







OWNER:  شرکت سست و سویی توهمه ایران (سهامی عامه)	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
	CALCULATION & DATA SHEET OF CONTROL VALVES / ON-OFF VALVES FOR NITROGEN GAS BOOSTER						 Netherlands		
MC :  شرکت سست و سویی توهمه ایران (سهامی عامه)	Project	Area	Phase	Unit	Dis.	Doc.	Seq.	Contract No : 52-98/445	
Owner Document Number: 17811-45A	BU	20	VD	303	IN	DSH	0041	Rev.:	Page
								03	1 of 16

Repeated Comment
- Hand valves and check valves will not checked by instrument department and shall be removed from this data sheet.

CALCULATION & DATA SHEET OF CONTROL VALVES / ON-OFF VALVES FOR NITROGEN GAS BOOSTER




20-C-1002

 		BUSHEHR PETROCHEMICAL COMPANY MEG PLANT	
Document Review			
Issue Purpose:	AFC		
Result Code: AP,AN,CM,RE,NC	AN		
Next Status : IFC,IFA,IFI,AFC,AB	AFC		
Responsible Department	MECHANICAL		
Commented Date	Jan/20/2022		
Approval or review hereunder shall not be construed to relieve Vendor / Subcontractor of his responsibilities and liability under the contract.			

03	07/01/2022	Approved for Construction	TvT	KP	LdM	
02	25/10/2021	Approved for Construction	TvT	KP	LdM	
01	20/09/2021	For approval	TvT	KP	LdM	
00	25/02/2021	For approval	TvT	KP	LdM	
Rev	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code
					Class: 1	Phase: P

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Notes:

				CALCULATION & DATA SHEET OF CONTROL VALVES / ON-OFF VALVES FOR NITROGEN GAS BOOSTER			
03	TT	7-1-2022	For Construction				
02	TT	25-10-2021	For Construction				
01	TT	20-9-2021	For Approval				
00	TT	25-2-2021	For Approval				
Rev	By	Date	Description	Sheet		3 of 16	
				Based on P&ID		rev.A	

Based on Basis of design of the project design pressure must be specified by the following rule:
 Design pressure of process static EQUIPMENT shall be based on the max. operating pressure.
 Malfunction and EQUIPMENT failure shall be taken into consideration by safety devices.
 Design pressure shall be selected from the list below:
 • for max operating pressure below 2 barg use 3.5 barg
 • for max operating pressure between 2 barg and 15 barg use max operating pressure +1.5 bar
 • for max operating pressure between 15 barg and 100 barg use max operating pressure x 110%
 • for max operating pressure equal and above 100 barg use max operating pressure +10 bar
 The comment is valid for all instruments.

811-45A
 I-20-VD-303-PR-WG-0013
 4 of 16
 Qty 1 pc
 I valve
 PR-WG-0013

GENERAL	4	LOCATION		Compressor Inlet	
	5	Line/equip. No.		2"-INL-1001-511C(N)	
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Nitrogen	Dry Gas
	9	Pressure	Norm. Max.	8 Bar(a)	9 Bar(a)
	10	Temperature	Norm. Max.	55°C	65°C
	11	Design	Press. Temp.	13.5 Bar(a)	80°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow		707 Kg/hr / 565 Nm3/hr	
	14				
BODY	16	Body Type		Ball valve, 2-piece, split-body	
	17	Body Size	Bore	2"	Full bore
	18	Guiding	No. Of Ports	-	2
	19	Conn. Type	End Conn. Rat.	RF, ASME B16.5	150#
	20	Body Material		Carbon steel ASTM A 216 Gr. WCB / A105	
	21	Packing/ gasket Material		RPTFE / 304/graphite	
	22	Bonnet Type		Screwed	
	23	Form		Floating ball	
	24	Trim	Seat Mat.	RPTFE	
	25	Ball Mat.	Shaft Mat.	SS 316	SS316
	26	Actuation	Material	Lever handle	CS
	27	Bolts & Nuts		B7/2H	
	28	Shaft		Anti blow-out	
	29	Device		Anti static	
	30	Fire safe		Included	
	31				
	32				
33					
34					
35	Leakage rate		API 598 TSO		
36					
37					
<div style="border: 1px solid red; padding: 5px; color: blue; font-weight: bold;"> ALL MANUAL VALVE AND CHECK VALVE SHALL BE DELETED. PROJECT SPECIFICATIONS SHALL BE FOLLOWED BY AIRPACK. </div>					
OPTIONS	42				
	43				
	44				
	45				
CERTIFICATES	46				
	47	3.1 Material certificate		Yes	
	48	Hydrotest certificate		Yes	
	49				
	50				
PURCHASE	51				
	52	Manufacturer		According to aproved vendor list	
	53	Model		Supplier to advise	
	54				
	55				
56					
57					

