

PUMP SPECIFICATIONS	
SIZE & TYPE:	OHH 3x4x9B-1
SPEED:	(see MOTOR SPECIFICATIONS)
ROTATION:	CCW (AS VIEWED FROM DRIVER)
DISCH FLG:	3" CLASS: 300 RF Standard: ASME B16.5
SUCT FLG:	4" CLASS: 300 RF Standard: ASME B16.5
MECH SEAL TYPE:	EagleBurgmann
MECH SEAL DRG:	H75VA4-040-S400-DE001A3 API CODE: 21A-LIQ-040
API PIPING PLANS:	11, 62

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

DRIVER SPECIFICATIONS	
MOTOR:	BROOK
FRAME:	160M/L
kW:	-
PHASE:	3
FURNISHED BY:	SULZER
SPEED:	1500 rpm
VOLTAGE:	400
CYCLE:	50 Hz

CONTRACT DATA	
PURCHASER:	Sulzer Pumps Spain SA
USER:	Kangan Petro Refining Co
JOB/PROJECT:	Kangan Utility and Offsite Project
CUST. P.O. NO.:	KP-80-10-PS-MA-PO-0001-00
SERVICE:	Acid Sulphuric Unloading Pump
INSTALLED AT:	IRAN
PUMP OEM:	Sulzer Pumps (Deutschland) GmbH
SULZER ORDER NO.:	100263244-0060

IDENTIFICATION NUMBERS		
SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
588344	87-P-7003 A	87-M-7003 A
588345	87-P-7003 B	87-M-7003 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	

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, revise and resubmit the document.				
Code3	<input type="checkbox"/> Vendor shall correct, revise and resubmit the document by the date of "Revised Issue". All corrected documents shall be resubmitted before starting the Manufacturing.				
Code4	<input type="checkbox"/> Not Accepted (Rejected): Vendor shall re-work/re-design/re-specify the contents comment and the vendor shall resubmit the corrected version for review. All corrected documents shall be resubmitted before starting the Manufacturing. Above checkered results by EIED shall in no way relieve Vendor of any liability or responsibility out of the purchase order and the mutual agreement in writing.				
DATE :					
DEPT. :					
Signature :					
Only for internal review					
CV	PI	EL	IN	ME	MA
ST	AR	PR	SA	HV	TL

Rev.	Date	Status	Purpose of Issue	PRE'D.	CHK'D.	APR'D.	AUZ'D.
02	24.10.18	R	For Approval	JL	VS	RS	CL
01	15.11.17	R	For Approval	JL	VS	RS	CL
00	02.06.17	F	For Approval	JL	VS	RS	CL

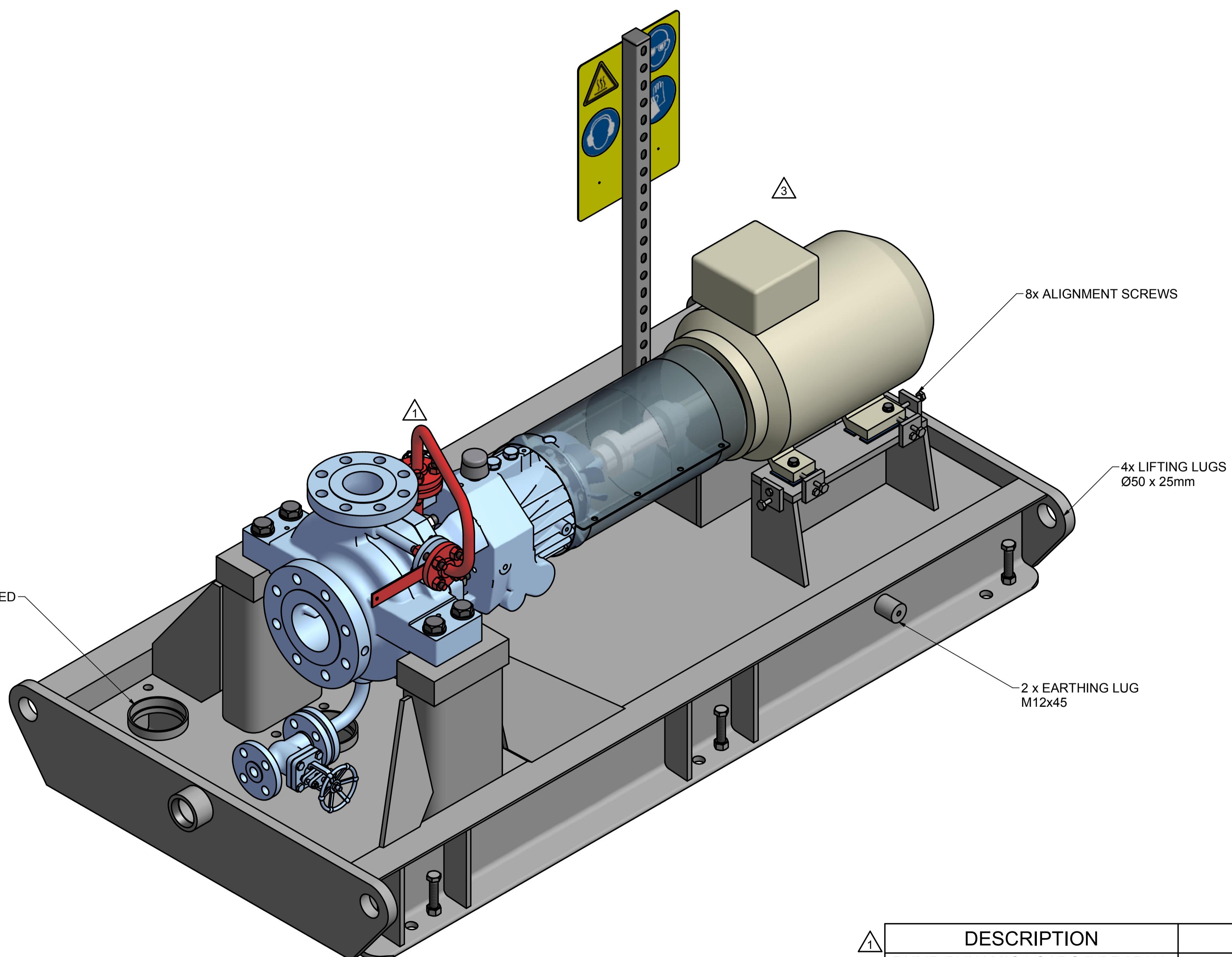
Kangan Utility & Offsite Project 
KANGAN PETRO REFINING CO.

