

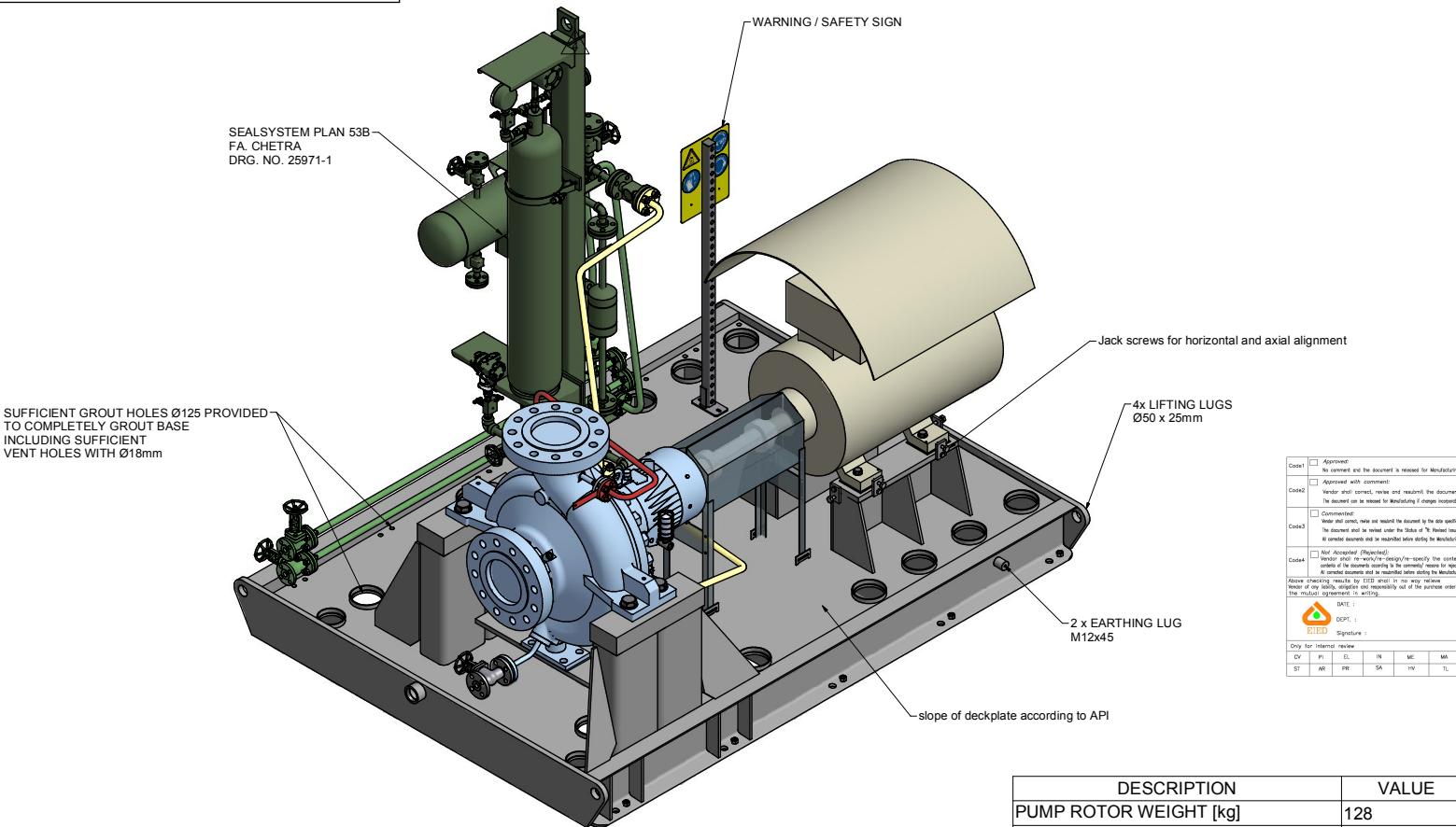
PUMP SPECIFICATIONS	
SIZE & TYPE:	ZF200-5560
SPEED:	(see MOTOR SPECIFICATIONS)
ROTATION:	CW (AS VIEWED FROM DRIVER)
DISCH FLG:	8" CLASS: 300RF Standard: ASME B16.5
SUCT FLG:	8" CLASS: 300RF Standard: ASME B16.5
MECH SEAL TYPE:	CHETRA TYP 851TB-068
MECH SEAL DRG:	25504-16-10-P-1384 A/B API CODE: BDPHP/N
API PIPING PLANS:	11, 53B, M

