

PUMP SPECIFICATIONS	
SIZE & TYPE:	GSG B2B 80-260/7+6
SPEED:	(see MOTOR SPECIFICATIONS)
ROTATION:	CW (AS VIEWED FROM DRIVER)
DISCH FLG:	3" CLASS: 900RTJ Standard: ASME B16.5
SUCT FLG:	6" CLASS: 900RTJ Standard: ASME B16.5
MECH SEAL TYPE:	CHETRA TYP881D-065
MECH SEAL DRG:	25512-16-10-P-1686 A/B API CODE: BDPI/HX/N
API PIPING PLANS:	11+53B Cooling Plan M

COUPLING SPECIFICATIONS	
MFR:	Metastream
TYPE:	TSKS
COUPLING-GUARD MATERIAL:	Brass
SIZE:	0135

DRIVER SPECIFICATIONS	
MOTOR:	SCHORCH KD2457X-AH44E-Z
FRAME:	450
KW:	250
PHASE:	3
FURNISHED BY:	SULZER
ENCLOSURE:	Zone 2, IIB, T3
SPEED:	2988 rpm
VOLTAGE:	6000 V
CYCLE:	50 Hz

CONTRACT DATA	
PURCHASER:	AIOTEC GMBH
USER:	KANGAN PETRO REFINING CO. (KPRC)
JOB/PROJECT:	KANGAN C2 RECOVERY AND FRACTIONATION PLANT
CUST. P.O. NO.:	KP-10-00-PS-MA-PO-0003
SERVICE:	BUTANE INJECTION PUMP
INSTALLED AT:	IRAN
PUMP OEM:	Sulzer Pumpen (Deutschland) GmbH
SULZER ORDER NO.:	100247188-0170

IDENTIFICATION NUMBERS		
SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
583654	10-P-1686 A	10-M-1686 A
583655	10-P-1686 B	10-M-1686 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	$\leq 500 \text{ mm} \pm 3 \text{ mm}$	
$> 500 \text{ mm} \pm 12 \text{ mm}$		AUXILIARY CUSTOMER CONNECTION DIMENSIONS $\pm 25$

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

Code:	<input type="checkbox"/> Approved	No comment and the document is released for Manufacturing			
	<input type="checkbox"/> Approved with comments	Vendor shall correct, revise and resubmit the document. The document can be revised by Manufacturing if changes incorporated			
Code:	<input type="checkbox"/> Commented	Vendor shall correct, revise and resubmit the document. The document can be revised by the Revisor team. At complete accuracy will be submitted before doing the Manufacturing			
Code:	<input type="checkbox"/> Not Accepted (Rejected)	Vendor shall re-work/re-design/re-specify the contents of the document and resubmit the document. All complete documents also be resubmitted before doing the Manufacturing			
Code:	<input type="checkbox"/> Not Accepted (Rejected)	Above checking results by EED shall in no way relieve Vendor from responsibility out of the purchase order and the mutual agreement in writing.			
DATE :					
(DPI) :					
 Signature :					
Only for Internal review					
CV	PI	EL	IN	ME	MA
ST	AR	PR	SA	HV	TJ

03	08.08.17	"R"	For Approval	AM	KE	CH	SW
02	19.06.17	"R"	For Approval	AM	KE	CH	SW
01	01.03.17	"R"	For Approval	AM	KE	CH	SW
00	04.01.17	"F"	For Approval	AM	KE	CH	SW
REV.	DATE	Status	Purpose of Issue	PREP.	CHGD.	APP'D.	AUTH'D.

