

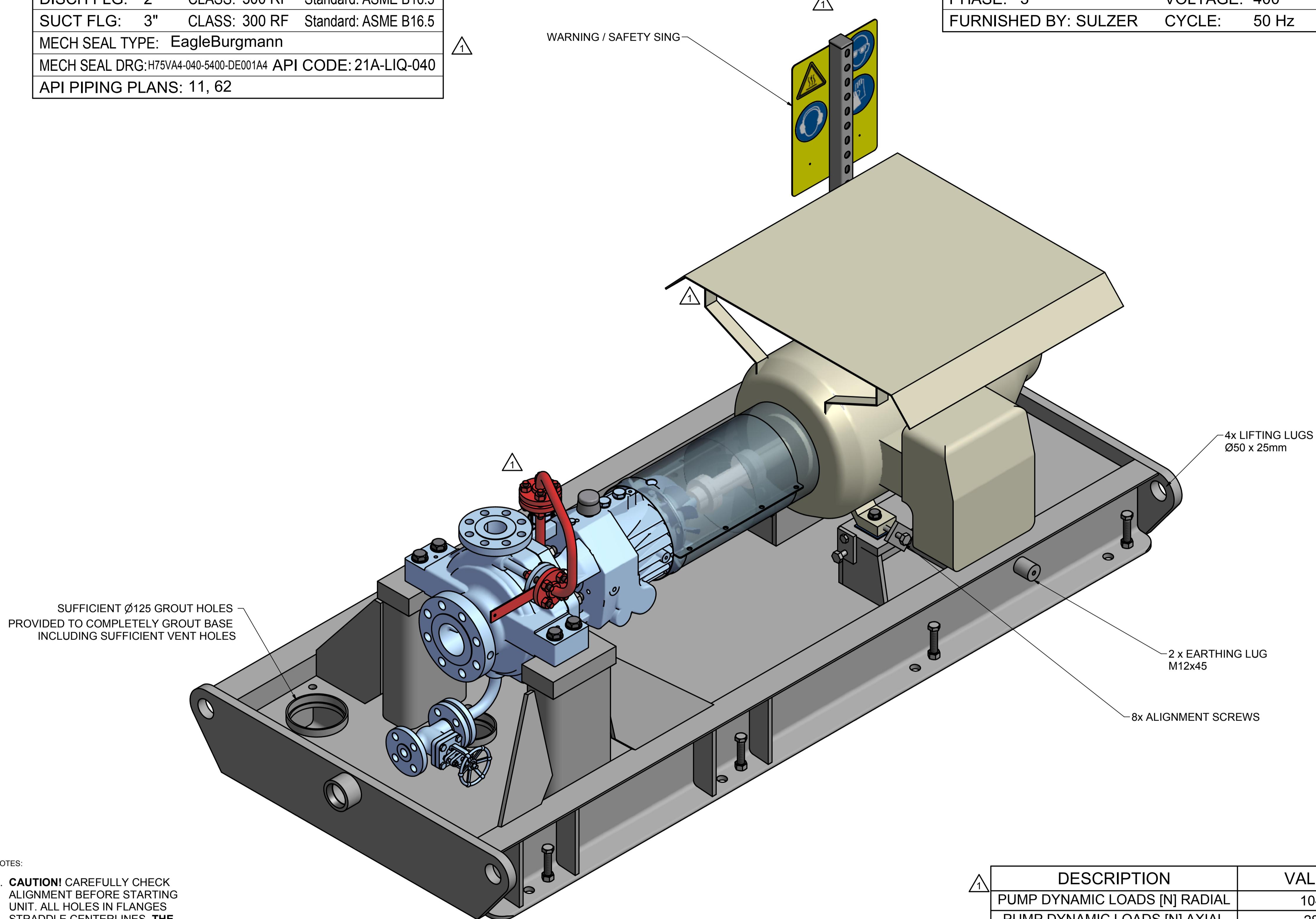
PUMP SPECIFICATIONS	
SIZE & TYPE:	OHH 2x3x9A-1
SPEED: (see MOTOR SPECIFICATIONS)	
ROTATION:	CCW (AS VIEWED FROM DRIVER)
DISCH FLG:	2" CLASS: 300 RF Standard: ASME B16.5
SUCT FLG:	3" CLASS: 300 RF Standard: ASME B16.5
MECH SEAL TYPE:	EagleBurgmann
MECH SEAL DRG:	H75VA4-040-5400-DE001A4 API CODE: 21A-LIQ-040
API PIPING PLANS:	11, 62

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

DRIVER SPECIFICATIONS	
MOTOR:	BROOK
FRAME:	EF200LN
kW:	22
SPEED:	2910 rpm
PHASE:	3
VOLTAGE:	400
FURNISHED BY:	SULZER
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:	Bulk Caustic Soda Transfer Pumps
INSTALLED AT:	IRAN
PUMP OEM:	Sulzer Pumpen (Deutschland) GmbH
SULZER ORDER NO.:	100263244-0050

IDENTIFICATION NUMBERS		
SULZER SERIAL NO.	CUSTOMER TAG NO'S	
	PUMP	DRIVER
588342	87-P-7002 A	87-M-7002 A
588343	87-P-7002 B	87-M-7002 B



