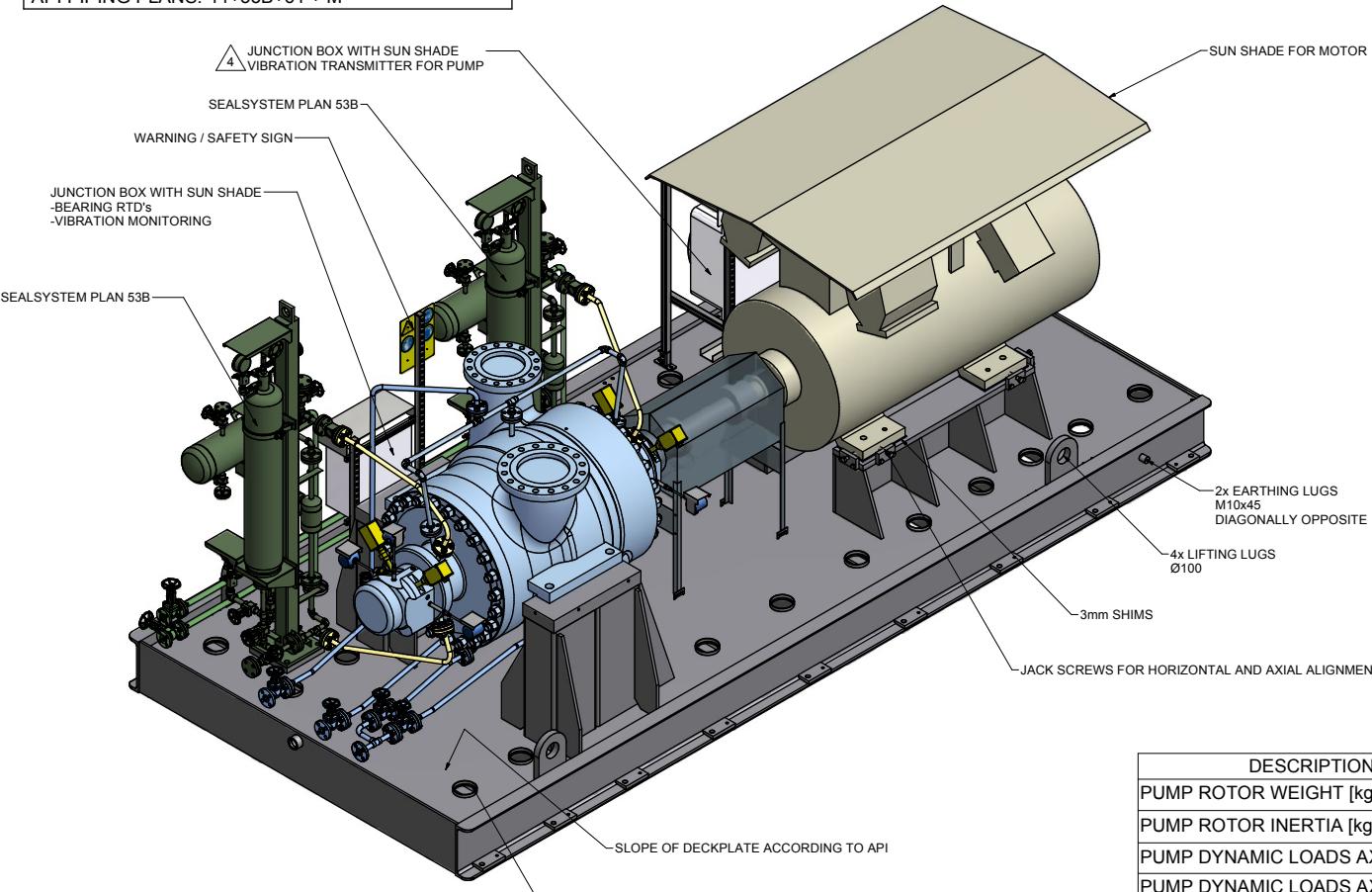


PUMP SPECIFICATIONS	
SIZE & TYPE:	CD 10x12x27M
SPEED:	(see MOTOR SPECIFICATIONS)
ROTATION:	CCW (AS VIEWED FROM DRIVER)
DISCH FLG:	10" CLASS: 300RF Standard: ASME B16.5
SUCT FLG:	12" CLASS: 300RF Standard: ASME B16.5
MECH SEAL TYPE:	CHETRA TYP851TB-118
MECH SEAL DRG:	25513-16-10-P-1382 A/B API CODE: BDPHP/N
API PIPING PLANS:	11+53B+61 + M

