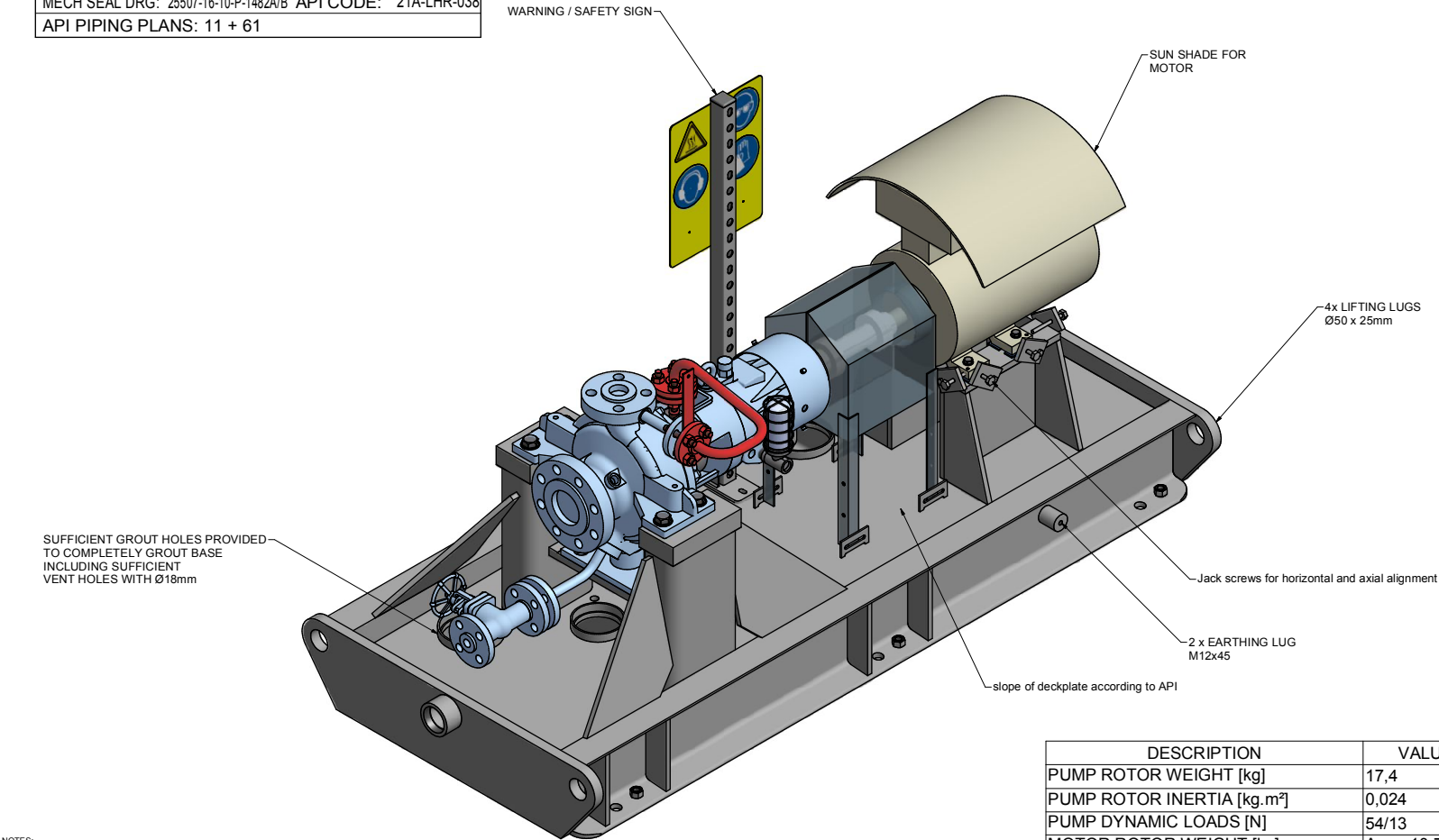


PUMP SPECIFICATIONS			
SIZE & TYPE: ZF40-2200			
SPEED: (see MOTOR SPECIFICATIONS)			
ROTATION: CW (AS VIEWED FROM DRIVER)			
DISCH FLG:	1,5"	CLASS: 600RF	Standard: ASME B16.5
SUCT FLG:	3"	CLASS: 600RF	Standard: ASME B16.5
MECH SEAL TYPE: 151CA-038			
MECH SEAL DRG: 25507-16-10-P-1482A/B API CODE: 21A-LHR-038			
API PIPING PLANS: 11 + 61			

