





CLIENT NUMBER:



DOC NUMBER:

569-DB7A-AIC-732-003

PRD-AIC-DSH-058

CLIENT:

TAKEDA/BAXALTA

PROJECT:

BURITI EPCVM PROJECT

DRUG PRODUCT - BMS - DATA SHEET PRESSURE REDUCING VALVE

0	29JUL2021	ISSUE FOR CONSTRUCTION	JHA	MAF	RSP
Α	24MAR2021	60% DD ISSUE	JHA	MAF	RSP
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV









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PRESSURE REDUCING VALVE

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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.

The information contained in this document is the property of TESSLER Engenharia and is provided to the customer under the condition that they are not used for other purposes other than those contractually established.









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PRESSURE REDUCING VALVE

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REV.:

REFERENCE DOCUMENTS

7A-M-0-5-41 P8
7A-M-0-5-61 P8
PRD-AIC-LIS-014 DF
PRD-PIP-TSP-501 PI
PRD-AIC-LIS-046 IN

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- 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.









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PRESSURE REDUCING VALVE

								0			
	1	INSTRUMENT TAG NUMBER				PC	CV-610001				
	2	SERVICE			INDUSTRIAL WATER - DISTRIBUTION SYSTEM						
	3	P&ID			7A-M-0-5-41						
AL	4	PIPE LINE	EQUIPMENT NUM	1BER	7A-4"-DW-6100	001-PP1-NI	-				
GENERAL	5	EQUIPMENT MATERIAL / PIPE	•				PP-H				
GEN	6	INNER DIAMETER LINE	LINE THICKNESS		90	mm	10	mm			
	7	FUNCTION				PRESSURE F	REGULATING VALVE				
	8	CERTIFICATES				ISA 75.17	e IEC 60534-8-4.				
	9										
	10	BODY TYPE				GLOBE / S	SELF OPERATED				
	11	BODY MATERIAL + COATING					SS316L				
٦	12	PLUG MATERIAL + COATING					SS316L				
SNA	13	SEED MATERIAL + COATING					SS316L				
TEF	14	CHARACTERISTIC					=%				
N	15	ENTRY DIAMETER	OUTPUT DIAMET	ER	4" (No	OTE 1)	4" (1	NOTE 1)			
ANI	16	NORM/CLASS/FACE				ASME B1	6.5 / ISSO 15494				
BODY AND INTERNAL	17	LEAKAGE CLASS					IV				
BC	18	CASTLE TYPE				ST	TANDARD				
	19	RANGEABILITY				(SEE GEN	NERAL NOTES 5)				
	20				(
	19	TYPE			SPRING / DIAPHRAGM						
	20	PILOT			YES						
	21	AIR SUPPLY AVAILABLE			-						
O.	22	TYPE OF PRESSURE OUTLET			EXTERNAL TO THE DOWNSTREAM						
ACTUATOR	23	DIAPHRAGM MATERIAL					PTFE				
1CT	24	SPRING ACTUATION BAND				BY MAI	NUFACTURER				
`	25	CONTROL POINT			3,5 bar-g						
	26	FAILURE CONDITION			OPEN						
	27										
S	30	TAGGING			YES (SEE GENERAL NOTES 1)						
ACCESSORIES	31	REGULATOR FILTER			NOT REQUIRED						
SSC	32										
CE	33										
AC	34										
		FLUID	PHYSICAL STATE		INDUSTRIAL	WATER	LIQI	JID			
	36	MINIMUM FLOW	NORMAL	MAXIMUM	1.8	=	50	m³∕h			
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM	3.9		3.8	bar-g			
S	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	,	25	-	°C			
107	39	DESIGN PRESSURE	DESIGN TEMPER	ATURE	6.8	bar-g	55	°C			
Į QN	40	MINIMUM DP	NORMAL	MAXIMUM	0.4	-	0.3	bar			
OPERATING CONDITIONS	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3		NOTE 3	NOTE 3			
NG	42	CV SELECTED	% ABERTURA DA	VÁLVULA	NO	T2 2	N	OTE 2			
24 T.	43	MAXIMUM PERMISSIBLE DIN					NOT				
PER	44	DENSITY @ OPERATING COND	DITION			997.17	kg/m³				
O	45	VISCOSITY @ OPERATING COI	NDITION			0.9	CP CP				
	46	MOLECULAR MASS	FACTOR k=Cp/Cv								
	47										
	48										
		MANUFACTURER				SPIR	RAX SARCO				
	50	MODEL			SRV 461-463						

- 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 SUPPLIER SHALL PROVIDE THE VALVE CALCULATION REPORT.









