







DOC NUMBER:

569-DB7B-AIC-741-002

CLIENT NUMBER:

PRD-AIC-DSH-072

CLIENT:

TAKEDA/BAXALTA

PROJECT:

BURITI EPCVM PROJECT

DRUG SUBSTANCE - BMS - DATA SHEET SAFETY VALVE

0	30AUG2021	ISSUE FOR CONSTRUCTION	JHA	MAF	RSP
Α	24MAR2021	60% DD ISSUE	JHA	MAF	RSP
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV









PRD-AIC-DSH-072 NUMBER: 569-DB7B-AIC-741-002 CLIENT NR:

TITLE

2 de 6 REV.: SAFETY VALVE 0

DOCUMENT REVIEW CONTROL

Revision	Α	0	1	2	3	4	Revision	Α	0	1	2	3	4	Revision	Α	0	1	2	3	
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REVISION 0 NOTES:

- 1- UPDATE ACCORDING TO P&ID (HVAC AND PROCESS).
- 2- INSERTION OF PROCESS DATA.
- 3- INSERTION OF INSTRUMENT REFERENCE MODELS.

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NUMBER: 569-DB7B-AIC-741-002 CLIENT NR: PRD-AIC-DSH-072

TITLE SHEET:

SAFETY VALVE

REV::
0

REFERENCE DOCUMENTS

7B-M-0-5-41 7B-M-0-5-61 PRD-AIC-LIS-015 PRD-PIP-TSP-501 PRD-AIC-LIS-046 P&I DIAGRAM - DRUG SUBSTANCE - INDUSTRIAL WATER DISTRIBUTION SYSTEM
P&I DIAGRAM - DRUG SUBSTANCE - PLANT STEAM DISTRIBUTION SYSTEM (PROCESS + HVAC)
DRUG SUBSTANCE - BMS - INSTRUMENT INDEX

PIPE CLASS AND SPECIFICATION - TECHNICAL SPECIFICATION

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.









NUMBER: 569-DB7B-AIC-741-002 CLIENT NR: PRD-AIC-DSH-072

TITLE SHEET:

SAFETY VALVE REV: 0

					0			
	1	INSTRUMENT TAG NUMBER		PSV-	610051			
	2	SERVIÇE		INDUSTRIAL WATER - DISTRIBUTION SYSTEM				
	3	P&ID		7B-M-0-5-41				
	4	PIPE LINE	EQUIPMENT NUMBER	3"-DW-610050-PP1-NI	-			
GENERAL	5	SAFETY / RELIEF		SAI	ETY			
	6	NOZZLE (TOTAL / REDUCED)		TOTAL				
Ö	7	TYPE		ANGLE				
	8	CASTLE (OPEN / CLOSED)		OPEN				
	9	CERTIFICATES		(SEE GENER	RAL NOTES 4)			
	10							
(0	11	ENTRY DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4,	5) 150# FR, ASME B.16.5			
NO	12	OUTPUT DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4,	5) 150# FR, ASME B.16.5			
ECT	13	FLANGE FACE FINISH		SLOTTED ACCOR	DING to MSS SP-6.			
CONNECTIONS	14							
ŏ	15							
	16	BODY	CASTLE	AC ASTM A216 Gr. WCB	AC ASTM A216 Gr. WCB			
ο	17	SEAT	DISC	ASTM A182 F304	ASTM A182 F304			
MATERIALS	18	GUIDES	RING	ASTM A182 F304	ASTM A182 F304			
15	19	SPRING	BELLOWS	BY MANUFACTURER (NOTE GER.	2)			
M	20	ROD		ASTM A	182 F304			
	21							
<i>,</i>	22	HOOD (THREADED / SCREWED)	THRE	ADED			
ACCESSORIES	23	LEVER: SIMPLE / EASED		SIMPLE				
SSO	24	LOCK FOR HYDROSTATIC TEST	г	Y	ES			
CE	25	IDENTIFICATION PLATE		YES (SEE GEN	ERAL NOTES 1)			
Ā	26							
	27	SIZING CODE		(SEE GENER	RAL NOTES 4)			
BASE	28	SIZING CRITERION		LC	OCK			
В	29							
	30	FLUID	PHYSICAL STATUS	INDUSTRIAL WATER	LIQUID			
	31	FLOW CAPACITY		31,44 m³/h	(NOTE 1)			
	32	OPERATING PRESSURE	RELIEF PRESSURE	2,0 bar-g	3,0 bar-g			
S	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE	25,0 °C	25,0 °C			
ģ	34	DESIGN PRESSURE	DESIGN TEMPERATURE	5,3 bar-g	55,0 °C			
ONDITIONS	35	CONSTANT COUNTERPRESSUI	RE	0 bar-g				
ò	36	VARIABLE COUNTERPRESSUR	E	- bar-g				
	37	COUNTERPRESSURE DEVELOR	PED	- bar-g				
24 T	38	OVERPRESSURE		10 %				
OPERATING		DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS	997,2 kg/m³	0,89 Cp			
0	40	MOLECULAR WEIGHT						
		Cp/Cv	FACTOR Z					
	42	ATMOSPHERIC PRESSURE		1 atm				
	43							
		PRESSÃO DE AJUSTE DA MOLA	1	BY MANUFACTURER (SEE GENERAL NOTES 2)				
Ψļ		FAIXA DA MOLA			SEE GENERAL NOTES 2)			
VALVE		ÁREA CALCULADA	ÁREA SELECIONADA	BY MANUFACTURER in ²	BY MANUFACTURER			
_	47	DENOMINAÇÃO DO ORIFÍCIO		BY MANUI	FACTURER			
	48							
		MANUFACTURER			DR SIMILAR			
	50	MODEL		SV	'80H			

