

	LIDCO, Pars SEE Zone, Assaluyeh, Integrated Methanol and Ammonia Plant 3000 MTPD MeOH / 900 MTPD NH3 PROJECT						
	Equipment Data Sheet						
	Document No. 17735-11A						Page
	Project No.	Vendor Doc.	P.O. No.	Department	Document Type	Serial No	Revision
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**Airpack B.V. - Air Compressor –
Integrated Methanol and Ammonia Plant
17735-COM Equipment Data Sheet (K020)**

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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				
CONTRACTOR / END USER 				Document No.		N-278-VD-6019-ME-DS-0011-01				
				Sheet No.		3 of 5				
				Rev.No		07				
		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:					
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 :					
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	50	ph	3
26	POWER AT COUPLING	kW	11		V	230	Hz	50	ph	1
27	TYPE		non lubricated, single acting, vertical piston		COOLING MEDIUM :		Water			
28					TEMPERATURE INTER COOLER		°C	36		
29	DRIVER PERFORMANCE				TEMPERATURE AFTER COOLER		°C	46		
30	OPERATING SPEED	rpm	1467		PRESSURE CWS		bar(g)	4,50		
31	RATING	kW	15		PRESSURE CWR		bar(g)	2,50		
32	MANUFACTURER		SIEMENS							
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
37	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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				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)				
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	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	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								
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/mm²		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	S152 / 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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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						
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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