DOC NUMBER: **569-DB7B-MEC-712-001**	CLIENT NUMBER: **PRD-MEC-DSH-013**
CLIENT: **TAKEDA/BAXALTA**	
PROJECT: **BURITI EPCVM PROJECT**	

DATA SHEET
COMPRESSED AIR - COMP-7B-1 / COMP-7B-2
AD-7B-1 / AD-7B-2
AR-7B-1

REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV
0	30/JUL/2021	ISSUED FOR CONSTRUCTION	ASO	LFF	RSP
B	02/JUN/2021	90% DD ISSUE	ASO	LFF	RSP
A	08/FEB/2021	30% DD ISSUE	ASO	LFF	MAJ

1. REVISION HISTORY

Rev	Reason For Change
A	ORIGINAL ISSUE
B	Page 3, lines 15, 28, 37,45 e 53: Changed flow rate from 2,330 Nm^3/h to 1,200 Nm^3/h.
	Page 3, line 7: Adjusted air receiver design temperature.
	Page 3, line 8: Indicated manhole dimension
	Page 3, line 9: Informed air receiver dimensions
	Page 3, line 10: Adjusted air compressor connections
	Page 5: Adjusted sketch
	Page 6, note 6: Complemented communication protocol information
	Page 6: Included note 14
0	ISSUED FOR CONSTRUCTION

