DOC NUMBER: **569-DB7B-AIC-732-001**	CLIENT NUMBER: **PRD-AIC-DSH-048**
CLIENT: **TAKEDA/BAXALTA**	
PROJECT: **BURITI EPCVM PROJECT**	

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

REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV
2	26JAN2022	ISSUED FOR CONSTRUCTION UPDATED AS PER NOTES	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

NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 2 de 13

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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	X			35							60						
11	X	X	X	X			36							61						
12	X	X	X	X			37							62						
13	X	X	X	X			38							63						
14	X	X	X				39							64						
15	X	X	X				40							65						
16	X	X	X				41							66						
17	X	X	X				42							67						
18	X	X					43							68						
19	X	X					44							69						
20	X	X					45							70						
21	X	X					46							71						
22	X	X					47							72						
23	X	X					48							73						
24	X	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-0-2-07	P&I DIAGRAM - DRUG SUBSTANCE - SEED PREP
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-0-2-31	P&I DIAGRAM - DRUG SUBSTANCE - ANION EXCHANGE CHROM - CRM-3601
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-0-2-64	P&I DIAGRAM - DRUG SUBSTANCE - PROCESS GAS (CO2 & O2) STORAGE & DISTRIBUTION
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- The manufacturer must send the valve calculation memory.

3- The maximum permissible noise level is 82 dbA to 1 mt from the valve and must comply with ISA 75.17 and IEC 60534-8-4 standards.

4- If necessary the manufacturer should offer silencer along with the valve.

5- The maximum and minimum flow rates to be controlled should be limited to 90 % and 10%, respectively, of the available stroke of the control valve.

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 ARQUITECTURE UPDATED
REVISION 1 - NOTES
1 - ADDED INSTRUMENTS: PCV-700033 2 - CANCELED INSTRUMENTS: PCV-230021 / PCV-700041 / PCV-370104 / PCV-370204 / PCV-370304

NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 4 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PCV-650110		
	2	SERVICE			CLEAN STEAM SUPPLY TQ-5201 / 5202/ 5203, HEADER CONDENSATE		
	3	P&ID			7B-Z-0-2-64		
	4	PIPE LINE	EQUIPMENT NUMBER		7B-1 1/2"-SFI-650142-SS10-HC	-	
	5	EQUIPMENT MATERIAL / PIPE			ASTM A270 Gr. TP316L		
	6	INTERNAL DIAMETER LINE	LINE THICKNESS		34,8 mm	1,65 mm	
	7	FUNCTION			PRESSURE REGULATING VALVE		
	8	CERTIFICATES			(SEE GENERAL NOTES 6)		
	9						
BODY AND INTERNAL	10	BODY TYPE			DIAPHRAGM / SELF OPERATED		
	11	BODY MATERIAL + COATING			SS1016L		
	12	PLUG MATERIAL + COATING			SS1016L		
	13	SEED MATERIAL + COATING			SS1016L		
	14	CHARACTERISTIC			=%		
	15	ENTRY DIAMETER	OUTPUT DIAMETER		38,1 mm (NOTE 1)	50,8 mm (NOTE 1)	
	16	NORM / CLASS / FACE			TC - ASME BPE-2019 (SEE GENERAL NOTES 6)		
	17	LEAKAGE CLASS			IV		
	18	CASTLE TYPE			STANDARD		
	19	RANGEABILITY			(SEE GENERAL NOTES 5)		
	20						
ACTUATOR	19	TYPE			SPRING / DIAPHRAGM		
	20	PILOT			YES		
	21	AIR SUPPLY AVAILABLE			-		
	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM		
	23	DIAPHRAGM MATERIAL			PTFE		
	24	SPRING ACTUATION BAND			BY MANUFACTURER		
	25	CONTROL POINT			1 bar-g		
	26	FAILURE CONDITION			CLOSED		
	27						
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)		
	31	REGULATOR FILTER			NO REQUIRED		
	32	MANOMETER			YES		
	33						
	34						
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE		CLEAN STEAM CONDENSATE	LIQUID	
	36	MINIMUM FLOW	NORMAL	MAXIMUM			m³/h
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C	
	40	MINIMUM DP	NORMAL	MAXIMUM			bar
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3	NOTE 3	NOTE 3
	42	CV SELECTED	% ABERTURA DA VÁLVULA		NOT2 2	NOTE 2	
	43	MAXIMUM PERMISSIBLE DIN			NOT		
	44	DENSITY @ OPERATING CONDITION			kg/m³		
	45	VISCOSITY @ OPERATING CONDITION			cP		
	46	VISCOSITY @ OPERATING CONDITION			cP		
	47	MOLECULAR MASS	FACTOR k=Cp/Cv				
	48						
	49	MANUFACTURER			STERIFLOW		
	50	MODEL					

