

 <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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<p>Project No.</p> <p>N278</p>	<p>Vendor Doc.</p> <p>VD</p>	<p>P.O. No.</p> <p>6019</p>	<p>Department</p> <p>ME</p>	<p>Document Type</p> <p>DS</p>	<p>Serial No</p> <p>0011</p>	<p>Revision</p> <p>06</p>	<p>Page 1 of 5</p>

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

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Equipment Data Sheet

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2	X	X	X	X	X	X					52						77					
3	X	X	X	X	X	X					53						78					
4	X	X	X	X	X	X					54						79					
5	X	X	X	X	X	X					55						80					
6	X										56						81					
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VENDOR 		EQUIPMENT DATA SHEET		P.O. No. LIDCO-PO-NEC-278-6019									
CONTRACTOR / END USER 				Document No. N-278-VD-6019-ME-DS-0011-01									
				Sheet No. 3 of 5									
				Rev.No 06									
		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									
		DRIVER TYPE :		V-belt									
INLET CONDITIONS			COUPLING / GUARD :										
			CONFIGURATION:										
10	PRESSURE OP	bar(g)	9,5										
11	PRESSURE DP	bar(g)	12,5	INTERCOOLING Water cooled shell/tube KE-020-001									
12	TEMPERATURE OT	°C	46	AFTERCOOLER Water cooled shell/tube KE-020-002									
13	TEMPERATURE DT	°C	75	LUBE-OIL HEATER Included, KH-020-001									
14	FLOW RATE	Nm³/h	35	LUBE-OIL PUMP Shaft driven									
15				AIR COOLER Motor driven fan KM-020-001									
16				CONTROL PANEL Not included									
DISCHARGE CONDITIONS			PANEL ON PACKAGE:										
18	PRESSURE OP	bar(g)	30	INTERCONNECTING PIPEWORK & VALVES :									
19	PRESSURE DP	bar(g)	39	No piping and valves provided for outside package.									
20	TEMPERATURE OT	°C	60 max.	ACOUSTIC ENCLOSURE Not included									
21	TEMPERATURE DT	°C	75	RECEIVER VESSELS Not included									
22	FLOW RATE	Nm³/h	35*										
23	*NNT during full capacity			UTILITY SUPPLIES									
COMP. PERFORMANCE			ELECTRICAL SUPPLY :										
25	SPEED	rpm	410	V	400	Hz	50	ph	3				
26	POWER AT COUPLING	kW	11	V	230	Hz	50	ph	1				
27	TYPE		non lubricated, single acting, vertical piston										
28				COOLING MEDIUM :		Water							
DRIVER PERFORMANCE			TEMPERATURE INTER COOLER		°C	36							
30	OPERATING SPEED	rpm	1467	TEMPERATURE AFTER COOLER		°C	46						
31	RATING	kW	15	PRESSURE CWS		bar(g)	4,50						
32	MANUFACTURER		SIEMENS	PRESSURE CWR		bar(g)	2,50						
33				WEIGHTS AND DIMENSIONS									
34				SKID DRY WEIGHT		kg	2700						
35				SKID OPERATIONAL WEIGHT		kg	2750						
36				SIZE		mm	L	X	W	X	H	2500X1500X2110	
SITE CONDITIONS													
38	ELEVATION	m	0										
39	AMB. TEMPERATURE	°C	0 / 49										
40	AMB. PRESSURE	bar(a)	1,01										
41	AMBIENT AIR HUMIDITY	%	65 / 100										
42	LOCATION :		Iran, onshore										
43	AREA CLASSIFICATION		Safe area										
44	NOISE LIMITATION	dBA	< 85 dB(A)										
45													
46	NOTES :												
47	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												
48	procedure (N-278-VD-6019-GN-PRC-0015-01)												
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	EQUIPMENT DATA SHEET	P.O. No.	LIDCO-PO-NEC-278-6019
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		Rev.No	06
	Integrated Methanol and Ammonia Plant	Item Tag No.	K-020
		Service	Compressed Instrument Air