COUPLING SPECIFICATIONS	
MFR:	METASTREAM
TYPE:	TSKS
SIZE:	0075
COUPLING-GUARD MATERIAL:	BRASS

DRIVER SPECIFICATIONS	
MOTOR:	SCHORCH
FRAME:	KD1280S-BA41P-M
ENCLOSURE:	ZONE 2,IIB,T3
kW:	75
SPEED:	1481 rpm
PHASE:	3
VOLTAGE:	400
FURNISHED BY:	SULZER
CYCLE:	50 Hz

CONTRACT DATA	
PURCHASER:	AIOTEC GmbH
USER:	Kangan Petro-Refining Co.
JOB/PROJECT:	Kangan C2 Recovery and Fractionation Plant
CUST. P.O. NO.:	KP-10-00-PS-MA-P0-0003
SERVICE:	DEBTANIZER REFLUX PUMP
INSTALLED AT:	KANGAN- ASSALUYEH - IRAN
PUMP OEM:	Sulzer Pumpen (Deutschland) GmbH
SULZER ORDER NO.:	100247188-0040
IDENTIFICATION NUMBERS	
SULZER SERIAL NO.	CUSTOMER TAG NO'S
	PUMP
583633	10-P-1384 A
583634	10-P-1384 B
	DRIVER
	10-M-1384 A
	10-M-1384 B
<input checked="" type="checkbox"/> CERTIFIED FINAL	DO NOT SCALE. DIMENSIONS: mm
<input type="checkbox"/> CERTIFIED FOR NOZZLE & FOUNDATION ONLY	UNLESS OTHERWISE SPECIFIED TOLERANCES
<input type="checkbox"/> PRELIMINARY ONLY	≤ 500 mm ± 3mm ≥ 500 mm ± 12mm
	AUXILIARY CUSTOMER CONNECTION DIMENSIONS ± 25

DRAWING CONTENT		
SHEET DESCRIPTION		SHEET NO.
GA ISOMETRIC DATA SHEET		1
FOUNDATION AND NOZZLE		2
CONNECTION LAYOUT		3



Code1	<input type="checkbox"/> Approved! No comment and the document is released for Manufacturing.				
Code2	<input type="checkbox"/> Approved with comment: Vendor shall correct, review and resubmit the document, before it can be released for Manufacturing if changes are required.				
Code3	<input type="checkbox"/> Comment: Vendor shall correct, review and resubmit the document, before it can be released for Manufacturing. Note: The document will be revised under the status of "3. Revised final".				
Code4	<input type="checkbox"/> Not Accepted (Rejected): Vendor shall re-work/re-design/re-specify the content of the document and resubmit it to the customer. All corrected documents shall be resubmitted before starting the Manufacturing. Above checking results by EIED are in no way relative to the quality of the product and do not release the product out of the purchase order and the related agreement in writing.				
EIED					
Signature : _____					
Dry for Internal review					
CV	P1	CL	IN	MC	MA
ST	AR	PR	SA	EV	TG

DESCRIPTION	VALUE
PUMP ROTOR WEIGHT [kg]	128
PUMP ROTOR INERTIA [kg.m ²]	2,873
PUMP DYNAMIC LOADS [N] RADIAL / AXIAL	323 / 89
MOTOR ROTOR WEIGHT [kg]	144
MOTOR ROTOR INERTIA [kg.m ²]	1,25
MOTOR DYNAMIC LOADS [N]	56