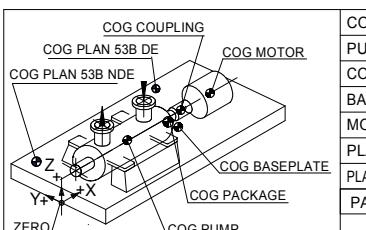
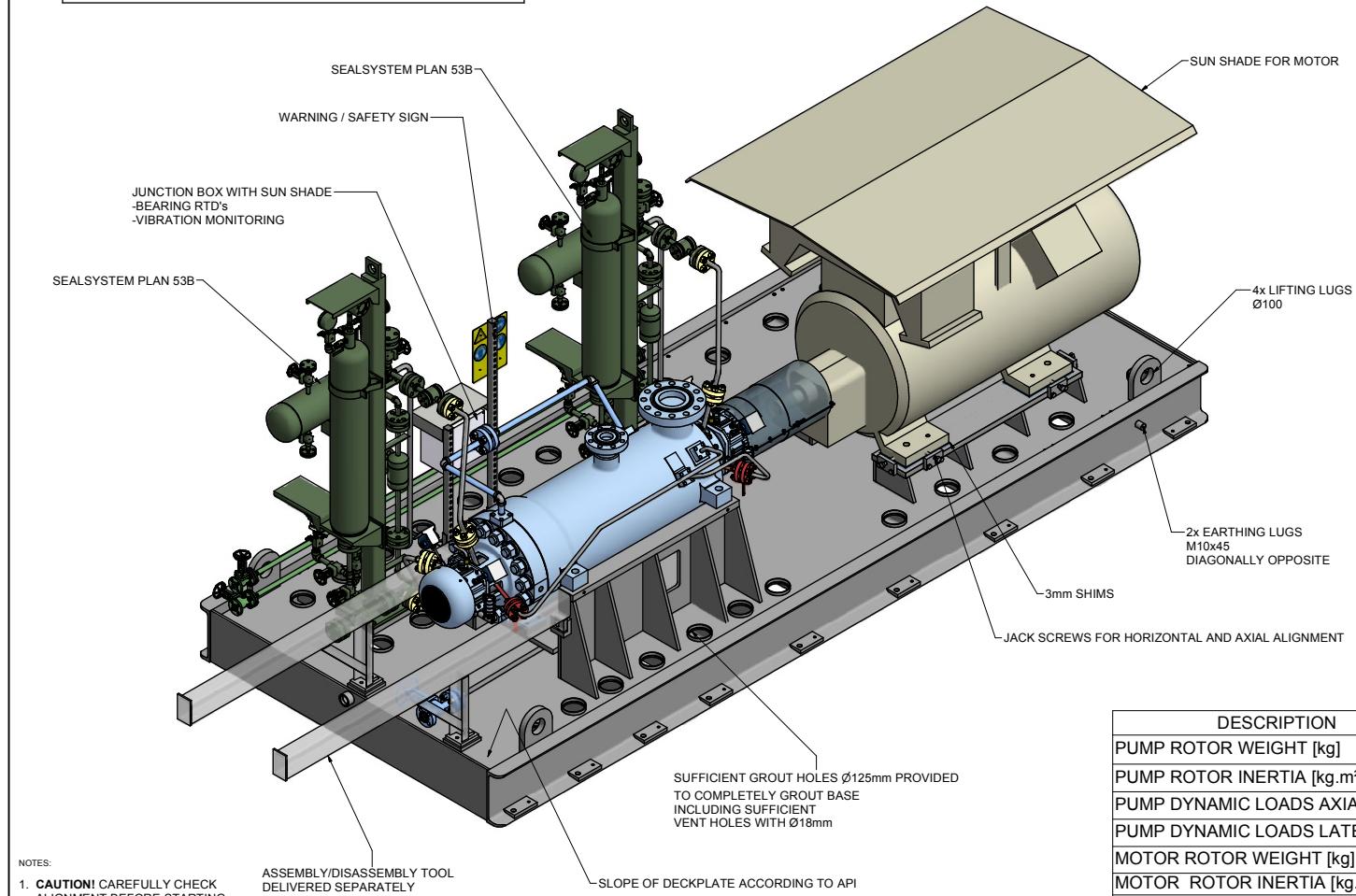
KANGAN C2 RECOVERY & FRACTIONATION PLANT	
P.O. No.:	KP-10-00-PS-MA-PO-0003
SCALE :	1:14

**SULZER** 

DRAWING TITLE:  
General arrangement drawing for Item 10-P-1686 A/B

DRAWING No. VP-10-00-MA-0003-1714 SHEET No. 1 OF 3 REV. 03

<input checked="" 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 Pumpen (Deutschland) GmbH FIRST ANGLE PROJECTION <input checked="" type="checkbox"/>
REPLACED BY:	-	SUBSTITUTE FOR:	ORIGINAL SCALE: 1:14
GSG B2B 80-260 7/6	KANGAN	-	DRAWN: 02-JAN-2017 A.Mildenberger
100247188-0170	KANGAN	-	CHECKED: 02-JAN-2017 K.Engel
			APPROVED: 02-JAN-2017 C.Hassani
<b>SULZER</b>		PART NO. XXX	EN PGA1002471880170-01 1 / 3