1 CONSTRUCTION								
2 SPEEDS			3 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								
9	MODEL		TRZ 400					
10	WORKING PRESSURE 1ST/2ND STAGE	bar(g)	23.3/30	11 SKID CONNECTIONS				
11	MAWP	bar(g)	30.5/39	NOZZLE	SIZE	RATING	FACING	POSITION
12	MAXIMUM OPERATING TEMP 1ST/2ND	°C	157/116	PACKAGE INLET	1"	#300	RF	TP-8201
13	NO. OF CYLINDERS		2	PACKAGE OUTLET	3/4"	#600	RF	TP-8202
14	SUCTION PRESSURE 1ST/2ND	bar(g)	9.5/22.1	WATER INLET	3/4"	#150	RF	TP-8203
15	DISCHARGE PRESSURE 1ST/2ND	bar(g)	23.3/30	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	CYLINDERS COOLING		AIR COOLED					
22	BEARING TYPE		ANTI FRICTION					
23	BEARING BALL / ROLLER		ROLLER					
24	VALVE, INLET / DISCHARGE		CONCENTRIC VALVES	25 CONTROLS				
25	TYPES OF VALVES		PLATE	CAPACITY CONTROL METHOD :		Compressor PCV		
26	V-BELT DIMENSION		SPC 2500	STOP/START ON PRESSURE SIGNALS		Yes from 300LP-820		
27	PULLEY DIAMETER MOTOR		SPC 160					
28	PULLEY DIAMETER COMPRESSOR		SPC 576					
29	RATIO		1485/410 = ratio 3.62					
30								
31								
32 MATERIALS OF CONSTRUCTION			33 LUBRICATION					
33	CYLINDER(S)	ASTM A 249 (TP 316L) / EN 1.4404	LUBE SYSTEM :		Oil sump			
34	CYLINDER LINER(S)	ASTM A 249 (TP 316L) / EN 1.4404	LUBE OIL PUMP DRIVE :		Shaft driven			
35	PISTON(S)	ASTM A 420 / EN 1.4021	SYSTEM OIL CAPACITY	Liter	18			
36	PISTON RINGS	PTFE compound	LUBE OIL HEATER		230V, 80 W			
37	WEAR BANDS	PTFE compound	HEATING CARTRIDGE	mm	l=180			
38	PISTON RODS(S) / MATERIAL YIELD:	AISI 422 / EN 1.2316 / 1010 N/mm ²	CONNECTION OIL HEATER	G	1/2			
39	PISTON ROD HARDNESS (BASE MATL.)	125 - 160 HB Rc						
40	PISTON ROD COATING / HARDNESS	Plasma nitrided / 1000HV 1 Rc						
41	ROD PRESSURE RINGS	PTFE compound						
42	ROD PRESSURE PACKING CASE	ASTM A 249 (TP 316L) / EN 1.4404						
43	WIPER PACKING RINGS	PTFE compound						
44	MAIN JOURNAL BEARING, CRANKSHAFT	ASTM 80/60/03						
45	CONNECTING ROD BEARING, CRANKPIN	Si52 / PbSb15Sn10						
46	CONN. ROD BUSHING, X-HD END	GC-SnBz12						
47	CROSSHEAD (X-HD) PIN BUSHING	GC-SnBz12						
48	CROSSHEAD PIN	AISI 430F / EN 1.4104						
49	CROSSHEAD	ASTM 60/40/18						
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51 NOTES :								
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VENDOR 	EQUIPMENT DATA SHEET			P.O. No.	LIDCO-PO-NEC-278-6019
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				Rev.No	06
CONTRACTOR / END USER 	Integrated Methanol and Ammonia Plant			Item Tag No.	K-020
				Service	Compressed Instrument Air

PULSTATION DAMPER INLET						
1						
2	EQUIPMENT NO.	KV-020-001	LOCATION :	INLET	LIQUID / AIR COOLED	AIR
3	NO. REQD	1	MFR / SUPPLIED BY:	Locati Impianti	WEIGHT:	69 kg
4	CAPACITY	Nm3/hr 35	MATERIAL :	SA106 Gr.B		
5	MAWP	bar(g) 12,5	MAIN IN/OUTLET	1" 300#		
6	HYDROSTATIC PRESSURE	bar(g) 16,25	VOLUME:	39 dm3		
7	CONNECTIONS	TG 1 1/2" 300#	TT 1 1/2" 300#	PSV 1" 300#	DRAIN	1/2" NPT
8	COMPRESSED AIR	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Bar(g) 9,5 12,5	TEMP <input type="checkbox"/> <input type="checkbox"/> °C	46 75	

PULSTATION DAMPER 1ST STAGE DISCHARGE						
9						
10	EQUIPMENT NO.	KV-020-002	LOCATION :	1ST STAGE DISCHARGE	LIQUID / AIR COOLED	AIR
11	NO. REQD	1	MFR / SUPPLIED BY:	Locati Impianti	WEIGHT:	62 kg
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	VOLUME:	33 dm3		
15	CONNECTIONS	TG 1 1/2" 600#	TT 1 1/2" 600#	PSV 1" 600#	DRAIN	1/2" NPT
16	COMPRESSED AIR	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Bar(g) 23,3 30,5	TEMP <input type="checkbox"/> <input type="checkbox"/> °C	157 175	

PULSTATION DAMPER 2nd STAGE SUCTION						
17						
18	EQUIPMENT NO.	KV-020-003	LOCATION :	2nd STAGE SUCTION	LIQUID / AIR COOLED	AIR
19	NO. REQD	1	MFR / SUPPLIED BY:	Locati Impianti	WEIGHT:	64 kg
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	VOLUME:	31 dm3		
23	CONNECTIONS	TG N/A	TT 1 1/2" 600#	PSV N/A	DRAIN	1/2" NPT
24	COMPRESSED AIR	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Bar(g) 22,1 39,0	TEMP <input type="checkbox"/> <input type="checkbox"/> °C	60 157	

PULSTATION DAMPER 2nd STAGE DISCHARGE						
25						
26	EQUIPMENT NO.	KV-020-004	LOCATION :	2nd STAGE DISCHARGE	LIQUID / AIR COOLED	AIR
27	NO. REQD	1	MFR / SUPPLIED BY:	Locati Impianti	WEIGHT:	72 kg
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	VOLUME:	31 dm3		
31	CONNECTIONS	TG 1 1/2" 600#	TT 1 1/2" 600#	PSV 1" 600#	DRAIN	1/2" NPT
32	COMPRESSED AIR	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Bar(g) 30,0 39,0	TEMP <input type="checkbox"/> <input type="checkbox"/> °C	116 135	

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