Maintenance weight pump: 667 kg

APPROXIMATE WEIGHTS	
PUMP:	1064 kg
MOTOR:	740 kg
BASEPLATE:	1516 kg
AUXILIARY:	266 kg
TOTAL:	3586 kg

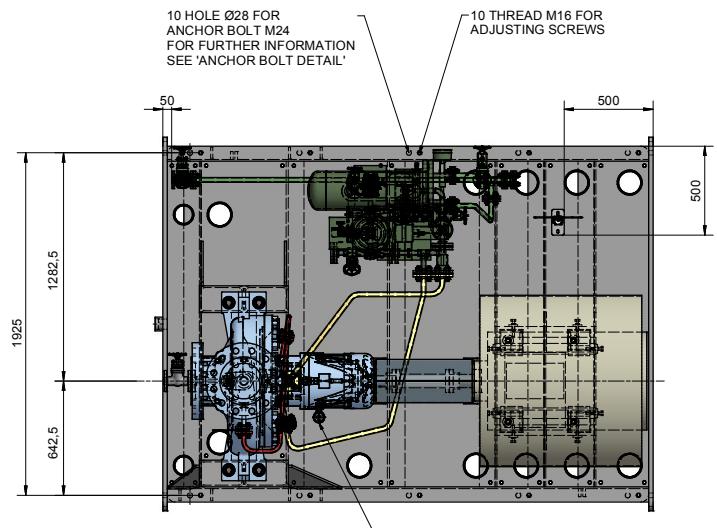
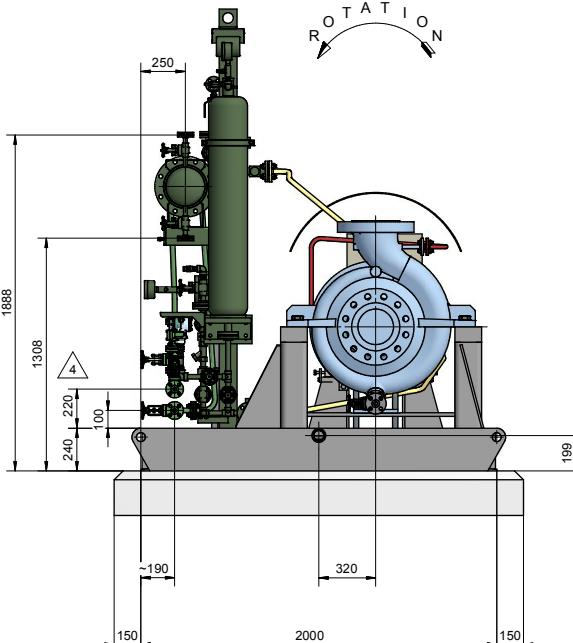
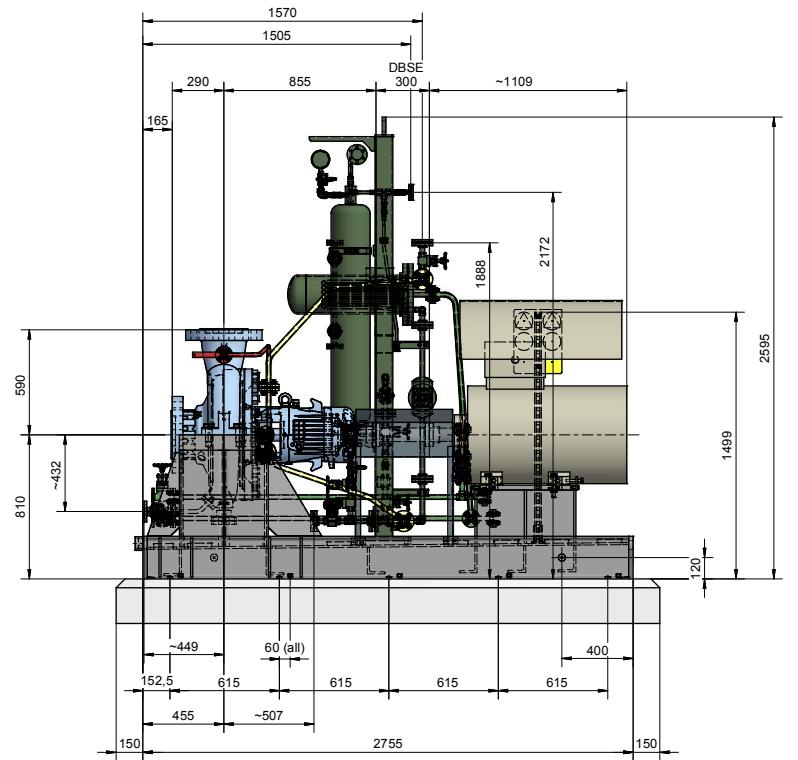
REV.	MODIFICATION	MODIFIED	CHECKED	APPROVED
SEP. PARTS LIST:	NO	FORMAT: A1	DESIGN GROUP: -	FIRST ANGLE PROJECTION: <input checked="" type="checkbox"/>
REPLACED BY:	-	STANDARD:	SUBSTITUTE FOR:	ORIGINAL SCALE: 1:10
ZF 200-5560	-	-	-	DRAWN: 13-Dec-2016 T.Ratzel
100247188-0040	-	GENERAL ARRANGEMENT GA ISOMETRIC AND DATA SHEET	-	CHECKED: 13-Dec-2016 R.Scherban
		GENERAL ARRANGEMENT DRAWING	-	APPROVED:
SULZER	PART NO.	EN	PGA1002471880040-01	1 / 3

