

 <p>شرکت توسعه صنایع لوان Lavan Industry Development Company</p>	<p>LIDCO, Pars SEE Zone, Assaluyeh, Integrated Methanol and Ammonia Plant 3000 MTPD MeOH / 900 MTPD NH3 PROJECT</p>																				
	<p>Equipment Data Sheet</p>																				
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Revision	03																				

**Airpack B.V. - Air Compressor –
Integrated Methanol and Ammonia Plant
17735-COM Equipment Data Sheet (K020)**

03	27-06-2024	Issued for Approval	S.K.	S.K.	J.J.
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Equipment Data Sheet



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		EQUIPMENT DATA SHEET		P.O. No.		LIDCO-PO-NEC-278-6019	
				Document No.		N-278-VD-6019-ME-DS-0011-01	
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				Rev.No		03	
Integrated Methanol and Ammonia Plant		Item Tag No.		K-020			
		Service		Compressed Instrument Air			
1 VENDOR (COMPRESSOR) :		Airpack Netherlands B.V.		REFERENCE :		17735-COM	
2 TYPE / MODEL :		High Pressure Air Compressor		SERIAL NO. :		3000 MTPD MeOH/900 MTPD NH3 PROJECT	
3 SERVICE :		Compressed Air		OPERATION :		Duty	
4 QUANTITY :		1					
OPERATING CONDITIONS				PACKAGE SCOPE OF SUPPLY			
6 GAS HANDLED :		Instrument air		COMPRESSOR TYPE :		non lubricated, single acting, vertical piston	
7				DRIVER TYPE :		V-belt	
8				COUPLING / GUARD :		N/A	
INLET CONDITIONS				CONFIGURATION:			
10 PRESSURE OP		bar(g) 9,5		INTERCOOLING		Water cooled shell/tube KE-020-001	
11 PRESSURE DP		bar(g) 12,5		AFTERCOOLER		Water cooled shell/tube KE-020-002	
12 TEMPERATURE OT		°C 46		LUBE-OIL HEATER		Included, KH-020-001	
13 TEMPERATURE DT		°C 75		LUBE-OIL PUMP		Shaft driven	
14 FLOW RATE		Nm³/h 35		AIR COOLER		Motor driven fan KM-020-001	
15				CONTROL PANEL		Not included	
16				PANEL ON PACKAGE:		JB and pushbutton station on package	
DISCHARGE CONDITIONS				INTERCONNECTING PIPEWORK & VALVES :			
18 PRESSURE OP		bar(g) 30		No piping and valves provided for outside package.			
19 PRESSURE DP		bar(g) 39		ACOUSTIC ENCLOSURE			
20 TEMPERATURE OT		°C 60 max.		RECEIVER VESSELS			
21 TEMPERATURE DT		°C 75		Not included			
22 FLOW RATE		Nm³/h 35		Not included			
23				UTILITY SUPPLIES			
24				COMP. PERFORMANCE			
25 SPEED		rpm 410		ELECTRICAL SUPPLY :			
26 POWER AT COUPLING		kW 11		V 400		Hz 50	
27 TYPE		non lubricated, single acting, vertical piston		V 230		Hz 50	
28						ph 3	
29						ph 1	
DRIVER PERFORMANCE				COOLING MEDIUM :			
30 OPERATING SPEED		rpm 1467		Water			
31 RATING		kW 15		TEMPERATURE INTER COOLER		°C 36	
32 MANUFACTURER		SIEMENS		TEMPERATURE AFTER COOLER		°C 46	
33				PRESSURE CWS		bar(g) 4,50	
34				PRESSURE CWR		bar(g) 2,50	
35				WEIGHTS AND DIMENSIONS			
36				SKID DRY WEIGHT		kg 2700	
37				SKID OPERATIONAL WEIGHT		kg 2750	
38				SIZE		mm L X W X H	
39						2500X1500X2110	
40				SITE CONDITIONS			
41							
42 ELEVATION		m 0					
43 AMB. TEMPERATURE		°C 0 / 49					
44 AMB. PRESSURE		bar(a) 1,01					
45 AMBIENT AIR HUMIDITY		% 65 / 100					
46 LOCATION :		Iran, onshore					
47 AREA CLASSIFICATION		Safe area					
48 NOISE LIMITATION		dBA < 85 dB(A)					
49				NOTES : Measured, during running, at more than one point around the package at 1m distance from skid edge. Measuring points are shown in the document FAT procedure (N-278-VD-6019-GN-PRC-0015-01)			
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VENDOR 		EQUIPMENT DATA SHEET		P.O. No. LIDCO-PO-NEC-278-6019				
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		Integrated Methanol and Ammonia Plant		Item Tag No. K-020				
				Service Compressed Instrument Air				
CONSTRUCTION								
SPEEDS			INSTRUMENTATION					
3	MAXIMUM ALLOWABLE	RPM	410	REFER TO:				
4	ROTATION VIEWED FROM DRIVEN END		CW					
5				P&ID [N-278-VD-6019-PR-PID-0002-01]				
6				INSTRUMENT DATASHEET [N-278-VD-6019-IN-DS-0013-01]				
7				CONTROL VALVE DATASHEETS [N-278-VD-6019-IN-DS-0041]				
8				PSV DATASHEET [N-278-VD-6019-IN-DS-0039]				
9								
CASING			SKID CONNECTIONS					
11	MODEL		TRZ 400	NOZZLE	SIZE	RATING	FACING	POSITION
12	WORKING PRESSURE 1ST/2ND STAGE	bar(g)	23.3/30	PACKAGE INLET	1"	#300	RF	TP-8201
13	MAWP	bar(g)	30.5/39	PACKAGE OUTLET	3/4"	#300	RF	TP-8202
14	MAXIMUM OPERATING TEMP 1ST/2ND	°C	157/116	WATER INLET	3/4"	#150	RF	TP-8203
15	NO. OF CYLINDERS		2	WATER OUTLET	3/4"	#150	RF	TP-8204
16	CYLINDER BORE 1ST/2ND STAGE	M	0.055/0.035					
17	CYLINDER STROKE 1ST/2ND STAGE	M	0.13/0.13					
18	COOLING MEDIUM BLOCK/CYLINDERS		AIR-COOLED					
19	MATERIAL PISTON/VALVES		STAINLESS STEEL					
20	HYDROTEST PRESSURE CYLINDERS	bar(g)	58,5					
21								
BEARING HOUSING			CONTROLS					
23	TYPE	Anti friction		CAPACITY CONTROL METHOD :		Compressor PCV		
24	BALL / ROLLER	Roller		STOP/START ON PRESSURE SIGNALS		Yes from 300LP-820		
25								
LUBRICATION								
27	LUBE SYSTEM :	Oil sump						
28	LUBE OIL PUMP DRIVE :	Shaft driven						
29	SYSTEM OIL CAPACITY	Liter	18					
30	LUBE OIL HEATER		230V, 80 W					
31	HEATING CARTRIDGE	mm	L=180					
32	CONNECTION OIL HEATER	G	1/2					
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34	NOTES :							
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VENDOR 	EQUIPMENT DATA SHEET		P.O. No.	LIDCO-PO-NEC-278-6019
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CONTRACTOR / END USER 	Integrated Methanol and Ammonia Plant		Item Tag No.	K-020
			Service	Compressed Instrument Air