NOTES:

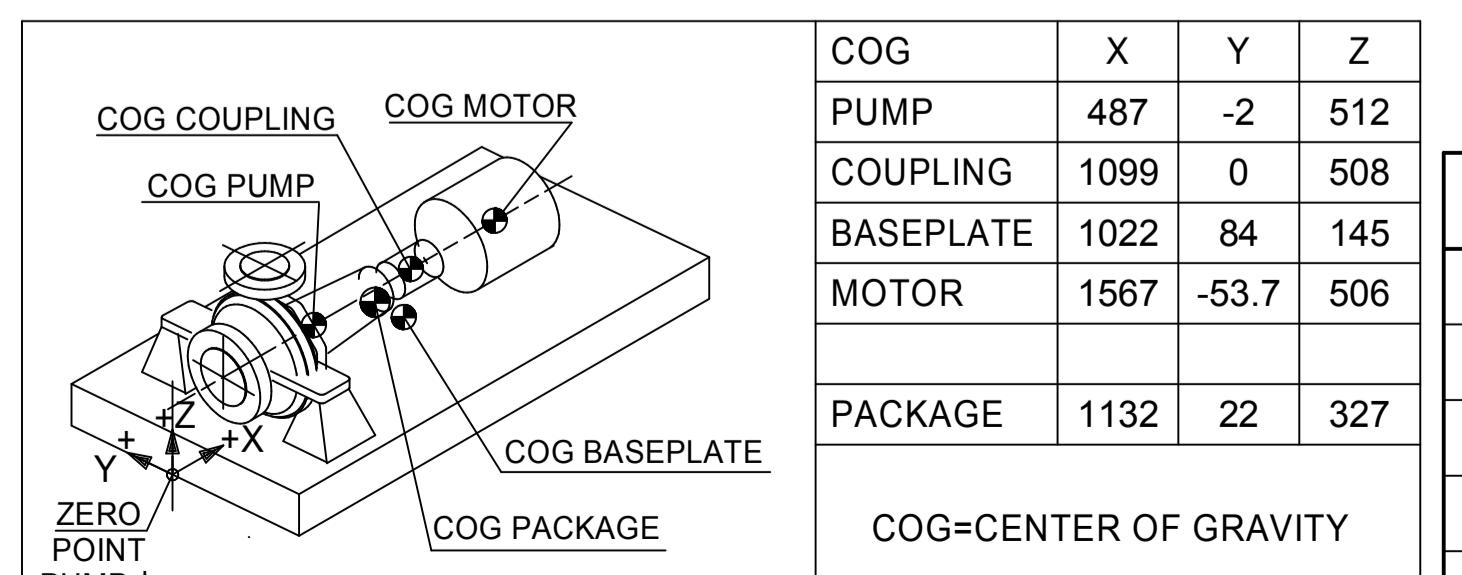
1. CAUTION! CAREFULLY CHECK ALIGNMENT BEFORE STARTING UNIT. ALL HOLES IN FLANGES STRADDLE CENTERLINES. THE CONNECTION OF PIPES TO THE UNIT HAS TO BE STRESS FREE.

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.

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DESCRIPTION	VALUE
PUMP DYNAMIC LOADS [N] RADIAL	104
PUMP DYNAMIC LOADS [N] AXIAL	28
MOTOR DYNAMIC LOADS [N] RADIAL	N/A
MAINTENANCE WEIGHT PUMP [Kg]	105

APPROXIMATE WEIGHTS	
PUMP:	154 kg
MOTOR:	355 kg
BASEPLATE:	502 kg
AUXILIARY:	15 kg
TOTAL:	1,026 kg

<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 ≤ 500 mm ± 3mm ≥ 500 mm ± 12mm						
DRAWING CONTENT							
SHEET DESCRIPTION		SHEET NO.					
GA ISOMETRIC DATA SHEET		1					
FOUNDATION AND NOZZLE		2					
CONNECTION LAYOUT		3					
<p>Code1 <input type="checkbox"/> Approved: No comment and the document is released for Manufacturing. <input type="checkbox"/> Approved with comment: Vendor shall correct, revise and resubmit the document. The document to be released for Manufacturing if changes incorporated.</p> <p>Code2 <input type="checkbox"/> Corrected: Vendor shall correct, revise and resubmit the document by the date specified. The document shall be revised under the Status of "Revised - New". All corrected documents shall be resubmitted before starting the Manufacturing.</p> <p>Code3 <input type="checkbox"/> Commented: Vendor shall re-work/re-design/re-specify the contents of the document by the date specified. The document shall be revised under the Status of "Revised - New". All corrected documents shall be resubmitted before starting the Manufacturing.</p> <p>Code4 <input type="checkbox"/> Not Accepted (Rejected): Vendor shall re-work/re-design/re-specify the contents of the document by the date specified. The document shall be revised under the Status of "Rejected". Above checking results by EIED shall in no way relieve Vendor of responsibility to make any necessary changes out of the purchase order and the mutual agreement in writing.</p> <p>EIED DATE : DEPT. : Signature :</p> <p>Only for internal review CV PI EL IN ME MA ST AR PR SA HV TL</p>							
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.