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NOTES :

				INSTRUMENT AND VALVE DATASHEET	
03	TT	7-1-2022	For Construction	Hand Ball Valve	
02	TT	25-10-2021	For Construction		
01	TT	20-9-2021	For Approval		
00	TT	25-2-2021	For Approval		
Rev	By	Date	Description		Sheet 4 of 16 Based on P&ID rev.A

GENERAL	1	Tag Number		No Tag.no.: Qty 1 pcs	
	2	Service		Hand Ball valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0013	
	4	Location		Compressor Outlet	
	5	Line/equip. No.		2"-NL-1003-539D(N)	
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Nitrogen	Dry Gas
	9	Pressure	Norm. Max.	23,5 Bar(a)	25 Bar(a)
	10	Temperature	Norm. Max.	40°C	55°C
	11	Design	Press. Temp.	25 Bar(a)	60°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow		50 Kg/hr / 43 Nm3/hr	
	14				
BODY	16	Body Type		Ball valve, 2-piece, split-body	
	17	Body Size	Bore	2"	Full bore
	18	Guiding	No. Of Ports	-	2
	19	Conn. Type	End Conn. Rat.	RF, ASME B16.5	300#
	20	Body Material		Carbon steel ASTM A 216 Gr. WCB / A105	
	21	Packing/ gasket Material		RPTFE / 304/graphite	
	22	Bonnet Type		Screwed	
	23	Form		Floating ball	
	24	Trim	Seat Mat.	RPTFE	
	25	Ball Mat.	Shaft Mat.	SS 316	SS316
	26	Actuation	Material	Lever handle	CS
	27	Bolts & Nuts		B7/2H	
	28	Shaft		Anti blow-out	
	29	Device		Anti static	
	30	Fire safe		Included	
	31				
	32				
	33				
	34				
	35	Leakage rate		API 598 TSO	
	36				
37					
38					
39					
40					
41					
42					
43					
OPTIONS	44				
	45				
	46				
CERTIFICATES	47	3.1 Material certificate		Yes	
	48	Hydrotest certificate		Yes	
	49				
	50				
	51				
PURCHASE	52	Manufacturer		According to aproved vendor list	
	53	Model		Supplier to advise	
	54				
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Design pressure must be double checked

52

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707 kg/h / 565 Nm3/h

NOTES :

				INSTRUMENT AND VALVE DATASHEET	
				Hand Ball Valve	
					
03	TT	7-1-2022	For Construction	 Sheet 5 of 16 Based on P&ID rev.A	
02	TT	25-10-2021	For Construction		
01	TT	20-9-2021	For Approval		
00	TT	25-2-2021	For Approval		
Rev	By	Date	Description		