P.O. No.: KP-80-10-PS-MA-PO-0001-00 SCALE : 1: 5

SULZER 

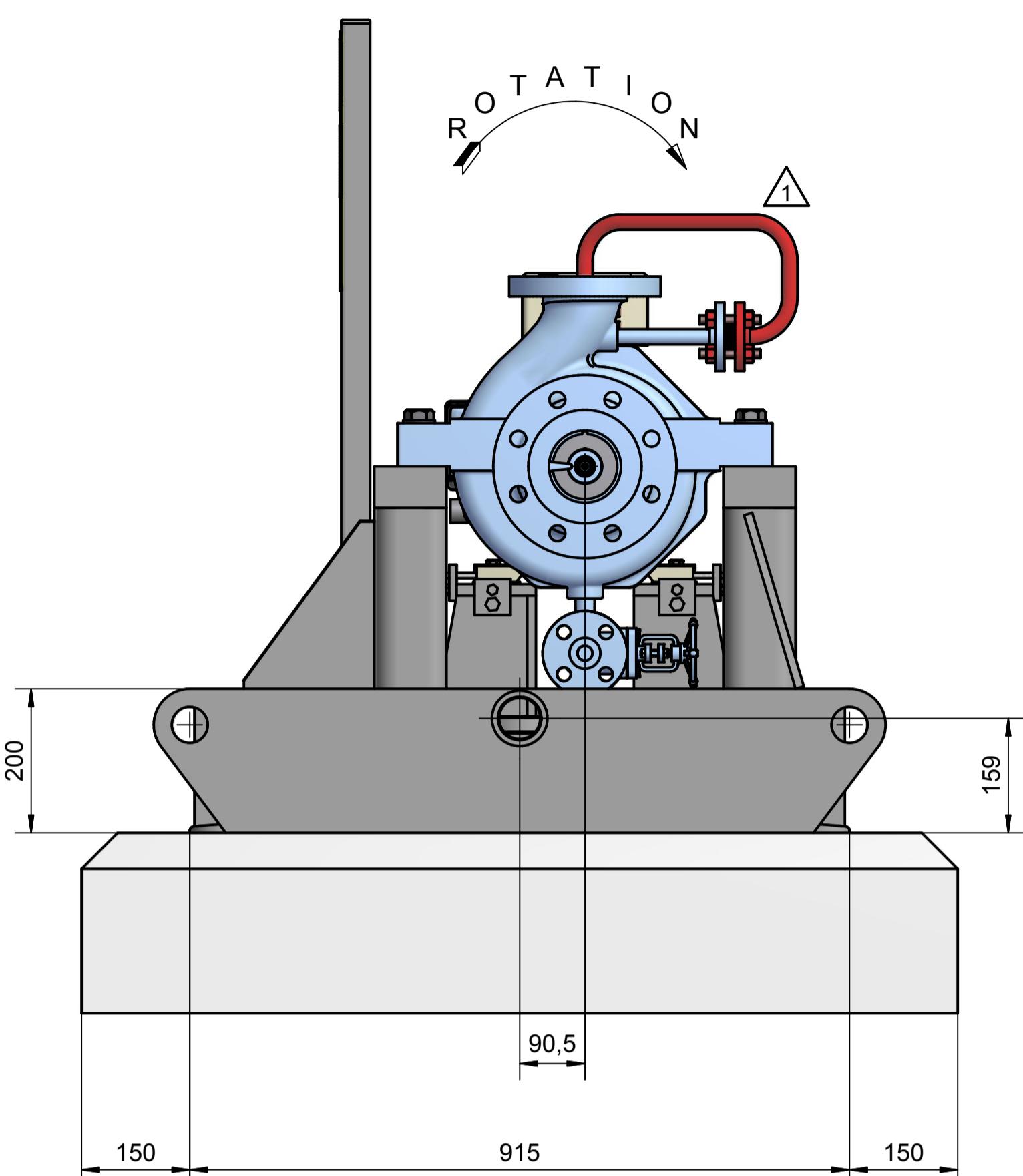
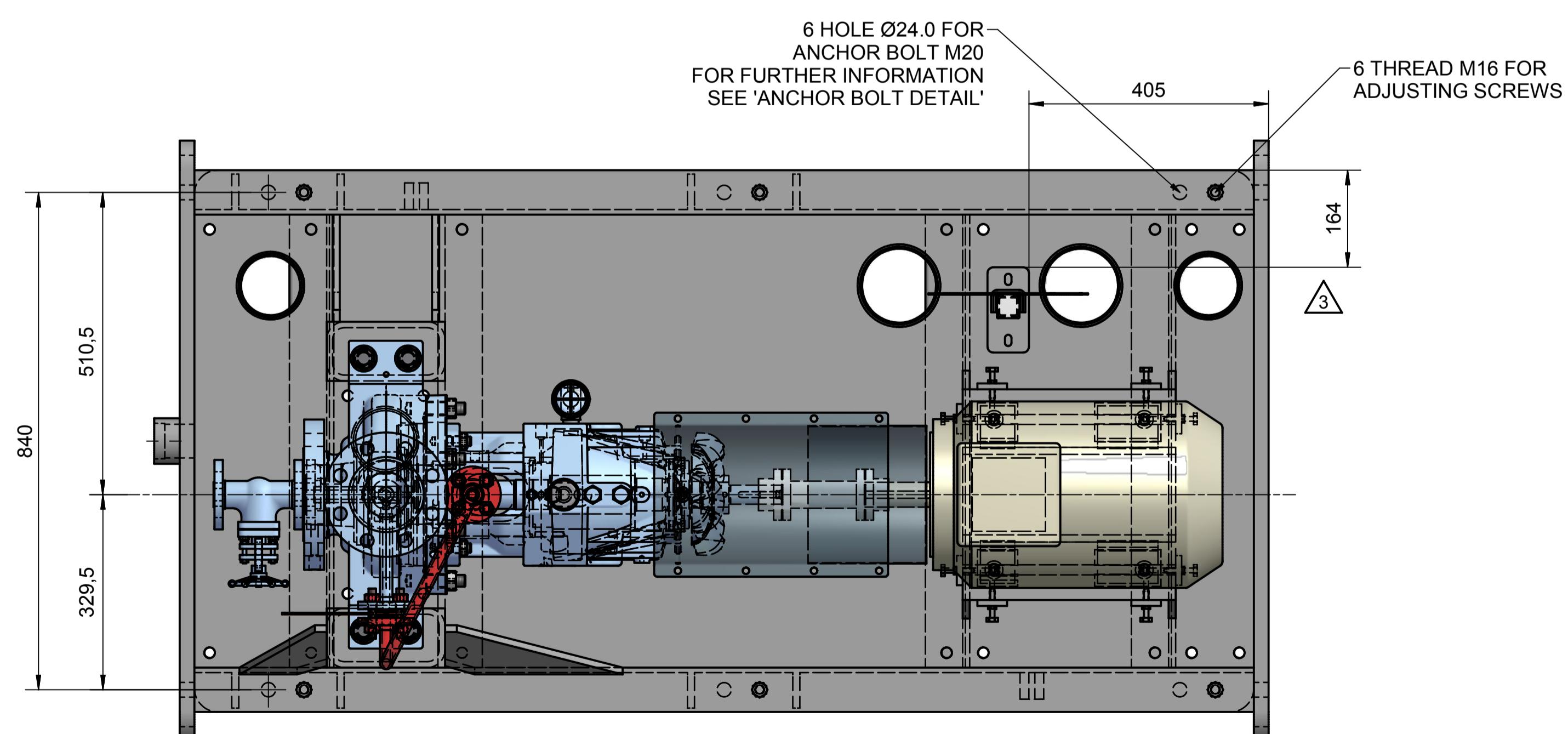