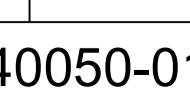
P.O. No.: KP-80-10-PS-MA-PO-0001-00 SCALE : 1: 5

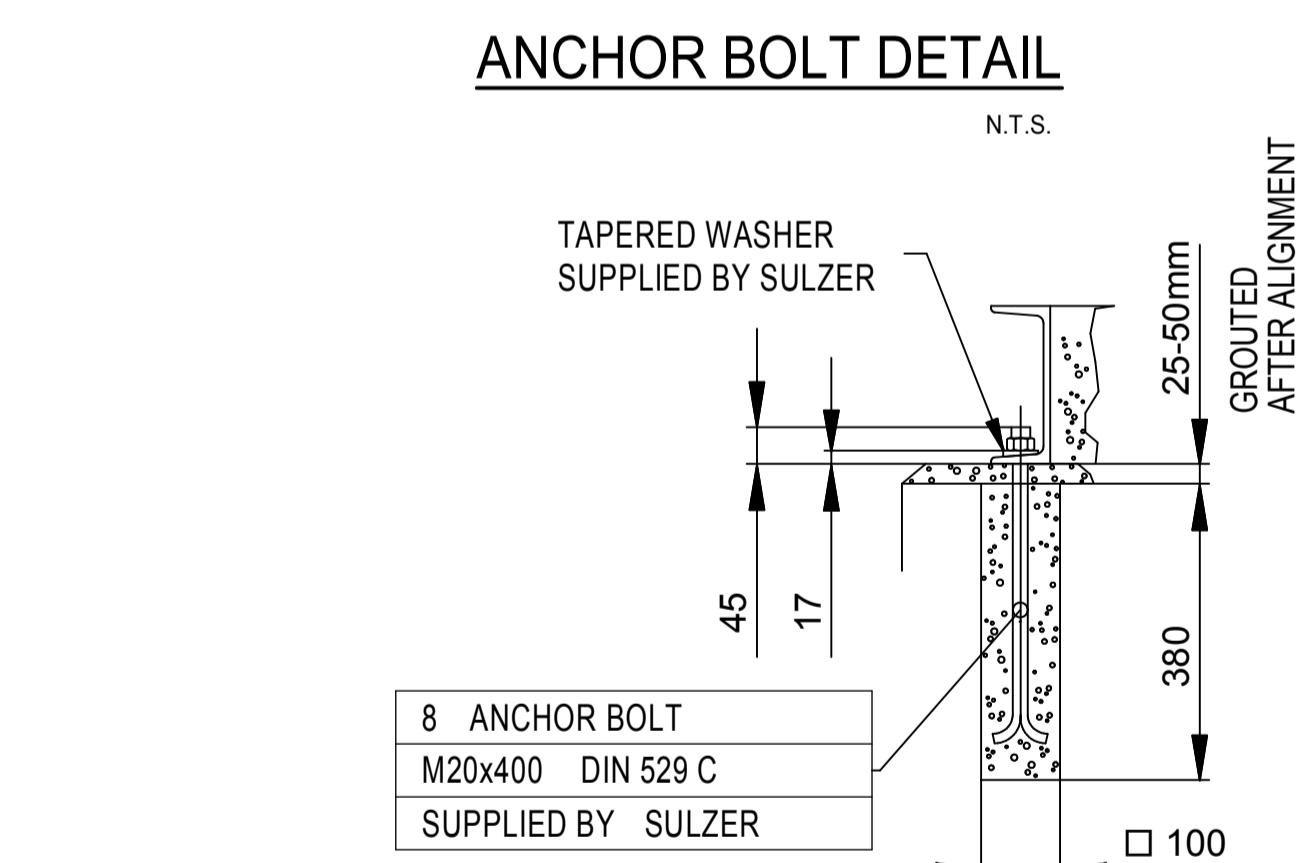
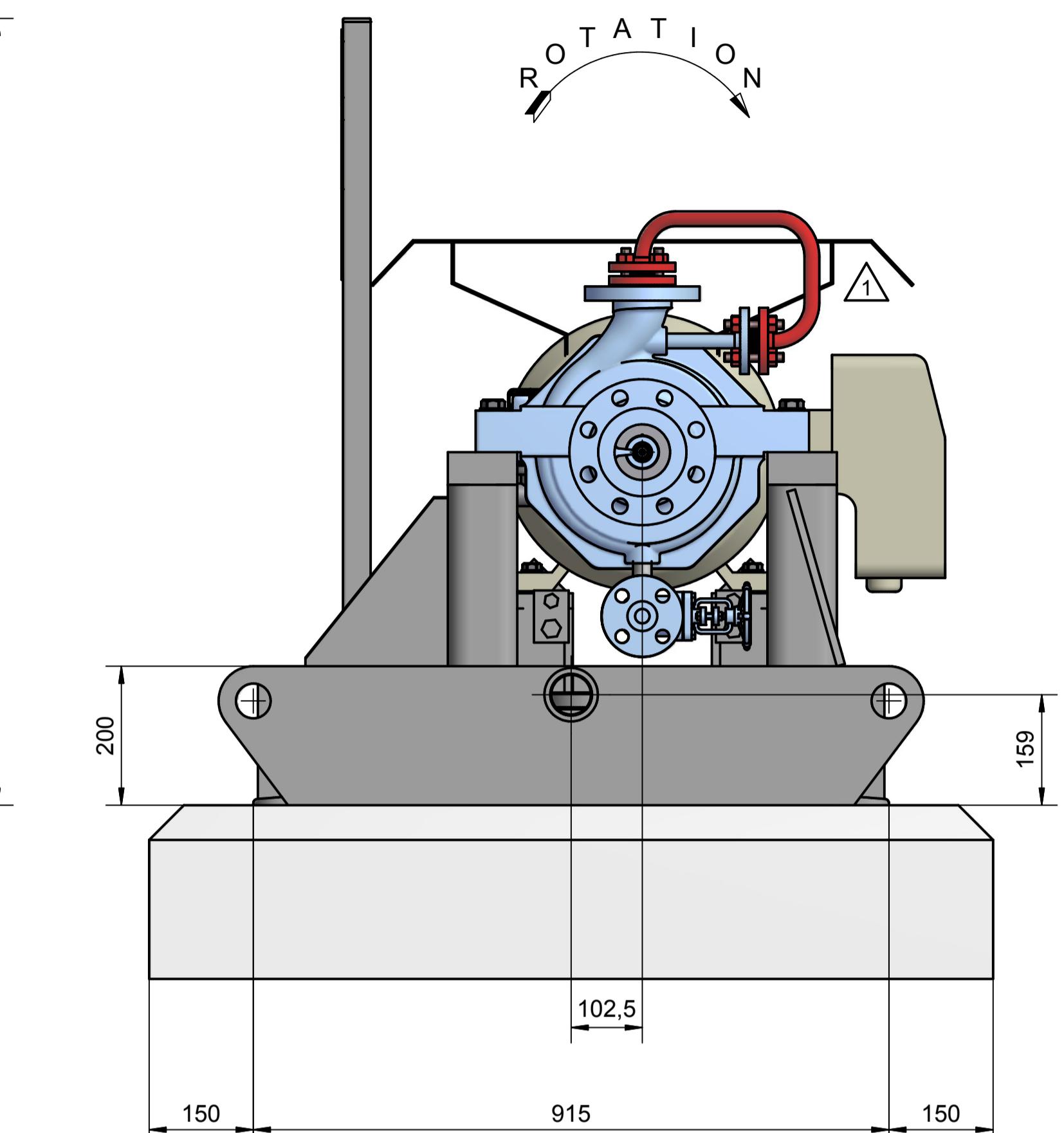