GENERAL	1	Tag Number		No Tag.no.: Qty 2 pcs	
	2	Service		Hand Ball valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0013	
	4	Location		Compressor Cooling water	
	5	Line/equip. No.		1 1/2"-CWS-1004-501C(N)/ 1 1/2"-CWR-1011-501C(N)	
	6			500C(N)	
	7				
PROCESS CONDITIONS	8	Fluid	State	Water	Liquid
	9	Pressure	Norm. Max.	4,5 Bar(g)	5 Bar(g)
	10	Temperature	Norm. Max.	35°C	45°C
	11	Design	Press. Temp.	7 Bar(g)	95°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow		14,5 m3/hr	
	14				
BODY	16	Body Type		Ball valve, 2-piece, split-body	
	17	Body Size	Bore	1 1/2"	Full bore
	18	Guiding	No. Of Ports	-	2
	19	Conn. Type	End Conn. Rat.	RF, ASME B16.5	150#
	20	Body Material		Carbon steel ASTM A 216 Gr. WCB / A105	
	21	Packing/ gasket Material		RPTFE / 304/graphite	
	22	Bonnet Type		Screwed	
	23	Form		Floating ball	
	24	Trim	Seat Mat.	RPTFE	
	25	Ball Mat.	Shaft Mat.	SS 316	SS316
	26	Actuation	Material	Lever handle	CS
	27	Bolts & Nuts		B7/2H	
	28	Shaft		Anti blow-out	
	29	Device		Anti static	
	30	Fire safe		Included	
	31				
	32				
	33				
	34				
	35	Leakage rate		API 598 TSO	
36					
37					
38					
39					
40					
41					
42					
43					
OPTIONS	44				
	45				
	46				
CERTIFICATES	47	3.1 Material certificate		Yes	
	48	Hydrotest certificate		Yes	
	49				
	50				
	51				
PURCHASE	52	Manufacturer		According to aproved vendor list	
	53	Model		Supplier to advise	
	54				
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NOTES :

				INSTRUMENT AND VALVE DATASHEET	
				Hand Ball Valve	
					
03	TT	7-1-2022	For Construction	 Sheet 6 of 16 Based on P&ID rev.A	
02	TT	25-10-2021	For Construction		
01	TT	20-9-2021	For Approval		
00	TT	25-2-2021	For Approval		
Rev	By	Date	Description		



GENERAL	1	Tag Number		No Tag.no.: Qty 2 pcs	
	2	Service		Hand Ball valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0013	
	4	Location		Compressor Oil sump drain & block valve	
	5	Line/equip. No.		N/A	
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Oil	Liquid
	9	Pressure	Norm. Max.	3 Bar(a)	3,5 Bar(a)
	10	Temperature	Norm. Max.	45°C	65°C
	11	Design	Press. Temp.	5 Bar(a)	80°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow			
	14				
BODY	16	Body Type		Ball valve, screwed type	
	17	Body Size	Bore	1/2"	Full bore
	18	Guiding	No. Of Ports	-	2
	19	Conn. Type	End Conn. Rat.	NPT-F	800#
	20	Body Material		SS316	
	21	Packing Material		RPTFE / Graphite	
	22	Bonnet Type		Screwed	
	23	Form	Floating ball		
	24	Trim	Seat Mat.	RPTFE	
	25	Ball Mat.	Shaft Mat.	SS 316	SS316
	26	Actuation	Material	Lever handle	CS
	27	Leakage rate		API 502, zero	
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				
	36				
	37				
	38				
	39				
	40				
	41				
	42				
43					
OPTIONS	44				
	45				
	46				
CERTIFICATES	47	3.1 Material certificate		No	
	48	Hydrotest certificate		No	
	49				
	50				
	51				
PURCHASE	52	Manufacturer		According to aproved vendor list	
	53	Model		Supplier to advise	
	54				
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NOTES :

				INSTRUMENT AND VALVE DATASHEET	
				Hand Ball Valve	
					
03	TT	7-1-2022	For Construction	 Sheet 7 of 16 Based on P&ID rev.A	
02	TT	25-10-2021	For Construction		
01	TT	20-9-2021	For Approval		
00	TT	25-2-2021	For Approval		
Rev	By	Date	Description		

