DOC NUMBER: **569-DB7B-AIC-741-001**	CLIENT NUMBER: **PRD-AIC-DSH-051**
CLIENT: **TAKEDA/BAXALTA**	
PROJECT: **BURITI EPCVM PROJECT**	

DRUG PRODUCT - PCS - DATA SHEET
PRESSURE RELIEF VALVE - SANITARY

REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV
2	28JAN2022	ISSUED FOR CONSTRUCTION CONSIDERING COMMENTS	MAB	MAF	RSP
1	17NOV2021	ISSUED FOR CONSTRUCTION UPDATED AS PER NOTES	MAB	MAF	RSP
0	13SEP2021	ISSUED FOR CONSTRUCTION	MAB	MAF	RSP
A	31MAR2021	60% DD ISSUE	JHA	MAF	RSP

DOCUMENT REVIEW CONTROL

Revision	A	0	1	2	3	4	Revision	A	B	0	1	2	3	Revision	A	B	0	1	2	3
Page							Page							Page						
1	X	X	X	X			26							51						
2	X	X	X	X			27							52						
3	X	X	X	X			28							53						
4	X	X	X	X			29							54						
5	X	X	X	X			30							55						
6	X	X	X	X			31							56						
7	X	X	X	X			32							57						
8	X	X	X	X			33							58						
9	X	X	X	X			34							59						
10	X	X		X			35							60						
11	X	X		X			36							61						
12	X	X					37							62						
13	X	X					38							63						
14	X	X					39							64						
15	X	X					40							65						
16	X	X					41							66						
17	X	X					42							67						
18	X	X					43							68						
19	X	X					44							69						
20	X						45							70						
21	X						46							71						
22	X						47							72						
23	X						48							73						
24	X						49							74						
25							50							75						

REFERENCE DOCUMENTS

7B-Z-0-2-01	P&I DIAGRAM - DRUG SUBSTANCE - 250L MEDIA PREP TANK, TQ-5101 & MEDIA DIST.
7B-Z-0-2-02	P&I DIAGRAM - DRUG SUBSTANCE - 4500L MEDIA PREP TANK TQ-5102
7B-Z-0-2-03	P&I DIAGRAM - DRUG SUBSTANCE -3800L MEDIA HOLD TANK, Nº1, TQ-5201
7B-Z-0-2-04	P&I DIAGRAM - DRUG SUBSTANCE -3800L MEDIA HOLD TANK, Nº2, TQ-5202
7B-Z-0-2-08	P&I DIAGRAM - DRUG SUBSTANCE - 40L BIOREACTOR, BRE-5401 VESSEL
7B-Z-0-2-10	P&I DIAGRAM - DRUG SUBSTANCE - 320L BIOREACTOR, BRE-5501 VESSEL
7B-Z-0-2-21	P&I DIAGRAM - DRUG SUBSTANCE -3400L COLLECTION TANK, Nº1, TQ-5701
7B-Z-0-2-22	P&I DIAGRAM - DRUG SUBSTANCE -3400L COLLECTION TANK, Nº2, TQ-5702
7B-Z-0-2-24	P&I DIAGRAM - DRUG SUBSTANCE -4200L HARVEST TANK, Nº1, TQ-5901
7B-Z-0-2-25	P&I DIAGRAM - DRUG SUBSTANCE -4200L HARVEST TANK, Nº2, TQ-5902
7B-Z-0-2-33	P&I DIAGRAM - DRUG SUBSTANCE -500L BUFFER PREP TANK, Nº1, TQ-3701
7B-Z-0-2-34	P&I DIAGRAM - DRUG SUBSTANCE -3000L BUFFER PREP TANK, Nº2, TQ-3702
7B-Z-0-2-35	P&I DIAGRAM - DRUG SUBSTANCE -3000L BUFFER PREP TANK, Nº3, TQ-3703
7B-Z-0-2-71	P&I DIAGRAM - DRUG SUBSTANCE -CLEAN COMPRESSED AIR DISTRIBUTION
PRD-AIC-LIS-010	DRUG SUBSTANCE - PCS - INSTRUMENT INDEX
PRD-PIP-TSP-501	PIPE CLASS AND SPECIFICATION - TECHNICAL SPECIFICATION
PRD-AIC-LIS-046	INTEGRATED PROJECT SERVICES - INSTRUMENT SUGGESTED SUPPLIER LIST

GENERAL NOTES

1- The identification plates must be supplied in AISI 304 stainless steel, permanently attached to the valve body, with engraving of the respective "TAGs", model, body material, manufacturer, diameter, type, pressure class, Cv and serial number. The serial number of the instrument, when possible, can be recorded on the body itself.