COUPLING SPECIFICATIONS	
MFR:	Metastream
TYPE:	TLKS
COUPLING-GUARD MATERIAL:	Brass
SIZE:	0500

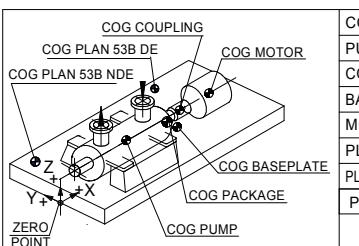
DRIVER SPECIFICATIONS	
MOTOR:	SCHORCH KD2457X-BH44E-Z
FRAME:	450
ENCLOSURE:	Zone 2,IIB,T3
KW:	360
SPEED:	1489 rpm
PHASE:	3
VOLTAGE:	6000 V
FURNISHED BY:	SULZER
CYCLE:	50 Hz



NOTES:

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. COLORS ARE NOT INTENDED TO REPRESENT AS IS. THEY ARE REQUIREMENT THEY ARE FOR QUICK IDENTIFICATION OF PIPING AND EQUIPMENT.  
3. PIPING AND EQUIPMENT ARE NOT DRAWN TO SCALE. THEY ARE ONLY ACTUAL LOCATION AND ORIENTATION MAY VARY PER SHOP STANDARDS, UNLESS OTHERWISE DIMENSIONED.  
4. THE SUCTION PIPELINE OR INTAKE DESIGN SHALL BE IN ACCORDANCE WITH SITE STANDARDS ANSI/HI 8.3-1998 PUMP INTAKE DESIGN REQUIREMENTS.



COG	X	Y	Z
PUMP	1580	0	1200
COUPLING	2960	0	1200
BASEPLATE	2846	358	225
MOTOR	4514	0	1200
PLAN 53B DE	2550	750	1500
PLAN 53B NDE	600	750	1500
PACKAGE	2900	123	939
COG=CENTRE OF GRAVITY			

DESCRIPTION	VALUE
PUMP ROTOR WEIGHT [kg]	600
PUMP ROTOR INERTIA [kg.m <sup>2</sup> ]	16,8
PUMP DYNAMIC LOADS AXIAL [N]	1595
PUMP DYNAMIC LOADS AXIAL [N]	1227
MOTOR ROTOR WEIGHT [kg]	1040
MOTOR ROTOR INERTIA [kg.m <sup>2</sup> ]	21
MOTOR DYNAMIC LOADS LATERAL [N]	406

MAINTENANCE WEIGHT PUMP: 1000 kg

### APPROXIMATE WEIGHTS

PUMP:	5660 kg
MOTOR:	5100 kg
COUPLING & GUARD:	75 kg
BASEPLATE:	4300 kg
RESERVOIR / COOLER:	500 kg
AUXILIARY:	365 kg
TOTAL:	16000 kg

CONTRACT DATA	
PURCHASER:	AIOTEC GMBH
USER:	KANGAN PETRO REFINING COMPANY
JOB/PROJECT:	KANGAN C2 RECOVERY AND FRACTIONATION PLANT
CUST. P.O. NO.:	KP-10-00-PS-MA-P0-0003
SERVICE:	ETHANE INJECTION PUMPS
INSTALLED AT:	C2 RECOVERY & FRACTIONATION PLANT KANGAN-ASSALUYEH
PUMP OEM:	SULZER PUMPS (UK) LTD
SULZER ORDER NO.:	100247188-0020