GENERAL	1	Tag Number		No Tag.no.: Qty 7 pcs	
	2	Service		Hand Ball valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0013	
	4	Location		Compressor block valve	
	5	Line/equip. No.		N/A	
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Nitrogen/ water	Dry Gas
	9	Pressure	Norm. Max.	23,5 Bar(a)	25 Bar(a)
	10	Temperature	Norm. Max.	40°C	55°C
	11	Design	Press. Temp.	25 Bar(a)	60°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow			
	14				
BODY	16	Body Type		Ball valve, screwed type	
	17	Body Size	Bore	1/2"	Full bore
	18	Guiding	No. Of Ports	-	2
	19	Conn. Type	End Conn. Rat.	NPT-F	800#
	20	Body Material		SS316	
	21	Packing Material		RPTFE / Graphite	
	22	Bonnet Type		Screwed	
	23	Form	Floating ball		
	24	Trim	Seat Mat.	RPTFE	
	25	Ball Mat.	Shaft Mat.	SS 316	SS316
	26	Actuation	Material	Lever handle	CS
	27	Leakage rate		API 502, zero	
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				
	36				
	37				
	38				
39					
40					
41					
42					
43					
OPTIONS	44				
	45				
	46				
CERTIFICATES	47	3.1 Material certificate		No	
	48	Hydrotest certificate		No	
	49				
	50				
	51				
PURCHASE	52	Manufacturer		According to aproved vendor list	
	53	Model		Supplier to advise	
	54				
	55				
	56				
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NOTES :

				INSTRUMENT AND VALVE DATASHEET	
				Hand Ball Valve	
03	TT	7-1-2022	For Construction		
02	TT	25-10-2021	For Construction		
01	TT	20-9-2021	For Approval		
00	TT	25-2-2021	For Approval		
Rev	By	Date	Description	Sheet 8 of 16 Based on P&ID #REF!	



GENERAL	1	Tag Number		XV-10152	
	2	Service		Ball valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0013	
	4	Location		Compressor Cooling water Inlet	
	5	Line/equip. No.		1 1/2"-CWS-1004-501C(N)	
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Water	Liquid
	9	Pressure	Norm. Max.	4,5 Bar(g)	5 Bar(g)
	10	Temperature	Norm. Max.	35°C	45°C
	11	Design	Press. Temp.	7 Bar(g)	95°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow		14,5 m3/hr	
	14				
BODY	15	Body Type		Ball valve, 2-piece, split-body	
	16	Body Size	Bore	1 1/2"	Full bore
	17	Guiding	No. Of Ports	-	2
	18	Conn. Type	End Conn. Rat.	RF, ASME B16.5	150#
	19	Body Material		Carbon steel ASTM A 216 Gr. WCB/ A105	
	20	Packing/ gasket Material		RPTFE / 304/graphite	
	21	Bonnet Type		Screwed	
	22			Floating ball	
	23	Trim	Seat Mat.	RPTFE	
	24		Ball Mat. Shaft Mat.	SS 316	SS316
	25	Bolts & Nuts		B7/2H	
	26	Shaft		Anti blow-out	
	27	Device		Anti static	
28	Fire safe		Included		
ACTUATOR	29	Type		Rack & Pinion, single acting	
	30	Close At	Open At	Spring return	Air supply
	31	Flow Action To		FTC	
	32	Fail Position		FC	
	33	Pneumatic connection		2 x 1/4" NPT-F	
	34	Instrument Supply Fluid		Instrument Air / Nitrogen	
	35	Instrument Supply Fluid pressure		6.0 bar(g)	
	36	Brackets	Coupling	SS316	SS316
	37	Housing material		Aluminium, epoxy coated	
	38				
POSITION MONITOR	39	Type		N/A	
	40	Power supply		N/A	
	41	Type of switch/transmitter		N/A	
	42	Area Classification		N/A	
	43	Cable Gland		N/A	
OPTIONS	44	Solenoid valves		see Instrument datasheet Tag. XY-10152	
	45	Leakage rate		API 598 TSO	
	46				
CERTIFICATES	47	3.1 Material certificate		Yes	
	48	Hydrotest certificate		Yes	
	49	ATEX		No	
	50	SIL certificate	Level	No	
	51	IP certificate		No	
PURCHASE	52	Valve Manufacturer		According to aproved vendor list	
	53	Valve Model		Supplier to advise	
	54	Actuator Manufacturer			
	55	Actuator Model		Supplier to advise	
	56				
	57				