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PRESSURE REDUCING VALVE

REV.:

									0		
	1	INSTRUMENT TAG NUMBER			PCV-790101						
	2	SERVICE			PLANT STEAM RE-HEATED WATER HX-7A-1						
	3	P&ID			7A-M-0-5-61						
ΑŁ	4	PIPE LINE ENTRY	PIPE LINE OUTPU	JT	2"-IS8B-790317-CS2-HC 3"-IS1B-790101-CS1-HC						
GENERAL	5	EQUIPMENT NUMBER					-				
GEI	6	EQUIPMENT MATERIAL / PIPE				CARBON STE	EL AS	STM-A106 Gr.B			
	7	INNER DIAMETER LINE	LINE THICKNESS	}	52.48	mm		3.91	mm		
	8	FUNCTION				PRESSURE R	EGUI	LATING VALVE			
	9	CERTIFICATES				ISA 75.17	e IEC	60534-8-4.			
	10	BODY TYPE				GLOBE / S	ELF (OPERATED			
	11	BODY MATERIAL + COATING			CA	ARBON STEEL	(AST	M A216 Gr. WC	:B)		
	12	PLUG MATERIAL + COATING					SS41	0			
NA	13	SEED MATERIAL + COATING					SS41	0			
BODY AND INTERNAL	14	CHARACTERISTIC					=%				
N/ C	15	ENTRY DIAMETER	OUTPUT DIAMET	ER	2" (NO	OTE 1)	ĺ	3" (1	IOTE 1)		
ANI	_	NORM / CLASS / FACE	!		ASM	IE B16.5 / FLAI	NGE 3	300# FR / MSS 3	SP-6		
DY.	17	LEAKAGE CLASS					IV				
ВО	18	CASTLE TYPE				ST	ANDA	ARD			
	19	RANGEABILITY				(SEE GEN	IERAL	NOTES 5)			
	20					<u>'</u>		,			
	-	TYPE			SPRING / DIAPHRAGM						
		PILOT			YES						
		AIR SUPPLY AVAILABLE			-						
J.R		TYPE OF PRESSURE OUTLET	ļ	XTERNAL TO	THE	DOWNSTREAM	1				
ACTUATOR		DIAPHRAGM MATERIAL			PTFE						
$c\tau\iota$		SPRING ACTUATION BAND				BY MAN	JUFA	CTURER			
Ā		CONTROL POINT					,1 bar				
		FAILURE CONDITION			CLOSED						
	27										
6		TAGGING			YES (SEE GENERAL NOTES 1)						
RIE		REGULATOR FILTER			NOT REQUIRED						
108	32							-			
ACCESSORIES	33										
AC	34										
		FLUID	PHYSICAL STATE		HIGH PRESSURE STEAM		STEAM				
	36	MINIMUM FLOW	NORMAL	MAXIMUM	110.35	-		1103.5	kg/h		
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM	9.1	-	8.5		bar-g		
S	38	MINIMUM TEMPERATURE	NORMAL MAXIMUM		181	-		180	℃		
ΝO		DESIGN PRESSURE	DESIGN TEMPER	ATURE	11.7	bar-g		200	°C		
ITIO	40	MINIMUM DP	NORMAL	MAXIMUM	7	-		6.4	bar		
NO:	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3		NO	TE 3	NOTE 3		
) <i>9</i> /	42	CV SELECTED	% ABERTURA DA	<u> </u>	-	TE 2			OTE 2		
4 71V	43	MAXIMUM PERMISSIBLE DIN			NOT	-					
OPERATING CONDITIONS	44	DENSITY @ OPERATING COND	1	4.74	kg/m						
OP	45	VISCOSITY @ OPERATING CON		0.015							
	46	MOLECULAR MASS	FACTOR k=Cp/Cv	,	18 0	ı/mol					
	47		. , , , ,		1						
	48										
	49	MANUFACTURER				SPIR	'AX S	ARCO			
	50	MODEL					V 461				
NOT					<u>I</u>	3,.					

