











OWNER:  شرکت سست و سویی آوند ایرانیان (سهامی خاص)	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:  Chagalesh-Enerechimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
	PULSATION DAMPER MECHANICAL DATA SHEET FOR NITROGEN GAS BOOSTER								
MC : 	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
Owner Document Number: 17811-11C	BU	20	VD	303	ME	DSH	0027	Rev.:	Page
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PULSATION DAMPER MECHANICAL DATA SHEET FOR NITROGEN GAS BOOSTER

		BUSHEHR PETROCHEMICAL COMPANY MEG PLANT
Document Review		
Issue Purpose:	AB	
Result Code : AP,AN,CM,RE,NC	AP	
Next Status : IFC,IFA,IFI,AFC,AB	-	
Responsible Department	MECHANIC	
Commented Date	Apr.30.2023	
Approval or review hereunder shall not be construed to relieve Vendor / Subcontractor of his responsibilities and liability under the contract.		

08	26/04/2023	As Built	KP	CL	JR	
07	16/08/2022	Approved for Construction	KP	CL	JR	
06	14/07/2022	Approved for Construction	KP	CL	JR	
05	06/05/2022	Approved for Construction	KP	CL	JR	
04	25/04/2022	Approved for Construction	KP	CL	JR	
03	13/04/2022	For approval	KP	CL	JR	
02	10/03/2022	For approval	KP	CL	JR	
01	28/02/2022	For approval	KP	CL	JR	
00	11/12/2020	For approval	KP	KP	KP	
Rev	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code






Class: 1 Phase: P







OWNER:  شرکت سست موبه‌تی آوند ایرانیان (سه‌گانه تخصصی)	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
	PULSATION DAMPER MECHANICAL DATA SHEET FOR NITROGEN GAS BOOSTER						 Netherlands		
MC :  شرکت سست موبه‌تی آوند ایرانیان اصفهان	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
Owner Document Number: 17811-11C	BU	20	VD	303	ME	DSH	0027	Rev.:	Page
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TABULATION OF REVISED PAGES

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1.	X	X	X	X	X
2.	X	X	X	X	X
3.	X	X	X	X	
4.		X	X	X	
5.					

Page	D05	D06	D07	D08	
1.	X	X	X	X	
2.	X	X	X	X	
3.		X	X	X	
4.		X	X	X	
5.					

VENDOR				Pulsation damper mechanical datasheet		P.O. No.	52-98/445
						Document No.	17811-11C
						Sheet No.	3
						Rev.No	08
CONTRACTOR / END USER				BUSHEHR PETROCHEMICAL COMPANY MEG PLANT		Service	nitrogen compressor package
							
