







OWNER:  شرکت سست و موبلی آوند ایرپاکن (سهامی خاص)	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT						EPC CONTRACTOR:  Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
MC :  شرکت سست و موبلی آوند ایرپاکن (سهامی خاص)	CALCULATION & DATA SHEET OF CONTROL VALVES / ON-OFF VALVES FOR EMERGENCY INSTRUMENT AIR COMPRESSOR						 Netherlands		
Owner Document Number: 17811-45B							Project	Area	Phase
	BU	20	VD	303	IN	DSH	0091	Rev.: 03	Page 1 of 16

Comments on hand valve:
 1- proper coating shall be considered for bolt & nut.
 2- Screwed bonnet is not accepted, bolted type shall be considered instead.






CALCULATION & DATA SHEET OF CONTROL VALVES / ON-OFF VALVES FOR EMERGENCY INSTRUMENT AIR COMPRESSOR

 شرکت سست و موبلی آوند ایرپاکن (سهامی خاص)	 Chagalesh-Enerchimi-Steam Joint Venture BUPC-MEG PLANT PROJECT	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	Feb/23/2022	
Approval or review hereunder shall not be construed to relieve Vendor / Subcontractor of his responsibilities and liability under the contract.		

03	07/02/2022	Approved for Construction	TvT	KP	LdM	
02	07/01/2022	Approved for Construction	TvT	KP	LdM	
01	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





INDEX			
No.	Device	Tag Number	Page
1	Hand Ball Valve	No Tag.no.: Qty 1 pc	4
2	Hand Ball Valve	No Tag.no.: Qty 1 pcs	5
3	Hand Ball Valve	No Tag.no.: Qty 2 pcs	6
4	Hand Ball Valve	No Tag.no.: Qty 2 pcs	7
5	Hand Ball Valve	No Tag.no.: Qty 7 pcs	8
6	Pneumatic Actuated Valve	XV-71102	9
7	Pneu.Act. Valve calculation	calculation	10
8	Hand Globe Valve	No Tag.no.: Qty 1 pcs	11
9	Pressure Reducing Valve	No Tag.no.: Qty 1 pcs	12
10	Pressure Control Valve	PV-71101	13
11	Pressure Control Valve	calculation	14
12	Check Valve	No Tag.no.: Qty 2 pcs	15
13	Check Valve	No Tag.no.: Qty 1 pcs	16
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			

Notes:

				CALCULATION & DATA SHEET OF CONTROL VALVES / ON-OFF VALVES FOR EMERGENCY INSTRUMENT AIR COMPRESSOR 	   
03	TT	07/02/2022	For Construction		
02	TT	07/01/2022	For Construction		
01	TT	25/10/2021	For Construction		
00	TT	20/09/2021	For Approval		
Rev	By	Date	Description	Sheet	3 of 16
				Based on P&ID	rev. 02

GENERAL	1	Tag Number		No Tag.no.: Qty 1 pc	
	2	Service		Hand Ball valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0066	
	4	Location		Compressor Inlet	
	5	Line/equip. No.		2"-INA-7001-511C(N)	
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Air	Dry Gas
	9	Pressure	Norm. Max.	8 Bar(a)	8,5 Bar(a)
	10	Temperature	Norm. Max.	AMB	65°C
	11	Design	Press. Temp.	13.5 Bar(a)	85°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow		50 Kg/hr / 43 Nm3/hr	
	14			55kg/h	
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					
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 :

03	TT	07/02/2022	For Construction		  
02	TT	07/01/2022	For Construction		
01	TT	25/10/2021	For Construction		
00	TT	20/09/2021	For Approval		
Rev	By	Date	Description	Sheet	4 of 16
				Based on P&ID rev. 02	



Doc. No : 17811-45B
 Rev. No : 02
 P&ID. No : BU-20-VD-303-PR-WG-0066
 : 5 of 16

GENERAL	1	Tag Number	With reference to P&ID, PSV set pressure is 26 barg. How is it possible design pressure be less than PSV set pressure.		0 Tag.no.: Qty 1 pcs
	2	Service			Hand Ball valve
	3	P&ID No.			BU-20-VD-303-PR-WG-0066
	4	Location			Compressor Outlet
	5	Line/equip. No.			"-INA-7002-539D(N)
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Air	Dry Gas
	9	Pressure	Norm. Max.	21 Bar(a)	26 Bar(a)
	10	Temperature	Norm. Max.	40°C	55°C
	11	Design	Press. Temp.	26 Bar(a)	85°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow	50 Kg/hr / 43 Nm3/hr		
	14		55kg/h		
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				
	55				
	56				
	57				

With reference to P&ID, PSV set pressure is 26 barg. How is it possible design pressure be less than PSV set pressure.