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

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REV.:

PR	ES	SURE REDUCING VA	LVE					REV.:				
	1	INSTRUMENT TAG NUMBER				PC	V-790201					
	2	SERVICE			PLANT STEAM							
		P&ID			7A-M-0-5-61							
47	-	PIPE LINE ENTRY	PIPE LINE OUT	PUT	11/2"-IS8B-7903			90201-CS1-HC				
GENERAL	-	EQUIPMENT NUMBER	1				-					
	_	EQUIPMENT MATERIAL / PIPE				CARBON STE	EL ASTM-A106 Gr.	3				
٦		INNER DIAMETER LINE	LINE THICKNE	SS	38.14		·	3 mm				
	-	FUNCTION					EGULATING VALV					
		CERTIFICATES					e IEC 60534-8-4.	_				
-		BODY TYPE					SELF OPERATED					
	_	BODY MATERIAL + COATING			CA		(ASTM A216 Gr. W	(CB)				
		PLUG MATERIAL + COATING			-		SS410					
		SEED MATERIAL + COATING					SS410					
שאיים וויים שיים ושסט		CHARACTERISTIC					=%					
		ENTRY DIAMETER	OUTPUT DIAM	ETER	11/2" (N	IOTE 1)		" (NOTE 1)				
		NORM/CLASS/FACE	1		<u> </u>		NGE 300# FR / MSS	· · · · · · · · · · · · · · · · · · ·				
		LEAKAGE CLASS					IV					
3		CASTLE TYPE				ST	ANDARD					
	19	RANGEABILITY				(SEE GEN	IERAL NOTES 5)					
	20					· ·						
	19	TYPE			SPRING / DIAPHRAGM							
	20	PILOT			YES							
	21	AIR SUPPLY AVAILABLE			-							
	22	TYPE OF PRESSURE OUTLET			E	XTERNAL TO	THE DOWNSTREA	M				
	23	DIAPHRAGM MATERIAL					PTFE					
10100	24	SPRING ACTUATION BAND				BY MAN	NUFACTURER					
	25	CONTROL POINT			4,7 bar-g							
	26	FAILURE CONDITION			CLOSED							
	27											
5	30	TAGGING			YES (SEE GENERAL NOTES 1)							
ACCESSONIES	31	REGULATOR FILTER			NOT REQUIRED							
Š	32											
2	33											
Ĭ	34											
	35	FLUID	PHYSICAL STA	ITE	HIGH PRESSU	RE STEAM	ST	EAM				
	36	MINIMUM FLOW	NORMAL	MAXIMUM	HOLD 1	-	288	kg/h				
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM	HOLD 1	-	8.9	bar-g				
2		MINIMUM TEMPERATURE	NORMAL	MAXIMUM	HOLD 1	-	181	°C				
		DESIGN PRESSURE	DESIGN TEMP	ERATURE	11.7	bar-g	200) ℃				
or Ending Continues		MINIMUM DP	NORMAL	MAXIMUM	4.4	-	4.2	bar				
3		CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3		NOTE 3	NOTE 3				
		CV SELECTED	% ABERTURA	DA VALVULA	NO	TE 2		IOTE 2				
		MAXIMUM PERMISSIBLE DIN					NOT					
Ĭ		DENSITY @ OPERATING CON					kg/m³					
,		VISCOSITY @ OPERATING CO				0.015	сР					
		MOLECULAR MASS	FACTOR k=Cp/	Cv	18 g	/mol						
	47											
_	48	MANUEA OTUBES				05:-	AV 04 B00					
		MANUFACTURER					AX SARCO					
	50	MODEL			SRV 461-463							

- 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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PRESSURE REDUCING VALVE

