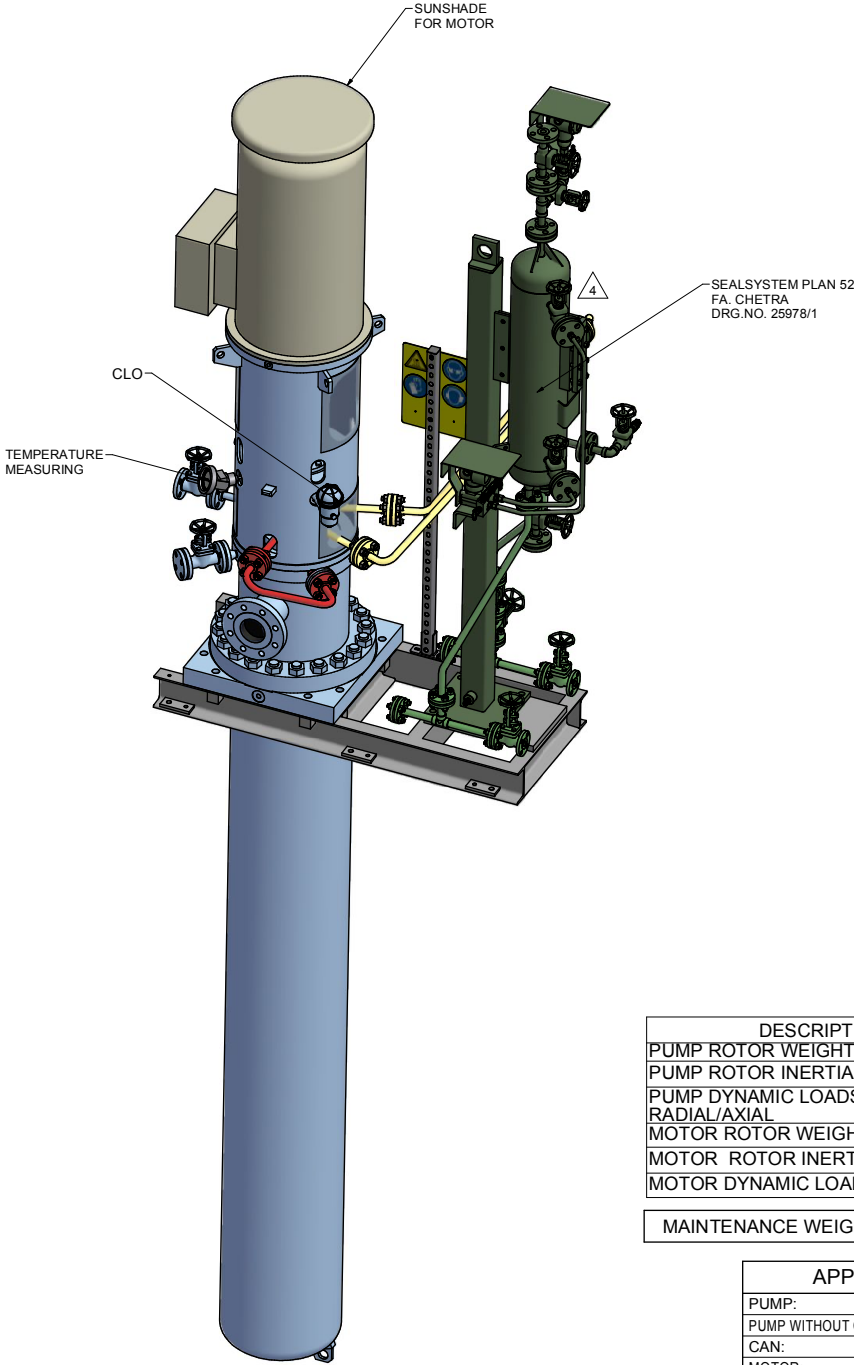


PUMP SPECIFICATIONS	
SIZE & TYPE:	TTMC50-180/13
SPEED:	(see MOTOR SPECIFICATIONS)
ROTATION:	CCW (AS VIEWED FROM DRIVER)
DISCH FLG:	2" CLASS: 300RF Standard: ASME B16.5
SUCT FLG:	4" CLASS: 300RF Standard: ASME B16.5
MECH SEAL TYPE:	CHETRA TYP 851TB-042
MECH SEAL DRG:	25510-16-10-P1687A API CODE: BDPFP/N
API PIPING PLANS:	13 + 52