NOTES :

				INSTRUMENT AND VALVE DATASHEET			
03	TT	7-1-2022	For Construction	Pneumatic Actuated Valve 		Sheet 9 of 16 Based on P&ID rev.A	
02	TT	25-10-2021	For Construction				
01	TT	20-9-2021	For Approval				
00	TT	25-2-2021	For Approval				
Rev	By	Date	Description				

GENERAL	1	Tag Number		No Tag.no: Qty 2 pcs		
	2	Service		Globe valve		
	3	P&ID No.		BU-20-VD-303-PR-WG-0013		
	4	Location		Compressor Cooling water		
	5	Line/equip. No.		1 1/2"-CWS-1006-501C(N)		
	6					
	7					
PROCESS CONDITIONS	8	Fluid	State	Water	Liquid	
	9	Pressure	Norm. Max.	4,5 Bar(g)	5 Bar(g)	
	10	Temperature	Norm. Max.	35°C	45°C	
	11	Design	Press. Temp.	7 Bar(g)	95°C	
	12	Ambient Temp.	Min. Max.	5 °C	52 °C	
	13	Oper. Flow		14,5 m3/hr		
	14					
BODY	15	Body Type		Globe valve, OS&Y, BB		
	16	Body Size		1 1/2 "		
	17	Guiding	No. Of Ports	-	2	
	18	Conn. Type	End Conn. Rat.	RF	150#	
	19	Body Material		Carbon steel ASTM A 216 Gr. WCB/WCC / A105		
	20	Packing Material		PTFE / Graphite		
	21	Bonnet Type		Bolted		
	22	Trim	Form		Disc	
	23		Seat Mat.		PTFE / Graphite	
	24		Disc Mat.	Shaft Mat.	SS 316	SS316
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
40						
41						
42						
43						
OPTIONS	44					
	45					
	46					
CERTIFICATES	47	3.1 Material certificate		Yes		
	48	Hydrotest certificate		Yes		
	49					
	50					
	51					
PURCHASE	52	Manufacturer		According to aproved vendor list		
	53	Model		Supplier to advise		
	54					
	55					
	56					
	57					

NOTES :

				INSTRUMENT AND VALVE DATASHEET			
03	TT	7-1-2022	For Construction	Hand Globe Valve			
02	TT	25-10-2021	For Construction				
01	TT	20-9-2021	For Approval				
00	TT	25-2-2021	For Approval				
Rev	By	Date	Description			Sheet	11 of 16
						Based on P&ID rev.A	

Tag no shall be specified, also mentioned in P&ID too.

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 Rev. No. : 03
 P&ID. No. : BU-20-VD-303-PR-WG-0013
 Page : 12 of 16