1. CAUTION! CAREFULLY CHECK ALIGNMENT BEFORE STARTING UNIT. ALL HOLES IN FLANGES STRADDLE CENTERLINES. THE CONNECTION OF PIPES TO THE UNIT HAS TO BE STRESS FREE.

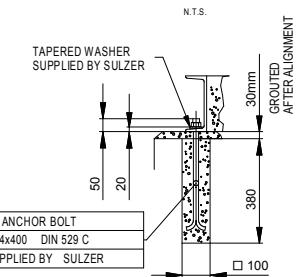
2. COPIES ARE NOT INTENDED TO REPRESENT AS APPROVED DESIGN DOCUMENTS. THEY ARE FOR QUICK IDENTIFICATION OF PIPING AND EQUIPMENT.

3. PIPING AND EQUIPMENT ARE MODELED REFLECTING ONLY ACTUAL LOCATION AND ORIENTATION MAY VARY PER SHOP STANDARDS, UNLESS OTHERWISE DIMENSIONED.

4. THE SUCTION PIPE OR INTAKE DESIGN SHALL BE IN ACCORDANCE WITH SITE STANDARDS ANSI/HI 8.5-1998 PUMP INTAKE DESIGN REQUIREMENTS.



ANCHOR BOLT DETAIL



10 ANCHOR BOLT
M24x400 DIN 529 C
SUPPLIED BY SULZER

Grout material:
Select a non-shrinking grout that is compatible with the highest and lowest temperatures to which it may be exposed.
Use concrete from a concrete company with a final strength of 25 N/mm² (B25) or better.

MAXIMUM NOZZLE LOADINGS

Forces do comply with 2 times of the forces shown in API 610 11th

FORCE IN (N)	MOMENTS IN (Nm)
F _x M _x	M _z F _z
M _y	F _y
F _y M _y	M _x F _z
M _x	M _y

SUCT	DISCH
F _x M _x	9780 7560
F _y M _y	7560 6220
F _z M _z	6220 9780
F _r M _r	13840 9420
M _x	7060
M _y	3520
M _z	5160
M _r	9420

	SUCT	DISCH
FORCE	Fx Fy Fz Fr	9780 7560 6220 13840
MOMENTS	Mx My Mz Mr	7060 3520 5160 9420

CONTRACT DATA

PURCHASER: AIOTEC GmbH

USER: Kangan Petro-Refining Co.

JOB/PROJECT: Kangan C2 Recovery and Fractionation Plant

CUST. P.O. NO.: KP-10-00-PS-MA-P0-0003
SERVICE: DEBUTANIZER REFLUX PUMP
INSTALLED AT: KANGAN- ASSALUYEH - IRAN
PUMP OEM: Sulzer Pumpen (Deutschland) GmbH
SULZER ORDER NO.: 100247188-0040

IDENTIFICATION NUMBERS

SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
583633	10-P-1384 A	10-M-1384 A
583634	10-P-1384 B	10-M-1384 B

<input checked="" type="checkbox"/> CERTIFIED FINAL <input type="checkbox"/> CERTIFIED FOR NOZZLE & FOUNDATION ONLY <input type="checkbox"/> PRELIMINARY ONLY	DO NOT SCALE. DIMENSIONS: mm <u>UNLESS OTHERWISE SPECIFIED</u> <u>TOLERANCES</u> $\leq 500 \text{ mm}$ $\pm 3 \text{ mm}$ $> 500 \text{ mm}$ $\pm 12 \text{ mm}$
AUXILIARY CUSTOMER CONNECTION DIMENSIONS ± 25	

04	16.11.17	"R"	For Approval	TR	RS	CH	PL
03	09.08.17	"R"	For Approval	TR	RS	CH	PL
02	07.06.17	"R"	For Approval	TR	RS	CH	PL
01	02.03.17	"R"	For Approval	TR	RS	CH	PL
00	19.12.16	"F"	For Approval	TR	RS	CH	PL
REV.	DATE	Status	Purpose of Issue	PRE'P.	CH'C'D.	APP'D.	AUTH'D.