COUPLING SPECIFICATIONS	
MFR:	Metastream
TYPE:	TSKS
COUPLING-GUARD MATERIAL:	BRASS
SIZE:	0033

DRIVER SPECIFICATIONS	
MOTOR:	Schorch
FRAME:	KD1250M-AA45P-M ENCLOSURE: ZONE 2,IIB, T3
kW:	55
PHASE:	3
FURNISHED BY:	SULZER
SPEED:	2972 rpm
VOLTAGE:	400
CYCLE:	50 Hz



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. The document can be released for manufacturing if change is not needed.
Code3	<input type="checkbox"/> Commented: Vendor shall correct, review and resubmit the document by the date specified. The document shall be marked under the Status of "To Be Resubmitted". All comments accepted and to be resolved before releasing the manufacturing.
Code4	<input type="checkbox"/> Not Accepted (Rejected): Vendor shall correct the design/revise the design/revise the contents of the document according to the comments/revise for rejection. All comments accepted and to be resolved before releasing the manufacturing. Above checking results by EDED shall not be used without review of any safety, integrity and maintainability risk at the purchase order and the mutual agreement in writing.
DATE: _____ EDED: _____ Signature: _____	
Only for internal review	
CV	PI
ST	AR
FR	SA
IN	ME
HW	TL

DESCRIPTION	VALUE
PUMP ROTOR WEIGHT [kg]	167
PUMP ROTOR INERTIA [kg.m²]	0.27
PUMP DYNAMIC LOADS [N]	392 / 71
RADIAL/AXIAL	
MOTOR ROTOR WEIGHT [kg]	99
MOTOR ROTOR INERTIA [kg.m²]	0.4
MOTOR DYNAMIC LOADS [N]	77

MAINTENANCE WEIGHT PUMP:	1200 kg
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APPROXIMATE WEIGHTS	
PUMP:	1735 kg
PUMP WITHOUT CAN /	1200 kg
CAN:	535 kg
MOTOR:	545 kg
BASEPLATE:	110 kg
AUXILIARY:	150 kg
TOTAL:	2540 kg


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:	OFF SPEC. PROPANE RECYCLE PUMP
INSTALLED AT:	KANGAN- ASSALUYEH - IRAN
PUMP OEM:	Sulzer Pumpen (Deutschland) GmbH
SULZER ORDER NO.:	100247188-0180

IDENTIFICATION NUMBERS		
SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
583656	10-P-1687	10-M-1687







<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

04	15.11.17	"R"	For Approval	TR	RS	CH	PL
03	08.08.17	"R"	For Approval	TR	RS	CH	PL
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01	03.03.17	"R"	For Approval	TR	RS	CH	PL
00	22.12.16	"F"	For Approval	TR	RS	CH	PL
REV.	DATE	Status	Purpose of issue	PRE'D	CHK'D	APP'D	AUTH'D

KANGAN C2 RECOVERY & FRACTIONATION PLANT				 KANGAN PETRO REFINING CO.			
P.O. No.:	KP-10-00-PS-MA-P0-0003			SCALE : 1 : 10			

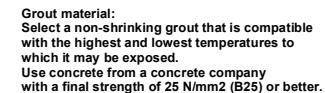
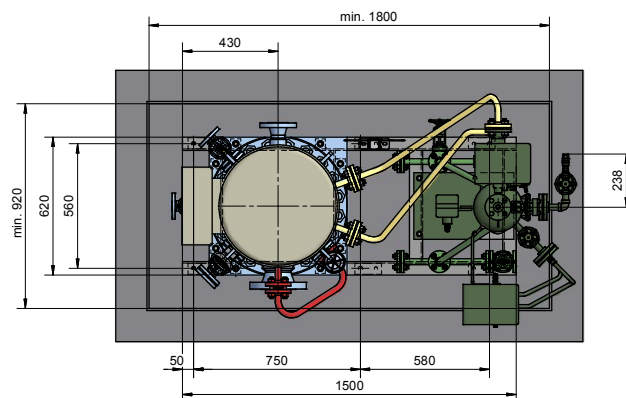
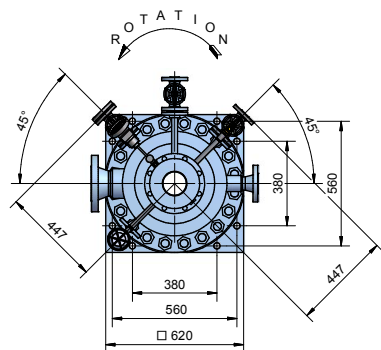
SULZER			
DRAWING TITLE:			
General Arrangement drawings for Item 10-P-1687			
DRAWING No.	VP-10-00-MA-0003-1814	SHEET No.	1 OF 3
REV.	04		