2- In the certified drawings of the relief and safety valves, the spring pressure range shall be included. The valve shall allow adjustments of: ± 10 % at the specified relief pressure, for pressures ≤ 18 kgf/cm2, and ± 5 % at the specified relief pressure, for pressures > 18 kgf/cm2.

3- The spring adjustment screw must be protected by a (threaded) hood.

4- The sizing of relief and safety valves will be in accordance with ASME section I and section VIII for industrial valve and ASME BPE for sanitary valves in its latest edition.

5- The manufacturer must send the valve calculation memory.

6- The parts in contact with the process fluid must have mechanical sanding internally standard ASME BPE SF4 with Max Ra. 0.38 µm according to table SF-2.4-1 - ASME BPE-2019 and external. Ra max. 0.8 µm.

REVISION 0 - NOTES
1- REVISED AS PER INSTRUMENT LIST NUMBER PRD-AIC-LIS-010_B_PCS_INSTRUMENT_INDEX AND BACKLOG NUMBER 99000-184.0 2021.03.30 - A&IC DOCUMENTS - COMMENTS_REV.01
REVISION 1 - NOTES
1 - ACCORDING NEW ARCHITECTURE UPDATED
REVISION 2 - NOTES
1 - ADDED INSTRUMENTS: PSV-700041 / PSV-240001 / PSV-230001 / PSV-430001 2- INSTRUMENT CANCELED: PSV-520226 / PSV-570209

NUMBER:	569-DB7B-AIC-741-001	CLIENT NR:	PRD-AIC-DSH-051

TITLE

PRESSURE RELIEF VALVE - SANITARY

SHEET: 4 de 11

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER		PSV-240001		
	2	SERVICE		GASEOUS NITROGEN		
	3	P&ID		7A-Z-0-2-70		
	4	PIPE LINE	EQUIPMENT NUMBER	1/2"-GO2-240002-SS10-NI	-	
	5	SAFETY / RELIEF		SAFETY		
	6	NOZZLE (TOTAL / REDUCED)		TOTAL		
	7	TYPE		ANGLE		
	8	CASTLE (OPEN / CLOSED)		OPEN		
	9	CERTIFICATES		(SEE GENERAL NOTES 4)		
	10					
CONNECTIONS	11	ENTRY DIAMETER	CLASS	1/2"	150LBS	
	12	OUTPUT DIAMETER	CLASS	1"	150LBS	
	13	FLANGE FACE FINISH		-		
	14					
	15					
MATERIALS	16	BODY	CASTLE	SS316L	SS316L	
	17	SEAT	DISC	SS316L	SS316L	
	18	GUIDES	RING	SS316L	SS316L	
	19	SPRING	BELLOWS	BY MANUFACTURER (NOTE GER. 2)		
	20	ROD		BY MANUFACTURER		
	21					
ACCESSORIES	22	HOOD (THREADED / SCREWED)		THREADED		
	23	LEVER: SIMPLE / EASED		SIMPLE		
	24	LOCK FOR HYDROSTATIC TEST		YES		
	25	IDENTIFICATION PLATE		YES (SEE GENERAL NOTES 1)		
	26					
BASE	27	SIZING CODE		(SEE GENERAL NOTES 4)		
	28	SIZING CRITERION		LOCK		
	29					
OPERATING CONDITIONS	30	FLUID	PHYSICAL STATE	NITROGEN	GAS	
	31	FLOW CAPACITY		3 Nm³/h		
	32	OPERATING PRESSURE	RELIEF PRESSURE	7,0 bar-g	bar-g	
	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE	°C	°C	
	34	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C	
	35	CONSTANT COUNTERPRESSURE		bar-g		
	36	VARIABLE COUNTERPRESSURE		bar-g		
	37	COUNTERPRESSURE DEVELOPED		bar-g		
	38	OVERPRESSURE		10 %		
	39	DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS	kg/m³	Cp	
	40	MOLECULAR WEIGHT				
	41	Cp/Cv	FACTOR Z			
	42	ATMOSPHERIC PRESSURE		1 atm		
	43					
VALVE	44	PRESSÃO DE AJUSTE DA MOLA		BY MANUFACTURER (SEE GENERAL NOTES 2)		
	45	FAIXA DA MOLA		BY MANUFACTURER (SEE GENERAL NOTES 2)		
	46	ÁREA CALCULADA	ÁREA SELECIONADA	BY MANUFACTURER in²	BY MANUFACTURER	
	47	DENOMINAÇÃO DO ORIFÍCIO		BY MANUFACTURER		
	48					
	49	MANUFACTURER		PENTAIR SÜDMO (TETRALON) OU SIMILAR		
	50	MODEL		-		