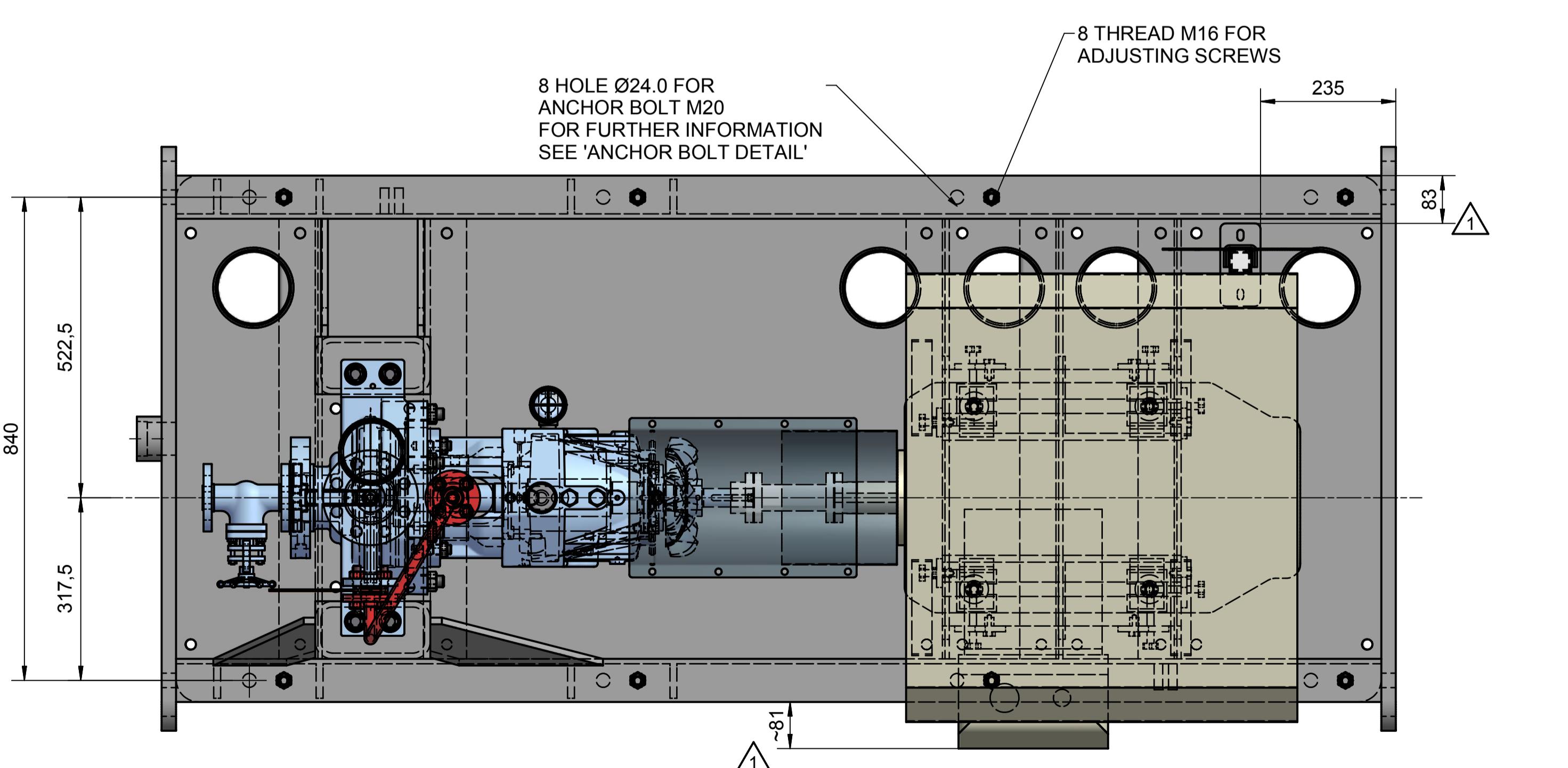
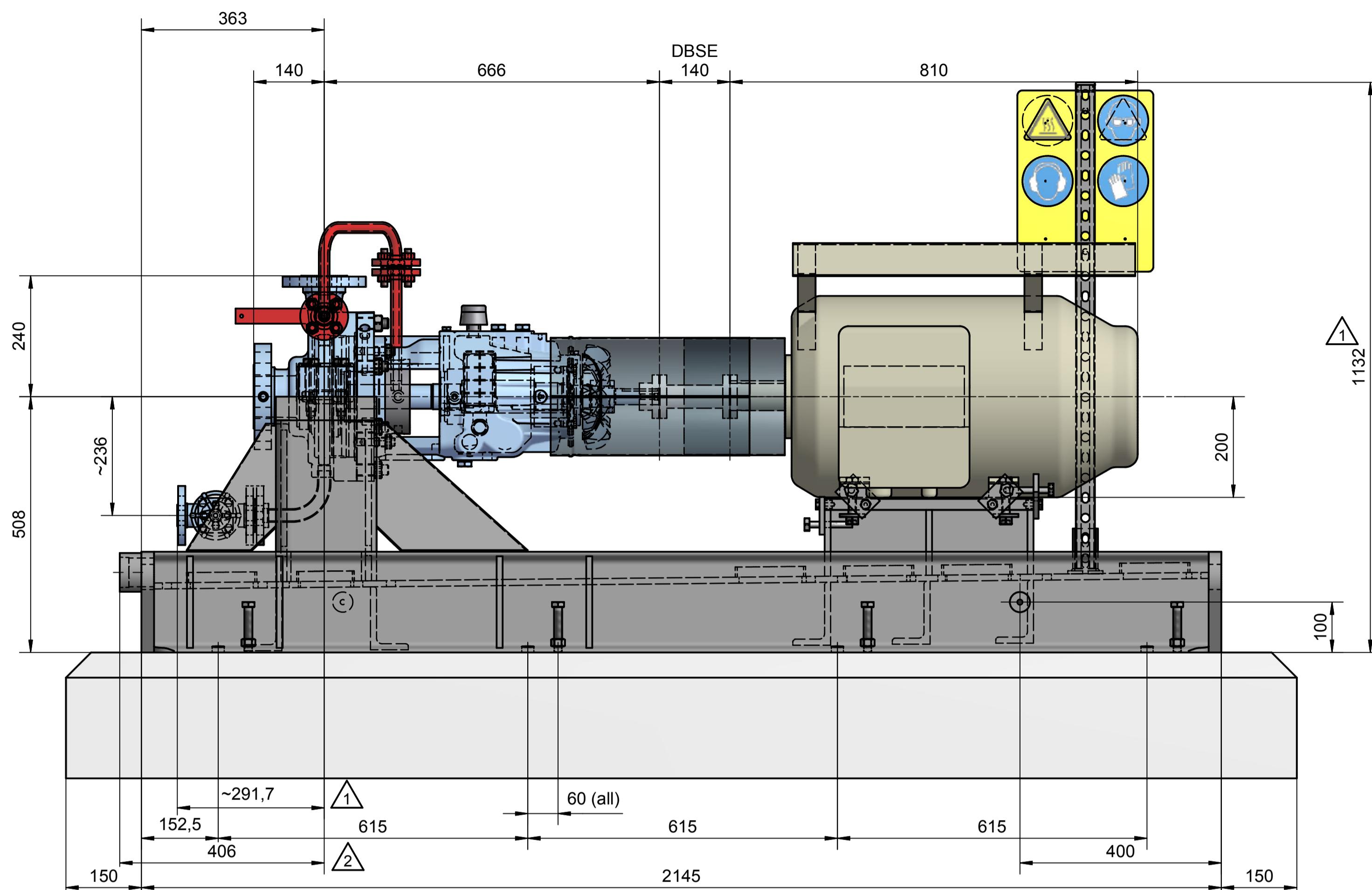
SULZER