COUPLING SPECIFICATIONS	
MFR: Metastream	
TYPE: TSKS	SIZE: 0013
COUPLING-GUARD MATERIAL: Brass	

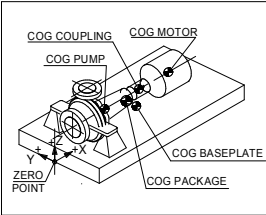
DRIVER SPECIFICATIONS			
MOTOR: Schorch			
FRAME: 132	Enclosure:Zone 2, IIB, T3		
kW: 5,5	SPEED: 2880 rpm		
PHASE: 3	VOLTAGE: 400		
FURNISHED BY: SULZER	CYCLE: 50 Hz		



NOTES:

- 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.**
- COLORS ARE NOT INTENDED TO REPRESENT "AS SHIPPED" PAINT REQUIREMENTS. THEY ARE FOR QUICK IDENTIFICATION OF PIPING AND EQUIPMENT.
- PIPING AND EQUIPMENT ARE MODELED REPRESENTATIONS ONLY. ACTUAL LOCATION AND ORIENTATION MAY VARY PER SHOP STANDARDS, UNLESS OTHERWISE DIMENSIONED.
- THE SUCTION PIPING OR INTAKE DESIGN SHALL MEET THE HYDRAULIC INSTITUTE STANDARDS ANSI/HI 9.8-1998 "PUMP INTAKE DESIGN" REQUIREMENTS.

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EXPRESS PRIOR WRITTEN CONSENT OF SULZER
PUMPS



COG	X	Y	Z
PUMP	545	0	550
COUPLING	1135	0	550
BASEPLATE	876	34	163
MOTOR	1485	0	550
PACKAGE	915	21	314
COG=CENTER OF GRAVITY			

DESCRIPTION	VALUE
PUMP ROTOR WEIGHT [kg]	17,4
PUMP ROTOR INERTIA [kg.m²]	0,024
PUMP DYNAMIC LOADS [N]	54/13
MOTOR ROTOR WEIGHT [kg]	Appr. 10,7
MOTOR ROTOR INERTIA [kg.m²]	0,0089
MOTOR DYNAMIC LOADS [N]	8

MAINTENANCE WEIGHT PUMP:	37	kg
--------------------------	----	----

APPROXIMATE WEIGHTS		
PUMP:	137	kg
MOTOR:	113	kg
BASEPLATE:	403	kg
AUXILIARY:	50	kg
TOTAL:	703	kg


CONTRACT DATA		
PURCHASER:	AIOTEC GmbH	
USER:		
JOB/PROJECT:	Kangan C2 Recovery and Fractionation Plant	
CUST. P.O. NO.:		
SERVICE:	WATER CIRCULATING PUMP	
INSTALLED AT:		
PUMP OEM:	Sulzer Pumpen (Deutschland) GmbH	
SULZER ORDER NO.:	1002471880060	
IDENTIFICATION NUMBERS		
SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
	583637	10-P-1482 A
583638	10-P-1482 B	10-M-1482 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 reupload the document. The document can be released for Manufacturing if change is accepted.
Code3	<input type="checkbox"/> Commented: Vendor shall correct, review and reupload the document by the date specified. The document shall be moved under the Status of "In Review" and it cannot be released and be manufactured before the Manufacturing.
Code4	<input type="checkbox"/> Not Accepted (Rejected): Vendor shall re-work the design/re-specify the contents contents of the document according to the comments/reason for rejection. It cannot be released and be manufactured before the Manufacturing. Please checking results by ETD shall in no way release Vendor of any liability, damages and responsibility out of the purchase order and the material requirements in writing.
DATE: DESPT: ETD Signature: Only for internal review: DY PT DL TR MC MA BT AW PW SA TW TL	

03	19.03.18	"R"	For Approval	RS	TR	CH	PL
02	18.12.17	"R"	For Approval	RS	TR	CH	PL
01	31.08.17	"R"	For Approval	RS	TR	CH	PL
00	06.06.17	"F"	For Approval	RS	TR	CH	PL
REV.	DATE	Status	Purpose of issue	PRE"P.	CHC"D.	APP'D.	AUTH'D.

