







PRD-AIC-DSH-061

DOC NUMBER:

569-DB7A-AIC-741-002

CLIENT NUMBER:

CLIENT:

TAKEDA/BAXALTA

PROJECT:

**BURITI EPCVM PROJECT** 

# DRUG PRODUCT - BMS - DATA SHEET SAFETY VALVE

0	31AUG2021	ISSUE FOR CONSTRUCTION	JHA	MAF	RSP
Α	24MAR2021	60% DD ISSUE	JHA	MAF	RSP
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV









PRD-AIC-DSH-061 NUMBER: 569-DB7A-AIC-741-002 CLIENT NR:

TITLE

2 de 6 SAFETY VALVE REV.:

## **DOCUMENT REVIEW CONTROL**

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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-DB7A-AIC-741-002 CLIENT NR: PRD-AIC-DSH-061

TITLE SHEET:

SAFETY VALVE

REV::
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#### REFERENCE DOCUMENTS

7A-M-0-5-41 7A-M-0-5-61 PRD-AIC-LIS-014 PRD-PIP-TSP-501 PRD-AIC-LIS-046 P&I DIAGRAM - DRUG PRODUCT - INDUSTRIAL WATER DISTRIBUTION SYSTEM
P&I DIAGRAM - DRUG PRODUCT - PLANT STEAM DISTRIBUTION SYSTEM (PROCESS + HVAC)
DRUG PRODUCT - 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.









CLIENT NR: PRD-AIC-DSH-061 NUMBER: 569-DB7A-AIC-741-002

TITLE

SHEET: 4 de 6 SAFETY VALVE

	_				0					
	1	INSTRUMENT TAG NUMBER		PSV-610001						
	2	SERVICE		INDUSTRIAL WATER - DISTRIBUTION SYSTEM						
GENERAL	3	P&ID		7A-M-0-5-41						
		PIPE LINE	EQUIPMENT NUMBER	4"-DW-610019-PP1-NI	<u>-</u>					
		SAFETY / RELIEF		SAFETY						
		NOZZLE (TOTAL / REDUCED)		TOTAL						
5		TYPE		·						
		CASTLE (OPEN / CLOSED)								
		CERTIFICATES		(SEE GENERAL NOTES 4)						
	10	OLIVIII IOIVILO		(622 6274278	2710720 1)					
$\dashv$		INLET DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4. 5)	150# FR, ASME B.16.5					
CONNECTIONS		OUTLET DIAMETER	CLASS		· · · · · · · · · · · · · · · · · · ·					
		FLANGE FACE FINISH	DEAGO		<u> </u>					
7/1	14	T EANGE T AGE T IIVIGIT		SECTIED ACCORD	110 10 MOO OF 0.					
3	15									
$\dashv$	_	BODY	CASTLE	AC ASTM A216 Gr WCB	AC ASTM A216 Gr. WCB					
		SEAT	DISC		ASTM A182 F304					
2 2		GUIDES	RING		ASTM A182 F304					
		SPRING	BELLOWS		NOT					
ווא ובהואנט			BELLOWS	·						
۶		ROD		ASTMATO	52 F30 <del>4</del>					
4	21	HOOD (THREADER) (SCREWE		TUDEA	DED					
3		HOOD (THREADED / SCREWEL	<i>)</i> )							
2		LEVER: SIMPLE / EASED	T							
5		LOCK FOR HYDROSTATIC TES	1	INDUSTRIAL WATER - DISTRIU   7A-M-0-5-41     1UMBER	AL MOTEO ()					
ACCESSORIES		IDENTIFICATION PLATE		YES (SEE GENE	RAL NOTES 1)					
	26	OUZINIO ODITEDIA		(OFF OFWER)	V NOTES ()					
ň	27	SIZING CRITERIA		,						
BASE		SIZING CRITERION		100	<b>^</b> ^					
_	29	FLUID	PHYSICAL STATE	INDUSTRIAL WATER	LIQUID					
		FLOW CAPACITY	PHTSICAL STATE		(NOTE 1)					
			RELIEF PRESSURE		(NOTE 1)  2,8 bar-g					
		OPERATING PRESSURE		· •						
2		NORMAL TEMPERATURE	RELIEF TEMPERATURE	-7.	25,0 °C					
2		DESIGN PRESSURE	DESIGN TEMPERATURE		55,0 °C					
CINCLINO		BACK PRESSURE: CONSTANT		, -						
3		BACK PRESSURE: VARIABLE	VIDE	-						
		SUPERIMPOSED BACK PRESS	UNE							
5		OVERPRESSURE	VISCOSITY & BELIEF CONDITIONS		0.00 -0					
OPERATING		DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS	997,2 Kg/m²	0,89 cP					
_		MOLECULAR WEIGHT	FACTOR 7		1					
		Cp/Cv	FACTOR Z	4 5455						
		ATMOSPHERIC PRESSURE		ı atm						
4	43	ODDING SETTING PRESSURE		DVMANUFACTURED (OFF OF YEAR)						
		SPRING SETTING PRESSURE		BY MANUFACTURER (SEE GENERAL NOTES 2)						
ı A		SPRING BAND	SELECTED AREA	BY MANUFACTURER (SEE GENERAL NOTES 2)						
VALVE		CALC. AREA sq. In	SELECTED AREA							
	47	ORIFICE DESIGNATION		BY MANUFA	CTURER					
_	48									
		MANUFACTURER								
	50	MODEL		SV80H (C	ROSBY)					

