	
DOC NUMBER: <b>569-DB7B-AIC-732-003</b>		CLIENT NUMBER: <b>PRD-AIC-DSH-069</b>	
CLIENT: <b>TAKEDA/BAXALTA</b>			
PROJECT: <b>BURITI EPCVM PROJECT</b>			

## DRUG SUBSTANCE - BMS – DATA SHEET PRESSURE REDUCING VALVE

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

NUMBER: 569-DB7B-AIC-732-003

CLIENT NR: PRD-AIC-DSH-069

TITLE

PRESSURE REDUCING VALVE





SHEET:  
2 de 5  
REV.:  
0

### DOCUMENT REVIEW CONTROL





Revision	A	0	1	2	3	4	Revision	A	0	1	2	3	4	Revision	A	0	1	2	3	4
Page							Page							Page						
1	X	X					26							51						
2	X	X					27							52						
3	X	X					28							53						
4	X	X					29							54						
5	X	X					30							55						
6	X	/					31							56						
7	/	/					32							57						
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15							40							65						
16							41							66						
17							42							67						
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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.
- 4- CANCELED THE TAGS PCV-790212





 		 	
NUMBER: 569-DB7B-AIC-732-003		CLIENT NR: PRD-AIC-DSH-069	
TITLE			SHEET:
PRESSURE REDUCING VALVE			3 de 5
			REV.: 0
REFERENCE DOCUMENTS			
7B-M-0-5-41	P&I DIAGRAM - DRUG SUBSTANCE - INDUSTRIAL WATER DISTRIBUTION SYSTEM		
7B-M-0-5-61	P&I DIAGRAM - DRUG SUBSTANCE - PLANT STEAM DISTRIBUTION SYSTEM (PROCESS + HVAC)		
PRD-AIC-LIS-015	DRUG SUBSTANCE - BMS - 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
<p>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.</p> <p>2- The manufacturer must send the valve calculation memory.</p> <p>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.</p> <p>4- If necessary the manufacturer should offer silencer along with the valve.</p> <p>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.</p>

   								
NUMBER: 569-DB7B-AIC-732-003				CLIENT NR: PRD-AIC-DSH-069				
TITLE							SHEET:	
PRESSURE REDUCING VALVE							4 de 5	
							REV: 0	
GENERAL	1	INSTRUMENT TAG NUMBER			PCV-610050			
	2	SERVICE			INDUSTRIAL WATER - DISTRIBUTION SYSTEM			
	3	P&ID			7B-M-0-5-41			
	4	PIPE LINE (IN)	PIPE LINE (OUT) / EQUIPMENT NUMBER		4"-DW-610081-PP1-NI	4"-DW-610049-PP1-NI		
	5	EQUIPMENT MATERIAL / PIPE			POLIPROPILENO HOMOPOLÍMERO CONF. NBR EN 15494			
	6	INNER DIAMETER LINE	LINE THICKNESS		90 mm	10 mm		
	7	FUNCTION			DOWNSTREAM PRESSURE LIMITATION			
	8	CERTIFICATES			(NOTES 3)			
	9							
BODY AND INTERNAL	10	BODY TYPE			GLOBE / SELF OPERATED			
	11	BODY MATERIAL + COATING			SS316L			
	12	PLUG MATERIAL + COATING			SS316L			
	13	SEED MATERIAL + COATING			SS316L			
	14	CHARACTERISTIC			= %			
	15	ENTRY DIAMETER	OUTPUT DIAMETER		(4") 110mm (NOTE 1)	(4") 110mm (NOTE 1)		
	16	NORM / CLASS / FACE			ASME B16.5 / ISO15494			
	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			3,5 bar-g			
	26	FAILURE CONDITION			OPEN			
27								
ACCESSORIES	30	TAGGING			YES (SEE GENERAL NOTES 1)			
	31	REGULATOR FILTER			NOT REQUIRED			
	32							
	33							
	34							
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATUS		INDUSTRIAL WATER		LIQUID	
	36	MINIMUM FLOW	NORMAL	MAXIMUM	4,65	34,3	40,4	m³/h
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM	4,28	4,21	4,19	bar-g
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	25	25	25	°C
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		7,8 bar-g		55 °C	
	40	MINIMUM DP	NORMAL	MAXIMUM	2,28	2,21	2,19	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			997,2 kg/m³			
	45	VISCOSITY @ OPERATING CONDITION			0,89 cP			
	46	MOLECULAR MASS	FACTOR k=Cp/Cv					
	47							
	48							
		49	MANUFACTURER			SPIRAX SARCO OR SIMILAR		
50		MODEL			SRV 461-463 (SPIRAX SARCO)			

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-732-003			CLIENT NR: PRD-AIC-DSH-069					
TITLE				SHEET: 5 de 5				
PRESSURE REDUCING VALVE				REV: 0				
GENERAL	1	INSTRUMENT TAG NUMBER		PCV-790104				
	2	SERVICE		PLANT STEAM RE-HEATED WATER HX-7A-1				
	3	P&ID		7B-M-0-5-61				
	4	PIPE LINE (IN)	PIPE LINE (OUT) / EQUIPMENT NUMBER	2"-IS8B-790319-CS2-HC	4"-IS1B-790104-CS1-HC			
	5	EQUIPMENT MATERIAL / PIPE		CARBON STEEL ASTM-A106 Gr.B				
	6	INNER DIAMETER LINE	LINE THICKNESS	52,48 / 102,26 mm	3,91 / 6,02 mm			
	7	FUNCTION		DOWNSTREAM PRESSURE LIMITATION				
	8	CERTIFICATES		(NOTES 3)				
	9							
BODY AND INTERNAL	10	BODY TYPE		GLOBE / SELF OPERATED				
	11	BODY MATERIAL + COATING		CARBON STEEL (ASTM A216 Gr. WCB)				
	12	PLUG MATERIAL + COATING		SS410 + STELLITE 6				
	13	SEED MATERIAL + COATING		SS410 + STELLITE 6				
	14	CHARACTERISTIC		= %				
	15	ENTRY DIAMETER	OUTPUT DIAMETER	4" (NOTE 1)	6" (NOTE 1)			
	16	NORM / CLASS / FACE		ASME B16.5 / FLANGE 300# FR / MSS SP-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		2,1 bar-g				
	26	FAILURE CONDITION		OPEN				
27								
ACCESSORIES	30	TAGGING		YES (SEE GENERAL NOTES 1)				
	31	REGULATOR FILTER		NOT REQUIRED				
	32							
	33							
	34							
OPERATING CONDITIONS	35	FLUID	PHYSICAL STATUS		STEAM HIGH PRESSURE		STEAM	
	36	MINIMUM FLOW	NORMAL	MAXIMUM		1280,0	1280,0	kg/h
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM		8,2	8,2	bar-g
	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM		179	179	°C
	39	DESIGN PRESSURE	DESIGN TEMPERATURE		11,7 bar-g		200 °C	
	40	MINIMUM DP	NORMAL	MAXIMUM		6,16	6,16	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		4,74 kg/m³				
	45	VISCOSITY @ OPERATING CONDITION		0,015 cP				
	46	MOLECULAR MASS	FACTOR k=Cp/Cv					
	47							
	48							
		49	MANUFACTURER		SPIRAX SARCO OR SIMILAR			
50		MODEL		SRV 461-463 (SPIRAX SARCO)				

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