IDENTIFICATION NUMBERS	
SULZER SERIAL NO.	CUSTOMER TAG NO'S
	PUMP DRIVER
583628	10-P-1382A 10-M-1382A
583629	10-P-1382B 10-M-1382B
<input checked="" type="checkbox"/> CERTIFIED FINAL	DO NOT SCALE. DIMENSIONS: mm
<input type="checkbox"/> CERTIFIED FOR NOZZLE & FOUNDATION ONLY	UNLESS OTHERWISE SPECIFIED TOLERANCES ≤ 500 mm ± 3mm > 500 mm ± 12mm
<input type="checkbox"/> PRELIMINARY ONLY	AUXILIARY CUSTOMER CONNECTION DIMENSIONS ± 25

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

<input type="checkbox"/> Approved	No comment and the document is released for Manufacturing.				
<input type="checkbox"/> Approved with comment	Comments have been made to the document and required the document to be released for manufacturing. Changes incorporated.				
<input type="checkbox"/> Commented	Comments have been made to the document. The document can be released for manufacturing after the comments are removed under the title of "To Be Removed". All comments must be removed when being Manufacturing.				
<input type="checkbox"/> Not Accepted (Rejected)	Comments have been made to the document specifying the contents of the document according to the currently issued specification. It is required that the document be revised before being Manufacturing.				
Above changes require the document to be re-released by the customer or supplier, depending on the location of the change. The document will be released for manufacturing after the changes have been made.					
DATE: 04.01.2017 DRAFT: EIED Signature: Only for Internal Review					
CV	P	EL	IN	MC	MA
ST	AR	PR	SA	HV	TL

04	05.02.18	"R"	For Approval	AM	KE	CH	SW
03	01.08.17	"R"	For Approval	AM	KE	CH	SW
02	19.06.17	"R"	For Approval	AM	KE	CH	SW
01	02.03.17	"R"	For Approval	AM	KE	CH	SW
00	03.01.17	"F"	For Approval	AM	KE	CH	SW

