

	LIDCO, Pars SEE Zone, Assaluyeh, Integrated Methanol and Ammonia Plant 3000 MTPD MeOH / 900 MTPD NH3 PROJECT						
	Equipment Data Sheet						
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	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)**

Code 2
M.Dalakeh

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Equipment Data Sheet



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4	X	X	X	X	X	29						54						79					
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6	X					31						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		05	
		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		ACOUSTIC ENCLOSURE			
19 PRESSURE DP		bar(g) 39		RECEIVER VESSELS			
20 TEMPERATURE OT		°C 60 max.		Not included			
21 TEMPERATURE DT		°C 75		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	
26 POWER AT COUPLING		kW 11		V 230		Hz 50	
27 TYPE		non lubricated, single acting, vertical piston				ph 3	
28						ph 1	
DRIVER PERFORMANCE				COOLING MEDIUM :			
29 OPERATING SPEED		rpm 1467		Water			
30 RATING		kW 15		TEMPERATURE INTER COOLER		°C 36	
31 MANUFACTURER		SIEMENS		TEMPERATURE AFTER COOLER		°C 46	
32				PRESSURE CWS		bar(g) 4,50	
33				PRESSURE CWR		bar(g) 2,50	
WEIGHTS AND DIMENSIONS				SKID DRY WEIGHT			
34				kg		2700	
35				kg		2750	
36				SIZE		mm L X W X H	
37						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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		Rev.No	05
	Integrated Methanol and Ammonia Plant	Item Tag No.	K-020
		Service	Compressed Instrument Air

1	CONSTRUCTION								
2	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								
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		SPC160X2	STOP/START ON PRESSURE SIGNALS		Yes from 300LP-820			
27	MATERIALS OF CONSTRUCTION			LUBRICATION					
29	CYLINDER(S)	ASTM A 249 (TP 316L) / EN						Oil sump	
30	CYLINDER LINER(S)	ASTM A 249 (TP 316L) / EN						Shaft driven	
31	PISTON(S)	ASTM A 420 / EN 1.4021				Liter	18		
32	PISTON RINGS	PTFE compound						230V, 80 W	
33	WEAR BANDS	PTFE compound				mm	L=180		
34	PISTON RODS(S): / MATERIAL YIELD:	AISI 422 / EN 1.2316 / 1010				G	1/2		
35	PISTON ROD HARDNESS (BASE MATL.)	125 - 160 HB Rc							
36	PISTON ROD COATING / HARDNESS	Plasma nitrided / 1000HV							
37	ROD PRESSURE RINGS	PTFE compound							
38	ROD PRESSURE PACKING CASE	ASTM A 249 (TP 316L) / EN							
39	WIPER PACKING RINGS	PTFE compound							
40	MAIN JOURNAL BEARING, CRANKSHAFT	ASTM 80/60/03							
41	CONNECTING ROD BEARING, CRANKPIN	Si52 / PbSb15Sn10							
42	CONN. ROD BUSHING, X-HD END	GC-SnBz12							
43	CROSSHEAD (X-HD) PIN BUSHING	GC-SnBz12							
44	CROSSHEAD PIN	AISI 430F / EN 1.4104							
45	CROSSHEAD	ASTM 60/40/18							
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47	NOTES :								
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the speed ratio is 1480 to 410 RPM. please recheck the dimension. Add pulley diameter and material as well.

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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#		DRAIN		1/2" NPT
7	COMPRESSED AIR		Bar(g) 9.5 12.5		TEMP O D °C		46 75				

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#		DRAIN		1/2" NPT
15	COMPRESSED AIR		Bar(g) 23.3 30.5		TEMP O D °C		157 175				

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		DRAIN		1/2" NPT
23	COMPRESSED AIR		Bar(g) 22.1 39.0		TEMP O D °C		60 157				

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#		DRAIN		1/2" NPT
31	COMPRESSED AIR		Bar(g) 30.0 39.0		TEMP O D °C		116 135				

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