NOTES:

1-

NUMBER:	569-DB7B-AIC-741-001	CLIENT NR:	PRD-AIC-DSH-051

TITLE

PRESSURE RELIEF VALVE - SANITARY

SHEET: 5 de 11

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER		PSV-700031		
	2	SERVICE		AIR SUPPLY COMP. (INSTRUMENT		
	3	P&ID		7A-Z-0-2-52		
	4	PIPE LINE	EQUIPMENT NUMBER	3/4"-CA-710011-SS5-NI	-	
	5	SAFETY / RELIEF		SAFETY		
	6	NOZZLE (TOTAL / REDUCED)		TOTAL		
	7	TYPE		ANGLE		
	8	CASTLE (OPEN / CLOSED)		OPEN		
	9	CERTIFICATES		(SEE GENERAL NOTES 4)		
	10					
CONNECTIONS	11	ENTRY DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)	
	12	OUTPUT DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)	
	13	FLANGE FACE FINISH		-		
	14					
	15					
MATERIALS	16	BODY	CASTLE	SS316L	SS316L	
	17	SEAT	DISC	SS316L	SS316L	
	18	GUIDES	RING	SS316L	SS316L	
	19	SPRING	BELLOWS	BY MANUFACTURER (NOTE GER. 2)		
	20	ROD		BY MANUFACTURER		
	21					
ACCESSORIES	22	HOOD (THREADED / SCREWED)		THREADED		
	23	LEVER: SIMPLE / EASED		SIMPLE		
	24	LOCK FOR HYDROSTATIC TEST		YES		
	25	IDENTIFICATION PLATE		YES (SEE GENERAL NOTES 1)		
	26					
BASE	27	SIZING CODE		(SEE GENERAL NOTES 4)		
	28	SIZING CRITERION		LOCK		
	29					
OPERATING CONDITIONS	30	FLUID	PHYSICAL STATE	CLEAN AIR	AIR	
	31	FLOW CAPACITY		16,8 m³/h		
	32	OPERATING PRESSURE	RELIEF PRESSURE	3,0 bar-g	3,5 bar-g	
	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE	°C	°C	
	34	DESIGN PRESSURE	DESIGN TEMPERATURE	bar-g	°C	
	35	CONSTANT COUNTERPRESSURE		bar-g		
	36	VARIABLE COUNTERPRESSURE		bar-g		
	37	COUNTERPRESSURE DEVELOPED		bar-g		
	38	OVERPRESSURE		%		
	39	DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS	kg/m³	Cp	
	40	MOLECULAR WEIGHT				
	41	Cp/Cv	FACTOR Z			
	42	ATMOSPHERIC PRESSURE		1 atm		
	43					
VALVE	44	PRESSÃO DE AJUSTE DA MOLA		BY MANUFACTURER (SEE GENERAL NOTES 2)		
	45	FAIXA DA MOLA		BY MANUFACTURER (SEE GENERAL NOTES 2)		
	46	ÁREA CALCULADA	ÁREA SELECIONADA	BY MANUFACTURER in²	BY MANUFACTURER	
	47	DENOMINAÇÃO DO ORIFÍCIO		BY MANUFACTURER		
	48					
	49	MANUFACTURER		PENTAIR SÜDMO (TETRALON) OU SIMILAR		
	50	MODEL		-		

NOTES:

1-

NUMBER:	569-DB7B-AIC-741-001	CLIENT NR:	PRD-AIC-DSH-051

TITLE

PRESSURE RELIEF VALVE - SANITARY

SHEET: 6 de 11

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PSV-700034	
	2	SERVICE			CLEAN COMPRESSED AIR FOR HEADER	
	3	P&ID			7A-Z-0-2-71	
	4	PIPE LINE	EQUIPMENT NUMBER		7B-2"-CAP-700019-SS10-NI	-
	5	SAFETY / RELIEF			SAFETY	
	6	NOZZLE (TOTAL / REDUCED)			TOTAL	
	7	TYPE			ANGLE	
	8	CASTLE (OPEN / CLOSED)			OPEN	
	9	CERTIFICATES			(SEE GENERAL NOTES 4)	
	10					
CONNECTIONS	11	ENTRY DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	12	OUTPUT DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	13	FLANGE FACE FINISH			-	
	14					
	15					
MATERIALS	16	BODY	CASTLE		SS316L	SS316L
	17	SEAT	DISC		SS316L	SS316L
	18	GUIDES	RING		SS316L	SS316L
	19	SPRING	BELLOWS		BY MANUFACTURER (NOTE GER. 2)	
	20	ROD			BY MANUFACTURER	
	21					
ACCESSORIES	22	HOOD (THREADED / SCREWED)			THREADED	
	23	LEVER: SIMPLE / EASED			SIMPLE	
	24	LOCK FOR HYDROSTATIC TEST			YES	
	25	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)	
	26					
BASE	27	SIZING CODE			(SEE GENERAL NOTES 4)	
	28	SIZING CRITERION			LOCK	
	29					
OPERATING CONDITIONS	30	FLUID	PHYSICAL STATE		CLEAN AIR	AIR
	31	FLOW CAPACITY			m^3/h	
	32	OPERATING PRESSURE	RELIEF PRESSURE		bar-g	3,5 bar-g
	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE		°C	°C
	34	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C
	35	CONSTANT COUNTERPRESSURE			bar-g	
	36	VARIABLE COUNTERPRESSURE			bar-g	
	37	COUNTERPRESSURE DEVELOPED			bar-g	
	38	OVERPRESSURE			%	
	39	DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS		kg/m^3	Cp
	40	MOLECULAR WEIGHT				
	41	Cp/Cv	FACTOR Z			
	42	ATMOSPHERIC PRESSURE			1 atm	
	43					
VALVE	44	PRESSÃO DE AJUSTE DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	45	FAIXA DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	46	ÁREA CALCULADA	ÁREA SELECIONADA		BY MANUFACTURER in^2	BY MANUFACTURER
	47	DENOMINAÇÃO DO ORIFÍCIO			BY MANUFACTURER	
	48					
	49	MANUFACTURER			PENTAIR SÜDMO (TETRALON) OU SIMILAR	
	50	MODEL			-	

NOTES:

1-

NUMBER:	569-DB7B-AIC-741-001	CLIENT NR:	PRD-AIC-DSH-051

TITLE

PRESSURE RELIEF VALVE - SANITARY

SHEET: 7 de 11

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PSV-700035	
	2	SERVICE			CLEAN COMPRESSED AIR FOR HEADER	
	3	P&ID			7A-Z-0-2-71	
	4	PIPE LINE	EQUIPMENT NUMBER		7B-2"-CAP-700015-SS10-NI	-
	5	SAFETY / RELIEF			SAFETY	
	6	NOZZLE (TOTAL / REDUCED)			TOTAL	
	7	TYPE			ANGLE	
	8	CASTLE (OPEN / CLOSED)			OPEN	
	9	CERTIFICATES			(SEE GENERAL NOTES 4)	
	10					
CONNECTIONS	11	ENTRY DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	12	OUTPUT DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	13	FLANGE FACE FINISH			-	
	14					
	15					
MATERIALS	16	BODY	CASTLE		SS316L	SS316L
	17	SEAT	DISC		SS316L	SS316L
	18	GUIDES	RING		SS316L	SS316L
	19	SPRING	BELLOWS		BY MANUFACTURER (NOTE GER. 2)	
	20	ROD			BY MANUFACTURER	
	21					
ACCESSORIES	22	HOOD (THREADED / SCREWED)			THREADED	
	23	LEVER: SIMPLE / EASED			SIMPLE	
	24	LOCK FOR HYDROSTATIC TEST			YES	
	25	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)	
	26					
BASE	27	SIZING CODE			(SEE GENERAL NOTES 4)	
	28	SIZING CRITERION			LOCK	
	29					
OPERATING CONDITIONS	30	FLUID	PHYSICAL STATE		CLEAN AIR	AIR
	31	FLOW CAPACITY			m^3/h	
	32	OPERATING PRESSURE	RELIEF PRESSURE		bar-g	3,5 bar-g
	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE		°C	°C
	34	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C
	35	CONSTANT COUNTERPRESSURE			bar-g	
	36	VARIABLE COUNTERPRESSURE			bar-g	
	37	COUNTERPRESSURE DEVELOPED			bar-g	
	38	OVERPRESSURE			%	
	39	DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS		kg/m^3	Cp
	40	MOLECULAR WEIGHT				
	41	Cp/Cv	FACTOR Z			
	42	ATMOSPHERIC PRESSURE			1 atm	
	43					
VALVE	44	PRESSÃO DE AJUSTE DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	45	FAIXA DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	46	ÁREA CALCULADA	ÁREA SELECIONADA		BY MANUFACTURER in^2	BY MANUFACTURER
	47	DENOMINAÇÃO DO ORIFÍCIO			BY MANUFACTURER	
	48					
	49	MANUFACTURER			PENTAIR SÜDMO (TETRALON) OU SIMILAR	
	50	MODEL			-	

