



	
DOC NUMBER: <b>569-DB7A-MEC-712-001</b>		CLIENT NUMBER: <b>PRD-MEC-DSH-001</b>	
CLIENT: <b>TAKEDA/BAXALTA</b>			
PROJECT: <b>BURITI EPCVM PROJECT</b>			

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

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
REV	DATE	DESCRIPTION	EXEC	CHECK	APPROV

 		 	
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TITLE <b>COMPRESSED AIR - COMP-7A-1 / COMP-7A-2 // AD-7A-1 / AD-7A-2 // AR-7A-1</b>			SHEET: <b>2/6</b> REV.: <b>0</b>

## 1. REVISION HISTORY

Rev	Reason For Change
A	ORIGINAL ISSUE
B	Page 3, lines 15, 28, 37,45 e 53: Changed flow rate from 1,000 Nm <sup>3</sup> /h to 850 Nm <sup>3</sup> /h.
	Page 3, line 5: Changed Volume from 4.0 m to 2.0 m.
	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 38: Adjusted air compressor connections
	Page 5: Adjusted sketch
	Page 6, note 6: Complemented communication protocol information
0	Page 6: Included note 14
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1	ITEM Nº: COMP-7A-1 / COMP-7A-2	QTD: 2	AIR RECEIVER DESIGN CONDITIONS		
2	SERVICE: Compressed Air - Drug Product Bld. (7A)		AIR RECEIVER TYPE: Vertical		
3	LOCAL: Goiana - Pernambuco		ITEM Nº: AR-7A-1	QTD: 1	
4	APPLICABLE: <input checked="" type="checkbox"/> PROPOSAL <input type="checkbox"/> PURCHASE		DESIGN CODE: ASME VIII - DIV 1 AND NR-13		
5	<input type="checkbox"/> AS BUILT		VOLUME : 2 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: 940 x 3,350		
10	INSTALLATION ALTITUDE: 13 m		MATERIAL/PAINTING: Vendor Standard (note 1 / 14)		
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: 850 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	<input type="checkbox"/> SINGLE <input checked="" type="checkbox"/> DOUBLE	
21	AIR DRYER DESIGN CONDITIONS		TYPE:	<input type="checkbox"/> LUBRIC. <input checked="" type="checkbox"/> OIL FREE	
22	DRYER TYPE: Adsorption type - heated		ASSEMBLY:	<input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/> VERTICAL	
23	ITEM Nº: AD-7A-1 / AD-7A-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: 850 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-7A-1 / F-COMP-7A-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: 850 Nm³/h		PROTECTION: IP 55		
38	AIR DRYER POST-FILTER DESIGN CONDITIONS		AIR COMPRESSOR CONNECTIONS		
39	FILTER TYPE: Particulate Coalescing Filter		SERVICE	SIZE	TYPE
40	ITEM Nº: F-AD-7A-1 / F-AD-7A-2	QTD: 2	DISCH. AIR	By Vendor	ANSI B16.5 /150#
41	RETENTION OF SOLID PARTICLES: 0.1 µm		WATER IN/OUT	By Vendor	ANSI B16.5 /150#
42	TYPE OF PURGE: Automatic		DRAIN	By Vendor	NPT
43	PRESSURE DROP: By Vendor		AIR DRYER CONNECTIONS		
44	INLET PRESSURE: 6.0 bar g		SERVICE	SIZE	TYPE
45	FLOW: 850 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-7A-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: 850 Nm³/h		AIR INLET.	By Vendor	By Vendor
54			AIR OUTLET	By Vendor	By Vendor