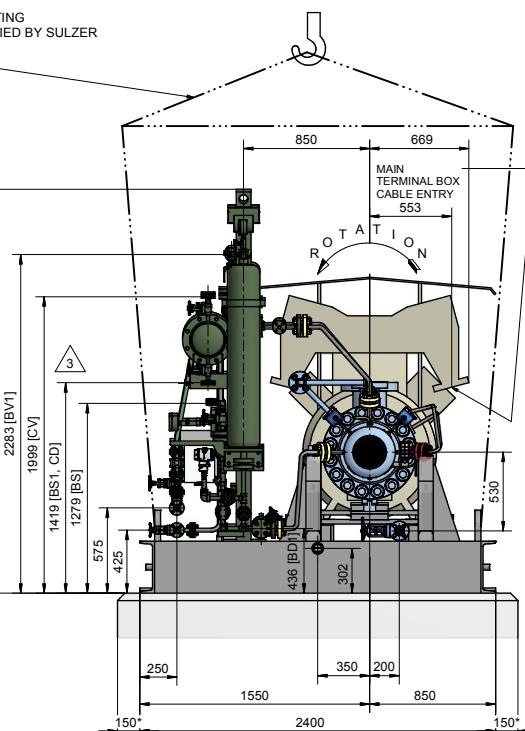
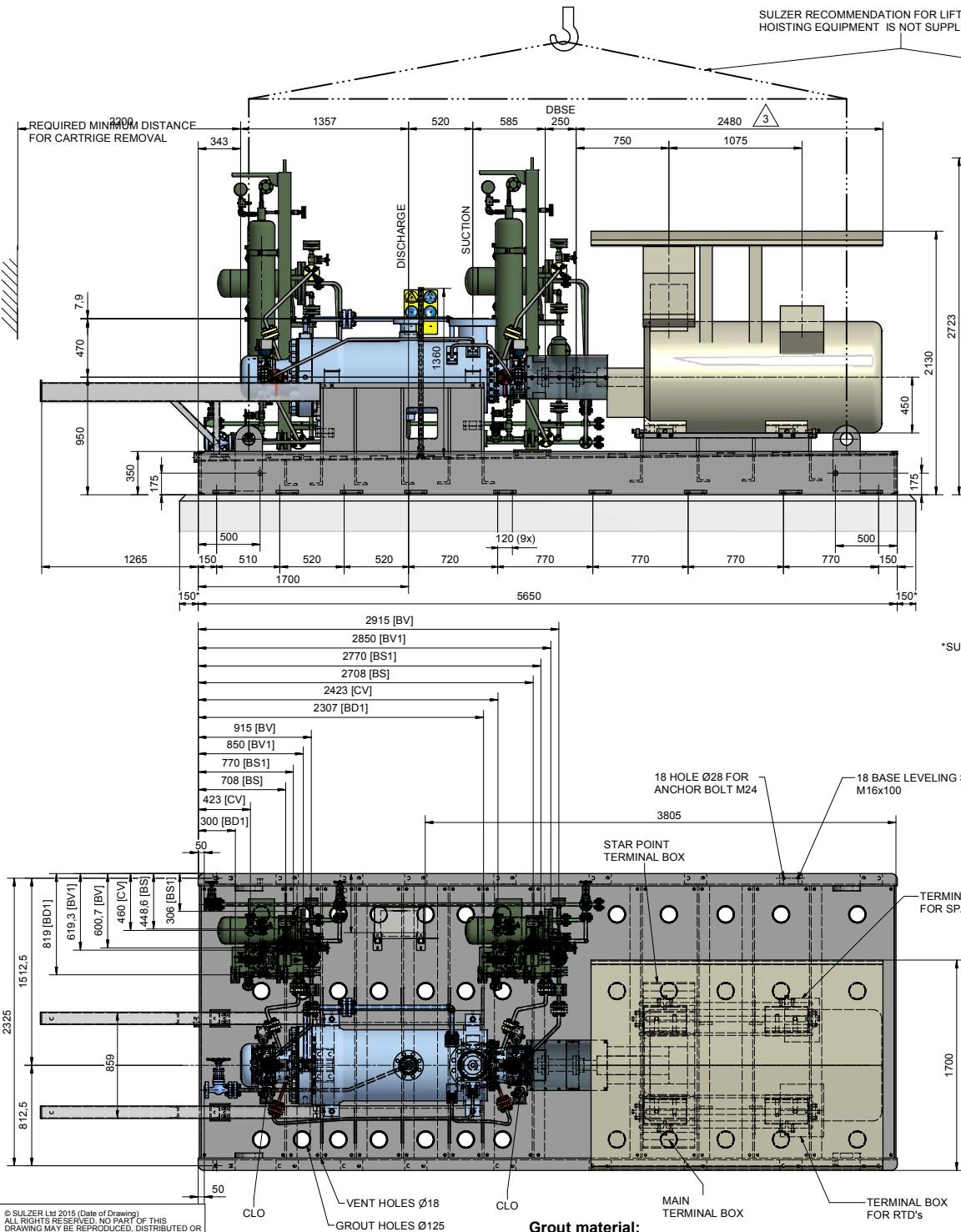