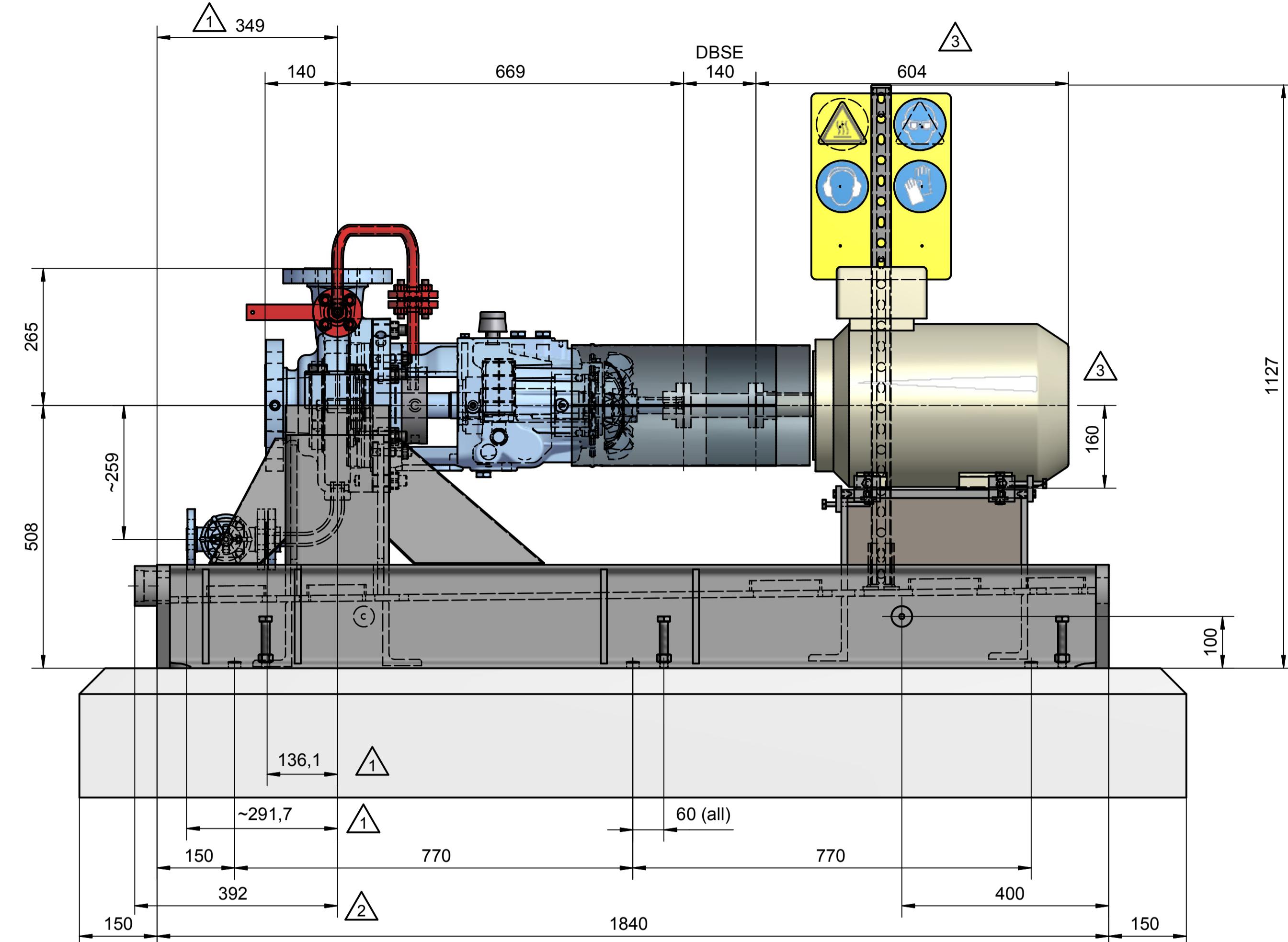
DRAWING TITLE: Equipment Outline (GAD) including nozzle location