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE VALVE.

2- The SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

3- THE MANUFACTURER MUST SEND VALVE CALCULATION MEMORY.

4- PROCESS VALUES SET FOR PRICE TAKING AND MUST BE CONFIRMED IN THE PROJ. Detailing.

NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 5 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PCV-650111		
	2	SERVICE			CLEAN STEAM FOR HEADER CONDENSATE		
	3	P&ID			7B-Z-0-2-64		
	4	PIPE LINE	EQUIPMENT NUMBER		7B-2"-SFI-650129-SS10-HC	-	
	5	EQUIPMENT MATERIAL / PIPE			ASTM A270 Gr. TP316L		
	6	INTERNAL DIAMETER LINE	LINE THICKNESS		47,5 mm	1,65 mm	
	7	FUNCTION			PRESSURE REGULATING VALVE		
	8	CERTIFICATES			(SEE GENERAL NOTES 6)		
	9						
BODY AND INTERNAL	10	BODY TYPE			DIAPHRAGM / SELF OPERATED		
	11	BODY MATERIAL + COATING			SS1016L		
	12	PLUG MATERIAL + COATING			SS1016L		
	13	SEED MATERIAL + COATING			SS1016L		
	14	CHARACTERISTIC			=%		
	15	ENTRY DIAMETER	OUTPUT DIAMETER		50,8 mm (NOTE 1)	38,1 mm (NOTE 1)	
	16	NORM / CLASS / FACE			TC - ASME BPE-2019 (SEE GENERAL NOTES 6)		
	17	LEAKAGE CLASS			IV		
	18	CASTLE TYPE			STANDARD		
	19	RANGEABILITY			(SEE GENERAL NOTES 5)		
	20						
ACTUATOR	19	TYPE			SPRING / DIAPHRAGM		
	20	PILOT			YES		
	21	AIR SUPPLY AVAILABLE			-		
	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM		
	23	DIAPHRAGM MATERIAL			PTFE		
	24	SPRING ACTUATION BAND			BY MANUFACTURER		
	25	CONTROL POINT			1 bar-g		
	26	FAILURE CONDITION			CLOSED		
	27						
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)		
	31	REGULATOR FILTER			NO REQUIRED		
	32	MANOMETER			YES		
	33						
	34						
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE		CLEAN STEAM CONDENSATE	LIQUID	
	36	MINIMUM FLOW	NORMAL	MAXIMUM			m³/h
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C	
	40	MINIMUM DP	NORMAL	MAXIMUM			bar
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3	NOTE 3	NOTE 3
	42	CV SELECTED	% ABERTURA DA VÁLVULA		NOT2 2	NOTE 2	
	43	MAXIMUM PERMISSIBLE DIN			NOT		
	44	DENSITY @ OPERATING CONDITION			kg/m³		
	45	VISCOSITY @ OPERATING CONDITION			cP		
	46	VISCOSITY @ OPERATING CONDITION			cP		
	47	MOLECULAR MASS	FACTOR k=Cp/Cv				
	48						
	49	MANUFACTURER			STERIFLOW		
	50	MODEL					

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE VALVE.

2- The SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

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4- PROCESS VALUES SET FOR PRICE TAKING AND MUST BE CONFIRMED IN THE PROJ. Detailing.

NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 6 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PCV-650112		
	2	SERVICE			CLEAN STEAM SUPPLY FOR HEADER AND CONDENSATE		
	3	P&ID			7B-Z-0-2-64		
	4	PIPE LINE	EQUIPMENT NUMBER		7B-1 1/2"-SFI-650148-SS10-HC	-	
	5	EQUIPMENT MATERIAL / PIPE			ASTM A270 Gr. TP316L		
	6	INTERNAL DIAMETER LINE	LINE THICKNESS		34,8 mm	1,65 mm	
	7	FUNCTION			PRESSURE REGULATING VALVE		
	8	CERTIFICATES			(SEE GENERAL NOTES 6)		
	9						
BODY AND INTERNAL	10	BODY TYPE			DIAPHRAGM / SELF OPERATED		
	11	BODY MATERIAL + COATING			SS1016L		
	12	PLUG MATERIAL + COATING			SS1016L		
	13	SEED MATERIAL + COATING			SS1016L		
	14	CHARACTERISTIC			=%		
	15	ENTRY DIAMETER	OUTPUT DIAMETER		38,1 mm (NOTE 1)	50,8 mm (NOTE 1)	
	16	NORM / CLASS / FACE			TC - ASME BPE-2019 (SEE GENERAL NOTES 6)		
	17	LEAKAGE CLASS			IV		
	18	CASTLE TYPE			STANDARD		
	19	RANGEABILITY			(SEE GENERAL NOTES 5)		
	20						
ACTUATOR	19	TYPE			SPRING / DIAPHRAGM		
	20	PILOT			YES		
	21	AIR SUPPLY AVAILABLE			-		
	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM		
	23	DIAPHRAGM MATERIAL			PTFE		
	24	SPRING ACTUATION BAND			BY MANUFACTURER		
	25	CONTROL POINT			1 bar-g		
	26	FAILURE CONDITION			CLOSED		
	27						
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)		
	31	REGULATOR FILTER			NO REQUIRED		
	32	MANOMETER			YES		
	33						
	34						
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE		CLEAN STEAM CONDENSATE	LIQUID	
	36	MINIMUM FLOW	NORMAL	MAXIMUM			m³/h
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C	
	40	MINIMUM DP	NORMAL	MAXIMUM			bar
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3	NOTE 3	NOTE 3
	42	CV SELECTED	% ABERTURA DA VÁLVULA		NOT2 2	NOTE 2	
	43	MAXIMUM PERMISSIBLE DIN			NOT		
	44	DENSITY @ OPERATING CONDITION			kg/m³		
	45	VISCOSITY @ OPERATING CONDITION			cP		
	46	VISCOSITY @ OPERATING CONDITION			cP		
	47	MOLECULAR MASS	FACTOR k=Cp/Cv				
	48						
	49	MANUFACTURER			STERIFLOW		
	50	MODEL					

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE VALVE.