COG	X	Y	Z
PUMP	1600	0	950
COUPLING	2930	0	950
BASEPLATE	2682	310	296
MOTOR	4345	0	950
PLAN 53B DE	2550	950	1500
PLAN 53B NDE	570	950	1500
PACKAGE	2965	126	784

MAINTENANCE WEIGHT PUMP: 1257 kg

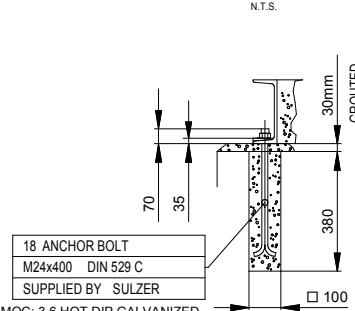
#### APPROXIMATE WEIGHTS

PUMP:	3675 kg
MOTOR:	4900 kg
COUPLING & GUARD:	25 kg
BASEPLATE:	3650 kg
RESERVOIR / COOLER:	500 kg
AUXILIARY:	350 kg
TOTAL:	13100 kg



\*SULZER RECOMMENDATION

### ANCHOR BOLT DETAIL



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DRAWING MAY BE COPIED OR DISTRIBUTED OR  
TRANSMITTED IN ANY FORM OR BY ANY MEANS.  
ELECTRONIC OR MECHANICAL, INCLUDING  
PHOTOCOPYING AND RECORDING, WITHOUT THE  
EXPRESS PRIOR WRITTEN CONSENT OF SULZER  
PUMPS

### 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/mm<sup>2</sup> (B25) or better.

### CONTRACT DATA

PURCHASER:	AIOTECH GMBH		
USER:	KANGAN PETRO REFINING CO. (KPRC)		
JOB/PROJECT:	KANGAN C2 RECOVERY AND FRACTIONATION PLANT		
CUST. P.O. NO.:	KP-10-00-PS-MA-PO-0003	PUMP SERVICE:	BUTANE INJECTION PUMP
INSTALLED AT:	IRAN	PUMP OEM:	Sulzer Pumpen (Deutschland) GmbH
SULZER ORDER NO.:	100247188-0170		

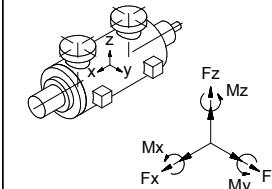
### IDENTIFICATION NUMBERS

SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
583654	10-P-1686 A	10-M-1686 A
583655	10-P-1686 B	10-M-1686 B
■ CERTIFIED FINAL	DO NOT SCALE. DIMENSIONS: mm	
□ CERTIFIED FOR NOZZLE & FOUNDATION ONLY	UNLESS OTHERWISE SPECIFIED TOLERANCES ≤ 500 mm ± 3mm > 500 mm ± 12mm	
□ PRELIMINARY ONLY	AUXILIARY CUSTOMER CONNECTION DIMENSIONS ± 25	

### MAXIMUM NOZZLE LOADINGS

Forces do comply with 2 times of the forces shown in API 610<sup>10th</sup>

FORCE IN (N) MOMENTS IN (Nm)



FORCE	SUCT	DISCH
Fx	4980	2140
Fy	4100	1780
Fz	6220	2660
Fr	8960	3860
Mx	4600	1900
My	2360	940
Mz	3520	1440
Mr	6260	2560

03	08.08.17	"R"	For Approval	AM	KE	CH	SW
02	19.06.17	"R"	For Approval	AM	KE	CH	SW
01	01.03.17	"R"	For Approval	AM	KE	CH	SW
00	04.01.17	"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