DRAWING No.	VP-80-00-MA-0001-0175	SHEET No.	1 OF 3	REV. 02
(C) Motor frame updated		27/02/2018	27/02/2018	27/02/2018
REV.	MODIFICATION	MODIFIED	CHECKED	APPROVED
SEP. PARTS LIST:	NO	FORMAT: A1	DESIGN GROUP: -	FIRST ANGLE PROJECTION <input checked="" type="checkbox"/>
REPLACED BY:	-	SUBSTITUTE FOR:	ORIGINAL SCALE: 1:5	DRAWN: 15/MAY/2017 J. LOPEZ
OHH 3X4X9B-1		-	-	CHECKED: 15/MAY/2017 V. SANCHEZ
100263244-0060		GENERAL ARRANGEMENT DRAWING	APPROVED: 15/MAY/2017 R. SANCHEZ	PART NO. EN PGA1002632440060-01 1 / 3

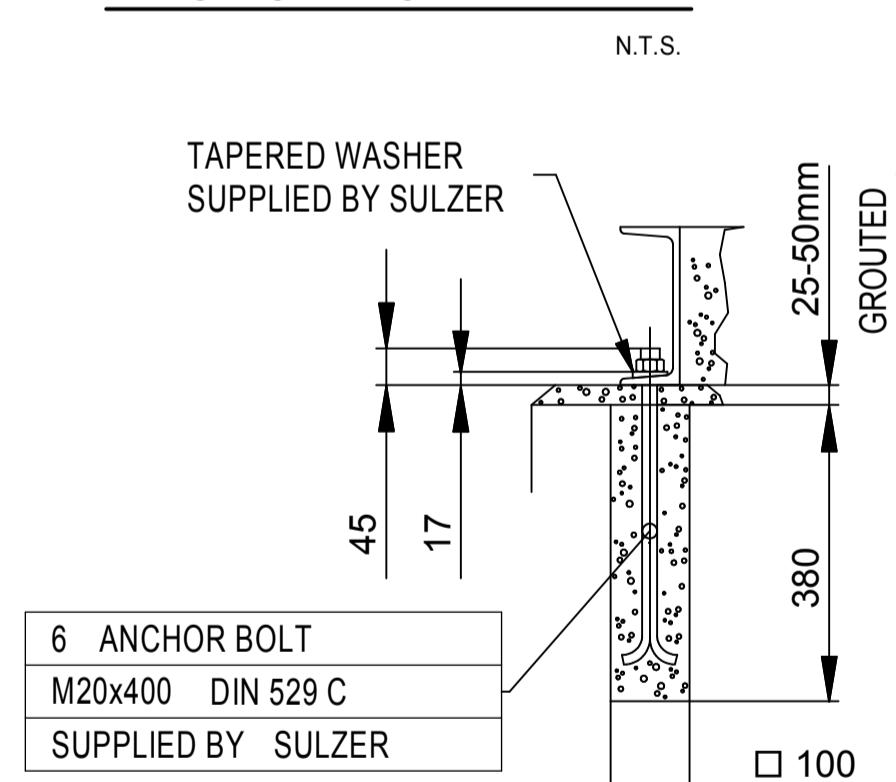


NOTES:

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 SHIPPED" PAINT REQUIREMENTS. THEY ARE FOR QUICK IDENTIFICATION OF PIPING AND EQUIPMENT.
3. PIPING AND EQUIPMENT ARE MODELED REPRESENTATIONS ONLY. ACTUAL LOCATION AND ORIENTATION MAY VARY PER SHOP STANDARDS, UNLESS OTHERWISE DIMENSIONED.
4. THE SUCTION PIPING OR INTAKE DESIGN SHALL MEET THE HYDRAULIC INSTITUTE STANDARDS ANSI/HI 9.8-1998 „PUMP INTAKE DESIGN“ REQUIREMENTS.

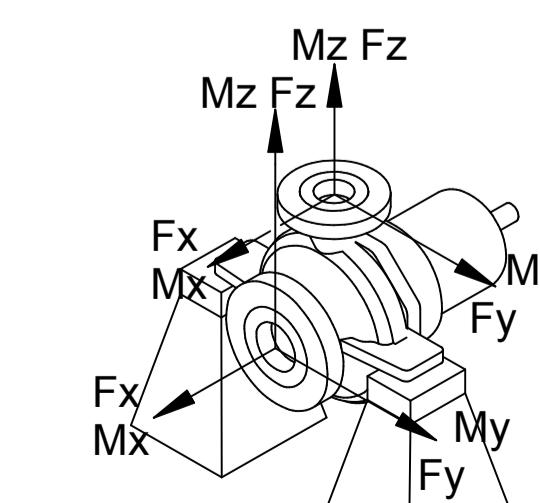


ANCHOR BOLT DETAIL



MAXIMUM NOZZLE LOADINGS

Forces do comply with 2 times of the forces shown in API 610 11th
FORCE IN (N) MOMENTS IN (Nm)



FORCE	SUCT	DISCH	
	Fx	3560	2140
Mx	2660	1900	
Fy	2840	1780	
Fz	2320	2660	
Fr	5120	3860	
My	1360	940	
Mz	2000	1440	
Mr	3600	2560	

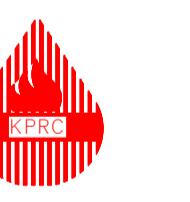
CONTRACT DATA	
PURCHASER:	Sulzer Pumps Spain SA
USER:	Kangan Petro Refining Co
JOB/PROJECT:	Kangan Utility and Offsite Project
CUST. P.O. NO.:	KP-80-10-PS-MA-PO-0001-00
SERVICE:	Acid Sulphuric Unloading Pump
INSTALLED AT:	IRAN
PUMP OEM:	Sulzer Pumpe (Deutschland) GmbH
SULZER ORDER NO.:	100263244-0060

IDENTIFICATION NUMBERS	
SULZER SERIAL NO.	CUSTOMER TAG NO'S
588344	PUMP DRIVER
87-P-7003 A	87-M-7003 A
588345	PUMP DRIVER
87-P-7003 B	87-M-7003 B

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

Rev.	Date	Status	Purpose of Issue	PRE'D.	CHK'D.	APR'D.	AUZ'D.
02	24.10.18	R	For Approval	JL	VS	RS	CL
01	15.11.17	R	For Approval	JL	VS	RS	CL
00	02.06.17	F	For Approval	JL	VS	RS	CL