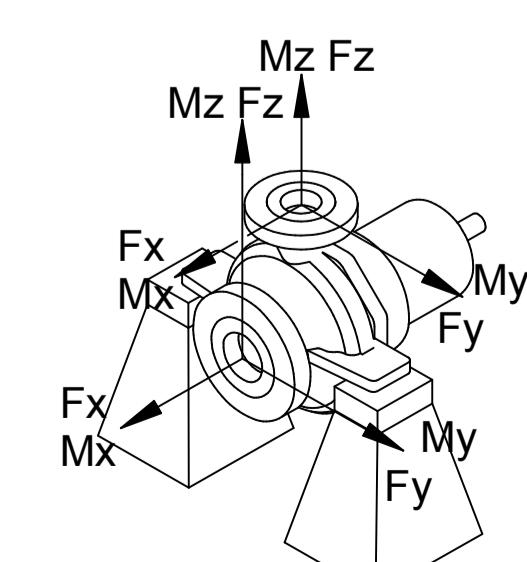
DRAWING NO.	FORMAT:	DESIGN GROUP:	1 OF 3 REV. 02
(b) Changes according customer comments and revision added		11/01/2018	11/01/2018
J. LOPEZ	V. SANCHEZ	R. SANCHEZ	
REV. MODIFICATION	MODIFIED	CHECKED	APPROVED
SEP. PARTS LIST:	NO	FORMAT: A1	FIRST ANGLE PROJECTION
REPLACED BY:	-	SUBSTITUTE FOR:	ORIGINAL SCALE: 1:5
OHH	2X3X9A	-	DRAWN: 15/MAY/2017 J. LOPEZ
100263244-0050	-	-	CHECKED: 15/MAY/2017 V. SANCHEZ
GENERAL ARRANGEMENT		APPROVED: 15/MAY/2017 R. SANCHEZ	GENERAL ARRANGEMENT DRAWING
PART NO.	EN	PGA1002632440050-01	1 / 3