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

SCALE : 1:18

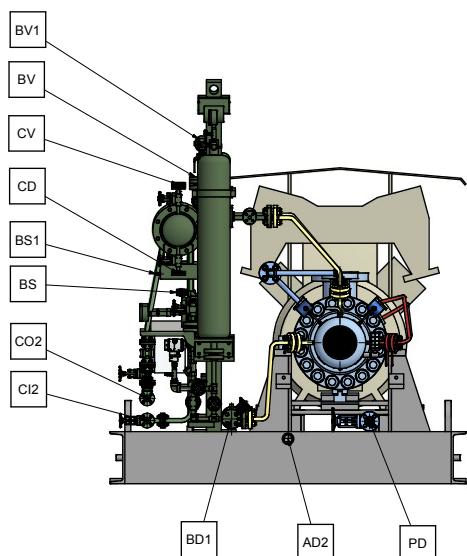
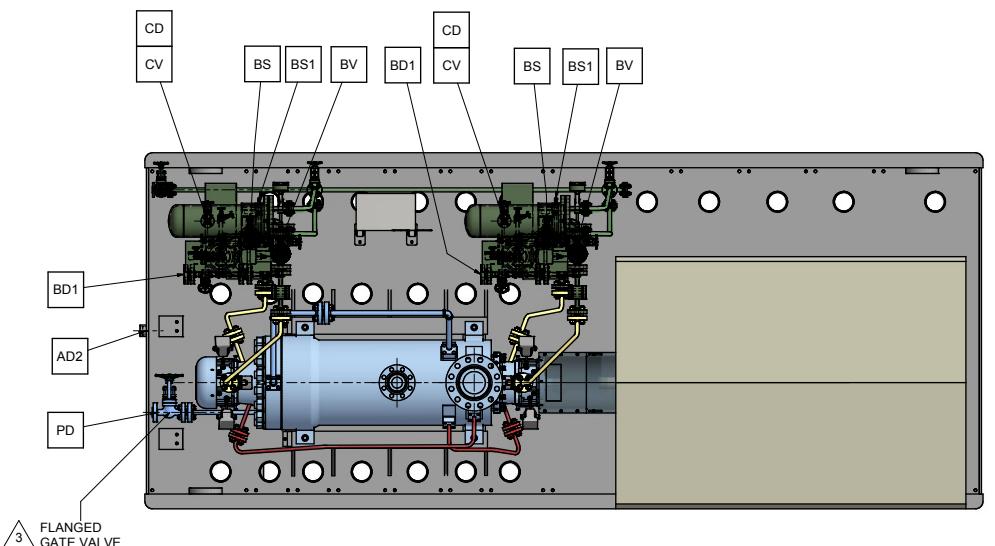
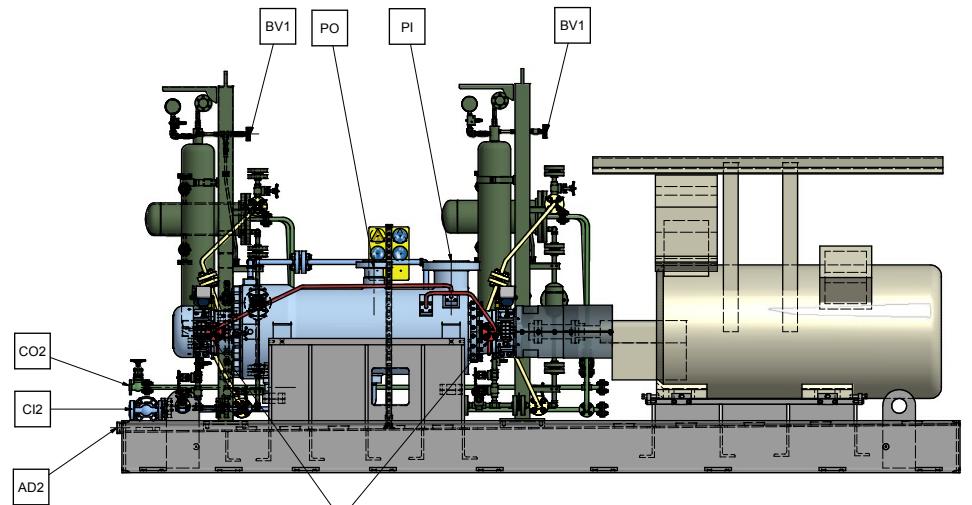
**SULZER**



