INDICATED (**) SHALL BE CONFIRMED AND CERTIFIED CORRECT (**) ON A FINAL REVISION.		
9. THE FOLLOWING ITEMS WILL BE SHIPPED LOOSE FOR FIELD INSTALLATION BY OTHERS: EXHAUST PIPING, STAND, AND MUFFLER, AIR-X-COOLER AND ALL INTERCONNECTING PROCESS AND SERVICE PIPING SPIDOLS.		

SHIPPING WEIGHTS	KG.	LBS.
ENGINE	8301	18300
COMPRESSOR	8437	18600
COOLER & COOLER SKID (SHIPPED LOOSE)	(12927)	(28500)
VESSELS	3311	7300
SKID	3349	73520
MISC. & LIQUIDS	12147	26780
BUILDING	4717	10400
CRANE	2852	6287

TOTAL SHIPPING WT.	73114	161189
(SHIPPED LOOSE ITEMS)	(12927)	(28500)
TOTAL UNIT WEIGHT	86041	189688

UNIT DIMENSIONS	LENGTH		WIDTH		HEIGHT	
	mm	ft/in	mm	ft/in	mm	ft/in
MAIN SKID w/ ALL EQUIP. MOUNTED	14275	46'-10"	9449	31'-0"	5994	19'-8"
SHIPPING DIMENSIONS	10863	35'-8"	7696	25'-3"	5994	19'-8"
COOLER	3410	11'-2"	8376	27'-6"	4535	14'-10"

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
3	AS BUILT	94/03/10	GJK	
2	RELOCATED PECD FILTER	94/02/23	GJK	
1	FOR CONSTRUCTION	94/01/17	GJK	
0	FOR APPROVAL	92/11/25	GJK	

ENERFLEX Systems Ltd.		CALGARY EDMONT GRANDE PRATIE MEDICINE HAT RED BEAR FORT McMURRAY FORT ST. JOHN, B.C. VANCOUVER, B.C. LUDWIGSTADT, SASKATCHEWAN SYDNEY, AUSTRALIA
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TITLE:	GENERAL ARRANGEMENT
	ARIEL JGK-4, WAUKESHA 7042GL, AIR-X-CHANGERS 156EH COMPRESSOR PACKAGE

FOR:	PORTAGE COMPRESSOR STATION/STOCK
CONSULTANT:	GEMINI ENGINEERING LTD.
P.O.:	JOB No.: 93089/90

DATE:	93-10-08	DESIGN BY:	DGRL	DATE:	93-09-01	DWG. NO.	
DWN BY:	J. GUPPY	CHECKED BY:		DATE:			
SCALE:	1:20	APPROVED BY:		DATE:			

- SHOP NOTES:
- ALL DIMENSIONS ARE FROM BOTTOM OF SKID UNLESS NOTED OTHERWISE.
 - BUILDING EAVE HEIGHT = 4572.
 - BOTTOM OF CRANE TANKS = 3876.
 - TOP OF SKID = 608.
 - COOLER IS MOUNTED ON SEPARATE SKID.

AS-BUILT
DATE: MAR 10 1994