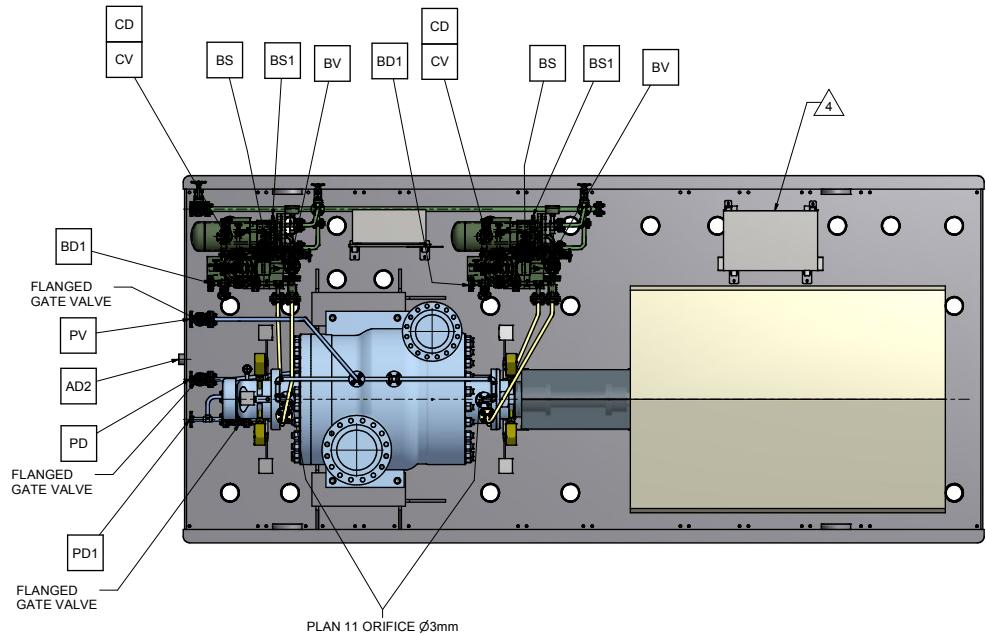
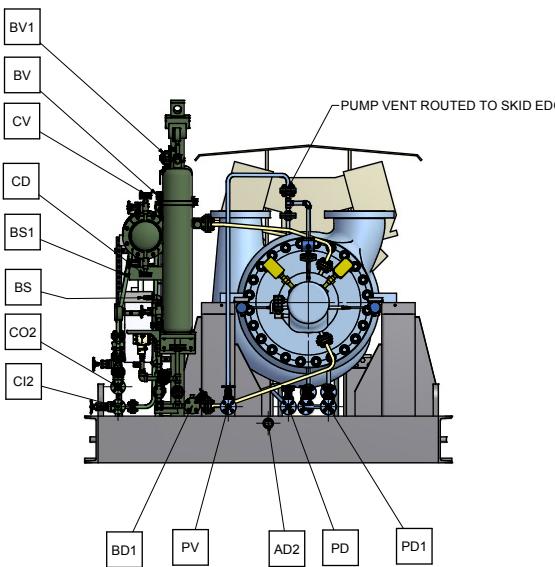
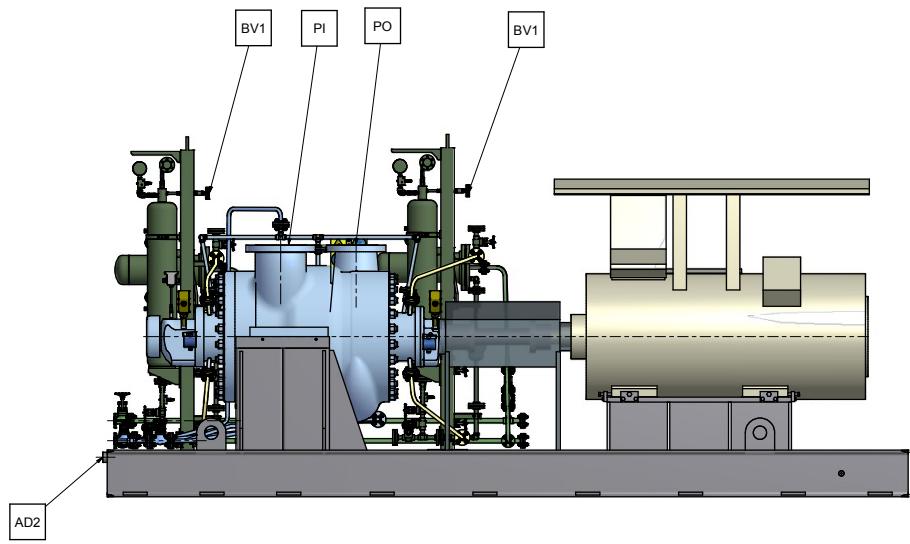
REV. DATE Status Purpose of Issue PREP'D. CHGD' APP'D. AUTH'D.

KANGAN C2 RECOVERY & FRACTIONATION PLANT KANGAN PETRO REFINING CO.

P.O. No.: KP-10-00-PS-MA-PO-0003 SCALE : 1:15

<b>SULZER</b>		
DRAWING TITLE: General arrangement drawing for Item 10-P-1382 A/B		
DRAWING No. VP-10-00-MA-0003-0214 SHEET No. 1 OF 3 REV. 04		
<input type="checkbox"/>	ALTERED_DATE	CHECKED_DATE APPROVED_DATE
<input type="checkbox"/>	ALTERED_BY	CHECKED_BY APPROVED_BY
REV. MODIFICATION	MODIFIED	CHECKED APPROVED
SEP. PARTS LIST:	NO FORMAT: A1	DESIGN GROUP: SULZER PUMPS (UK) LTD FIRST ANGLE PROJECTION: <input checked="" type="checkbox"/>
REPLACED BY:	-	SUBSTITUTE FOR: ORIGINAL SCALE: 1:15
CD2	GENERAL ARRANGEMENT 10X12X27M - 2 STG.	DRAWN: 02-JAN-2017 A.Mildenberger
KANGAN	-	CHECKED: 02-JAN-2017 K.Engel
100247188-0020	GENERAL ARRANGEMENT DRAWING	APPROVED: 02-JAN-2017 C.Hassani
<b>SULZER</b>	XXX	EN PGA1002471880020-01 1 / 3