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TITLE

COMPRESSED AIR - COMP-7B-1 / COMP-7B-2 // AD-7B-1 / AD-7B-2 // AR-7B-1

SHEET: 3/6

REV.: 0

1	**ITEM Nº:** COMP-7B-1 / COMP-7B-2 **QTD:** 2	**AIR RECEIVER DESIGN CONDITIONS**
2	**SERVICE:** Compressed Air - Drug Substance Bld. (7B)	**AIR RECEIVER TYPE:** Vertical
3	**LOCAL:** Goiana - Pernambuco	**ITEM Nº:** AR-7B-1 **QTD:** 1
4	**APPLICABLE:** ☑ **PROPOSAL** ☐ **PURCHASE**	**DESIGN CODE:** ASME VIII - DIV 1 e NR-13
5	☐ **AS BUILT**	**VOLUME :** 3 m³
6	**COMPRESSOR DESIGN CONDITIONS**	**PRES.E (bar g)** 11,0 **DESIGN** 6,0 **OPER.**
7	**COMPRESSOR TYPE:** Screw	**TEMP. (° C)** -20@100 **DESIGN** 40,0 **OPER.**
8	**DISCHARGE PRESSURE:** 6.0 bar g	**MANHOLE DIMENSION (mm) :** 350 X 450
9	**OPERATION** Continuous	**DIMENSIONS (DXH) mm:** 1,265 x 2,880
10	**INSTALLATION ALTITUDE:** 13 m	**MATERIAL/PAINTING:** Vendor Standard (note 1)
11	**ACTUATION** VFD (Variable-frequency drive)	**COMPRESSOR COOLING**
12	**MATERIAL/PAINTING:** Vendor Standard (note 1)	**COOLING FLUID:** Condenser water
13	**COMPRESSOR OPERATION CONDITIONS**	**WATER INLET TEMPERATURE:** 31.5 °C
14	**FLUID:** Air (oil free)	**WATER RETURN TEMPERATURE:** 37.0 °C
15	**FLOW:** 1,200 Nm³/h	**WATER COOLING FLOW:** By Vendor
16	**SUCTION PRESSURE:** ATM	**PRESSURE OPERATION:** By Vendor
17	**DISCHARGE PRESSURE:** 6.0 bar g	**PRESSURE DROP:** By Vendor
18	**SUCTION HUMIDITY:** 40% to 90%	**COMPRESSOR GENERAL DATA**
19	**SUCTION TEMPERATURE:** 0 to 40° C	**NUMBER OF STAGES:** **By Vendor**
20	**MAX DISCHARGE TEMPERATURE:** 45° C	**EFFECTS** ☐ **SINGLE** ☑ **DOUBLE**
21	**AIR DRYER DESIGN CONDITIONS**	**TYPE:** ☐ **LUBRIC.** ☑ **OIL FREE**
22	**DRYER TYPE:** Adsorption type - heated	**ASSEMBLY:** ☑ **HORIZONTAL** ☐ **VERTICAL**
23	**ITEM Nº:** AD-7B-1 / AD-7B-2 **QTD:** 2	**MINIMUM ALLOWABLE FLOW :** By Vendor
24	**INLET PRESSURE:** 6.0 bar g	**MAXIMUM ALLOWABLE FLOW :** By Vendor
25	**MAX AIR ENTRANCE TEMPERATURE:** 45° C	**LOCATION** Indoor
26	**FINAL HUMIDITY:** Dew Point -40°C @ 6.0 bar g	**NOISE LEVEL W/ ACOUSTIC CABIN:** 85 dB(A) max
27	**PRESSURE DROP:** By Vendor bar g	**ELECTRICAL MOTOR GENERAL DATA**
28	**FLOW:** 1,200 Nm³/h	**POWER (kW):** By Vendor
29	**MATERIAL/PAINTING:** Vendor Standard (note 1)	**ROTATION (RPM):** By Vendor
30	**AIR DRYER PRE-FILTER DESIGN CONDITIONS**	**TENSION (V)** 380
31	**FILTER TYPE:** Particulate Coalescing Filter	**N° OF PHASES :** 3
32	**ITEM Nº:** F-COMP-7B-1 / F-COMP-7B-2 **QTD:** 2	**FREQUENCY (Hz):** 60
33	**RETENTION OF SOLID PARTICLES:** 0,01 µm	**SPEED CONTROL:** Yes
34	**TYPE OF PURGE:** Automatic	**INSULATION CLASS:** F
35	**PRESSURE DROP:** By vendor	**SERVICE FACTOR:** 1,25
36	**INLET PRESSURE:** 6,0 bar g	**ZONE / TEMP. CLASS / GROUP:** N/A
37	**FLOW:** 1,200 Nm³/h	**PROTECTION:** IP 55
38	**AIR DRYER POST-FILTER DESIGN CONDITIONS**	**SERVICE** / **SIZE** / **TYPE**
39	**FILTER TYPE:** Particulate Coalescing Filter	**DISCH. AIR** / By Vendor / ANSI B16.5 /150#
40	**ITEM Nº:** F-AD-7B-1 / F-AD-7B-2 **QTD:** 2	**WATER IN/OUT** / By Vendor / ANSI B16.5 /150#
41	**RETENTION OF SOLID PARTICLES:** 0,1 µm	**DISCHARGE** / By Vendor / By Vendor
42	**TYPE OF PURGE:** Automatic	**DRAIN** / By Vendor / By Vendor
43	**PRESSURE DROP:** By Vendor	**AIR DRYER CONNECTIONS**
44	**INLET PRESSURE:** 6,0 bar g	**SERVICE** / **SIZE** / **TYPE**
45	**FLOW:** 1,200 Nm³/h	**AIR INLET.** / By Vendor / By Vendor
46	**AIR RECEIVER POST-FILTER DESIGN CONDITIONS**	**AIR OUTLET** / By Vendor / By Vendor
47	**FILTER TYPE:** Particulate Filter	**AIR DRYER FILTERS CONNECTIONS(PRE/POS)**
48	**ITEM Nº:** F-AR-7B-1 **QTD:** 1	**SERVICE** / **SIZE** / **TYPE**
49	**RETENTION OF SOLID PARTICLES:** 0,01 µm	**AIR INLET.** / By Vendor / By Vendor
50	**TYPE OF PURGE:** Automatic	**AIR OUTLET** / By Vendor / By Vendor
51	**PRESSURE DROP:** By Vendor	**AIR RECEIVER POST-FILTER**
52	**INLET PRESSURE:** 6,0 bar g	**SERVICE** / **SIZE** / **TYPE**
53	**FLOW:** 1,200 Nm³/h	**AIR INLET.** / By Vendor / By Vendor
54		**AIR OUTLET** / By Vendor / By Vendor

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NUMBER:	569-DB7B-MEC-712-001			CLIENT NR:	PRD-MEC-DSH-013			
TITLE							SHEET:	4/6
COMPRESSED AIR - COMP-7B-1 / COMP-7B-2 // AD-7B-1 / AD-7B-2 // AR-7B-1							REV.:	0

