












OWNER:  شرکت سست و سویی توستر ایرانیان (سهامی خاص)	<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>							EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT	
	<b>P&amp;ID for reciprocating compressor</b>							 Netherlands	
MC :   شرکت سست و سویی توستر ایرانیان (سهامی خاص)	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
Owner Document Number: 17811-03B	BU	20	VD	303	PR	DWG	<del>0014</del>	Rev.:	Page
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BU-20-VD-303-PR-DWG-0066

## P&ID for reciprocating compressor

  شرکت سست و سویی توستر ایرانیان Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>	
<b>Document Review</b>			
Issue Purpose:	FA		
Result Code: AP,AN,CM,RE,NC	CM		
Next Status : IFC,IFA,IFI,AFC,AB	IFA		
Responsible Department	MECHANICAL		
Commented Date	Aug.312021		
<b>Approval or review hereunder shall not be construed to relieve Vendor / Subcontractor of his responsibilities and liability under the contract.</b>			

01	10/08/2021	For approval	KP	KP	PW	
00	30/10/2020	For approval	KP	KP	PW	
Rev.	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code
					Class: 1	Phase: P

<b>OWNER:</b>  شرکت ست و سوبی آوند ایرانین (سهانی خاص)	<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>						<b>EPC CONTRACTOR:</b> 		
	<b>P&amp;ID for reciprocating compressor</b>								
<b>MC :</b>  	<b>Project</b>	<b>Area</b>	<b>Phase</b>	<b>Unit</b>	<b>Dis.</b>	<b>Doc.</b>	<b>Seq.</b>	<b>Contract No : 52-98/445</b>	
<b>Owner Document Number: 17811-03B</b>	<b>BU</b>	<b>20</b>	<b>VD</b>	<b>303</b>	<b>PR</b>	<b>DWG</b>	<b>0014</b>	<b>Rev.:</b>	<b>Page</b>
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A	B	C	D
<b>COMPRESSOR</b> Tagnumber: 20-C-7080 Type: 1-stage oilfree piston Compressor capacity: 173 Nm <sup>3</sup> /hr Operating pressure: 21 bar(a) Design Pressure: 26 bar(g) Speed: 400 rpm Discharge temperature: 180°C	<b>PULSATION DAMPER INLET</b> Tagnumber: 20-DC-7080-1 Volume: 30L OP / DP: 7 to 8.5 bar(a) / 13.5 bar(a) OT / DT: 5 to 55°C / 0 to 80°C Design: AMSE VIII. Div. 1 Material: Carbon steel	<b>PULSATION DAMPER OUTLET</b> Tagnumber: 20-DC-7080-2 Volume: 30L OP / DP: 21 bar(a) / 25 bar(a) OT / DT: 180°C / 0 to 210°C Design: AMSE VIII. Div. 1 Material: Carbon steel	<b>AFTER COOLER</b> Tagnumber: 20-AEC-7080-1 Flow air side: 173 Nm <sup>3</sup> /hr Flow water side: 1.4 m <sup>3</sup> /hr OP / DP(shell): 21 bar(a) / 25 bar(g) OP / DP(tubes): 4.5 bar(g) / 10 bar(g) OT / DT(shell): 180°C / 0 to 210°C OT / DT(tubes): 35°C / 0 to 95°C Design: TEMA C, AMSE VIII. Div. 1 Material: Carbon steel

Please calculate discharge temperature again. With reference to Thermodynamic formula  $(T_2/T_1 = P_2/P_1)^{K-1/K}$  discharge temperature is much less than 180 C. Using mentioned formula, adiabatic temperature is 148 C. Also with reference to clause M29 of TCL of emergency instrument air compressor AIRPACK confirm that Temperature before cooling is less than 150 C.