Kangan Utility & Offsite Project



P.O. No.: KP-80-00-PS-MA-PO-0001-00

SCALE : 1: 7

SULZER

DRAWING TITLE:
Equipment Outline (GAD) including nozzle location

DRAWING No. VP-80-00-MA-0001-0175 SHEET No. 2 OF 3 REV. 02

(C) Motor frame updated 27/02/2018 27/02/2018 27/02/2018

J. LOPEZ V. SANCHEZ R. SANCHEZ

REV. MODIFICATION MODIFIED CHECKED APPROVED

SEP. PARTS LIST: NO FORMAT: A1 DESIGN GROUP: - FIRST ANGLE PROJECTION

REPLACED BY: - SUBSTITUTE FOR: ORIGINAL SCALE: 1:7

OHH 3X4X9B-1 DRAWN: 15/MAY/2017 J. LOPEZ

CHECKED: 15/MAY/2017 V. SANCHEZ

APPROVED: 15/MAY/2017 R. SANCHEZ

100263244-0060 GENERAL ARRANGEMENT DRAWING

PART NO. EN PGA1002632440060-01 2 / 3

SULZER

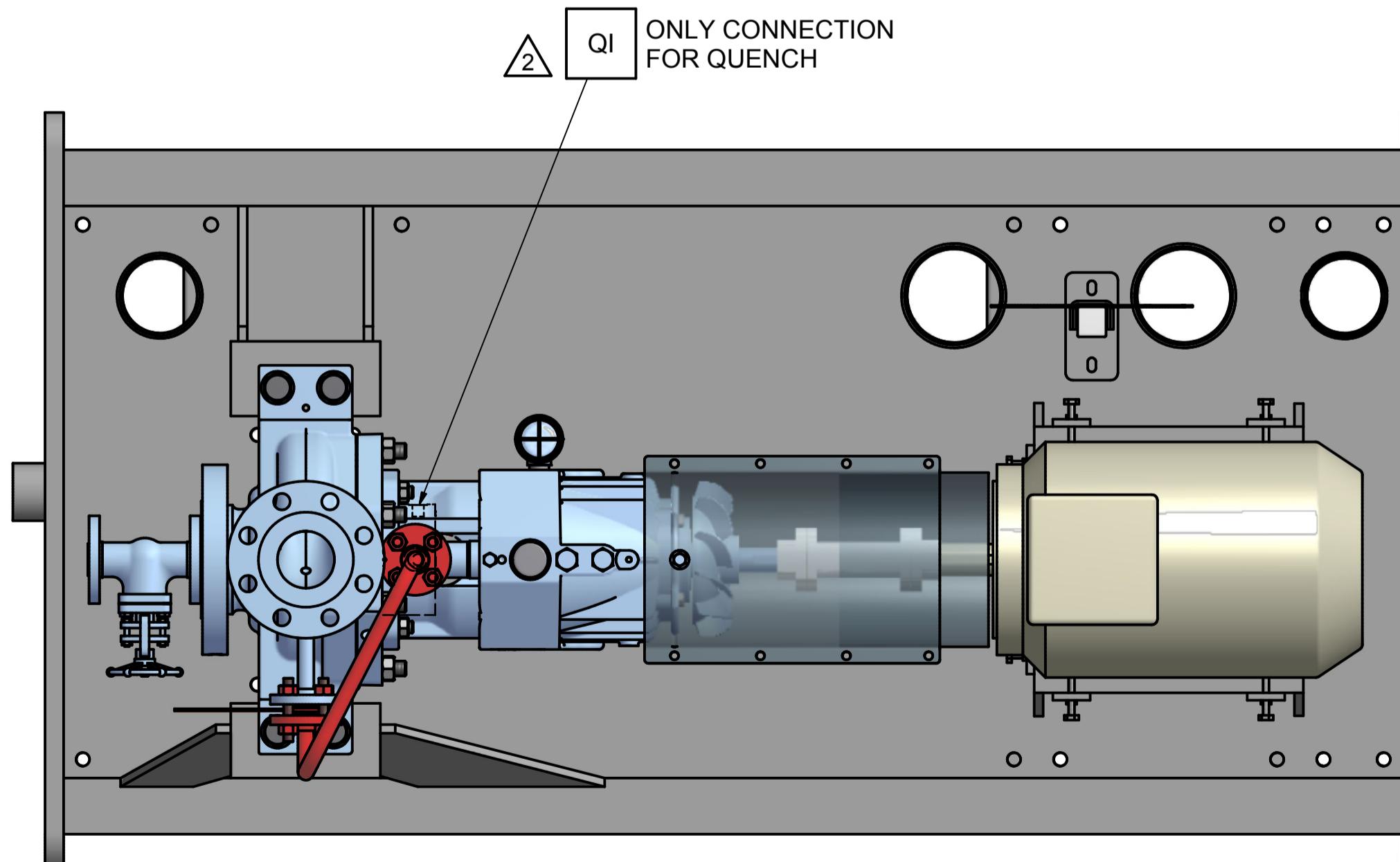
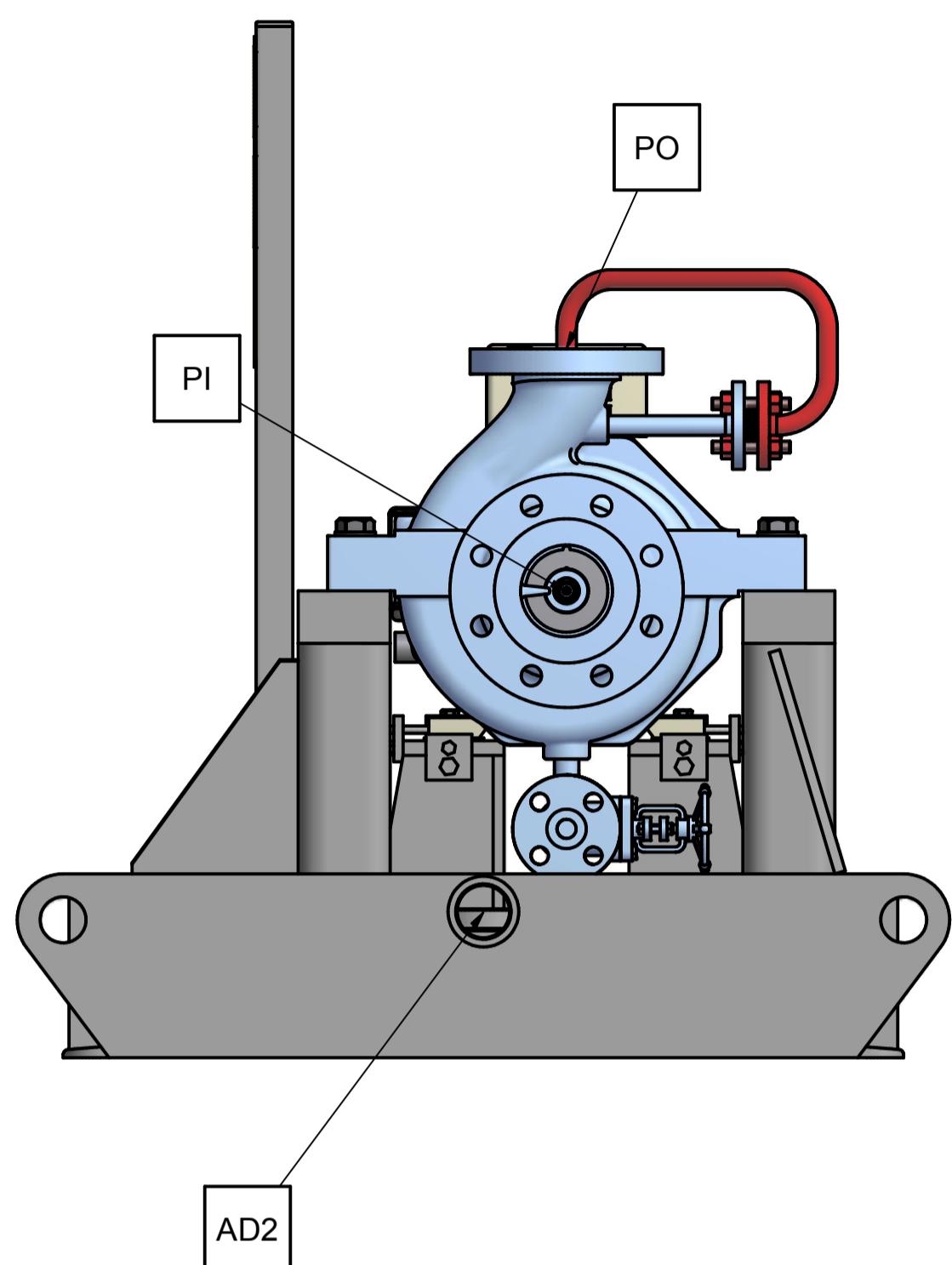
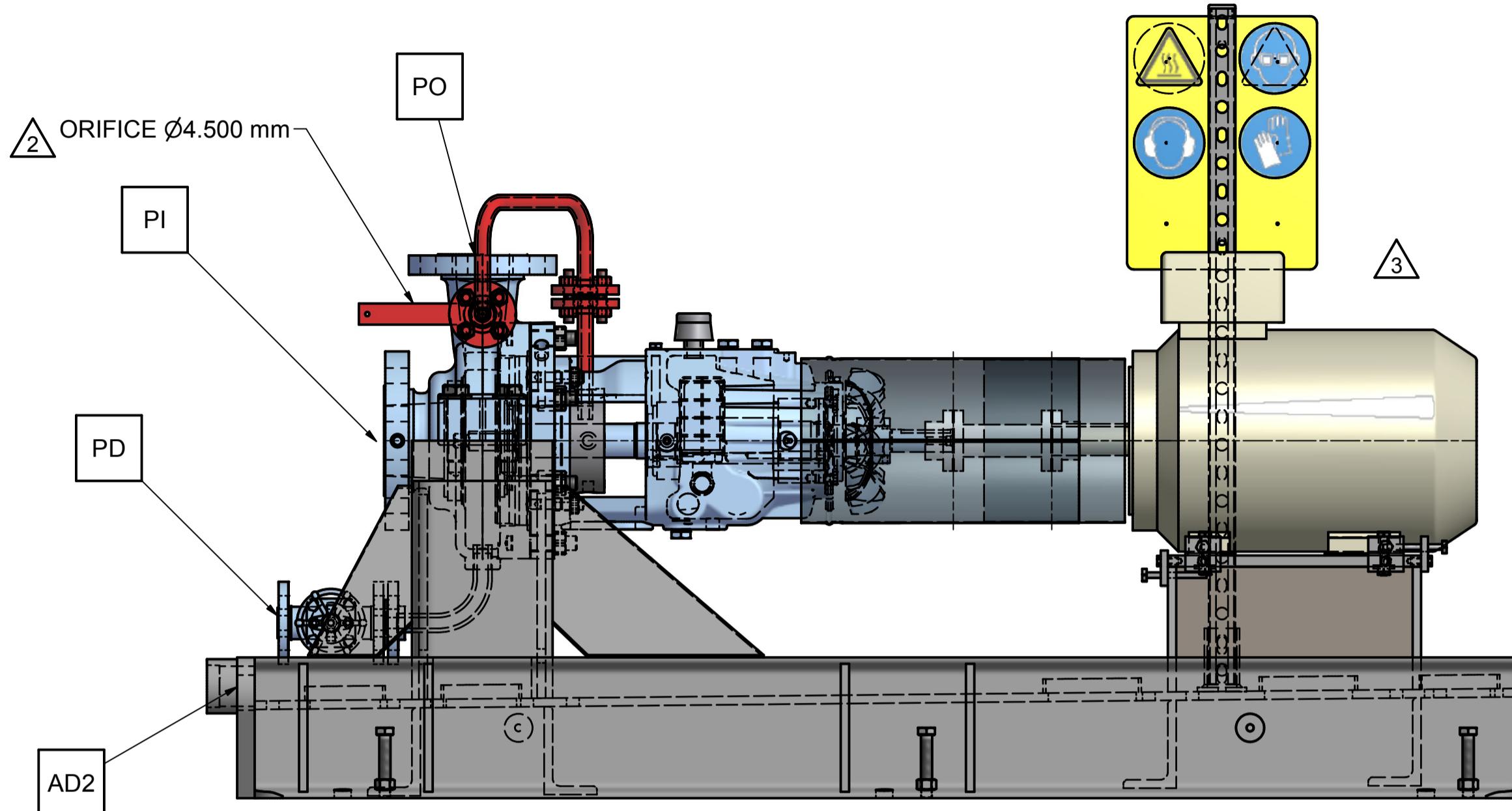
CONTRACT DATA