2- The SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

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NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 7 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PCV-650113		
	2	SERVICE			CLEAN STEAM SUPPLY FOR HEADER AND CONDENSATE		
	3	P&ID			7B-Z-0-2-64		
	4	PIPE LINE	EQUIPMENT NUMBER		7B-2"-SFI-650106-SS10-HC	-	
	5	EQUIPMENT MATERIAL / PIPE			ASTM A270 Gr. TP316L		
	6	INTERNAL DIAMETER LINE	LINE THICKNESS		34,8 mm	1,65 mm	
	7	FUNCTION			PRESSURE REGULATING VALVE		
	8	CERTIFICATES			(SEE GENERAL NOTES 6)		
	9						
BODY AND INTERNAL	10	BODY TYPE			DIAPHRAGM / SELF OPERATED		
	11	BODY MATERIAL + COATING			SS1016L		
	12	PLUG MATERIAL + COATING			SS1016L		
	13	SEED MATERIAL + COATING			SS1016L		
	14	CHARACTERISTIC			=%		
	15	ENTRY DIAMETER	OUTPUT DIAMETER		50,8 mm (NOTE 1)	76,2 mm (NOTE 1)	
	16	NORM / CLASS / FACE			TC - ASME BPE-2019 (SEE GENERAL NOTES 6)		
	17	LEAKAGE CLASS			IV		
	18	CASTLE TYPE			STANDARD		
	19	RANGEABILITY			(SEE GENERAL NOTES 5)		
	20						
ACTUATOR	19	TYPE			SPRING / DIAPHRAGM		
	20	PILOT			YES		
	21	AIR SUPPLY AVAILABLE			-		
	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM		
	23	DIAPHRAGM MATERIAL			PTFE		
	24	SPRING ACTUATION BAND			BY MANUFACTURER		
	25	CONTROL POINT			1 bar-g		
	26	FAILURE CONDITION			CLOSED		
	27						
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)		
	31	REGULATOR FILTER			NO REQUIRED		
	32	MANOMETER			YES		
	33						
	34						
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE		CLEAN STEAM CONDENSATE	LIQUID	
	36	MINIMUM FLOW	NORMAL	MAXIMUM			m³/h
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C	
	40	MINIMUM DP	NORMAL	MAXIMUM			bar
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3	NOTE 3	NOTE 3
	42	CV SELECTED	% ABERTURA DA VÁLVULA		NOT2 2	NOTE 2	
	43	MAXIMUM PERMISSIBLE DIN			NOT		
	44	DENSITY @ OPERATING CONDITION			kg/m³		
	45	VISCOSITY @ OPERATING CONDITION			cP		
	46	VISCOSITY @ OPERATING CONDITION			cP		
	47	MOLECULAR MASS	FACTOR k=Cp/Cv				
	48						
	49	MANUFACTURER			STERIFLOW		
	50	MODEL					

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE VALVE.

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NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 8 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PCV-650114		
	2	SERVICE			CLEAN STEAM SUPPLY FOR HEADER AND CONDENSATE		
	3	P&ID			7B-Z-0-2-64		
	4	PIPE LINE	EQUIPMENT NUMBER		7B-1"-SFI-650120-SS10-HC	-	
	5	EQUIPMENT MATERIAL / PIPE			ASTM A270 Gr. TP316L		
	6	INTERNAL DIAMETER LINE	LINE THICKNESS		22,1 mm	1,65 mm	
	7	FUNCTION			PRESSURE REGULATING VALVE		
	8	CERTIFICATES			(SEE GENERAL NOTES 6)		
	9						
BODY AND INTERNAL	10	BODY TYPE			DIAPHRAGM / SELF OPERATED		
	11	BODY MATERIAL + COATING			SS1016L		
	12	PLUG MATERIAL + COATING			SS1016L		
	13	SEED MATERIAL + COATING			SS1016L		
	14	CHARACTERISTIC			=%		
	15	ENTRY DIAMETER	OUTPUT DIAMETER		25,4 mm (NOTE 1)	38,1 mm (NOTE 1)	
	16	NORM / CLASS / FACE			TC - ASME BPE-2019 (SEE GENERAL NOTES 6)		
	17	LEAKAGE CLASS			IV		
	18	CASTLE TYPE			STANDARD		
	19	RANGEABILITY			(SEE GENERAL NOTES 5)		
	20						
ACTUATOR	19	TYPE			SPRING / DIAPHRAGM		
	20	PILOT			YES		
	21	AIR SUPPLY AVAILABLE			-		
	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM		
	23	DIAPHRAGM MATERIAL			PTFE		
	24	SPRING ACTUATION BAND			BY MANUFACTURER		
	25	CONTROL POINT			1 bar-g		
	26	FAILURE CONDITION			CLOSED		
	27						
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)		
	31	REGULATOR FILTER			NO REQUIRED		
	32	MANOMETER			YES		
	33						
	34						
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE		CLEAN STEAM CONDENSATE	LIQUID	
	36	MINIMUM FLOW	NORMAL	MAXIMUM			m³/h
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM			bar-g
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM			°C
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C	
	40	MINIMUM DP	NORMAL	MAXIMUM			bar
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3	NOTE 3	NOTE 3
	42	CV SELECTED	% ABERTURA DA VÁLVULA		NOT2 2	NOTE 2	
	43	MAXIMUM PERMISSIBLE DIN			NOT		
	44	DENSITY @ OPERATING CONDITION			kg/m³		
	45	VISCOSITY @ OPERATING CONDITION			cP		
	46	VISCOSITY @ OPERATING CONDITION			cP		
	47	MOLECULAR MASS	FACTOR k=Cp/Cv				
	48						
	49	MANUFACTURER			STERIFLOW		
	50	MODEL					