KANGAN
C2 RECOVERY & FRACTIONATION PLAN

The logo for KPRC-TV, featuring a red stylized flame or arrow shape with the station's call letters "KPRC" in white capital letters in the center.

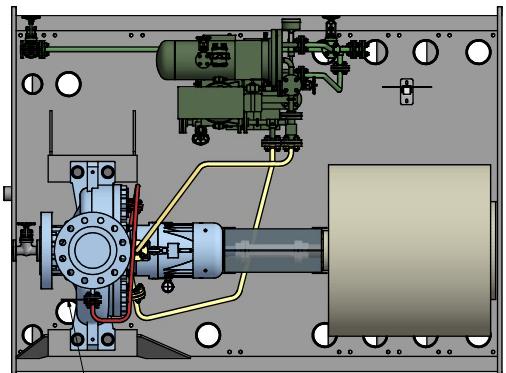
DRAWING TITLE:
General Arrangement drawings for Item 10-P-1384 A/B

DRAWING No VP-10-00-MA-0003-0414 SHEET No 2 OF 3 REV. C

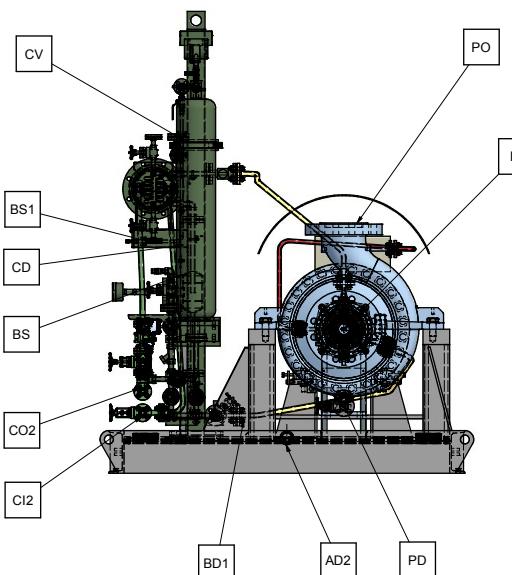
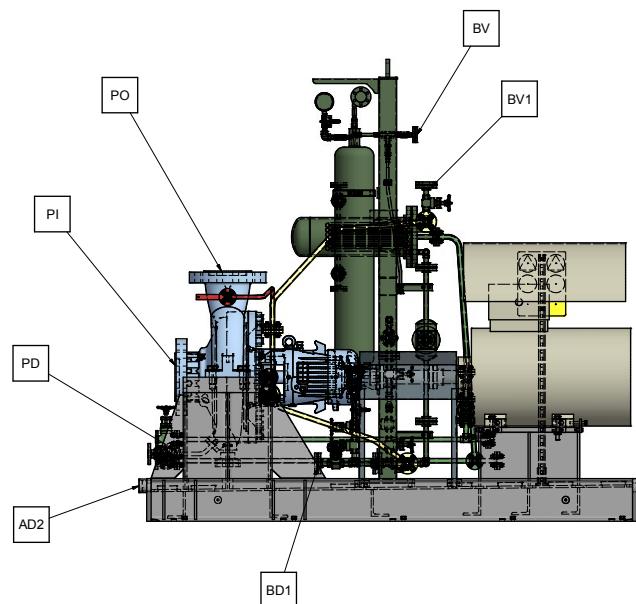
REV.	MODIFICATION	MODIFIED	CHECKED	APPROVED
SEP. PARTS LIST:		NO	FORMAT: A1	FIRST ANGLE PROJECTION <input checked="" type="checkbox"/>
REPLACED BY:		-	SUBSTITUTE FOR:	ORIGINAL SCALE: 1:15
ZF 200-5560	GENERAL ARRANGEMENT FOUNDATION AND NOZZLE			DRAWN: 13-Dec-2016 T.Ratzel
				CHECKED: 13-Dec-2016 R.Scherber