NOTES:

1-

NUMBER:	569-DB7B-AIC-741-001	CLIENT NR:	PRD-AIC-DSH-051

TITLE

PRESSURE RELIEF VALVE - SANITARY

SHEET: 8 de 11

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PSV-700036	
	2	SERVICE			CLEAN AIR FOR HEADER LVR-4601 / AT-9001 / CIP/SIP STATION	
	3	P&ID			7A-Z-0-2-71	
	4	PIPE LINE	EQUIPMENT NUMBER		7B-1"-CAP-700005-SS10-NI	-
	5	SAFETY / RELIEF			SAFETY	
	6	NOZZLE (TOTAL / REDUCED)			TOTAL	
	7	TYPE			ANGLE	
	8	CASTLE (OPEN / CLOSED)			OPEN	
	9	CERTIFICATES			(SEE GENERAL NOTES 4)	
	10					
CONNECTIONS	11	ENTRY DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	12	OUTPUT DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	13	FLANGE FACE FINISH			-	
	14					
	15					
MATERIALS	16	BODY	CASTLE		SS316L	SS316L
	17	SEAT	DISC		SS316L	SS316L
	18	GUIDES	RING		SS316L	SS316L
	19	SPRING	BELLOWS		BY MANUFACTURER (NOTE GER. 2)	
	20	ROD			BY MANUFACTURER	
	21					
ACCESSORIES	22	HOOD (THREADED / SCREWED)			THREADED	
	23	LEVER: SIMPLE / EASED			SIMPLE	
	24	LOCK FOR HYDROSTATIC TEST			YES	
	25	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)	
	26					
BASE	27	SIZING CODE			(SEE GENERAL NOTES 4)	
	28	SIZING CRITERION			LOCK	
	29					
OPERATING CONDITIONS	30	FLUID	PHYSICAL STATE		CLEAN AIR	AIR
	31	FLOW CAPACITY			m^3/h	
	32	OPERATING PRESSURE	RELIEF PRESSURE		bar-g	3,5 bar-g
	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE		°C	°C
	34	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C
	35	CONSTANT COUNTERPRESSURE			bar-g	
	36	VARIABLE COUNTERPRESSURE			bar-g	
	37	COUNTERPRESSURE DEVELOPED			bar-g	
	38	OVERPRESSURE			%	
	39	DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS		kg/m^3	Cp
	40	MOLECULAR WEIGHT				
	41	Cp/Cv	FACTOR Z			
	42	ATMOSPHERIC PRESSURE			1 atm	
	43					
VALVE	44	PRESSÃO DE AJUSTE DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	45	FAIXA DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	46	ÁREA CALCULADA	ÁREA SELECIONADA		BY MANUFACTURER in^2	BY MANUFACTURER
	47	DENOMINAÇÃO DO ORIFÍCIO			BY MANUFACTURER	
	48					
	49	MANUFACTURER			PENTAIR SÜDMO (TETRALON) OU SIMILAR	
	50	MODEL			-	

NOTES:

1-

NUMBER:	569-DB7B-AIC-741-001	CLIENT NR:	PRD-AIC-DSH-051

TITLE

PRESSURE RELIEF VALVE - SANITARY

SHEET: 9 de 11

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PSV-700041	
	2	SERVICE			GAS SUPPLY CLEAN COMPRESSED AIR	
	3	P&ID			7A-Z-0-2-07	
	4	PIPE LINE	EQUIPMENT NUMBER		1/2"-CAP-700037-SS10-NI	-
	5	SAFETY / RELIEF			SAFETY	
	6	NOZZLE (TOTAL / REDUCED)			TOTAL	
	7	TYPE			ANGLE	
	8	CASTLE (OPEN / CLOSED)			OPEN	
	9	CERTIFICATES			(SEE GENERAL NOTES 4)	
	10					
CONNECTIONS	11	ENTRY DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	12	OUTPUT DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	13	FLANGE FACE FINISH			-	
	14					
	15					
MATERIALS	16	BODY	CASTLE		SS316L	SS316L
	17	SEAT	DISC		SS316L	SS316L
	18	GUIDES	RING		SS316L	SS316L
	19	SPRING	BELLOWS		BY MANUFACTURER (NOTE GER. 2)	
	20	ROD			BY MANUFACTURER	
	21					
ACCESSORIES	22	HOOD (THREADED / SCREWED)			THREADED	
	23	LEVER: SIMPLE / EASED			SIMPLE	
	24	LOCK FOR HYDROSTATIC TEST			YES	
	25	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)	
	26					
BASE	27	SIZING CODE			(SEE GENERAL NOTES 4)	
	28	SIZING CRITERION			LOCK	
	29					
OPERATING CONDITIONS	30	FLUID	PHYSICAL STATE		CLEAN AIR	AIR
	31	FLOW CAPACITY			m^3/h	
	32	OPERATING PRESSURE	RELIEF PRESSURE		bar-g	3,5 bar-g
	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE		°C	°C
	34	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C
	35	CONSTANT COUNTERPRESSURE			bar-g	
	36	VARIABLE COUNTERPRESSURE			bar-g	
	37	COUNTERPRESSURE DEVELOPED			bar-g	
	38	OVERPRESSURE			%	
	39	DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS		kg/m^3	Cp
	40	MOLECULAR WEIGHT				
	41	Cp/Cv	FACTOR Z			
	42	ATMOSPHERIC PRESSURE			1 atm	
	43					
VALVE	44	PRESSÃO DE AJUSTE DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	45	FAIXA DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	46	ÁREA CALCULADA	ÁREA SELECIONADA		BY MANUFACTURER in^2	BY MANUFACTURER
	47	DENOMINAÇÃO DO ORIFÍCIO			BY MANUFACTURER	
	48					
	49	MANUFACTURER			PENTAIR SÜDMO (TETRALON) OU SIMILAR	
	50	MODEL			-	

NOTES:

1-

NUMBER:	569-DB7B-AIC-741-001	CLIENT NR:	PRD-AIC-DSH-051

TITLE

PRESSURE RELIEF VALVE - SANITARY

SHEET: 10 de 11

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PSV-230001	
	2	SERVICE			BIOREACTOR, BRE-5401 O2 GAS TO 40L	
	3	P&ID			7A-Z-0-2-70	
	4	PIPE LINE	EQUIPMENT NUMBER		3/4"-GOP-240001-SS10-NI	1"-VEP-240001-SS5-NI
	5	SAFETY / RELIEF			SAFETY	
	6	NOZZLE (TOTAL / REDUCED)			TOTAL	
	7	TYPE			ANGLE	
	8	CASTLE (OPEN / CLOSED)			OPEN	
	9	CERTIFICATES			(SEE GENERAL NOTES 4)	
	10					
CONNECTIONS	11	ENTRY DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	12	OUTPUT DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	13	FLANGE FACE FINISH			-	
	14					
	15					
MATERIALS	16	BODY	CASTLE		SS316L	SS316L
	17	SEAT	DISC		SS316L	SS316L
	18	GUIDES	RING		SS316L	SS316L
	19	SPRING	BELLOWS		BY MANUFACTURER (NOTE GER. 2)	
	20	ROD			BY MANUFACTURER	
	21					
ACCESSORIES	22	HOOD (THREADED / SCREWED)			THREADED	
	23	LEVER: SIMPLE / EASED			SIMPLE	
	24	LOCK FOR HYDROSTATIC TEST			YES	
	25	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)	
	26					
BASE	27	SIZING CODE			(SEE GENERAL NOTES 4)	
	28	SIZING CRITERION			LOCK	
	29					
OPERATING CONDITIONS	30	FLUID	PHYSICAL STATE		CLEAN AIR	AIR
	31	FLOW CAPACITY			m^3/h	
	32	OPERATING PRESSURE	RELIEF PRESSURE		bar-g	3,5 bar-g
	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE		°C	°C
	34	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C
	35	CONSTANT COUNTERPRESSURE			bar-g	
	36	VARIABLE COUNTERPRESSURE			bar-g	
	37	COUNTERPRESSURE DEVELOPED			bar-g	
	38	OVERPRESSURE			%	
	39	DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS		kg/m^3	Cp
	40	MOLECULAR WEIGHT				
	41	Cp/Cv	FACTOR Z			
	42	ATMOSPHERIC PRESSURE			1 atm	
	43					
VALVE	44	PRESSÃO DE AJUSTE DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	45	FAIXA DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	46	ÁREA CALCULADA	ÁREA SELECIONADA		BY MANUFACTURER in^2	BY MANUFACTURER
	47	DENOMINAÇÃO DO ORIFÍCIO			BY MANUFACTURER	
	48					
	49	MANUFACTURER			PENTAIR SÜDMO (TETRALON) OU SIMILAR	
	50	MODEL			-	