It shall be deleted.

NOTES :

03	TT	07/02/2022	For Construction		
02	TT	07/01/2022	For Construction		
01	TT	25/10/2021	For Construction		
00	TT	20/09/2021	For Approval		
Rev	By	Date	Description	Sheet	5 of 16
				Based on P&ID rev. 02	



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-0066	
	4	Location		Compressor Cooling water	
	5	Line/equip. No.		1 1/2"-CWS-7003-500C(N)/ 1 1/2"-CWR-7008-500C(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)	100°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow		1,4 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	Trim	Form	Floating ball	
	24		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				
	55				
	56				
	57				

NOTES :

03	TT	07/02/2022	For Construction	 Hand Ball Valve	
02	TT	07/01/2022	For Construction		
01	TT	25/10/2021	For Construction		
00	TT	20/09/2021	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-0066	
	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		PTFE / Graphite	
	22	Bonnet Type		Screwed	
	23	Trim	Form	Floating ball	
	24		Seat Mat.	PTFE / Graphite	
	25		Ball Mat.	SS 316	SS316
	26	Actuation	Material	Lever handle	CS
	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		No	
	48	Hydrotest certificate		No	
	49				
	50				
	51				
PURCHASE	52	Manufacturer		According to aproved vendor list	
	53	Model		Supplier to advise	
	54				
	55				
	56				
	57				

NOTES :

03	TT	07/02/2022	For Construction		
02	TT	07/01/2022	For Construction		
01	TT	25/10/2021	For Construction		
00	TT	20/09/2021	For Approval		
Rev	By	Date	Description	Sheet 7 of 16 Based on P&ID rev. 02	



Doc. No : 17811-45B
 : 02
 : BU-20-VD-303-PR-WG-0066
 : 8 of 16

With reference to P&ID, PSV set pressure is 26 barg. How is it possible design pressure be less than PSV set pressure.

Tag.no.: Qty 9 pcs and Ball valve
 /D-303-PR-WG-0066
 It shall be deleted.

GENERAL	1	Tag Number			
	2	Service			
	3	P&ID No.			
	4	Location		Compressor block valve & pulsation drain	
	5	Line/equip. No.		N/A	
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Air/ water	Dry Gas
	9	Pressure	Norm. Max.	21 Bar(a)	26 Bar(a)
	10	Temperature	Norm. Max.	40°C	55°C
	11	Design	Press. Temp.	26 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		PTFE / Graphite	
	22	Bonnet Type		Screwed	
	23	Trim	Form	Floating ball	
	24		Seat Mat.	PTFE / Graphite	
	25		Ball Mat.	SS 316	SS316
	26	Actuation	Material	Lever handle	CS
	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		No	
	48	Hydrotest certificate		No	
	49				
	50				
	51				
PURCHASE	52	Manufacturer		According to aproved vendor list	
	53	Model		Supplier to advise	
	54				
	55				
	56				
	57				



NOTES :

03	TT	07/02/2022	For Construction		
02	TT	07/01/2022	For Construction		
01	TT	25/10/2021	For Construction		
00	TT	20/09/2021	For Approval		
Rev	By	Date	Description	Sheet	8 of 16
				Based on P&ID rev. 02	

GENERAL	1	Tag Number		XV-71102		
	2	Service		Ball valve		
	3	P&ID No.		BU-20-VD-303-PR-WG-0066		
	4	Location		Compressor Cooling water Inlet		
	5	Line/equip. No.		1 1/2"-CWS-7003-500C(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)	100°C	
	12	Ambient Temp.	Min. Max.	5 °C	52 °C	
	13	Oper. Flow		3,5 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	Trim	Form		Floating ball	
	23		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-71102		
	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 approved vendor list		
	53	Valve Model		Supplier to advise		
	54	Actuator Manufacturer		According to approved vendor list		
	55	Actuator Model		Supplier to advise		
	56					
	57					

Based the current document "Oper. Flow" is reported 1.4 m3/h

NOTES :



03	TT	07/02/2022	For Construction	 
02	TT	07/01/2022	For Construction	
01	TT	25/10/2021	For Construction	
00	TT	20/09/2021	For Approval	
Rev	By	Date	Description	

