

 <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>						
<p>Document No. 17735-11A</p>			<p>Page</p>				
<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>08</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	X	X			52						77					
3	X	X	X	X	X	X	X				53						78					
4	X	X	X	X	X	X	X				54						79					
5	X	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	
				Document No.	N-278-VD-6019-ME-DS-0011-01	
				Sheet No.	3 of 5	
				Rev.No	08	
CONTRACTOR / END USER		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				
5	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	
9	INLET CONDITIONS			CONFIGURATION:	1x100%	
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	
17	DISCHARGE CONDITIONS			INTERCONNECTING PIPEWORK & VALVES :	No piping and valves provided for outside package.	
18	PRESSURE OP	bar(g)	30	ACOUSTIC ENCLOSURE	Not included	
19	PRESSURE DP	bar(g)	39	RECEIVER VESSELS	Not included	
20	TEMPERATURE OT	°C	60 max.			
21	TEMPERATURE DT	°C	75			
22	FLOW RATE	Nm³/h	35*			
23	*NNT during full capacity			UTILITY SUPPLIES		
24	COMP. PERFORMANCE			ELECTRICAL SUPPLY :		
25	SPEED	rpm	410	V	400	Hz
26	POWER AT COUPLING	kW	11	V	230	Hz
27	TYPE	non lubricated, single acting, vertical piston				ph
28						3
29	DRIVER PERFORMANCE					ph
30	OPERATING SPEED	rpm	1467	COOLING MEDIUM :	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	SITE CONDITIONS			SKID OPERATIONAL WEIGHT	kg	2750
38	ELEVATION	m	0	SIZE	mm	L X W X H
39	AMB. TEMPERATURE	°C	0 / 49			2500X1500X2110
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 procedure (N-278-VD-6019-GN-PRC-0015-01)					
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				Rev.No	08		
		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	CASING						
9	MODEL		TRZ 400				
10	WORKING PRESSURE 1ST/2ND STAGE	bar(g)	23.3/30	SKID CONNECTIONS			
11	MAWP	bar(g)	30.5/39	NOZZLE	SIZE	RATING	FACING
12	MAXIMUM OPERATING TEMP 1ST/2ND	°C	157/116	PACKAGE INLET	1"	#300	RF
13	NO. OF CYLINDERS		2	PACKAGE OUTLET	3/4"	#600	RF
14	SUCTION PRESSURE 1ST/2ND	bar(g)	9.5/22.1	WATER INLET	3/4"	#150	RF
15	DISCHARGE PRESSURE 1ST/2ND	bar(g)	23.3/30	WATER OUTLET	3/4"	#150	RF
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	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			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-Sn8z12					
47	CROSSHEAD (X-HD) PIN BUSHING	GC-Sn8z12					
48	CROSSHEAD PIN	AISI 430F / EN 1.4104					
49	CROSSHEAD	ASTM 60/40/18					
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51	NOTES :						
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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:		Locafi Impianti		WEIGHT:		69 kg
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		VOLUME:		39 dm3				
6	CONNECTIONS		TG 1 1/2" 300#		TT		1 1/2" 300#		PSV		1" 300#
7	COMPRESSED AIR		Bar(g) 9.5 12.5		TEMP		°C 46 75		DRAIN		1/2" NPT

PULSTATION DAMPER 1ST STAGE DISCHARGE											
9	EQUIPMENT NO.		KV-020-002		LOCATION :		1ST STAGE DISCHARGE		LIQUID / AIR COOLED		AIR
10	NO. REQD		1		MFR / SUPPLIED BY:		Locafi Impianti		WEIGHT:		62 kg
11	CAPACITY		Nm3/hr 35		MATERIAL :		SA106 Gr.B				
12	MAWP		bar(g) 30.5		MAIN IN/OUTLET		3/4" 600#				
13	HYDROSTATIC PRESSURE		bar(g) 39.65		VOLUME:		33 dm3				
14	CONNECTIONS		TG 1 1/2" 600#		TT		1 1/2" 600#		PSV		1" 600#
15	COMPRESSED AIR		Bar(g) 23.3 30.5		TEMP		°C 157 175		DRAIN		1/2" NPT

PULSTATION DAMPER 2nd STAGE SUCTION											
17	EQUIPMENT NO.		KV-020-003		LOCATION :		2nd STAGE SUCTION		LIQUID / AIR COOLED		AIR
18	NO. REQD		1		MFR / SUPPLIED BY:		Locafi Impianti		WEIGHT:		64 kg
19	CAPACITY		Nm3/hr 35		MATERIAL :		SA106 Gr.B				
20	MAWP		bar(g) 39		MAIN IN/OUTLET		3/4" 600#				
21	HYDROSTATIC PRESSURE		bar(g) 50.7		VOLUME:		31 dm3				
22	CONNECTIONS		TG N/A		TT		1 1/2" 600#		PSV		N/A
23	COMPRESSED AIR		Bar(g) 22.1 39.0		TEMP		°C 60 157		DRAIN		1/2" NPT

PULSTATION DAMPER 2nd STAGE DISCHARGE											
25	EQUIPMENT NO.		KV-020-004		LOCATION :		2nd STAGE DISCHARGE		LIQUID / AIR COOLED		AIR
26	NO. REQD		1		MFR / SUPPLIED BY:		Locafi Impianti		WEIGHT:		72 kg
27	CAPACITY		Nm3/hr 35		MATERIAL :		SA106 Gr.B				
28	MAWP		bar(g) 39		MAIN IN/OUTLET		3/4" 600#				
29	HYDROSTATIC PRESSURE		bar(g) 50.7		VOLUME:		31 dm3				
30	CONNECTIONS		TG 1 1/2" 600#		TT		1 1/2" 600#		PSV		1" 600#
31	COMPRESSED AIR		Bar(g) 30.0 39.0		TEMP		°C 116 135		DRAIN		1/2" NPT

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