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								0			
	1	INSTRUMENT TAG NUMBER				PC	V-790314				
	2	SERVICE			PLANT STEAM PC-7A-1 / CSG-6501 / MÊS-6401						
	3	P&ID			7A-M-0-5-61						
GENERAL	4	PIPE LINE ENTRY	PIPE LINE OUTPU	T	21/2"-IS8B-7903	12-CS2-HC	21/2"-IS8B-790	0332-CS2-HC			
	5	EQUIPMENT NUMBER	•				-				
GE	6	EQUIPMENT MATERIAL / PIPE				CARBON STE	EL ASTM-A106 Gr.B				
_	7	INNER DIAMETER LINE	LINE THICKNESS		62.68	mm	5.16	mm			
	8	FUNCTION				PRESSURE R	EGULATING VALVE				
	9	CERTIFICATES				ISA 75.17	e IEC 60534-8-4.				
	10	BODY TYPE				GLOBE / S	SELF OPERATED				
	11	BODY MATERIAL + COATING			CA	RBON STEEL	(ASTM A216 Gr. WC	(B)			
	12	PLUG MATERIAL + COATING					SS410	*			
NAL		SEED MATERIAL + COATING					SS410				
rer		CHARACTERISTIC					=%				
BODY AND INTERNAL		ENTRY DIAMETER	OUTPUT DIAMETE	=R	21/2" (1	IOTE 1)		(NOTE 1)			
ANE		NORM / CLASS / FACE			<u> </u>		NGE 300# FR / MSS	· · · · · · · · · · · · · · · · · · ·			
7		LEAKAGE CLASS			710//	2 270.077 271	IV	<u> </u>			
BO		CASTLE TYPE				ST	ANDARD				
	_	RANGEABILITY					IERAL NOTES 5)				
	20	TANGLABILITI				(OLL OLN	ETVIE NOTEO 0)				
		TYPE			SPRING / DIAPHRAGM						
	- 1	PILOT			SPRING / DIAPHRAGIN YES						
		AIR SUPPLY AVAILABLE			ILS .						
æ		TYPE OF PRESSURE OUTLET				VTEDNIAL TO	THE DOWNSTREAM	1			
ACTUATOR					EXTERNAL TO THE DOWNSTREAM PTFE						
TU,		DIAPHRAGM MATERIAL				D\/.4444					
AC		SPRING ACTUATION BAND					NUFACTURER				
		CONTROL POINT			8,3 bar-g						
		FAILURE CONDITION			CLOSED						
	27	T400N0			VEC (OFF OFNIFDAL MOTEO 4)						
IES		TAGGING			YES (SEE GENERAL NOTES 1)						
OR		REGULATOR FILTER			NOT REQUIRED						
ESS	32										
ACCESSORIES	33										
/	34		I								
		FLUID	PHYSICAL STATE		HIGH PRESSU		STE				
		MINIMUM FLOW	NORMAL	MAXIMUM	HOLD 1	-	1373	kg/h			
	37	MINIMUM PRESSURE	NORMAL	MAXIMUM	HOLD 1	-	8.6	bar-g			
SN	38	MINIMUM TEMPERATURE	NORMAL	MAXIMUM	HOLD 1	-	180				
)TIO	39	DESIGN PRESSURE	DESIGN TEMPERA			bar-g	200				
JND	40	MINIMUM DP	NORMAL	MAXIMUM	-	-	0.34	bar			
CC	41	CV CALCULATED MINIMUM	NORMAL	MAXIMUM	NOTE 3		NOTE 3	NOTE 3			
JNG	42	CV SELECTED	% ABERTURA DA	VALVULA	NO	TE 2		OTE 2			
OPERATING CONDITIONS	43	MAXIMUM PERMISSIBLE DIN	ITION				NOT				
PE.	44	DENSITY @ OPERATING COND					kg/m³				
5	45	VISCOSITY @ OPERATING CON				0.015	сР				
		MOLECULAR MASS	FACTOR k=Cp/Cv		18 g	/mol					
	47										
	48										
	49	MANUFACTURER					AX SARCO				
	50	MODEL				SR	V 461-463				

- 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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