KANGAN C2 RECOVERY & FRACTIONATION PLANT			 KANGAN PETRO REFINING CO.
P.O. No.:	KP-10-00-PS-MA-PO-0003		SCALE: -

SULZER		 EIED
DRAWING TITLE: General Arrangement drawings for Item 10-P-1482 A/B		
DRAWING No.	VP-10-00-MA-0003-0614	SHEET No. 1 of 3 REV. 03

○						
REV.	MODIFICATION			MODIFIED	CHECKED	APPROVED
SEP. PARTS LIST:		NO	FORMAT: A1		DESIGN GROUP: -	
REPLACED BY:		- SUBSTITUTE FOR:				FIRST ANGLE PROJECTION
ZF		GENERAL ARRANGEMENT				DRAWN: 06-Jun-2017
40-2200		GA ISOMETRIC AND DATA SHEET				Scherban
1002471880060		GENERAL ARRANGEMENT DRAWING				CHECKED: 06-Jun-2017
						Ratzel
						APPROVED:
SULZER		PART NO.	EN	PGA1002471880060-01		1 / 3

CONTRACT DATA

PURCHASER: AIOTEC GmbH

USER:

JOB/PROJECT: Kangan C2 Recovery and Fractionation Plant

CUST. P.O. NO.:

SERVICE: WATER CIRCULATING PUMP

INSTALLED AT:

PUMP OEM: Sulzer Pumpen (Deutschland) GmbH

SULZER ORDER NO.: 1002471880060

IDENTIFICATION NUMBERS

SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
583637	10-P-1482 A	10-M-1482 A
583638	10-P-1482 B	10-M-1482 B

☒ CERTIFIED FINAL

☐ CERTIFIED FOR NOZZLE & FOUNDATION ONLY

☐ PRELIMINARY ONLY

DO NOT SCALE. DIMENSIONS: mm

UNLESS OTHERWISE SPECIFIED TOLERANCES

≤ 500 mm ± 3mm

> 500 mm ± 12mm

AUXILIARY CUSTOMER CONNECTION DIMENSIONS ± 25

MAXIMUM NOZZLE LOADINGS

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

FORCE IN (N) MOMENTS IN (Nm)

	SUCT		DISCH
	FORCE		
	Fx	2660	1420
	Fy	2140	1160
	Fz	1780	1780
	Fr	3860	2560
	Mx	1900	920
	My	940	460
	Mz	1440	700
	Mr	2560	1240

REV.	MODIFICATION	MODIFIED	CHECKED	APPROVED
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REPLACED BY:	-	SUBSTITUTE FOR:	ORIGINAL SCALE:	-
ZF	GENERAL ARRANGEMENT			DRAWN: 06-Jun-2017
40-2200	FOUNDATION AND NOZZLE			Scherban
1002471880060	GENERAL ARRANGEMENT DRAWING			CHECKED: 06-Jun-2017
	PART NO.			Ratzel
	EN			APPROVED:

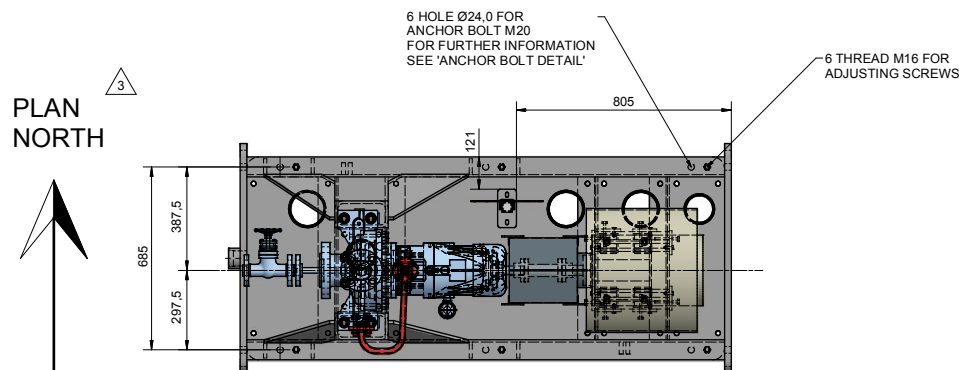
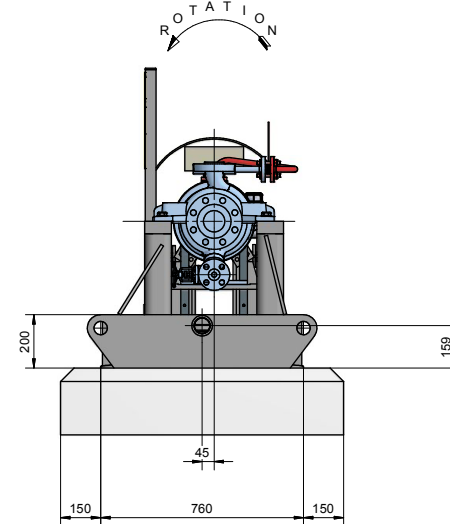
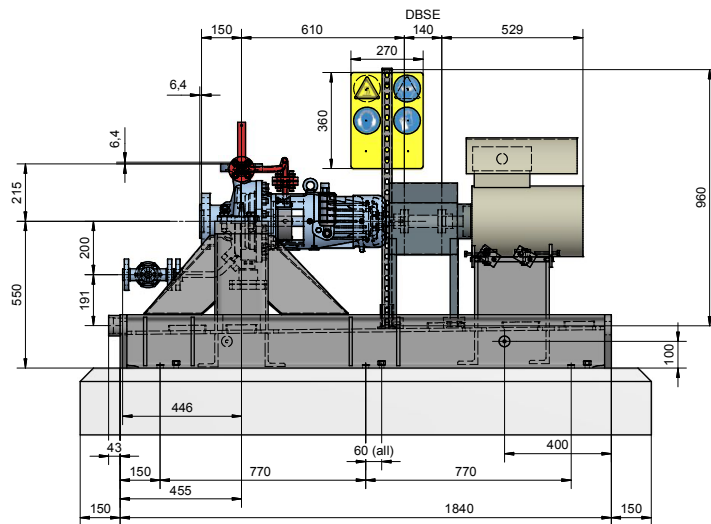
SULZER