NOTES:

1-

NUMBER:	569-DB7B-AIC-741-001	CLIENT NR:	PRD-AIC-DSH-051

TITLE

PRESSURE RELIEF VALVE - SANITARY

SHEET: 11 de 11

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PSV-240001	
	2	SERVICE			BIOREACTOR, BRE-5401 O2 GAS TO 40L	
	3	P&ID			7A-Z-0-2-70	
	4	PIPE LINE	EQUIPMENT NUMBER		3/4"-GOP-240001-SS10-NI	1"-VEP-240001-SS5-NI
	5	SAFETY / RELIEF			SAFETY	
	6	NOZZLE (TOTAL / REDUCED)			TOTAL	
	7	TYPE			ANGLE	
	8	CASTLE (OPEN / CLOSED)			OPEN	
	9	CERTIFICATES			(SEE GENERAL NOTES 4)	
	10					
CONNECTIONS	11	ENTRY DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	12	OUTPUT DIAMETER	CLASS		BY MANUFACTURER (NOTE GER. 4, 5)	TC - ASME BPE (NOTE GER. 6)
	13	FLANGE FACE FINISH			-	
	14					
	15					
MATERIALS	16	BODY	CASTLE		SS316L	SS316L
	17	SEAT	DISC		SS316L	SS316L
	18	GUIDES	RING		SS316L	SS316L
	19	SPRING	BELLOWS		BY MANUFACTURER (NOTE GER. 2)	
	20	ROD			BY MANUFACTURER	
	21					
ACCESSORIES	22	HOOD (THREADED / SCREWED)			THREADED	
	23	LEVER: SIMPLE / EASED			SIMPLE	
	24	LOCK FOR HYDROSTATIC TEST			YES	
	25	IDENTIFICATION PLATE			YES (SEE GENERAL NOTES 1)	
	26					
BASE	27	SIZING CODE			(SEE GENERAL NOTES 4)	
	28	SIZING CRITERION			LOCK	
	29					
OPERATING CONDITIONS	30	FLUID	PHYSICAL STATE		CLEAN AIR	AIR
	31	FLOW CAPACITY			m^3/h	
	32	OPERATING PRESSURE	RELIEF PRESSURE		bar-g	3,5 bar-g
	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE		°C	°C
	34	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C
	35	CONSTANT COUNTERPRESSURE			bar-g	
	36	VARIABLE COUNTERPRESSURE			bar-g	
	37	COUNTERPRESSURE DEVELOPED			bar-g	
	38	OVERPRESSURE			%	
	39	DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS		kg/m^3	Cp
	40	MOLECULAR WEIGHT				
	41	Cp/Cv	FACTOR Z			
	42	ATMOSPHERIC PRESSURE			1 atm	
	43					
VALVE	44	PRESSÃO DE AJUSTE DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	45	FAIXA DA MOLA			BY MANUFACTURER (SEE GENERAL NOTES 2)	
	46	ÁREA CALCULADA	ÁREA SELECIONADA		BY MANUFACTURER in^2	BY MANUFACTURER
	47	DENOMINAÇÃO DO ORIFÍCIO			BY MANUFACTURER	
	48					
	49	MANUFACTURER			PENTAIR SÜDMO (TETRALON) OU SIMILAR	
	50	MODEL			-	

NOTES:

1-