SULZER





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

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:	Bulk Caustic Soda Transfer Pumps
INSTALLED AT:	IRAN
PUMP OEM:	Sulzer Pumpen (Deutschland) GmbH
SULZER ORDER NO.:	100263244-0050

IDENTIFICATION NUMBERS	
SULZER SERIAL NO.	CUSTOMER TAG NO'S
	PUMP DRIVER
588342	87-P-7002 A 87-M-7002 A
588343	87-P-7002 B 87-M-7002 B

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

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



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-80-10-MA-0001-0154 SHEET No. 2 OF 3 REV. 02

(B) Changes according customer comments	11/01/2018	11/01/2018	11/01/2018

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: 1:7	DRAWN: 15/MAY/2017 J. LOPEZ

OHH 2X3X9A	GENERAL ARRANGEMENT FOUNDATION AND NOZZLE
-	-

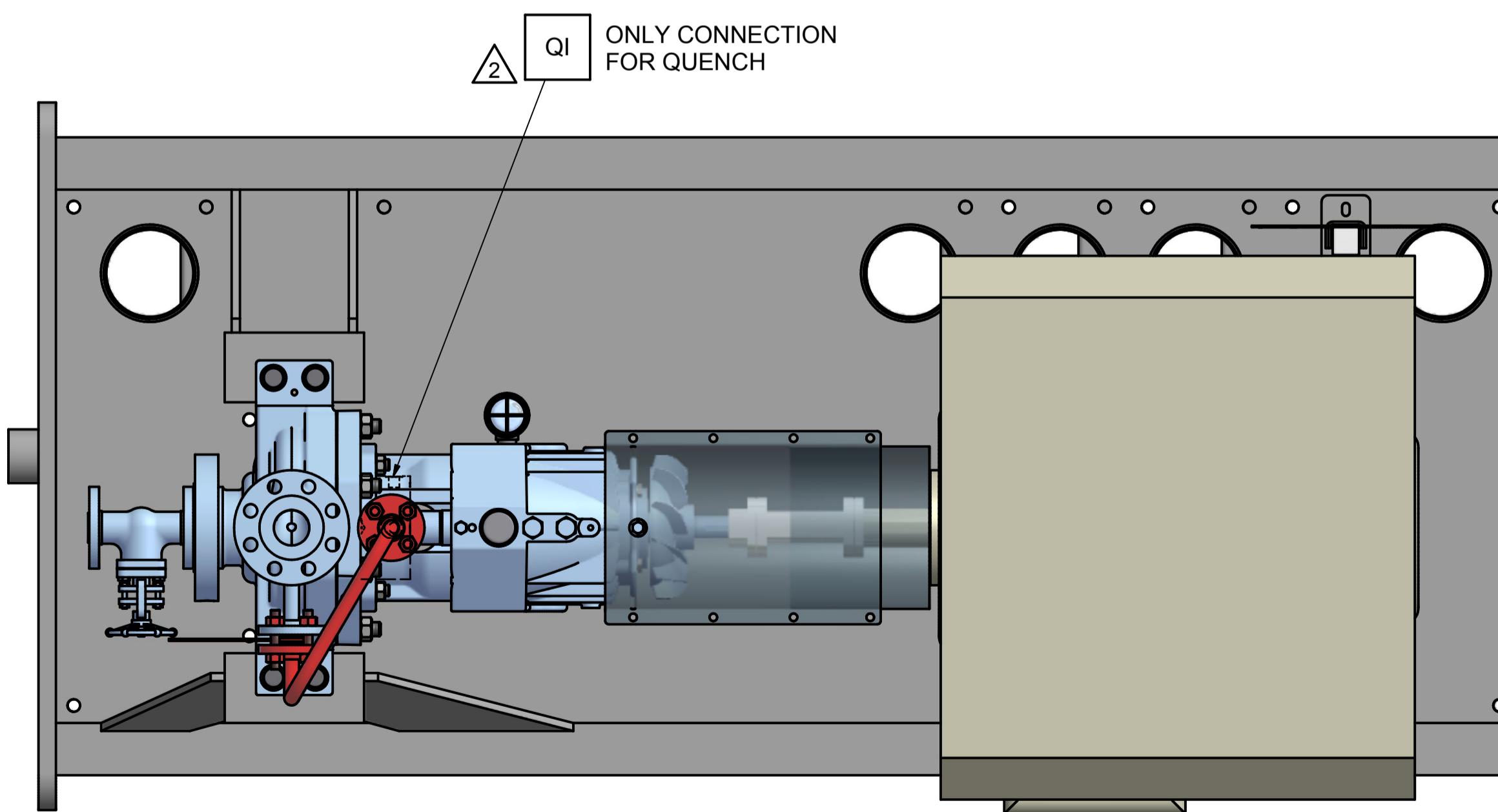
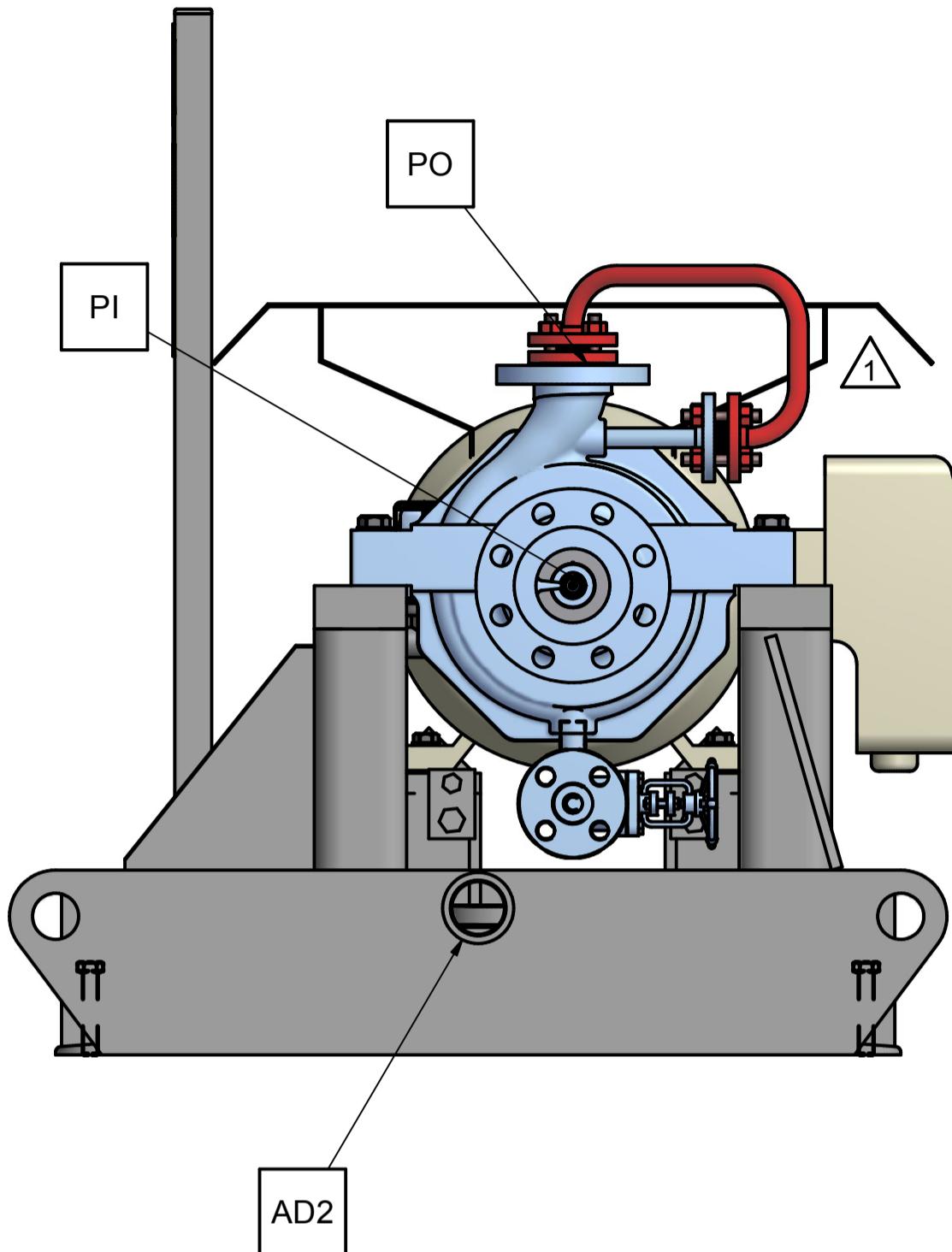
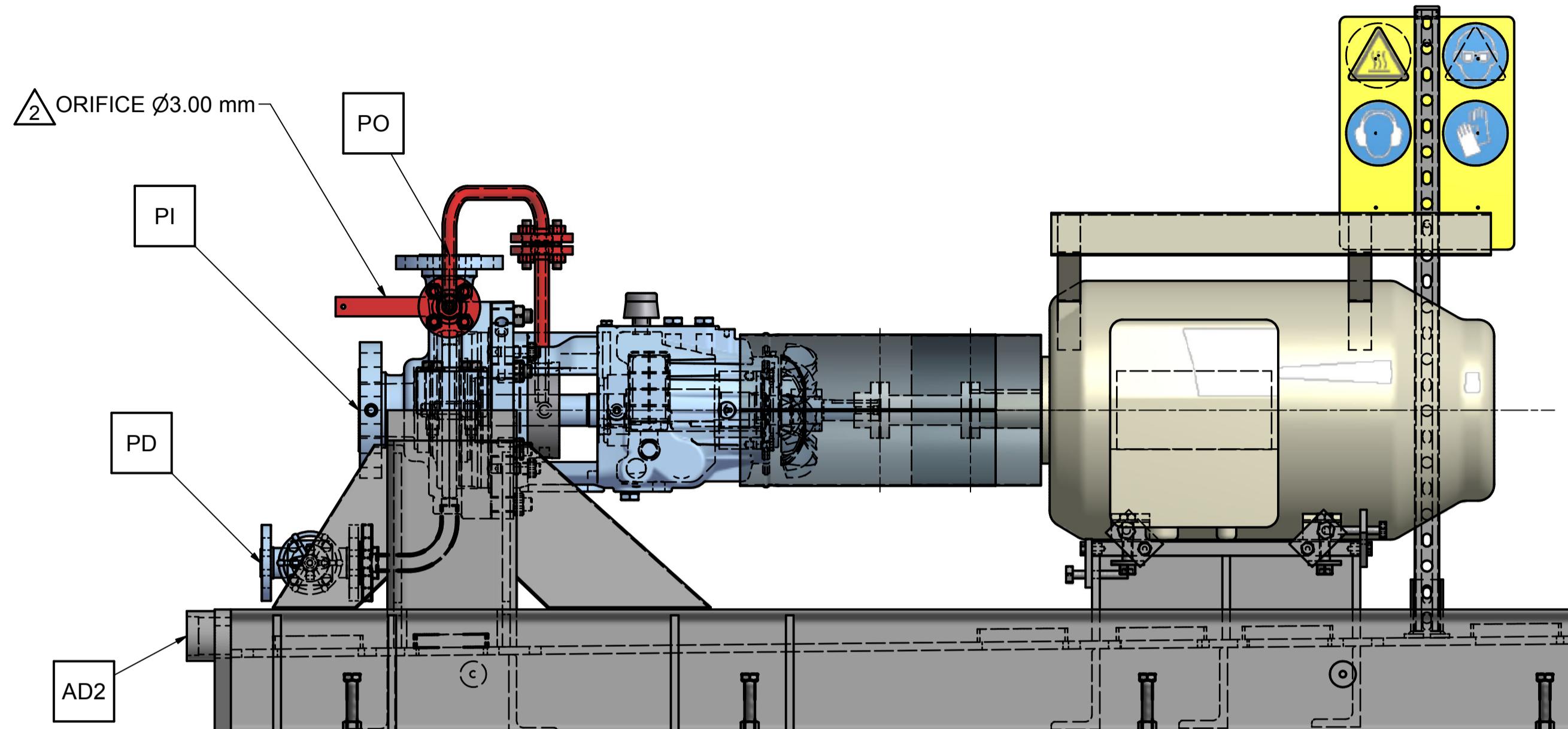
100263244-0050	GENERAL ARRANGEMENT DRAWING
PART NO. -	EN PGA1002632440050-01

APPROVED: 15/MAY/2017 R. SANCHEZ
DRAWN: 15/MAY/2017 J. LOPEZ
CHECKED: 15/MAY/2017 V. SANCHEZ
APPROVED: 15/MAY/2017 R. SANCHEZ

SULZER

2 / 3

CONTRACT DATA																																							
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GENERAL ARRANGEMENT CONNECTION LAYOUT																																							
100263244-0050	GENERAL ARRANGEMENT DRAWING																																						
SULZER	PART NO.	EN	PGA1002632440050-01	3 / 3																																			



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