**Repeated Comment**  
 - Symbol, Legend and abbreviation same as attached file shall be submitted by vendor.

**GENERAL NOTES**

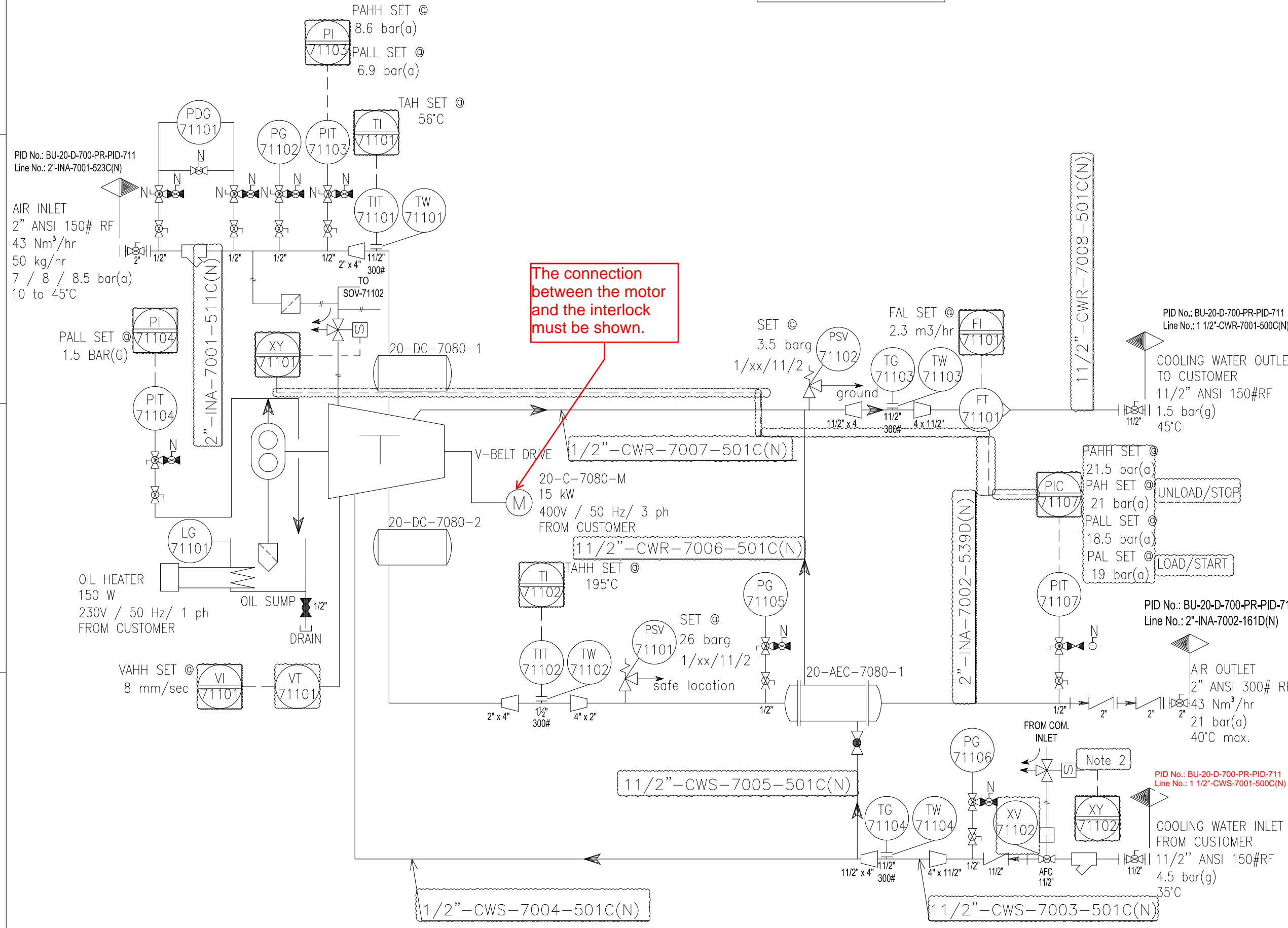
NOTES:

- All signals mentioned in P&ID will be transferred to FCS via Modbus TCP/IP communication link  
 CW valve will open on compressor start and close on compressor stop

HOLDS:

- API designator for PSV to be determined after completion of PSV calculation

REFERENCE DRAWINGS	DWG.No.
xxxxxxx	xxxxxxx



The connection between the motor and the interlock must be shown.

REV.	DATE	PURPOSE OF ISSUE (P.O.I.)	PREP.	CHKD.	APPR.	AC.
01	04/12/20	For approval	KP	CS	KP	JL
00	20/10/20	For approval	KP	CS	KP	JL

OWNER:

CONTRACTOR:

PROJECT: BUSHEHR PETROCHEMICAL COMPANY MEG PLANT

DRAWING TITLE: 17811-03 P&ID FOR INSTRUMENT AIR COMPRESSOR

CONTRACT NO.	SCALE	SIZE	CLASS	PHASE
S2-98/445	XX	A0	1	P

DOCUMENT NO.	PROJECT	AREA	PHASE	MRQ No.	DIS.	DOC.	SEQ.	SHEET	REV. NO.
	BU	20	VD	303	PR	DWG	0066	1 OF 2	01