1	SHOP INSPECTION AND TESTS					WEIGHT			
2	SHOP INSPECTION	☑	REQ'D	☐	NOT REQ'D	COMPRES.:	By Vendor	EMPTY	By Vendor OPER.
3	HYDROSTATIC	☑	REQ'D	☐	NOT REQ'D	AIR DRYER:	By Vendor	EMPTY	By Vendor OPER.
4	MECHANICAL RUN	☑	REQ'D	☐	NOT REQ'D	AIR RECEIV.:	By Vendor	EMPTY	By Vendor OPER.
5	PERFORMANCE TEST	☑	REQ'D	☐	NOT REQ'D				
6	COMPLETE UNIT TEST	☑	REQ'D	☐	NOT REQ'D				
7	FULL-LOAD TEST	☑	REQ'D	☐	NOT REQ'D				
8	EQUIPMENT AND INSTRUMENT SUPPLIERS								
9	COMPRESSOR:					MFR.	By Vendor	MODEL	By Vendor
10	DRYER					MFR.	By Vendor	MODEL	By Vendor
11	DRYER PRE FILTER					MFR.	By Vendor	MODEL	By Vendor
12	DRYER POST-FILTER					MFR.	By Vendor	MODEL	By Vendor
13	AIR RECEIVER POST-FILTER					MFR.	By Vendor	MODEL	By Vendor
14	ELECTICAL MOTOR					MFR.	By Vendor	MODEL	By Vendor
15	PRESSURE GAUGES					MFR.	By Vendor	SIZE & TYPE	By Vendor
16	TEMPERATURE GAUGES					MFR.	By Vendor	SIZE & TYPE	By Vendor
17	LEVEL GAUGES					MFR.	By Vendor	SIZE & TYPE	By Vendor
18	DIFF-PRESSURE GAUGES					MFR.	By Vendor	SIZE & TYPE	By Vendor
19	PRESSURE SWITCHES/TRANSMITTERS					MFR.	By Vendor	SIZE & TYPE	By Vendor
20	DIFF-PRESSURE SWITCHES/TRANSMITTERS					MFR.	By Vendor	SIZE & TYPE	By Vendor
21	TEMPERATURE SWITCHES/TRANSMITTERS					MFR.	By Vendor	SIZE & TYPE	By Vendor
22	LEVEL SWITCHES/TRANSMITTERS					MFR.	By Vendor	SIZE & TYPE	By Vendor
23	CONTROL VALVES					MFR.	By Vendor	SIZE & TYPE	By Vendor
24	PRESSURE-RELIEF VALVES					MFR.	By Vendor	SIZE & TYPE	By Vendor
25	THERMAL RELIEF VALVES					MFR.	By Vendor	SIZE & TYPE	By Vendor
26	FLOW INDICATORS					MFR.	By Vendor	SIZE & TYPE	By Vendor
27	GAS FLOW MEASUREMENT					MFR.	By Vendor	SIZE & TYPE	By Vendor
28	VIBRATION/AXIAL POSITION MEASUREMENT					MFR.	By Vendor	SIZE & TYPE	By Vendor
29	SPEED MEASUREMENT					MFR.	By Vendor	SIZE & TYPE	By Vendor
30	SOLENOID VALVES					MFR.	By Vendor	SIZE & TYPE	By Vendor
31	ON-OFF VALVES					MFR.	By Vendor	SIZE & TYPE	By Vendor
32	DEW POINT ANALYZER					MFR.	By Vendor	SIZE & TYPE	By Vendor
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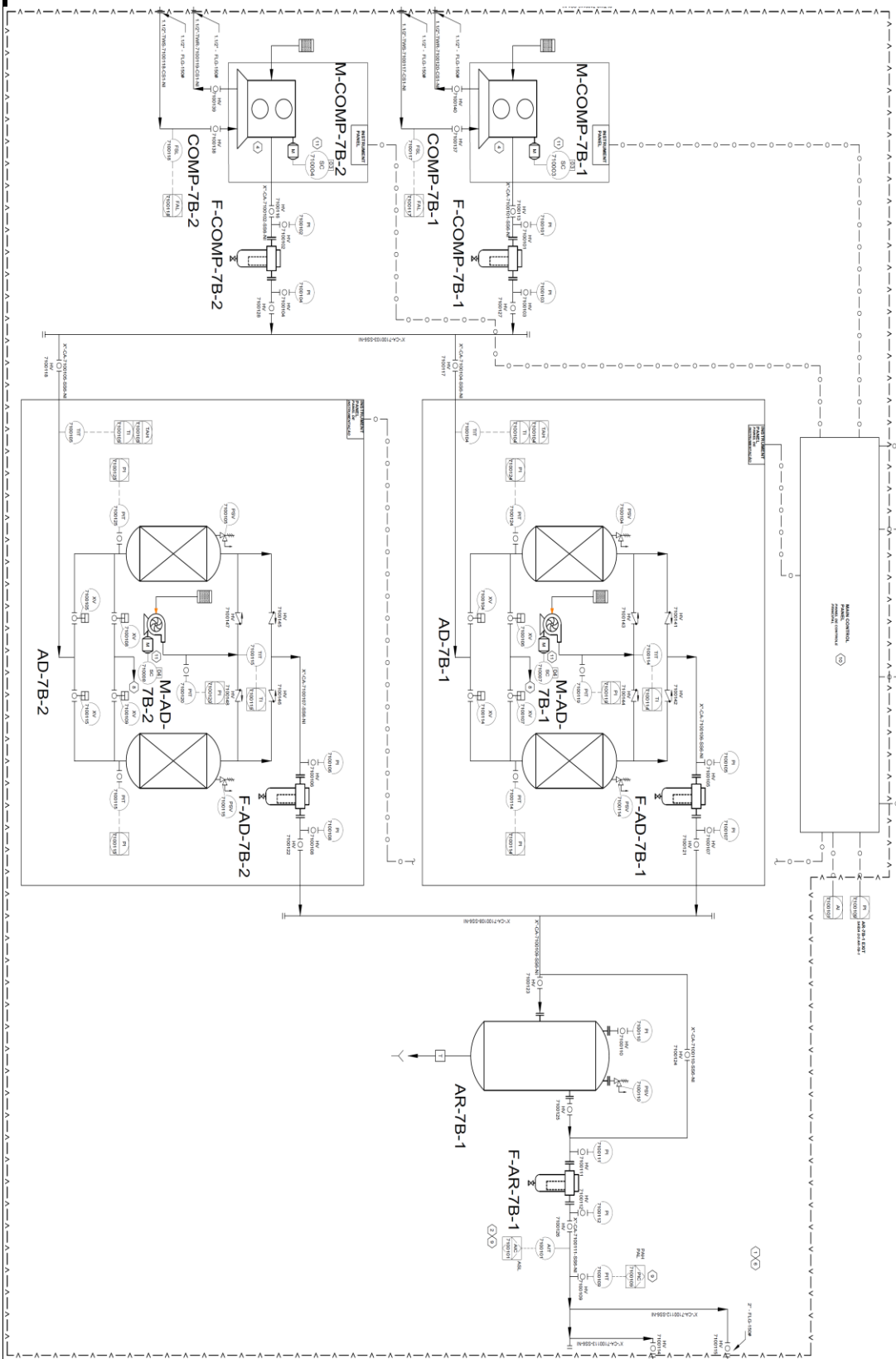
NUMBER:	**569-DB7B-MEC-712-001**	CLIENT NR:	**PRD-MEC-DSH-013**
TITLE			SHEET: ***5/6***
COMPRESSED AIR - COMP-7B-1 / COMP-7B-2 // AD-7B-1 / AD-7B-2 // AR-7B-1			REV.: **0**