NOTES:

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NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 9 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PCV-700031		
	2	SERVICE			CLEAN COMP. AIR TO MAB LOAD FILT. SKID, CFIL-3300		
	3	P&ID			7B-Z-0-2-71		
	4	PIPE LINE	EQUIPMENT NUMBER		7B-1/2"-CAP-700014-SS10-NI	-	
	5	EQUIPMENT MATERIAL / PIPE			ASTM A270 Gr. TP316L		
	6	INTERNAL DIAMETER LINE	LINE THICKNESS		9,4 mm	1,65 mm	
	7	FUNCTION			PRESSURE REGULATING VALVE		
	8	CERTIFICATES			(SEE GENERAL NOTES 6)		
	9						
BODY AND INTERNAL	10	BODY TYPE			DIAPHRAGM / SELF OPERATED		
	11	BODY MATERIAL + COATING			SS1016L		
	12	PLUG MATERIAL + COATING			SS1016L		
	13	SEED MATERIAL + COATING			SS1016L		
	14	CHARACTERISTIC			=%		
	15	ENTRY DIAMETER	OUTPUT DIAMETER		12,7 mm (NOTE 1)	12,7 mm (NOTE 1)	
	16	NORM / CLASS / FACE			TC - ASME BPE-2019 (SEE GENERAL NOTES 6)		
	17	LEAKAGE CLASS			IV		
	18	CASTLE TYPE			STANDARD		
	19	RANGEABILITY			(SEE GENERAL NOTES 5)		
	20						
ACTUATOR	19	TYPE			SPRING / DIAPHRAGM		
	20	PILOT			YES		
	21	AIR SUPPLY AVAILABLE			-		
	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM		
	23	DIAPHRAGM MATERIAL			PTFE		
	24	SPRING ACTUATION BAND			BY MANUFACTURER		
	25	CONTROL POINT			3 bar-g		
	26	FAILURE CONDITION			CLOSED		
	27						
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)		
	31	REGULATOR FILTER			NO REQUIRED		
	32	MANOMETER			YES		
	33						
	34						
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE		CLEAN AIR	AIR	
	36	MINIMUM FLOW	NORMAL	MAXIMUM	16,8	m³/h	
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM	3	bar-g	
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		°C	
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C	
	40	MINIMUM DP	NORMAL	MAXIMUM			bar
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3	NOTE 3	NOTE 3
	42	CV SELECTED	% ABERTURA DA VÁLVULA		NOT2 2	NOTE 2	
	43	MAXIMUM PERMISSIBLE DIN			NOT		
	44	DENSITY @ OPERATING CONDITION			kg/m³		
	45	VISCOSITY @ OPERATING CONDITION			cP		
	46	VISCOSITY @ OPERATING CONDITION			cP		
	47	MOLECULAR MASS	FACTOR k=Cp/Cv				
	48						
	49	MANUFACTURER			STERIFLOW		
	50	MODEL					

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE VALVE.

2- The SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

3- THE MANUFACTURER MUST SEND VALVE CALCULATION MEMORY.

4- PROCESS VALUES SET FOR PRICE TAKING AND MUST BE CONFIRMED IN THE PROJ. Detailing.

NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 10 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PCV-700033		
	2	SERVICE			CLEAN COMP. AIR		
	3	P&ID			7B-Z-0-2-81		
	4	PIPE LINE	EQUIPMENT NUMBER		1/2"-CAP-700006-SS10-NI	-	
	5	EQUIPMENT MATERIAL / PIPE			ASTM A270 Gr. TP316L		
	6	INTERNAL DIAMETER LINE	LINE THICKNESS		9,4 mm	1,65 mm	
	7	FUNCTION			PRESSURE REGULATING VALVE		
	8	CERTIFICATES			(SEE GENERAL NOTES 6)		
	9						
BODY AND INTERNAL	10	BODY TYPE			DIAPHRAGM / SELF OPERATED		
	11	BODY MATERIAL + COATING			SS1016L		
	12	PLUG MATERIAL + COATING			SS1016L		
	13	SEED MATERIAL + COATING			SS1016L		
	14	CHARACTERISTIC			=%		
	15	ENTRY DIAMETER	OUTPUT DIAMETER		12,7 mm (NOTE 1)	12,7 mm (NOTE 1)	
	16	NORM / CLASS / FACE			TC - ASME BPE-2019 (SEE GENERAL NOTES 6)		
	17	LEAKAGE CLASS			IV		
	18	CASTLE TYPE			STANDARD		
	19	RANGEABILITY			(SEE GENERAL NOTES 5)		
	20						
ACTUATOR	19	TYPE			SPRING / DIAPHRAGM		
	20	PILOT			YES		
	21	AIR SUPPLY AVAILABLE			-		
	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM		
	23	DIAPHRAGM MATERIAL			PTFE		
	24	SPRING ACTUATION BAND			BY MANUFACTURER		
	25	CONTROL POINT			3 bar-g		
	26	FAILURE CONDITION			CLOSED		
	27						
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)		
	31	REGULATOR FILTER			NO REQUIRED		
	32	MANOMETER			YES		
	33						
	34						
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE		CLEAN AIR	AIR	
	36	MINIMUM FLOW	NORMAL	MAXIMUM	16,8	m³/h	
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM	3	bar-g	
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		°C	
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C	
	40	MINIMUM DP	NORMAL	MAXIMUM			bar
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3	NOTE 3	NOTE 3
	42	CV SELECTED	% ABERTURA DA VÁLVULA		NOT2 2	NOTE 2	
	43	MAXIMUM PERMISSIBLE DIN			NOT		
	44	DENSITY @ OPERATING CONDITION			kg/m³		
	45	VISCOSITY @ OPERATING CONDITION			cP		
	46	VISCOSITY @ OPERATING CONDITION			cP		
	47	MOLECULAR MASS	FACTOR k=Cp/Cv				
	48						
	49	MANUFACTURER			STERIFLOW		
	50	MODEL					

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE VALVE.

2- The SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

3- THE MANUFACTURER MUST SEND VALVE CALCULATION MEMORY.

4- PROCESS VALUES SET FOR PRICE TAKING AND MUST BE CONFIRMED IN THE PROJ. Detailing.

NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 11 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PCV-700034			
	2	SERVICE			CLEAN COMP.			
	3	P&ID			7B-Z-0-2-71			
	4	PIPE LINE	EQUIPMENT NUMBER		7B-2"-CAP-700019-SS10-NI	-		
	5	EQUIPMENT MATERIAL / PIPE			ASTM A270 Gr. TP316L			
	6	INTERNAL DIAMETER LINE	LINE THICKNESS		47,5 mm	1,65 mm		
	7	FUNCTION			PRESSURE REGULATING VALVE			
	8	CERTIFICATES			(SEE GENERAL NOTES 6)			
	9							
BODY AND INTERNAL	10	BODY TYPE			DIAPHRAGM / SELF OPERATED			
	11	BODY MATERIAL + COATING			SS1016L			
	12	PLUG MATERIAL + COATING			SS1016L			
	13	SEED MATERIAL + COATING			SS1016L			
	14	CHARACTERISTIC			=%			
	15	ENTRY DIAMETER	OUTPUT DIAMETER		50,8 mm (NOTE 1)	50,8 mm (NOTE 1)		
	16	NORM / CLASS / FACE			TC - ASME BPE-2019 (SEE GENERAL NOTES 6)			
	17	LEAKAGE CLASS			IV			
	18	CASTLE TYPE			STANDARD			
	19	RANGEABILITY			(SEE GENERAL NOTES 5)			
	20							
ACTUATOR	19	TYPE			SPRING / DIAPHRAGM			
	20	PILOT			YES			
	21	AIR SUPPLY AVAILABLE			-			
	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM			
	23	DIAPHRAGM MATERIAL			PTFE			
	24	SPRING ACTUATION BAND			BY MANUFACTURER			
	25	CONTROL POINT			3 bar-g			
	26	FAILURE CONDITION			CLOSED			
	27							
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)			
	31	REGULATOR FILTER			NO REQUIRED			
	32	MANOMETER			YES			
	33							
	34							
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE		CLEAN AIR	AIR		
	36	MINIMUM FLOW	NORMAL	MAXIMUM	16,8	m³/h		
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM	3	bar-g		
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		°C		
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C		
	40	MINIMUM DP	NORMAL	MAXIMUM			bar	
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3	NOTE 3	NOTE 3	
	42	CV SELECTED	% ABERTURA DA VÁLVULA		NOT2 2	NOTE 2		
	43	MAXIMUM PERMISSIBLE DIN			NOT			
	44	DENSITY @ OPERATING CONDITION			kg/m³			
	45	VISCOSITY @ OPERATING CONDITION			cP			
	46	VISCOSITY @ OPERATING CONDITION			cP			
	47	MOLECULAR MASS	FACTOR k=Cp/Cv					
	48							
	49	MANUFACTURER			STERIFLOW			
	50	MODEL						