PURCHASER: Sulzer Pumps Spain SA
 USER: Kangan Petro Refining Co
 JOB/PROJECT: Kangan Utility and Offsite Project
 CUST. P.O. NO.: KP-80-10-PS-MA-PO-0001-00
 SERVICE: Acid Sulphuric Unloading Pump
 INSTALLED AT: IRAN
 PUMP OEM: Sulzer Pumpen (Deutschland) GmbH
 SULZER ORDER NO.: 100263244-0060

IDENTIFICATION NUMBERS

SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
588344	87-P-7003 A	87-M-7003 A
588345	87-P-7003 B	87-M-7003 B

DO NOT SCALE. DIMENSIONS: mm
 CERTIFIED FINAL
 CERTIFIED FOR NOZZLE & FOUNDATION ONLY
 PRELIMINARY ONLY
 UNLESS OTHERWISE SPECIFIED
 TOLERANCES
 ≤ 500 mm ± 3mm
 > 500 mm ± 12mm



CONNECTION LEGEND			
ITEM	DESCRIPTION	SIZE	TYPE
PI	PUMP SUCTION NOZZLE	4"	300 RF
PO	PUMP DISCHARGE NOZZLE	3"	300 RF
PD	PUMP DRAIN WITH VALVE	0.75"	300 RF
AD2	BASE DRAIN	2"	NPT FEMALE
QI	QUENCH INLET	0.375"	NPT PLUGGED

02	24.10.18	R	For Approval	JL	VS	RS	CL
01	15.11.17	R	For Approval	JL	VS	RS	CL
00	02.06.17	F	For Approval	JL	VS	RS	CL
Rev.	Date	Status	Purpose of Issue	PRE'D.	CHK'D.	APR'D.	AUZ'D.

Kangan Utility & Offsite Project
 KANGAN PETRO REFINING CO.
 P.O. No.: KP-80-10-PS-MA-PO-0001-00



SCALE : 1: 7

SULZER



DRAWING TITLE:
 Equipment Outline (GAD) including nozzle location

DRAWING No. VP-80-00-MA-0001-0175 SHEET No. 3 OF 3 REV. 02

(C)	Motor frame updated	27/02/2018	27/02/2018	27/02/2018
		J. LOPEZ	V. SANCHEZ	R. SANCHEZ
REV.	MODIFICATION	MODIFIED	CHECKED	APPROVED
SEP. PARTS LIST:	NO	FORMAT: A1	DESIGN GROUP: -	FIRST ANGLE PROJECTION <input checked="" type="checkbox"/>
REPLACED BY:	-	SUBSTITUTE FOR:	ORIGINAL SCALE:	1:7
OHH	GENERAL ARRANGEMENT		DRAWN:	15/MAY/2017 J. LOPEZ
3X4X9B-1	CONNECTION LAYOUT		CHECKED:	15/MAY/2017 V. SANCHEZ
			APPROVED:	15/MAY/2017 R. SANCHEZ
100263244-0060	GENERAL ARRANGEMENT DRAWING	PART NO.	EN	PGA1002632440060-01 3 / 3