Sheet 9 of 16
Based on P&ID rev. 02

GENERAL	1	Tag Number		No Tag.no: Qty 1 pcs	
	2	Service		Globe valve	
	3	P&ID No.		BU-20-VD-303-PR-WG-0066	
	4	Location		Compressor Cooling water	
	5	Line/equip. No.		1 1/2"-CWS-7005-501C(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)	100°C
	12	Ambient Temp.	Min. Max.	5 °C	52 °C
	13	Oper. Flow		3,5 m3/hr	
BODY	14				
	15	Body Type		Ball valve, 2-piece, split-body	
	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 /	
	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
	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				

Based the current document "Oper. Flow" is reported 1.4 m3/h

NOTES :



03	TT	07/02/2022	For Construction	 Hand Globe Valve	
02	TT	07/01/2022	For Construction		
01	TT	25/10/2021	For Construction		
00	TT	20/09/2021	For Approval		
Rev	By	Date	Description	Sheet	11 of 16
				Based on P&ID rev. 02	

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

Doc. No : 17811-45B
 Rev. No : 02
 P&ID. No : BU-20-VD-303-PR-WG-0066
 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-0066	
	4	Location		Compressor Inlet & actuator cooling inlet	
	5	Line/equip. No.		N/A	
	6				
	7				
PROCESS CONDITIONS	8	Fluid	State	Air	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
BODY	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				
ACTUATOR	25	Type		Mechanical, spring type	
	26	Fail Position		FC	
	27				
	28				
	29				
CONNECTIONS	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#
	34				
SIZING CONDITIONS	35	Flow Rate		10 Nm³/hr	
	36	Pressure drop		To be advised by the manufacturer	
	37	Pressure setpoint		6,0 bar(g)	
	38				
	39				
OPTIONS	41	Pressure Gauge		Yes	
	42	Material		Aluminium	
	43	Range		0...11 bar(g)	
	44	Filter Regulator and drip well		Yes(Mesh 40)	
CERTIFICATES	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				
	52				
PURCHASE	53				
	54	Manufacturer		According to aproved vendor list	
	55	Model		Supplier to advise	
	56				
57					

NOTES :

03	TT	07/02/2022	For Construction		
02	TT	07/01/2022	For Construction		
01	TT	25/10/2021	For Construction		
00	TT	20/09/2021	For Approval		
Rev	By	Date	Description	Sheet 12 of 16 Based on P&ID rev. 02	

Repeated Comment

- Following items shall be specified for control valve
- Required CV
- Travel %
- Trim characteristic (EQ%) (this items shall be specified by Airpack)

Doc. No : 17811-45B
 Rev. No. : 02
 P&ID. No : BU-20-VD-303-PR-WG-0066
 Page : 13 of 16

GENERAL	2 Service			PV-71101		Recycle valve		It shall be deleted.
				BU-20-VD-303-PR-WG-0066		Compressor bypass		
PROCESS CONDITIONS	9	Pressure	Norm.	Max.	Air	Dry Gas	26 Bar(a)	70 oc
	10	Temperature	Norm.	Max.	21 Bar(a)	55°C		
	11	Design	Press.	Temp.	40°C	60°C		
	12	Ambient Temp.	Min.	Max.	26 Bar(a)	52°C		
					5 °C			
BODY	13	Type Of Body			Globe valve			
	14	Body Size			1" ANSI RF			
	15	Conn. Type	End Conn. Rat.		RF	300#		
	16	Body Material			Carbon steel ASTM A216 WCB/WCC			
	17	Packing Material			PTFE / Graphite			
	18	Bonnet Type			Integral			
	19		Form		Disc			
	20	Trim	Seat Mat.		PTFE / Graphite			
	21		Disc Mat.	Shaft Mat.	SS 316	SS316		
	22	Required Seat Tightness			IV			
	23	Max. Allow. Sound Level (dBA)			85 dBA			
24								
25								
26								
ACTUATOR	27	Positioner controller			Electro-pneumatic (I/P)			
	28	Interface			4 -20 mA , HART			
	29	Fail Position			FO			
	30	Pneumatic Conn.			1/4" NPT-F			
	31	Instrument Supply Fluid			Instrument Air			
	32	Instrument Supply Fluid pressure			6.0 bar(g)			
	33	Position Monitor			No.			
	34	Area Classification			Zone 2, Eex'ia			
	35	Electric Connection			ISO M20 x 1,5			
	36	Cable Gland			Yes, Eex 'de' certified (Airpack scope)			
37	Ingress Protection			IP 65				
ACCESSORIES	38	Filter Regulator			Yes			
	39	Gauges			Yes			
	40							
SERVICE	41	Flow Rate			50 Kg/hr / 43 Nm3/hr			
	42	Pressure	Inlet	outlet	21 bar(a)	8 bar(a)		
	43	Pressure drop			VTA			
	44	Cv Selected			VTA			
	45							
	46							
	47							
CERTIFICATES	49	3.1 Material certificate			Yes			
	50	ATEX			No			
	51	SIL certificate	Level		No			
	52							
PURCHASE	53	Valve Manufacturer			According to aproved vendor list			
	54	Valve Model			Supplier to advise			
	55	Actuator Manufacturer			According to aproved vendor list			
	56	Actuator Model			Supplier to advise			
	57							