Sketch - Limit of Scope



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NUMBER: 569-DB7B-MEC-712-001	CLIENT NR: PRD-MEC-DSH-013	
TITLE **COMPRESSED AIR - COMP-7B-1 / COMP-7B-2 // AD-7B-1 / AD-7B-2 // AR-7B-1**		SHEET: ***6/6*** REV.: **0**

Notes:

1- Vendor Shall complete all blank fields in this data sheet.

2- Supplier shall issue with the proposal the material standard (ASTM, ANSI, etc) used in the equipment fabrication, as well as the painting procedure.

3- The scope of supply includes the instruments and wiring to junction box and/or local panel.

4- The local control panel is the battery limit of the package.

5- All instruments and components of the automation shall follow TAKEDA/BAXALTA's vendor list.

6- The control system shall be supplied with communication protocol in Ethernet and compatible with the Wonderware platform (BMS System) and manager all automation of the compressed air generation system.

7- The supplier shall provide the following documents:

Instrument List, I/O List, Installation Bill of Materials, Instrumentation Hook-up, Logic Diagram, Cable List, Instrumentation Plans, Instrument Data Sheets, Control Valves and Pressure Relief Valves.

8- Available electrical power 380V - 3ph - 60 Hz. Control voltage shall be 220 V generated internally in the scope of the package.

9- Compliance with NR-10 is required.

10- Compliance with NR-12 is required.

11- Compliance with NR-13 is required.

12- Reference document: PRD-MEC-TSP-004 (TECHNICAL SPECIFICATION – COMPRESSED AIR SYSTEMS)

13- Air classification 1.2.0, according to ISO 8573-1: 2010.

14- The vessel shall have an internal and external painting. Internal only primer coat in epoxy, minimum thk of 100 µm. External shall have primer and finish top coat in epoxy with a thickness of 100 - 280 µm