NOTES:

¹⁻ CALCULATED FLOW FOR PCV-610050 FULLY OPEN. THIS FLOW RATE MUST BE CONFIRMED AFTER THE PCV VENDOR IS DEFINED









NUMBER: 569-DB7B-AIC-741-002 CLIENT NR: PRD-AIC-DSH-072

TITLE SHEET:

SAFETY VALVE

5 de 6

REV::
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	_				0			
	1	INSTRUMENT TAG NUMBER		PSV-7	9104			
	2	SERVIÇE		PLANT STEAM RE-HEATED WATER HX-7A-1				
GENERAL		P&ID		7B-M-0-5-61				
		PIPE LINE	EQUIPMENT NUMBER	4"-IS1B-790104-CS1-HC	<u>-</u>			
		SAFETY / RELIEF		SAFE	ETY			
		NOZZLE (TOTAL / REDUCED)		TOTAL				
5		TYPE		ANGLE				
		CASTLE (OPEN / CLOSED)		OPEN				
		CERTIFICATES		(SEE GENERA				
	10	OLIVIII IOIVILO		(622 62,72,7	121101201)			
\dashv		ENTRY DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4, 5)	150# FR, ASME B.16.5			
		OUTPUT DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4, 5)	· · · · · · · · · · · · · · · · · · ·			
		FLANGE FACE FINISH	102.00	SLOTTED ACCORD				
;	14	7 27 11 02 7 71 02 7 71 10 77		020772571000715				
	15							
\dashv	_	BODY	CASTLE	AC ASTM A216 Gr. WCB	AC ASTM A216 Gr. WCB			
إ		SEAT	DISC	ASTM A182 F304	ASTM A182 F304			
		GUIDES	RING	ASTM A182 F304	ASTM A182 F304			
		SPRING	BELLOWS	BY MANUFACTURER (NOTE GER. 2)				
		ROD	BELLOWS	,				
١	21	NOD		ASTMAT	02 1 304			
\dashv		HOOD (THREADED / SCREWEL	2)	THRE	NDED			
2		LEVER: SIMPLE / EASED	<i>5</i>)					
			27	YES				
			-1					
		IDENTIFICATION PLATE		TES (SEE GENE	RAL NOTES I)			
23 LEVER: SIMPLE / EASED 24 LOCK FOR HYDROSTATIC TEST 25 IDENTIFICATION PLATE 26 27 SIZING CODE 28 SIZING CRITERION		(SEE GENER)	N NOTES A)					
7				,	2) 182 F304 EADED IPLE			
Š	29	SIZING CRITERION		200	<i></i>			
\dashv		FLUID	PHYSICAL STATUS	STEAM LOW PRESSURE	I STEAM			
		FLOW CAPACITY	ITTI SICAL STATOS	2339 kg/h (NOTE 1)	OTEAW!			
		OPERATING PRESSURE	RELIEF PRESSURE	2,1 bar-g	6.0 bar a			
			RELIEF TEMPERATURE	166,0 °C	· · · · · · · · · · · · · · · · · · ·			
?		NORMAL TEMPERATURE DESIGN PRESSURE	DESIGN TEMPERATURE	6,0 bar-g	192,0 °C			
		CONSTANT COUNTERPRESSU		0,0 bar-g	192,0			
		VARIABLE COUNTERPRESSUR						
5		COUNTERPRESSURE DEVELO		- bar-g - bar-g				
		OVERPRESSURE		- bar-y 10 %				
בוויאיז וי		DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS	3,7 kg/m³	0,014 Cp			
;		MOLECULAR WEIGHT	THE SOUTH WILLIEF SONDITIONS	J, r kg/III	Ι σ,σ17 ορ			
		Cp/Cv	FACTOR Z					
		ATMOSPHERIC PRESSURE	J. 7.07.07.2	1 atm				
	43	TIMOOF FILMOT REGOORE		i aun				
\dashv		PRESSÃO DE AJUSTE DA MOL	A	BY MANUFACTURER (SEE GENERAL NOTES 2)				
		FAIXA DA MOLA		BY MANUFACTURER (SEE GENERAL NOTES 2) BY MANUFACTURER (SEE GENERAL NOTES 2)				
7 7 7		(BY MANUFACTURER in ² BY MANUFACTUREF				
7		DENOMINAÇÃO DO ORIFÍCIO	MALA SELECIONADA	BY MANUFACTURER BY MANUFACTURER				
		DENOMINAÇÃO DO ORIFICIO		BT MANUFA	TOTONER			
\dashv	48	MANUFACTURER		CROSBY O	D SIMIL A D			
丄	50 MODEL SV80H (CROSBY)							