100247188-0040	GENERAL ARRANGEMENT DRAWING		
SULZER	PART NO.	EN	PGA1002471880040-01 2 / 3

CONTRACT DATA										
PURCHASER:	AIOTEC GmbH									
USER:	Kangan Petro-Refining Co.									
JOB/PROJECT:	Kangan C2 Recovery and Fractionation Plant									
CUST. P.O. NO.:	KP-10-00-PS-MA-P0-0003									
SERVICE:	DEBUTANIZER REFLUX PUMP									
INSTALLED AT:	KANGAN- ASSALUYEH - IRAN									
PUMP OEM:	Sulzer Pumpen (Deutschland) GmbH									
SULZER ORDER NO.:	100247188-0040									
IDENTIFICATION NUMBERS										
SULZER SERIAL NO.	CUSTOMER TAG NO'S									
	PUMP	DRIVER								
583633	10-P-1384 A	10-M-1384 A								
583634	10-P-1384 B	10-M-1384 B								
DO NOT SCALE. DIMENSIONS: mm										
<input checked="" type="checkbox"/> CERTIFIED FINAL										
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<input type="checkbox"/> PRELIMINARY ONLY	TOLERANCES									
	$\leq 500 \text{ mm} \pm 3\text{mm}$									
	$> 500 \text{ mm} \pm 12\text{mm}$									
AUXILIARY CUSTOMER CONNECTION DIMENSIONS ± 25										
04	16.11.17	"R"	For Approval	TR	RS	CH	PL			
03	09.08.17	"R"	For Approval	TR	RS	CH	PL			
02	07.06.17	"R"	For Approval	TR	RS	CH	PL			
01	02.03.17	"R"	For Approval	TR	RS	CH	PL			
00	19.12.16	"F"	For Approval	TR	RS	CH	PL			
REV.	DATE	Status	Purpose of Issue	PREP.	CHC'D.	APP'D.	AUTH'D.			
KANGAN C2 RECOVERY & FRACTIONATION PLANT										
P.O. No.: KP-10-00-PS-MA-P0-0003										
SCALE : 1 : 15										
SULZER										
DRAWING TITLE: General Arrangement drawings for Item 10-P-1384 A/B										
DRAWING No.	VP-10-00-MA-0003-0414	SHEET No.	3 OF 3	REV. 04						
REV.	MODIFICATION	MODIFIED	CHECKED	APPROVED						
SEP. PARTS LIST:	NO	FORMAT: A1	DESIGN GROUP:	FIRST ANGLE PROJECTION						
REPLACED BY:	-	-	-	ORIGINAL SCALE: 1:15						
ZF	GENERAL ARRANGEMENT	DRAWN: 13-Dec-2016								
200-5560	CONNECTION LAYOUT	T.Ratzel								
-	-	CHECKED: 13-Dec-2016								
100247188-0040	GENERAL ARRANGEMENT DRAWING	R.Scherban								
SULZER	PART NO.	EN	PGA1002471880040-01	3 / 3						



PLAN 11 ORIFICE Ø 4,5 mm



CONNECTION LEGEND					
ITEM	DESCRIPTION	SIZE	TYPE		
P1	PUMP SUCTION NOZZLE	8"	ASME B16.5 300 RF		
PO	PUMP DISCHARGE NOZZLE	8"	ASME B16.5 300 RF		
PD	PUMP DRAIN WITH DRAIN	3/4"	ASME B16.5 300 RT / GATE VALVE 300 RF		
AD2	BASE GRAN	2"	NPT FEMALE		
CI2	COOLING HEADER - INLET	3/4"	ASME B16.5 150 RF		
CO2	COOLING HEADER - OUTLET	3/4"	ASME B16.5 150 RF		
BS	PLAN 53B RESERVOIR FILL	1/2"	NPT-F QUICK COUPLING		
BS1	PLAN 53B NITROGEN CHARGE	1/2"	NPT-F QUICK COUPLING		
BD1	PLAN 53B RESERVOIR DRAIN	3/4"	ASME B16.5 300 RF BLIND FLANGE		
BV	PLAN 53B HIGH POINT VENT	3/4"	ASME B16.5 300 RF BLIND FLANGE		
BV1	PLAN 53B ACCUMULATOR VENT	3/4"	ASME B16.5 300 RF BLIND FLANGE		
CV	PLAN 53B COOLER VENT	1/2"	ASME B16.5 150 RF BLIND FLANGE		
CD	PLAN 53B COOLER DRAIN	1/2"	ASME B16.5 150 RF BLIND FLANGE		