PULSTATION DAMPER INLET													
1	EQUIPMENT NO.		KV-020-001		LOCATION :		INLET		LIQUID / AIR COOLED	AIR			
2	NO. REQD		1		MFR / SUPPLIED BY:		Locati Impianti						
3	CAPACITY		Nm3/hr	35	MATERIAL :		SA106 Gr.B						
4	MAWP		bar(g)	12,5	MAIN IN/OUTLET		1" 300#						
5	HYDROSTATIC PRESSURE		bar(g)	16,25									
6	CONNECTIONS		TG	1 1/2" 300#	TT	1 1/2" 300#	PSV	1" 300#	DRAIN	1/2" NPT			
7	COMPRESSED AIR		O	D	Bar(g)	9,5	12,5	TEMP	O	D	°C	46	75

PULSTATION DAMPER 1ST STAGE DISCHARGE													
10	EQUIPMENT NO.		KV-020-002		LOCATION :		1ST STAGE DISCHARGE		LIQUID / AIR COOLED	AIR			
11	NO. REQD		1		MFR / SUPPLIED BY:		Locati Impianti						
12	CAPACITY		Nm3/hr	35	MATERIAL :		SA106 Gr.B						
13	MAWP		bar(g)	30,5	MAIN IN/OUTLET		3/4" 600#						
14	HYDROSTATIC PRESSURE		bar(g)	39,65									
15	CONNECTIONS		TG	1 1/2" 600#	TT	1 1/2" 600#	PSV	1" 600#	DRAIN	1/2" NPT			
16	COMPRESSED AIR		O	D	Bar(g)	23,3	30,5	TEMP	O	D	°C	157	175

PULSTATION DAMPER 2nd STAGE SUCTION													
18	EQUIPMENT NO.		KV-020-003		LOCATION :		2nd STAGE SUCTION		LIQUID / AIR COOLED	AIR			
19	NO. REQD		1		MFR / SUPPLIED BY:		Locati Impianti						
20	CAPACITY		Nm3/hr	35	MATERIAL :		SA106 Gr.B						
21	MAWP		bar(g)	39	MAIN IN/OUTLET		3/4" 600#						
22	HYDROSTATIC PRESSURE		bar(g)	50,7									
23	CONNECTIONS		TG	N/A	TT	1 1/2" 600#	PSV	N/A	DRAIN	1/2" NPT			
24	COMPRESSED AIR		O	D	Bar(g)	22,1	39,0	TEMP	O	D	°C	60	157

PULSTATION DAMPER 2nd STAGE DISCHARGE													
26	EQUIPMENT NO.		KV-020-004		LOCATION :		2nd STAGE DISCHARGE		LIQUID / AIR COOLED	AIR			
27	NO. REQD		1		MFR / SUPPLIED BY:		Locati Impianti						
28	CAPACITY		Nm3/hr	35	MATERIAL :		SA106 Gr.B						
29	MAWP		bar(g)	39	MAIN IN/OUTLET		3/4" 600#						
30	HYDROSTATIC PRESSURE		bar(g)	50,7									
31	CONNECTIONS		TG	1 1/2" 600#	TT	1 1/2" 600#	PSV	1" 600#	DRAIN	1/2" NPT			
32	COMPRESSED AIR		O	D	Bar(g)	30,0	39,0	TEMP	O	D	°C	116	135

NOTES :
 Paint system is specified in document: N-278-VD-6019-GN-PRC-0019-01

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