DOC NUMBER: **569-DB7A-MEC-731-001**	CLIENT NUMBER: **PRD-MEC-DSH-010**
CLIENT: **TAKEDA**	
PROJECT: **BURITI EPCVM PROJECT**	

DATA SHEET
BUFFER TANK
BT-7A-1

REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV
0	30/JUL/2021	ISSUED FOR CONSTRUCTION			
B	27/APR/2021	90% DD ISSUE	ASO	LFF	RSP
A	12/FEB/2021	30% DD ISSUE	ASO	LFF	MAJ

1. REVISION HISTORY

Rev	Reason For Change
A	ORIGINAL ISSUE
B	PAGE 03, item 2.1 : changed capacity from 6.0 m³ to 8.0 m³
	PAGE 03, item 2.2 : changed internal diameter from 2,400 mm to 2,000 mm
	PAGE 03, item 2.3 : changed height from 1,850 mm to 3,190 mm
	PAGE 03, item 2.3 : changed temperature from 15.0/5.0 °C to 11.0/5.0 °C
	PAGE 03, item 2.3 : informed design temperature
	PAGE 03, Note 6 : added
	PAGE 04: Adjusted nozzles, diameter and height in the sketch
	PAGE 05: included nozzles orientation
0	ISSUED FOR CONSTRUCTION
	PAGE 03, item 2.1 : changed capacity from 8.0 m³ to 12.0 m³
	PAGE 03, item 2.2 : changed internal diameter from 2,000 mm to 2,500 mm
	PAGE 03, item 2.3 : changed height from 3,190 mm to 3,140 mm
	PAGE 03, item 2.3 : changed temperature from 11.0/5.0 °C to 9.5/5.0 °C
	PAGE 04: Adjusted nozzles, diameter and height in the sketch

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BUFFER TANK - BT-7A-1

SHEET: 3/5

REV.: **0**

1	**GENERAL**					
1.1	**SERVICE:**	CHILLED WATER		**ITEM Nº:**		BT-7A-1
1.2	**LOCAL:**	DRUG PRODUCT BUILDING		**QUANTITY:**		1
1.3	**MANUFACTURER:**	(Note 1)		**MANUFACTURING STANDARD:**		-
1.4	**APPLICABLE:**	PROPOSAL				
2	**OPERATION CONDITIONS** (Note 2)					
2.1	**CAPACITY (m^3):**	12.0		**STORED PRODUCT:**	WATER	
2.2	**INTERNAL DIAM. (mm):**	2,500		**CYLINDRICAL HEIGHT (mm):**	3,140	
2.3	**OPERAT. TEMPER. - HOT /COLD SIDE (^{0}C):**	9.5/5.0		**DESIGN TEMPER. (^{0}C):**	-10 @ 40°	
2.4	**DESIGN PRESS (barg):**	ATM		**HIDROSTATIC TEST:**	FULL OF WATER	
3	**CONSTRUCTION** (Note 2)					
3.1	**TYPE OF TANK:**	VERTICAL		**SUPPORT:**	NO (ON CONCRETE BASE)	
3.2	**HEAD:**	PLAN		**BOTTOM:**	PLAN	
4	**MATERIAL**					
4.1	**SHELL:**	ASME/ASTM A-36	**HEAD:**	ASME/ASTM A-36	**BOTTOM:**	ASME/ASTM A-36
4.2	**NOZZLE FLANGES:**	ASME/ASTM A-105	**NOZZLE NECK:**	ASME/ASTM A-106 GR. B		
4.3	**DIVISORY PLATE:**	ASME/ASTM A-36				
4.3	**BOLTS:**	ASME/ASTM A-193 GR. B7	**NUTS:**	ASME/ASTM A-194 GR. 2H		
5	**MATERIALS INSPECTION**					
5.1	**IN THE PLATE SUPPLIER:**	YES				
5.2	**IN THE EQUIPMENT MANUFACTURER:**	YES				
5.3	**IN THE CLIENT'S SITE:**	YES				
6	**TANK WEIGHT**					
6.1	**EMPTY (kg):**	Note 1	**FULL OF WATER (kg):**	Note 1		
7	**MINIMUM THICKNESS OF PLATES**					
7.1	**MINIMUM THCKNESS (mm):**	5				
7.2	**CORROSION OVERTHICKNESS (mm):**	1				

Notes:

1) To be confirmed by supplier.

2) The supplier shall be responsible for all equipment dimensioning according to the operational conditions, as well as for the equipment support design.

3) Dimensional drawing of the equipment shall be part of the proposal.

4) A 150 mm projection should be expected until the face of the flanged nozzles.

5) Lifting lugs and grounding clips shall be included in the supply.

6) The tank shall have an internal and external painting (only primer coat in epoxy, minimum thk of 100 µm) . Clips should be provided in the equipment for fixing the thermal insulation.