GENERAL	1	Tag Number		No Tag.no: Qty 1 pcs	
	2	Service		Pressure Control Valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0013	
	4	Location		Compressor Inlet & actuator cooling inlet	
	5	Line/equip. No.		N/A	
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Nitrogen	Dry Gas
	9	Pressure	Norm. Max.	8 Bar(a)	9 Bar(a)
	10	Temperature	Norm. Max.	55°C	65°C
	11	Design	Press. Temp.	13.5 Bar(a)	80°C
BODY	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Valve Type		Pressure reducing valve	
	14	Body Material		Aluminium	
	15	Diaphragm Material		Will be informed later	
	16	Trim	Form	Disc / Plug / Globe	
	17		Seat Mat.	Will be informed later	
	18		Spring Mat. Disc Mat.	Will be informed later	Will be informed later
	19				
	20				
	21				
22					
23					
24					
ACTUATOR	25	Type		Mechanical, spring type	
	26	Fail Position		FC	
	27				
	28				
	29				
CONNECTIONS	30				
	31	Inlet Size	Outlet Size	1/4"	1/4"
	32	Inlet Connection	Outlet Conn.	Threaded NPT-F	Threaded NPT-F
	33	Inlet Rating	Outlet Rating	800#	800#
SIZING CONDITIONS	34				
	35	Flow Rate		10 Nm ³ /hr	
	36	Pressure drop		To be advised by the manufacturer	
	37	Pressure setpoint		6,0 bar(g)	
	38				
OPTIONS	39				
	40				
	41	Pressure Gauge		Yes	
	42	Material		Aluminium	
CERTIFICATES	43	Range		0...11 bar(g)	
	44	Filter Regulator and drip well		Yes(Mesh 40)	
	45	3.1 Material certificate for body		No	
	46	3.1 Material certificate for stem		No	
	47				
CALCULATIONS	48				
	49	Sizing calculation		No	
	50				
	51				
PURCHASE	52				
	53				
	54	Manufacturer		According to aproved vendor list	
	55	Model		Supplier to advise	
56					
57					

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NOTES :

03	TT	7-1-2022	For Construction
02	TT	25-10-2021	For Construction
01	TT	20-9-2021	For Approval
00	TT	25-2-2021	For Approval
Rev	By	Date	Description

Pressure Reducing Valve

Sheet 12 of 16
 Based on P&ID rev.A

- Following items shall be specified for control valve
 - Required CV
 - Travel %
 - Trim characteristic (EQ%)
- Positioner required data such as follow shall be added to data sheet
 - Input Signal
 - IP protection
 - Pnumatic/Electrical Connection size
- Positioner shall included with pressure gauge
- Minimum material for wetted part shall be SS316.

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 Rev. No. : 03
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 Page : 13 of 16

Line no to be specified

Design pressure must be double checked

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 Body material based on ASTM code shall be selected as per line number class from the project PMS.


85 dBA

Filter regulator and gauge are required



		PV-10151		
		Recycle valve		
		BU-20-VD-303-PR-WG-0013		
		Compressor bypass		
GENERAL	3	P&ID No.		
	4	Location		
	5			
	6			
	7			
	PROCESS CONDITIONS	8	Fluid	State
		9	Pressure	Norm. Max.
10		Temperature	Norm. Max.	
11		Design	Press. Temp.	
12		Ambient Temp.	Min. Max.	
BODY	13	Type Of Body		
	14	Body Size		
	15	Conn. Type	End Conn. Rat.	
	16	Body Material		
	17	Packing Material		
	18	Bonnet Type		
	19	Form		
	20	Trim	Seat Mat.	
	21		Disc Mat. Shaft Mat.	
	22	Required Seat Tightness		
	23	Max. Allow. Sound Level (dBA)		
ACTUATOR	27	Positioner controller		
	28	Interface		
	29	Fail Position		
	30	Pneumatic Conn.		
	31	Instrument Supply Fluid		
	32	Instrument Supply Fluid pressure		
	33	Position Monitor		
	34	Area Classification		
	35	Electric Connection		
	36	Cable Gland		
ACCESSORIES	38	Filter Regulator		
	39	Gauges		
	40			
SERVICE	41	Flow Rate		
	42	Pressure	Inlet outlet	
	43	Pressure drop		
	44	Cv Selected		
	45			
	46			
	47			
CERTIFICATES	49	3.1 Material certificate		
	50	ATEX		
	51	SIL certificate	Level	
	52			
PURCHASE	53	Valve Manufacturer		
	54	Valve Model		
	55	Actuator Manufacturer		
	56	Actuator Model		
	57			