CONNECTION LEGEND			
ITEM	DESCRIPTION	SIZE	TYPE
PI	PUMP SUCTION NOZZLE	12"	ASME B16.5 - 300RF
PO	PUMP DISCHARGE NOZZLE	10"	ASME B16.5 - 300RF
PD	PUMP DRAIN WITH GATE VALVE (SUCTION SIDE)	3/4"	ASME B16.5 - 300RF / GATE VALVE 300RF
PD1	PUMP DRAIN WITH GATE VALVE (DISCHARGE SIDE)	3/4"	ASME B16.5 - 300RF / GATE VALVE 300RF
PV	PUMP VENT WITH GATE VALVE	3/4"	ASME B16.5 - 300RF / GATE VALVE 300RF
AD2	BASE DRAIN	2"	NPT FEMALE
C12	COOLING HEADER - INLET	1"	ASME B16.5 - 150RF
C02	COOLING HEADER - OUTLET	1"	ASME B16.5 - 150RF
BS	PLAN 53B RESERVOIR FILL	1/2"	NPT-F WITH QUICK COUPLING
BS1	PLAN 53B NITROGEN CHARGE	1/4"	BSPP-F WITH VALVE
BD1	PLAN 53B RESERVOIR DRAIN	3/4"	ASME B16.5 - 300RF -BLIND FLANGE
BY1	PLAN 53B HIGH POINT VENT	3/4"	ASME B16.5 - 300RF -BLIND FLANGE
BV1	PLAN 53B ACCUMULATOR VENT	3/4"	ASME B16.5 - 300RF -BLIND FLANGE
CV	PLAN 53B COOLER VENT	1/2"	ASME B16.5 - 150RF -BLIND FLANGE
CD	PLAN 53B COOLER VENT	1/2"	ASME B16.6 - 150RF -BLIND FLANGE

## CONTRACT DATA

PURCHASER:	AIOTEC GMBH
USER:	KANGAN PETRO REFINING COMPANY
JOB/PROJECT:	KANGAN C2 RECOVERY AND FRACTIONATION PLANT
CUST. P.O. NO.:	KP-10-00-PS-MA-P0-0003
SERVICE:	ETHANE INJECTION PUMPS
INSTALLED AT:	C2 RECOVERY & FRACTIONATION PLANT KANGAN-ASSALUYEH
PUMP OEM:	SULZER PUMPS (UK) LTD
SULZER ORDER NO.:	100247188-0020

## IDENTIFICATION NUMBERS

SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
583628	10-P-1382A	10-M-1382A
583629	10-P-1382B	10-M-1382B
-	-	-
-	-	-
-	-	-

<input checked="" type="checkbox"/> CERTIFIED FINAL <input type="checkbox"/> CERTIFIED FOR NOZZLE & <input type="checkbox"/> FOUNDATION ONLY <input type="checkbox"/> PRELIMINARY ONLY	<b>DO NOT SCALE. DIMENSIONS: mm</b> <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 $\pm 25$	

04	05.02.18	"R"	For Approval	AM	KE	CH	SW
03	01.08.17	"R"	For Approval	AM	KE	CH	SW
02	19.06.17	"R"	For Approval	AM	KE	CH	SW
01	02.03.17	"R"	For Approval	AM	KE	CH	SW
00	03.01.17	"F"	For Approval	AM	KE	CH	SW
REF.	DATE	Status	Purpose of Issue	PRE'P.	CHC'D.	APP'D.	AUTH'D.

KANGAN  
C2 RECOVERY & FRACTIONATION PLAT



P.O. No.: KB 10 00 RS MA B

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**SULZER**



**DRAWING TITLE:** General arrangement drawing for Item 10-P-1382 A/B

DRAWING No. VP-10-00-MA-0003-0214 SHEET No. 3 OF 3 REV. 04

		ALTERED DATE	CHECKED DATE	APPROVED DATE
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-		ALTERED_BY	CHECKED_BY	APPROVED_BY
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REV. I MODIFICATION NO. 1 MOD. I.D. CHECKED APPROVED  
SEP. PARTS LIST: NO FORMAT: A1 DESIGN GROUP: SULZER PUMPS (UK) LTD FIRST ANGLE PROJECTION  

CD2 GENERAL ARRANGEMENT DRAWN: 02-JAN-2017

10X12X27M - 2 STG. CONNECTION LAYOUT