NOTES:

<sup>1-</sup> valve sized considering the maximum flowrate of PCV-610001 totally opened. This flowrate shall be confirmed with the PCV's supplier.









NUMBER: 569-DB7A-AIC-741-002 CLIENT NR: PRD-AIC-DSH-061

TITLE

SAFETY VALVE

5 de 6

REV.:
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<b>υ</b> Λ	-	II VALVL			0				
	1	INSTRUMENT TAG NUMBER		PSV-790101					
	2	SERVICE		PLANT STEAM RE-HEATED WATER HX-7A-1					
	3	P&ID		7A-M-0-5-61					
	4	PIPE LINE	EQUIPMENT NUMBER	3"-IS1B-790101-CS1-HC -					
GENERAL	5	SAFETY / RELIEF		SAFETY					
NE	6	NOZZLE (TOTAL / REDUCED)		TOTAL					
GE		TYPE		ANGLE					
		CASTLE (OPEN / CLOSED)		OPEN					
	9	CERTIFICATES		(SEE GENERAL NOTES 4)					
	10								
-		INLET DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4, 5)	150# FR, ASME B.16.5				
CONNECTIONS		OUTLET DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4, 5)	·				
CTIC		FLANGE FACE FINISH	102.100	SLOTTED ACCORDI	I				
NNE	14	, _, , , , , , , , , , , , , , , , , ,		0207722770007727					
S	15								
$\dashv$		BODY	CASTLE	AC ASTM A216 Gr. WCB	AC ASTM A216 Gr. WCB				
,		SEAT	DISC	ASTM A182 F304	ASTM A182 F304				
MA TERIALS		GUIDES	RING	ASTM A182 F304	ASTM A182 F304				
ERI		SPRING	BELLOWS	BY MANUFACTURER (NOTE GER. 2)	NOT				
NA7		ROD	BELLOWS	ASTM A18					
`	21	NOD		ASTMIAIC	J2 1 30 <del>4</del>				
		HOOD (THREADED / SCREWEL	2)	THREADED					
ES		LEVER: SIMPLE / EASED	"	SIMPLE					
SOR		LOCK FOR HYDROSTATIC TES	<i>T</i>	YES					
ACCESSORIES		IDENTIFICATION PLATE	I	YES (SEE GENE					
ACC		IDENTIFICATION PLATE		TES (SEE GENE	RAL NOTES 1)				
	26	SIZING CRITERIA		(SEE CENEDA	I NOTES 4)				
SE		SIZING CRITERIA SIZING CRITERION		(SEE GENERA					
BASE	28 29	SIZING CRITERION		1	N .				
_		FLUID	PHYSICAL STATE	STEAM	STEAM				
		FLOW CAPACITY		1261 kg/h (NOTE 1)	0.2				
		OPERATING PRESSURE	RELIEF PRESSURE	2.1 bar-q	6,0 bar-g				
		NORMAL TEMPERATURE	RELIEF TEMPERATURE	165,0 °C	165,0 °C				
NDITIONS		DESIGN PRESSURE	DESIGN TEMPERATURE	6,0 bar-g	192 °C				
)LL		BACK PRESSURE: CONSTANT	DEGICIA TEMIL ENATORE	0 bar-g	102 0				
		BACK PRESSURE: VARIABLE							
Š		SUPERIMPOSED BACK PRESS	I IDE	- bar-g - bar-g					
<i>OPERATING CO</i>		OVERPRESSURE	ONL	10 %					
RA		DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS	3,7 kg/m³	0,014 Cp				
OPE		MOLECULAR WEIGHT	VISCOSITT & RELIEF CONDITIONS	3,7 kg/III	0,014 Cβ				
			FACTOR Z		I				
	41	Cp/Cv ATMOSPHERIC PRESSURE	1 AO 1 O N Z	1 atm					
	42	ATMOSFILLIO FRESSORE		i aun					
	43 44	SPRING SETTING PRESSURE		PV MANUEACTURED (SEE CENERAL NOTES S)					
		SPRING SETTING PRESSURE		BY MANUFACTURER (SEE GENERAL NOTES 2) BY MANUFACTURER (SEE GENERAL NOTES 2)					
Ŋ.		CALC. AREA sq. In	SELECTED AREA	·					
VALVE			SELECTED AREA	BY MANUFACTURER in² BY MANUFACTURER  BY MANUFACTURER					
	47	ORIFICE DESIGNATION		BY MANUFA	CIUKEK				
_	48			2005-11-5	204444				
		MANUFACTURER		CROSBY OF					
	50	MODEL		SV80H (CROSBY)					

NOTES:

<sup>1-</sup> valve sized considering the maximum flowrate of PCV-790101 totally opened. This flowrate shall be confirmed with the PCV's supplier.