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE VALVE.

2- The SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

3- THE MANUFACTURER MUST SEND VALVE CALCULATION MEMORY.

4- PROCESS VALUES SET FOR PRICE TAKING AND MUST BE CONFIRMED IN THE PROJ. Detailing.

NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 12 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER			PCV-700035			
	2	SERVICE			CLEAN COMP.			
	3	P&ID			7B-Z-0-2-71			
	4	PIPE LINE	EQUIPMENT NUMBER		7B-2"-CAP-700015-SS10-NI	-		
	5	EQUIPMENT MATERIAL / PIPE			ASTM A270 Gr. TP316L			
	6	INTERNAL DIAMETER LINE	LINE THICKNESS		47,5 mm	1,65 mm		
	7	FUNCTION			PRESSURE REGULATING VALVE			
	8	CERTIFICATES			(SEE GENERAL NOTES 6)			
	9							
BODY AND INTERNAL	10	BODY TYPE			DIAPHRAGM / SELF OPERATED			
	11	BODY MATERIAL + COATING			SS1016L			
	12	PLUG MATERIAL + COATING			SS1016L			
	13	SEED MATERIAL + COATING			SS1016L			
	14	CHARACTERISTIC			=%			
	15	ENTRY DIAMETER	OUTPUT DIAMETER		50,8 mm (NOTE 1)	50,8 mm (NOTE 1)		
	16	NORM / CLASS / FACE			TC - ASME BPE-2019 (SEE GENERAL NOTES 6)			
	17	LEAKAGE CLASS			IV			
	18	CASTLE TYPE			STANDARD			
	19	RANGEABILITY			(SEE GENERAL NOTES 5)			
	20							
ACTUATOR	19	TYPE			SPRING / DIAPHRAGM			
	20	PILOT			YES			
	21	AIR SUPPLY AVAILABLE			-			
	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM			
	23	DIAPHRAGM MATERIAL			PTFE			
	24	SPRING ACTUATION BAND			BY MANUFACTURER			
	25	CONTROL POINT			3 bar-g			
	26	FAILURE CONDITION			CLOSED			
	27							
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)			
	31	REGULATOR FILTER			NO REQUIRED			
	32	MANOMETER			YES			
	33							
	34							
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE		CLEAN AIR	AIR		
	36	MINIMUM FLOW	NORMAL	MAXIMUM	16,8	m³/h		
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM	3	bar-g		
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		°C		
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		bar-g	°C		
	40	MINIMUM DP	NORMAL	MAXIMUM			bar	
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3	NOTE 3	NOTE 3	
	42	CV SELECTED	% ABERTURA DA VÁLVULA		NOT2 2	NOTE 2		
	43	MAXIMUM PERMISSIBLE DIN			NOT			
	44	DENSITY @ OPERATING CONDITION			kg/m³			
	45	VISCOSITY @ OPERATING CONDITION			cP			
	46	VISCOSITY @ OPERATING CONDITION			cP			
	47	MOLECULAR MASS	FACTOR k=Cp/Cv					
	48							
	49	MANUFACTURER			STERIFLOW			
	50	MODEL						

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE VALVE.