شرکت سبک سیم و سویی		توسعه ایرانیان		CHANGHAI-RESEARCH-STEAM DRUM-STEAM REFC MEG PLANT PROJECT			
1st stage inlet pulsation damper (20-DC-1002-1)							
2	OPERATING PRESSURE	Bar(a)					9 bar(a)
3	DESIGN PRESSURE	Bar(a)					13.5 bar(a)
4	HYDROTEST PRESSURE						1.3 X MAWP as per ASME VIII
5	OPERATING TEMPERATURE	°C					5-52
6	DESIGN TEMPERATURE	°C					0-85
7	DESIGN CODE						ASME VIII Div. 1 Ed. 2021
8	MATERIAL CERTIFICATE						3.1
9	MATERIAL OF CONSTRUCTION						Shell /pipes : SA106 gr B, Heads : SA234 WPB, flanges : SA105
10	NOZZLE SIZE INLET/OUTLET						2" 150# for inlet and outlet, 1/2 NPT-F for drain
11	DIMENSIONS	DiAx IT					12" X 1100 mm
12	WEIGHT EMPTY	kg					120
13	WEIGHT FILLED WITH WATER	kg					210
14	CAPACITY	Liters					96
15	TESTING AS PER CODE						ASME VIII Div. 1 Ed. 2021
16	CORROSION ALLOWANCE	mm					3
17	PWHT	Yes/No					No
18	THICKNESS	mm					9.52
19	Design approach						API 618 Design approach 2
20	Maximum Allowable Compressor Cylinder Flange Pressure Pulsation as per clause 7.9.4.2.5.2.1 of API618.						6.64%
21	Maximum Allowable Pressure Drop as per clause 7.9.4.2.5.3.1 of API 618.	Bar					0.18
23	Maximum Allowable Pulsation Limits at and Beyond Line-side Nozzles of Pulsation Suppression Devices as per clause 7.9.4.2.5.2.2.1 of API 618.	bar					0.536
1st stage outlet pulsation damper (20-DC-1002-2)							
25	OPERATING PRESSURE	Bar(a)					14.5 bar(a)
26	DESIGN PRESSURE	Bar(a)					25 bar(a)
27	HYDROTEST PRESSURE						1.3 X MAWP as per ASME VIII
28	OPERATING TEMPERATURE	°C					134
29	DESIGN TEMPERATURE	°C					0-170
30	DESIGN CODE						ASME VIII Div. 1 Ed. 2021
31	MATERIAL CERTIFICATE						3.1
32	MATERIAL OF CONSTRUCTION						Shell /pipes : SA106 gr B, Heads : SA234 WPB, flanges : SA105
33	NOZZLE SIZE INLET/OUTLET						2" 300# for inlet and outlet, 1/2 NPT-F for drain
34	DIMENSIONS	DiAx IT					12" X 1100 mm
35	WEIGHT EMPTY	kg					110
36	WEIGHT FILLED WITH WATER	kg					190
37	CAPACITY	Liters					96
38	TESTING AS PER CODE						ASME VIII Div. 1 Ed. 2021
39	CORROSION ALLOWANCE	mm					3
40	PWHT	Yes/No					No
41	THICKNESS	mm					9.52
43	Design approach						API 618 Design approach 2
44	Maximum Allowable Compressor Cylinder Flange Pressure Pulsation as per clause 7.9.4.2.5.2.1 of API618.	Bar					6.64%
45	Maximum Allowable Pressure Drop as per clause 7.9.4.2.5.3.1 of API 618.	Bar					0.15
46	Maximum Allowable Pulsation Limits at and Beyond Line-side Nozzles of Pulsation Suppression Devices as per clause 7.9.4.2.5.2.2.1 of API 618.	bar					1.433
47							
48							
49	NOTES:						
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		Pulsation damper mechanical datasheet		P.O. No.	52-98/445
   				Document No.	17811-11C
CONTRACTOR / END USER		BUSHEHR PETROCHEMICAL COMPANY MEG PLANT		Sheet No.	4
   				Rev.No	08
				Service	nitrogen compressor package
2nd stage inlet pulsation damper (20-DC-1002-3)					
1					
2	OPERATING PRESSURE	Bar(a)	14,5 bar(a)		
3	DESIGN PRESSURE	Bar(a)	25 bar(a)		
4	HYDROTEST PRESSURE	1.3 X MAWP as per ASME VIII			
5	OPERATING TEMPERATURE	°C	50		
6	DESIGN TEMPERATURE	°C	0-85		
7	DESIGN CODE	ASME VIII Div. 1 Ed. 2021			
8	MATERIAL CERTIFICATE	3.1			
9	MATERIAL OF CONSTRUCTION	Shell /pipes : SA106 gr B, Heads : SA234 WPB, flanges : SA105			
10	NOZZLE SIZE INLET/OUTLET	2" 300# for inlet and outlet, 1/2 NPT-F for drain			
11	DIMENSIONS	DIx TI	10" X 600 mm		
12	WEIGHT EMPTY	kg	75		
13	WEIGHT FILLED WITH WATER	kg	115		
14	CAPACITY	Liters	38		
15	TESTING AS PER CODE	ASME VIII Div. 1 Ed. 2021			
16	CORROSION ALLOWANCE	mm	3		
17	PWHT	Yes/No	No		
18	THICKNESS	mm	9,27		
20	Design approach	API 618 Design approach 2			
21	Maximum Allowable Compressor Cylinder Flange Pressure Pulsation as per clause 7.9.4.2.5.2.1 of API 618.		4,54%		
22	Maximum Allowable Pressure Drop as per clause 7.9.4.2.5.3.1 of API 618.	Bar	0,0636		
23	Maximum Allowable Pulsation Limits at and Beyond Line-side Nozzles of Pulsation Suppression Devices as per clause 7.9.4.2.5.2.2.1 of API 618.	bar	0,739		
2nd stage outlet pulsation damper (20-DC-1002-4)					
25					
26	OPERATING PRESSURE	Bar(a)	23,5 bar(a)		
27	DESIGN PRESSURE	Bar(a)	26 bar(a)		
28	HYDROTEST PRESSURE	1.3 X MAWP as per ASME VIII			
29	OPERATING TEMPERATURE	°C	83		
30	DESIGN TEMPERATURE	°C	0-100		
31	DESIGN CODE	ASME VIII Div. 1 Ed. 2021			
32	MATERIAL CERTIFICATE	3.1			
33	MATERIAL OF CONSTRUCTION	Shell /pipes : SA106 gr B, Heads : SA234 WPB, flanges : SA105			
34	NOZZLE SIZE INLET/OUTLET	2" 300# for inlet and outlet, 1/2 NPT-F for drain			
35	DIMENSIONS	DIx TI	10" X 800 mm		
36	WEIGHT EMPTY	kg	85		
37	WEIGHT FILLED WITH WATER	kg	130		
38	CAPACITY	Liters	48		
39	TESTING AS PER CODE	ASME VIII Div. 1 Ed. 2021			
40	CORROSION ALLOWANCE	mm	3		
41	PWHT	Yes/No	No		
42	THICKNESS	mm	9,27		
44	Design approach	API 618 Design approach 2			
45	Maximum Allowable Compressor Cylinder Flange Pressure Pulsation as per clause 7.9.4.2.5.2.1 of API 618.	Bar	4,54%		
46	Maximum Allowable Pressure Drop as per clause 7.9.4.2.5.3.1 of API 618.	Bar	0,0603		
47	Maximum Allowable Pulsation Limits at and Beyond Line-side Nozzles of Pulsation Suppression Devices as per clause 7.9.4.2.5.2.2.1 of API 618.	bar	0,9		
45					
46					
47					
48	NOTES:				
49					
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51					