

	LIDCO, Pars SEE Zone, Assaluyeh, Integrated Methanol and Ammonia Plant 3000 MTPD MeOH / 900 MTPD NH3 PROJECT						
	Equipment Data Sheet						
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**Airpack B.V. - Air Compressor –
Integrated Methanol and Ammonia Plant
17735-COM Equipment Data Sheet (K020)**

Code 1
M.Dalakeh

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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 08	
		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 : N/A			
10 PRESSURE OP bar(g) 9,5		CONFIGURATION: 1x100%			
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			
		AIR COOLER Motor driven fan KM-020-001			
		CONTROL PANEL Not included			
DISCHARGE CONDITIONS		PANEL ON PACKAGE: JB and pushbutton station on package			
18 PRESSURE OP bar(g) 30		INTERCONNECTING PIPEWORK & VALVES : No piping and valves provided for outside package.			
19 PRESSURE DP bar(g) 39					
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					
		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			
		WEIGHTS AND DIMENSIONS			
		SKID DRY WEIGHT kg 2700			
		SKID OPERATIONAL WEIGHT kg 2750			
		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)					
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	08			
				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	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								
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#		DRAIN	1/2" NPT
7	COMPRESSED AIR		Bar(g) 9.5 12.5		TEMP O D °C		46 75			
8	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			
16	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			
24	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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