DRAWING TITLE: General arrangement drawing for Item 10-P-1686 A/B

DRAWING No. VP-10-00-MA-0003-1714 SHEET No. 2 OF 3 REV. 03

REV.	MODIFICATION	ALTERED_DATE	CHECKED_DATE	APPROVED_DATE	
SEP.	PARTS LIST:	NO	FORMAT: A1	DESIGN GROUP: Sulzer Pumpen (Deutschland) GmbH	FIRST ANGLE PROJECTION
	REPLACED BY:		SUBSTITUTE FOR:	ORIGINAL SCALE: 1:18	
GSG B2B	GENERAL ARRANGEMENT				
80-260 7/6	FOUNDATION AND NOZZLE				
KANGAN	-				
100247188-0170	GENERAL ARRANGEMENT DRAWING				
<b>SULZER</b>	XXX	EN	PGA1002471880170-01	2 / 3	



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CONTRACT DATA

PURCHASER: AIOTEC GMBH

USER: KANGAN PETRO REFINING CO. (KPRC)

JOB/PROJECT: KANGAN C2 RECOVERY AND FRACTIONATION  
PLANT  
CUST. P.O. NO.: KP-10-00-PS-MA-PO-0003  
SERVICE: BUTANE INJECTION PUMP  
INSTALLED AT: IRAN  
PUMP OEM: Sulzer Pumpen (Deutschland) GmbH  
SULZER ORDER NO.: 100247188-0170

## **IDENTIFICATION NUMBERS**

SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
583654	10-P-1686 A	10-M-1686 A
583655	10-P-1686 B	10-M-1686 B
-	-	-
-	-	-

<input checked="" type="checkbox"/> CERTIFIED FINAL	DO NOT SCALE. DIMENSIONS: mm	
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<input type="checkbox"/> PRELIMINARY ONLY	≤ 500 mm	± 3mm
	> 500 mm	± 12mm
	AUXILIARY CUSTOMER CONNECTION DIMENSIONS ± 25	

03	08.08.17	"R"	For Approval	AM	KE	CH	SW
02	19.06.17	"R"	For Approval	AM	KE	CH	SW
01	01.03.17	"R"	For Approval	AM	KE	CH	SW
00	04.01.17	"F"	For Approval	AM	KE	CH	SW
REV.	DATE	Status	Purpose of Issue	PREP.	CH'D	APP'D.	AUTH'D.

KANGAN  
C2 RECOVERY & FRACTIONATION PLAN

The logo for KPRC-TV, featuring a stylized red flame or oil drop shape with the station's call letters "KPRC" written in white inside it.

P.O. No.: KB 10.00 BS MA PQ 0000

SCALE : 1:18

**SULZER**



DRAWING TITLE

General arrangement drawing for Item 10-P-1686 A/B

CONNECTION LEGEND			
ITEM	DESCRIPTION	SIZE	TYPE
P1	PUMP SUCTION NOZZLE	6"	ASME B16.5 - 900RTJ
PO	PUMP DISCHARGE NOZZLE	3"	ASME B16.5 - 900RTJ
PD	PUMP DRAIN WITH GATE VALVE	3/4"	ASME B16.5 - 1500RTJ/GATE VALVE 1500RTJ
AD2	BASE DRAIN	2"	NPT FEMALE
C12	COOLING HEADER - INLET	3/4"	ASME B16.5 - 150RF
CO2	COOLING HEADER - OUTLET	3/4"	ASME B16.5 - 150RF
BS	PLAN 53B RESERVOIR FILL	1/2"	NPT F-WITH QUICK FILL COUPLING
BST	PLAN 53B NITROGEN CHARGE	1/4"	BSPP F-WITH VALVE
BD1	PLAN 53B RESERVOIR DRAIN	3/4"	ASME B16.5 - 1500RTJ - BLIND FLANGE
BV	PLAN 53B HIGH POINT VENT	3/4"	ASME B16.5 - 1500RTJ - BLIND FLANGE
RV1	PLAN 53B ACCUMULATOR VENT	3/4"	ASME B16.5 - 1500RTJ - BLIND FLANGE
CV	PLAN 53B COOLER VENT	1/2"	ASME B16.5 - 150RF - BLIND FLANGE
CP2	PLAN 53B COOLER PNIN	1/2"	ASME B16.5 - 150RF - BLIND FLANGE

**SULZER**

PART NO. EN PGA1002471880170-01 3 / 3