With reference to P&ID, PSV set pressure is 26 barg. How is it possible design pressure be less than PSV set pressure.

				INSTRUMENT AND VALVE DATASHEET			
03	TT	07/02/2022	For Construction			Sheet 13 of 16 Based on P&ID rev. 02	
02	TT	07/01/2022	For Construction				
01	TT	25/10/2021	For Construction				
00	TT	20/09/2021	For Approval				
Rev	By	Date	Description				



GENERAL	1	Tag Number		No Tag.no.: Qty 2 pcs		
	2	Service		Check Valve		
	3	P&ID No.		BU-20-VD-303-PR-WG-0066		
PROCESS CONDITIONS	10	Pressure	Norm.	Max.	Air 21 Bar(a)	Dry Gas 26 Bar(a)
	11	Temperature	Norm.	Max.	40°C	55°C
	12	Design	Press.	Temp.	26 Bar(a)	85°C
	13	Ambient Temp.	Min.	Max.	5 °C	52 °C
	14	Oper. Flow		50 Kg/hr / 43 Nm3/hr		
	15			55 kg/h		
	16					
	17					
	18					
	19					
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			trim material shall be specified		
	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					







With reference to P&ID, PSV set pressure is 26 barg. How is it possible design pressure be less than PSV set pressure.

It shall be deleted.

WCB

trim material shall be specified

03	TT	07/02/2022	For Construction		
02	TT	07/01/2022	For Construction		
01	TT	25/10/2021	For Construction		
00	TT	20/09/2021	For Approval		
Rev	By	Date	Description	Sheet 15 of 16 Based on P&ID rev. 02	

GENERAL	1	Tag Number		No Tag.no.: Qty 1 pcs																																					
	2	Service		Check Valve																																					
	3	P&ID No.		BU-20-VD-303-PR-WG-0066																																					
	4	Location		Compressor Cooling water inlet																																					
	5	Line/equip. No.		1 1/2"-CWS-7003-500C(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)	100°C																																				
	13	Ambient Temp.	Min. Max.	5 °C	52 °C																																				
	14	Oper. Flow		1,4 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 wcb																																					
	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																																									
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		According to aproved vendor list																																					
	53	Model		Supplier to advise																																					
	54																																								
	55																																								
	56																																								
trim material shall be specified																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 20%; text-align: center;">  Check Valve </td> <td style="width: 40%; text-align: center;">  </td> </tr> <tr> <td>03</td> <td>TT</td> <td>07/02/2022</td> <td>For Construction</td> <td></td> <td></td> </tr> <tr> <td>02</td> <td>TT</td> <td>07/01/2022</td> <td>For Construction</td> <td></td> <td></td> </tr> <tr> <td>01</td> <td>TT</td> <td>25/10/2021</td> <td>For Construction</td> <td></td> <td></td> </tr> <tr> <td>00</td> <td>TT</td> <td>20/09/2021</td> <td>For Approval</td> <td></td> <td></td> </tr> <tr> <td>Rev</td> <td>By</td> <td>Date</td> <td>Description</td> <td></td> <td></td> </tr> </table>										 Check Valve		03	TT	07/02/2022	For Construction			02	TT	07/01/2022	For Construction			01	TT	25/10/2021	For Construction			00	TT	20/09/2021	For Approval			Rev	By	Date	Description		
				 Check Valve																																					
03	TT	07/02/2022	For Construction																																						
02	TT	07/01/2022	For Construction																																						
01	TT	25/10/2021	For Construction																																						
00	TT	20/09/2021	For Approval																																						
Rev	By	Date	Description																																						
				Sheet 16 of 16 Based on P&ID rev. 02																																					