2- The SELECTED CV AND THE OPENING PERCENTAGE MUST BE SUPPLIED BY THE VALVE MANUFACTURER.

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NUMBER:	569-DB7B-AIC-732-001	CLIENT NR:	PRD-AIC-DSH-048

TITLE

PRESSURE REDUCING VALVE - SANITARY

SHEET: 13 de 13

REV.: 2

GENERAL	1	INSTRUMENT TAG NUMBER				PCV-700036		
	2	SERVICE				CLEAN COMP.		
	3	P&ID				7B-Z-0-2-71		
	4	PIPE LINE	EQUIPMENT NUMBER			7B-1"-CAP-700005-SS10-NI	-	
	5	EQUIPMENT MATERIAL / PIPE				ASTM A270 Gr. TP316L		
	6	INTERNAL DIAMETER LINE	LINE THICKNESS			22,1 mm	1,65 mm	
	7	FUNCTION				PRESSURE REGULATING VALVE		
	8	CERTIFICATES				(SEE GENERAL NOTES 6)		
	9							
BODY AND INTERNAL	10	BODY TYPE				DIAPHRAGM / SELF OPERATED		
	11	BODY MATERIAL + COATING				SS1016L		
	12	PLUG MATERIAL + COATING				SS1016L		
	13	SEED MATERIAL + COATING				SS1016L		
	14	CHARACTERISTIC				=%		
	15	ENTRY DIAMETER	OUTPUT DIAMETER			25,4 mm (NOTE 1)	25,4 mm (NOTE 1)	
	16	NORM / CLASS / FACE				TC - ASME BPE-2019 (SEE GENERAL NOTES 6)		
	17	LEAKAGE CLASS				IV		
	18	CASTLE TYPE				STANDARD		
	19	RANGEABILITY				(SEE GENERAL NOTES 5)		
	20							
ACTUATOR	19	TYPE				SPRING / DIAPHRAGM		
	20	PILOT				YES		
	21	AIR SUPPLY AVAILABLE				-		
	22	TYPE OF PRESSURE OUTLET				EXTERNAL TO THE DOWNSTREAM		
	23	DIAPHRAGM MATERIAL				PTFE		
	24	SPRING ACTUATION BAND				BY MANUFACTURER		
	25	CONTROL POINT				3 bar-g		
	26	FAILURE CONDITION				CLOSED		
	27							
ACCESSORIES	30	TAGGING				YES (SEE GENERAL NOTES 1)		
	31	REGULATOR FILTER				NO REQUIRED		
	32	MANOMETER				YES		
	33							
	34							
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATE			CLEAN AIR	AIR	
	36	MINIMUM FLOW	NORMAL	MAXIMUM		16,8		m³/h
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM		3		bar-g
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM				°C
	39	DESIGN PRESSURE	DESIGN TEMPERATURE			bar-g	°C	
	40	MINIMUM DP	NORMAL	MAXIMUM				bar
	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM		NOTE 3	NOTE 3	NOTE 3
	42	CV SELECTED	% ABERTURA DA VÁLVULA			NOT2 2	NOTE 2	
	43	MAXIMUM PERMISSIBLE DIN				NOT		
	44	DENSITY @ OPERATING CONDITION				kg/m³		
	45	VISCOSITY @ OPERATING CONDITION				cP		
	46	VISCOSITY @ OPERATING CONDITION				cP		
	47	MOLECULAR MASS	FACTOR k=Cp/Cv					
	48							
	49	MANUFACTURER				STERIFLOW		
	50	MODEL						

NOTES:

1- THE MANUFACTURER MUST CONFIRM THE NOMINAL DIAMETER OF THE VALVE.

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