PART NO.

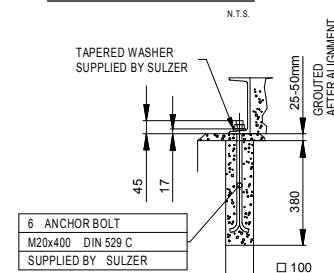
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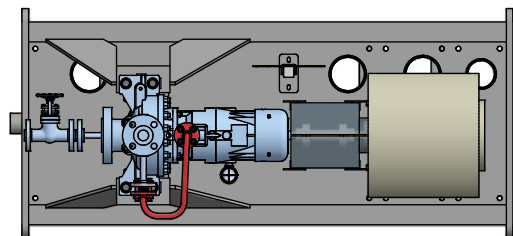
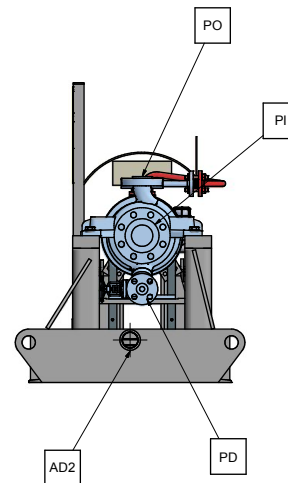
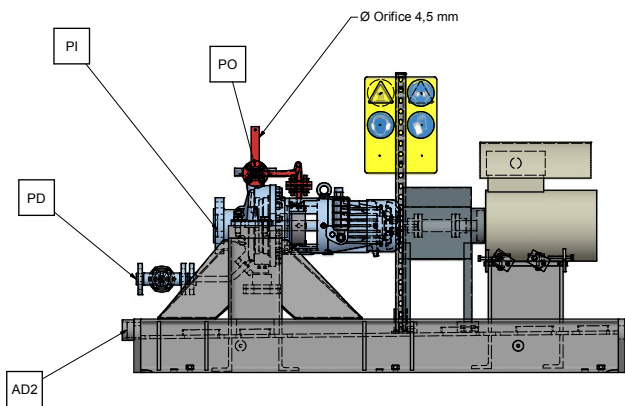
PGA1002471880060-01

2 / 3



ANCHOR BOLT DETAIL





CONNECTION LEGEND			
ITEM	DESCRIPTION	SIZE	TYPE
PI	PUMP SUCTION NOZZLE	2"	ANSI B16.5 600 RF
PO	PUMP DISCHARGE NOZZLE	1.5"	ANSI B16.5 600 RF
PD	PUMP DRAIN	3/4"	ANSI B16.5 600 RF WITH GATE VALVE
AD2	BASE DRAIN	2"	NPT FEMALE

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PUMPS

CONTRACT DATA

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USER:
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REV. MODIFICATION	NO	FORMAT: A1	DESIGN GROUP: -	MODIFIED	CHECKED	APPROVED
SEP. PARTS LIST:	REPLACED BY:	SUBSTITUTE FOR:		FIRST ANGLE PROJECTION		
ZF	40-2200	GENERAL ARRANGEMENT CONNECTION LAYOUT		DRAWN:	06-Jun-2017	Scherban
1002471880060	GENERAL ARRANGEMENT DRAWING	CHECKED:		06-Jun-2017	Ratzel	
SULZER		PART NO.	EN	PGA1002471880060-01	3 / 3	