Rev	By	Date	Description
03	TT	7-1-2022	For Construction
02	TT	25-10-2021	For Construction
01	TT	20-9-2021	For Approval
00	TT	25-2-2021	For Approval



INSTRUMENT AND VALVE DATASHEET
Pressure Control Valve


Sheet 13 of 16
 Based on P&ID rev.A


GENERAL	1	Tag Number		No Tag.no.: Qty 2 pcs	
	2	Service		Check Valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0013	
	4	Location		Compressor Outlet	
	5	Line/equip. No.		2"-NL-1003-539D(N)	
	6				
	7				
	8				
PROCESS CONDITIONS	9	Fluid	State	Nitrogen	Dry Gas
	10	Pressure	Norm. Max.	23.5 Bar(a)	25 Bar(a)
	11	Temperature	Norm. Max.	40°C	55°C
	12	Design	Press. Temp.	25 Bar(a)	60°C
	13	Ambient Temp.	Min. Max.	5 °C	52 °C
	14	Oper. Flow		707 Kg/hr / 565 Nm3/hr	
	15				
	16				
	17				
BODY	20	Type Of Body		Wafer type	
	21	Type Of valve		Disc style, pulsation service	
	21	Body Size		DN 50 (Process line = 2" ANSI 300# RF)	
	22	Body Material		Carbon steel	
	23	Cracking Pressure		To be stated by supplier	
	24	Inlet Connection	Outlet Conn.	RF	RF
	25	Inlet Rating	Outlet Rating	300#	300#
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
35					
36					
37					
38					
39					
40					
OPTIONS	41				
	42				
	43				
	44				
	45				
CERTIFICATES	46	3.1 Material certificate		Yes	
	47				
	48				
	49				
	50				
	51				
PURCHASE	52	Manufacturer		Hoerbigger	
	53	Model		Supplier to advise	
	54				
	55				
56					

03	TT	7-1-2022	For Construction		
02	TT	25-10-2021	For Construction		
01	TT	20-9-2021	For Approval		
00	TT	25-2-2021	For Approval		
Rev	By	Date	Description		

GENERAL	1	Tag Number		No Tag.no.: Qty 1 pcs	
	2	Service		Check Valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0013	
	4	Location		Compressor Cooling water inlet	
	5	Line/equip. No.		1 1/2"-CWS-1004-501C(N)	
	6				
	7				
	8				
PROCESS CONDITIONS	9	Fluid	State	Water	Liquid
	10	Pressure	Norm. Max.	4,5 Bar(g)	5 Bar(g)
	11	Temperature	Norm. Max.	35°C	45°C
	12	Design	Press. Temp.	7 Bar(g)	95°C
	13	Ambient Temp.	Min. Max.	5 °C	52 °C
	14	Oper. Flow		14,5 m3/hr	
	15				
	16				
	17				
	18				
BODY	20	Type Of Body		Flanged bolted type	
	21	Type Of valve		Swing disc	
	21	Body Size		1 1 /2" ANSI	
	22	Body Material		Carbon steel	
	23	Cracking Pressure		To be stated by supplier	
	24	Inlet Connection	Outlet Conn.	RF	RF
	25	Inlet Rating	Outlet Rating	150#	150#
	26				
	27				
	28				
	29				
	30				
	31				
	32				
	33				
	34				
	35				
	OPTIONS	41			
42					
43					
44					
45					
CERTIFICATES	46	3.1 Material certificate		Yes	
	47				
	48				
	49				
	50				
	51				
PURCHASE	52	Manufacturer		According to aproved vendor list	
	53	Model		Supplier to advise	
	54				
	55				
	56				

03	TT	7-1-2022	For Construction		
02	TT	25-10-2021	For Construction		
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Rev	By	Date	Description		Sheet 16 of 16 Based on P&ID rev.A