							
REV. MODIFICATION		MODIFIED		CHECKED		APPROVED	
SEP. PARTS LIST: NO		FORMAT: A1		DESIGN GROUP: -		FIRST ANGLE PROJECTION: 	
REPLACED BY:		SUBSTITUTE FOR:		ORIGINAL SCALE:		-	
TTMC		GENERAL ARRANGEMENT				DRAWN: 14-Dec-2016	
50-180/13		GA ISOMETRIC AND DATA SHEET				T. Ratzel	
		-				CHECKED: 14-Dec-2016	
						R. Scherban	
100247188-0180		GENERAL ARRANGEMENT DRAWING				APPROVED:	
		PART NO.		EN PGA1002471880180-01		1 / 3	

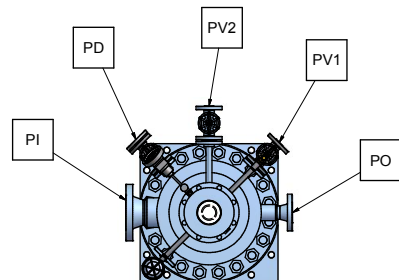
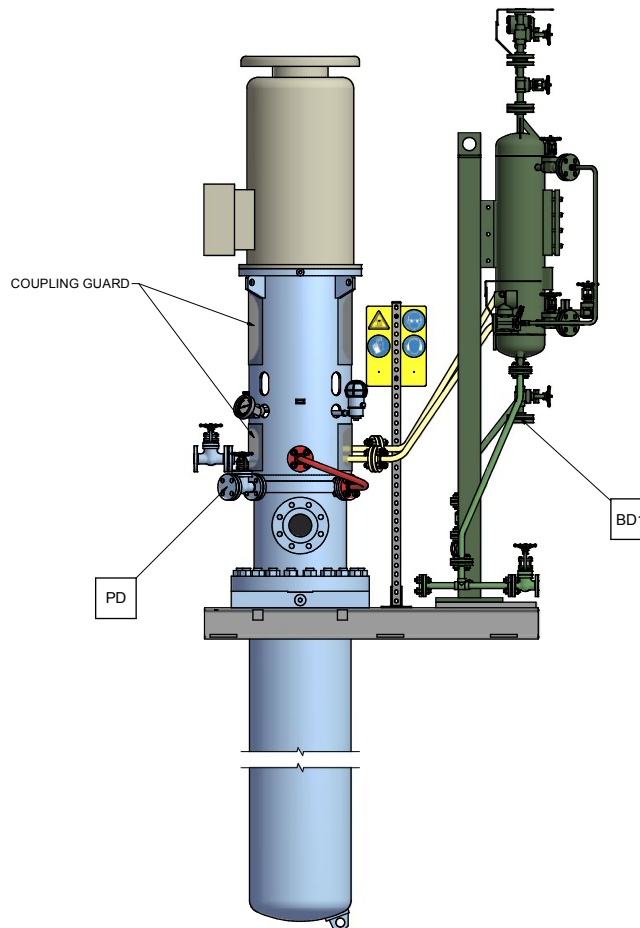
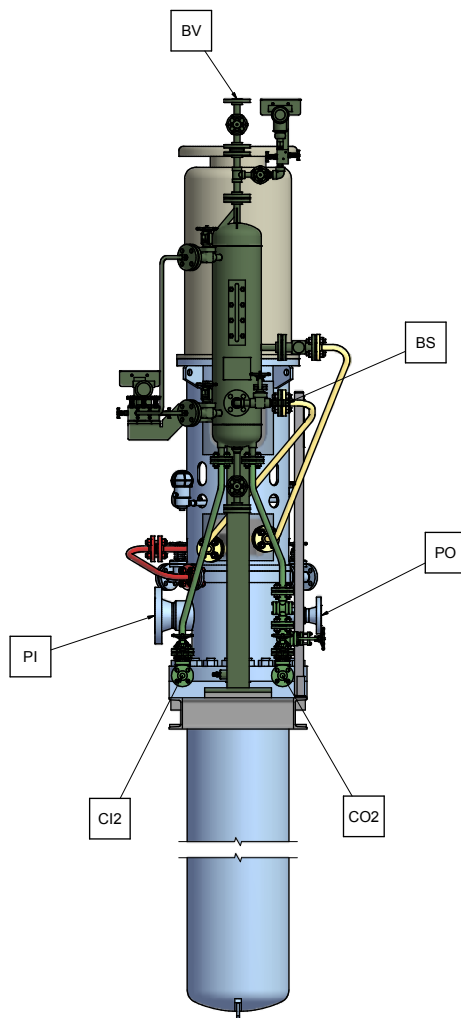
NOTES:

- 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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Forces do comply with 2 times of the forces shown in API 610																																																							
FORCE IN (N) MOMENTS IN (Nm)																																																							
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SULZER				PART NO. EN PGA1002471880180-01 2 / 3																																																			



NOZZLE ORIENTATION



CONNECTION LEGEND			
ITEM	DESCRIPTION	SIZE	TYPE
PI	PUMP SUCTION NOZZLE	4"	ASME B16.5 300 RF
PO	PUMP DISCHARGE NOZZLE	2"	ASME B16.5 300 RF
PD	PUMP DRAIN WITH GATE VALVE	3/4"	ASME B16.5 300 RF / GATE VALVE 300 RF
PV1	PUMP VENT WITH GATE VALVE - SUCTION - PERMANENT VENT	3/4"	ASME B16.5 300 RF / GATE VALVE 300 RF
PV2	PUMP VENT WITH GATE VALVE - DISCHARGE - VENT BEFORE START UP	3/4"	ASME B16.5 300 RF / GATE VALVE 300 RF
CI2	COOLING HEADER - INLET	3/4"	ASME B16.5 150 RF
CO2	COOLING HEADER - OUTLET	3/4"	ASME B16.5 150 RF
BS	PLAN 52 - FILLING CONNECTION	1/2"	NPT-F WITH QUICK COUPLING
BD1	SEAL RESERVOIR - DRAIN	3/4"	ASME B16.5 300 RF WITH BLIND FLANGE
BV	SEAL RESERVOIR - VENT TO CLOSED DRAIN DRUM	3/4"	ASME B16.5 300 RF

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-PO-0003
SERVICE:	OFF SPEC. PROPANE RECYCLE PUMP
INSTALLED AT:	KANGAN- ASSALUYEH - IRAN
PUMP OEM:	Sulzer Pumpen (Deutschland) GmbH
SULZER ORDER NO.:	100247188-0180

IDENTIFICATION NUMBERS

SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
583656	10-P-1687	10-M-1687

<input checked="" type="checkbox"/> CERTIFIED FINAL	DO NOT SCALE. DIMENSIONS: mm
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KANGAN C2 RECOVERY & FRACTIONATION PLANT				 KANGAN PETRO REFINING CO.			
P.O. No.:	KP-10-00-PS-MA-PO-0003			SCALE : 1 : 12			

SULZER	
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DRAWING TITLE: General Arrangement drawings for Item 10-P-1687			
DRAWING No.	VP-10-00-MA-0003-1814	SHEET No.	3 OF 3 REV. 04

REV. MODIFICATION	NO	FORMAT: A1	DESIGN GROUP: -	MODIFIED	CHECKED	APPROVED
SEP. PARTS LIST:	NO	REPLACED BY:	SUBSTITUTE FOR:	FIRST ANGLE PROJECTION		
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100247188-0180	GENERAL ARRANGEMENT DRAWING			CHECKED:	14-Dec-2016 R. Scherban	
SULZER	PART NO.	EN	PGA1002471880180-01	3	3	