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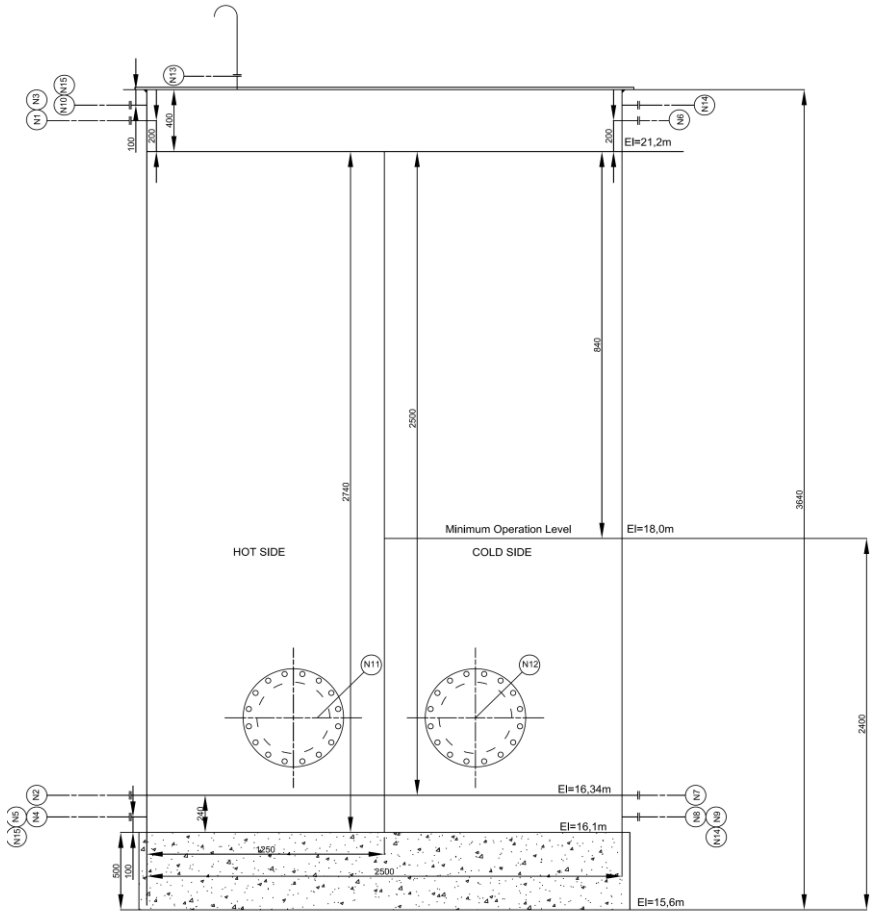
NOZLLES

POS	DIAM	QTY	CLAS	TYPE	FACE	THICKNESS	SERVICE	OBSERVATION
N1	6"	1	150#	WN	RF	SCH40	HOT WATER INLET	ASME/ANSI B16.5
N2	6"	1	150#	WN	RF	SCH40	HOT WATER OUTLET	ASME/ANSI B16.5
N3	1 1/2"	1	150#	WN	RF	SCH40	MAKE-UP WATER INLET	ASME/ANSI B16.5
N4	2"	1	150#	WN	RF	SCH40	HOT WATER SIDE - DRAIN	ASME/ANSI B16.5
N5	1 1/2"	1	150#	WN	RF	SCH40	LIT-9800051	ASME/ANSI B16.5
N6	6"	1	150#	WN	RF	SCH40	COLD WATER INLET	ASME/ANSI B16.5
N7	6"	1	150#	WN	RF	SCH40	COLD WATER OUTLET	ASME/ANSI B16.5
N8	2"	1	150#	WN	RF	SCH40	COLD WATER SIDE - DRAIN	ASME/ANSI B16.5
N9	1 1/2"	1	150#	WN	RF	SCH40	LIT-9800052	ASME/ANSI B16.5
N10	2"	1	150#	WN	RF	SCH40	OVERFLOW	ASME/ANSI B16.5
N11	18"	1	150#	SO	RF	SCH40	MANHOLE (HOT SIDE)	ASME/ANSI B16.5
N12	18"	1	150#	SO	RF	SCH40	MANHOLE (COLD SIDE)	ASME/ANSI B16.5
N13	3"	1	-	-	-	SCH40	VENT	ASME/ANSI B15.5
N14	1 1/2"	2	150#	SO	RF	SCH40	LEVEL GAUGE 980070 (COLD SIDE)	ASME/ANSI B16.5
N15	1 1/2"	2	150#	SO	RF	SCH40	LEVEL GAUGE 980069 (HOT SIDE)	ASME/ANSI B16.5



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SKETCH - NOZZLES ORIENTATION