NUMBER: 569-DB7A-AIC-741-002 CLIENT NR: PRD-AIC-DSH-061

SHEET:
6 de 6

REV.:

SA	FE	TY VALVE			REV.: <b>0</b>				
	1	INSTRUMENT TAG NUMBER		PSV-790201					
	2	SERVICE		PLANT STEAM					
	3	P&ID		7A-M-0-5-61					
	4	PIPE LINE	EQUIPMENT NUMBER	11/2"-IS4B-790201-CS1-HC	-				
GENERAL	5	SAFETY / RELIEF		SAI	ETY				
:NE	6	NOZZLE (TOTAL / REDUCED)		TOTAL					
GE		TYPE		ANGLE					
	8	CASTLE (OPEN / CLOSED)		OF	PEN				
		CERTIFICATES		(SEE GENERAL NOTES 4)					
	10			, , , , , ,	/				
	<u> </u>	INLET DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4,	5) 150# FR, ASME B.16.5				
SNC		OUTLET DIAMETER	CLASS	BY MANUFACTURER (NOTE GER. 4,	<u> </u>				
CONNECTIONS		FLANGE FACE FINISH	102.100	·	DING TO MSS SP-6.				
VNE	14	7 27 17 62 7 71 62 7 71 677		52077257100071	5.11.6 1.6 Med 61 6.				
00	15								
	<u> </u>	BODY	CASTLE	AC ASTM A216 Gr. WCB	AC ASTM A216 Gr. WCB				
		SEAT	DISC	ASTM A182 F304	ASTM A182 F304				
MATERIALS		GUIDES	RING	ASTM A182 F304	ASTM A182 F304				
ERI		SPRING	BELLOWS	BY MANUFACTURER (NOTE GER.					
1AT		ROD	BELLOWS	,					
<		KUD		ASTMA	182 F304				
	21	HOOD (THREADER) (SCREWER		THREADED					
ES		HOOD (THREADED / SCREWEL	"						
ACCESSORIES		LEVER: SIMPLE / EASED	<del>-</del>		IPLE				
ESS		LOCK FOR HYDROSTATIC TES	l		ES				
ACC		IDENTIFICATION PLATE		YES (SEE GEN	IERAL NOTES 1)				
	26								
ΞĒ		SIZING CRITERIA		,	RAL NOTES 4)				
BASE		SIZING CRITERION		LC	DCK				
	29		Ta						
		FLUID	PHYSICAL STATE	STEAM	STEAM				
		FLOW CAPACITY	I	450 kg/h (NOTE 1)					
		OPERATING PRESSURE	RELIEF PRESSURE	4,0 bar-g	5,0 bar-g				
NS		NORMAL TEMPERATURE	RELIEF TEMPERATURE	170,0 °C	170,0 °C				
SNOITIO		DESIGN PRESSURE	DESIGN TEMPERATURE	(NOTE 2) bar-g	(NOTE 2) °C				
ND/	_	BACK PRESSURE: CONSTANT		0 bar-g					
00		BACK PRESSURE: VARIABLE		- bar-g					
ING	37	SUPERIMPOSED BACK PRESS	URE	- bar-g					
3A T	38	OVERPRESSURE		10 %					
OPERATING CONL		DENSITY @ RELIEF CONDITIONS	VISCOSITY @ RELIEF CONDITIONS	3,1 kg/m³	0,014 Cp				
0	40	MOLECULAR WEIGHT							
	41	Cp/Cv	FACTOR Z						
	42	ATMOSPHERIC PRESSURE		1 atm					
	43								
	44	SPRING SETTING PRESSURE		BY MANUFACTURER (SEE GENERAL NOTES 2)					
Щ	45	SPRING BAND		BY MANUFACTURER (SEE GENERAL NOTES 2)					
VALVE	46	CALC. AREA sq. In	SELECTED AREA	BY MANUFACTURER in <sup>2</sup> BY MANUFACTURER					
>	47	ORIFICE DESIGNATION		BY MANUI	FACTURER				
	48								
	49	MANUFACTURER		CROSBY	OR SIMILAR				
	50	MODEL		SV80H (CROSBY)					

### NOTES:

- 1- valve sized considering the maximum flowrate of PV-790201A/B totally opened.
- 2- WAITING SUPPLIER INFORMATION FOR TEMPERATURE AND PRESSURE DESIGN.