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1	SHOP INSPECTION AND TESTS				WEIGHT	
2	SHOP INSPECTION	<input checked="" type="checkbox"/> REQ'D	<input type="checkbox"/> NOT REQ'D		COMPRES.:	By Vendor EMPTY By Vendor OPER.
3	HYDROSTATIC	<input checked="" type="checkbox"/> REQ'D	<input type="checkbox"/> NOT REQ'D		AIR DRYER:	By Vendor EMPTY By Vendor OPER.
4	MECHANICAL RUN	<input checked="" type="checkbox"/> REQ'D	<input type="checkbox"/> NOT REQ'D		AIR RECEIV.:	By Vendor EMPTY By Vendor OPER.
5	PERFORMANCE TEST	<input checked="" type="checkbox"/> REQ'D	<input type="checkbox"/> NOT REQ'D			
6	COMPLETE UNIT TEST	<input checked="" type="checkbox"/> REQ'D	<input type="checkbox"/> NOT REQ'D			
7	FULL-LOAD TEST	<input checked="" type="checkbox"/> REQ'D	<input type="checkbox"/> 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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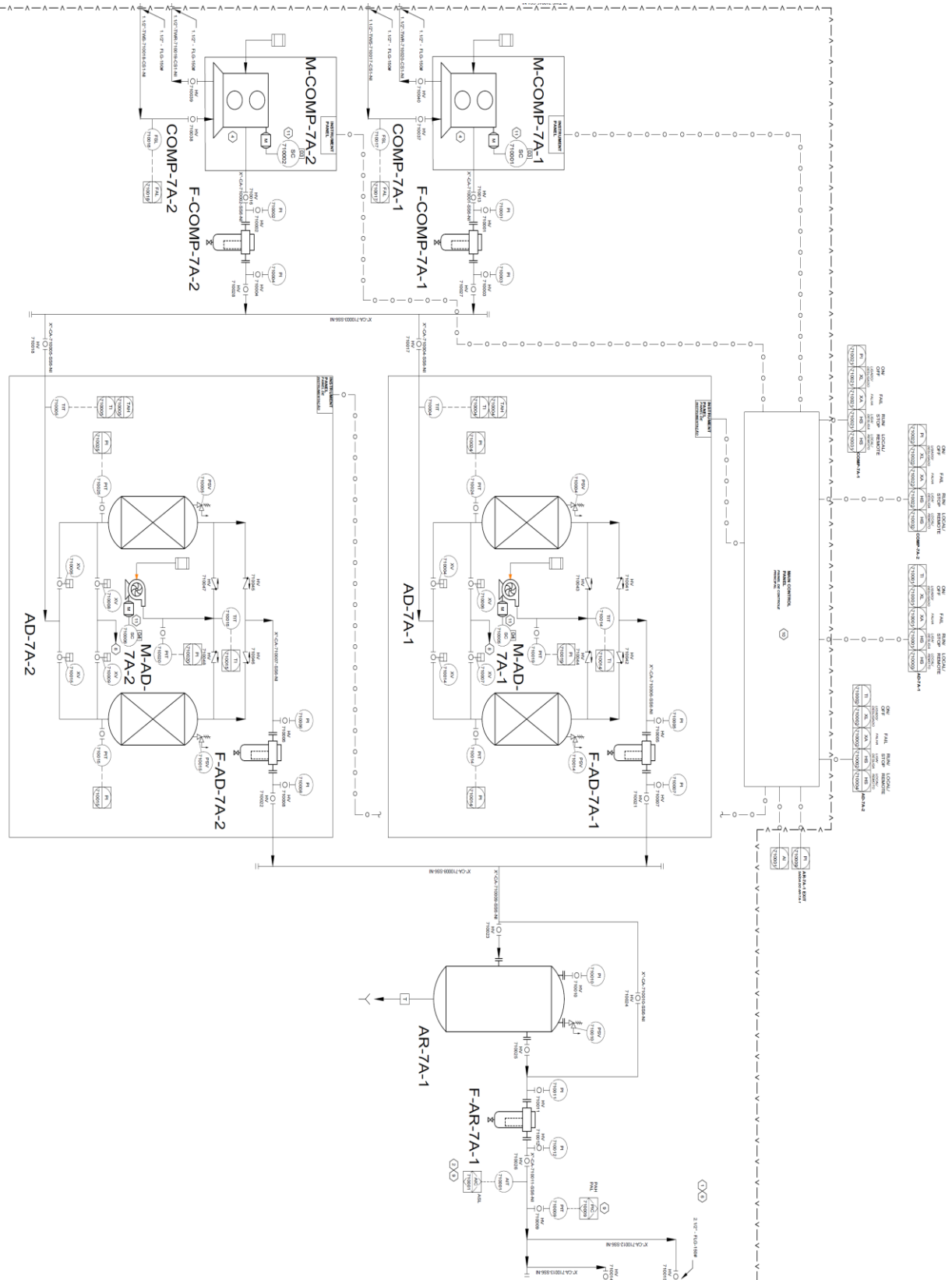
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**COMPRESSED AIR - COMP-7A-1 / COMP-7A-2 // AD-7A-1 / AD-7A-2 // AR-7A-1**

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**Sketch - Limit of Scope**



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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 minimum thk of 140 µm.