NOTES:

¹⁻ CALCULATED FLOW FOR PCV-790104 FULLY OPEN. THIS FLOW RATE MUST BE CONFIRMED AFTER THE PCV VENDOR IS DEFINED









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TITLE

6 de 6 SAFETY VALVE REV.:

5 A	-	IY VALVE			0			
	1	INSTRUMENT TAG NUMBER		PSV-	-790212			
ľ	2	SERVIÇE		PLANT STEAM				
ı	3	P&ID		7B-M-0-5-61				
	4	PIPE LINE	EQUIPMENT NUMBER	3"-IS4B-790212-CS1-HC -				
GENERAL	5	SAFETY / RELIEF		SAFETY				
Š		NOZZLE (TOTAL / REDUCED)		TOTAL				
5		TYPE		ANGLE				
		CASTLE (OPEN / CLOSED)		OPEN				
	9	CERTIFICATES		(SEE GENERAL NOTES 4)				
	10			, , ,	,			
S	11	ENTRY DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4,	. 5) 150# FR, ASME B.16.5			
CONNECTIONS	12	OUTPUT DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4,	. 5) 150# FR, ASME B.16.5			
<u>.</u>	13	FLANGE FACE FINISH		SLOTTED ACCORDING to MSS SP-6.				
	14							
ర్	15							
ヿ	16	BODY	CASTLE	AC ASTM A216 Gr. WCB	AC ASTM A216 Gr. WCB			
ا ب	17	SEAT	DISC	ASTM A182 F304	ASTM A182 F304			
WA I FRIALS	18	GUIDES	RING	ASTM A182 F304	ASTM A182 F304			
į	19	SPRING	BELLOWS	BY MANUFACTURER (NOTE GER.	2)			
ž į	20	ROD		ASTM A182 F304				
ı	21							
┪	22	HOOD (THREADED / SCREWED)	THR	EADED			
	23	LEVER: SIMPLE / EASED		SIMPLE				
	24	LOCK FOR HYDROSTATIC TEST	г	YES				
ACCESSORIES	25	IDENTIFICATION PLATE		YES (SEE GEI	NERAL NOTES 1)			
₹	26			,	· · · · · · · · · · · · · · · · · · ·			
┪	27	SIZING CODE		(SEE GENE	RAL NOTES 4)			
BASE	28	SIZING CRITERION		L	OCK			
ά	29							
ヿ	30	FLUID	PHYSICAL STATUS	STEAM MEDIUM PRESSURE	STEAM			
ı	31	FLOW CAPACITY		1409 kg/h (NOTE 1)				
ı	32	OPERATING PRESSURE	RELIEF PRESSURE	4,0 bar-g	5,0 bar-g			
ا م	33	NORMAL TEMPERATURE	RELIEF TEMPERATURE	170,0 °C	170,0 °C			
§	34	DESIGN PRESSURE	DESIGN TEMPERATURE	(NOTE 2) bar-g	(NOTE 2) °C			
SUDITION	35	CONSTANT COUNTERPRESSUI	RE	0 bar-g				
	36	VARIABLE COUNTERPRESSUR	E	- bar-g				
ا ق	37	COUNTERPRESSURE DEVELOR	PED	- bar-g				
•	38	OVERPRESSURE		10 %				
טיווי אחדט	39	DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS	3,1 kg/m³	0,014 Cp			
5	40	MOLECULAR WEIGHT			I			
	41	Cp/Cv	FACTOR Z					
	42	ATMOSPHERIC PRESSURE		1 atm				
	43				I			
┪	44	PRESSÃO DE AJUSTE DA MOLA	1	BY MANUFACTURER (SEE GENERAL NOTES 2)				
		FAIXA DA MOLA		BY MANUFACTURER (SEE GENERAL NOTES 2)				
VALVE		ÁREA CALCULADA	ÁREA SELECIONADA	BY MANUFACTURER in ²				
₹		DENOMINAÇÃO DO ORIFÍCIO	<u> </u>	BY MANUFACTURER				
		,		1				
	48							
4		MANUFACTURER		CROSBY	OR SIMILAR			

NOTES:

¹⁻ CALCULATED FLOW FOR PV-790212A/B FULLY OPEN. THIS FLOW RATE MUST BE CONFIRMED AFTER THE PCV VENDOR IS DEFINED