

 <p>شرکت توسعه صنایع گوارا 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>Line List</p>																				
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**Airpack B.V. - Air Compressor –
Integrated Methanol and Ammonia Plant
17735-COM Line List (K020)**

Code 1
M. Dalakeh

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REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED

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Line List

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Line no.	Line description	P&ID Number	Line size	Schedule	Ends Note 7	Pipe material Note-2	Flange as per ASME B16.5	Flange Material Note-2	Operating press. Max.	Design press.	Hydrotest pressure	Operating temp.	Design temp.	Insulation	Tie in Point	Paint system	Final colour	NDT
P&ID for High Pressure Air Compressor K020																		
1"-IA-320-01-D42-N	Package inlet	N278-VD-6019-PR-PID-0002	1"	S-405	BE	SS316L	300#	ASTM A182	9.5 bar(g)	12.5 bar(g)	16.25 bar(g)	46°C	75°C	Not Insulated	TP-8201	1	RAL-9006	
1"-IA-320-02-D42-N	1st stage suction	N278-VD-6019-PR-PID-0002	1"	S-405	BE	SS316L	300#	ASTM A182	9.5 bar(g)	12.5 bar(g)	16.25 bar(g)	46°C	75°C	Not Insulated	N/A	1	RAL-9006	
3/4"-IA-320-03-F42-H	1st stage discharge	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	SS316L	600#	ASTM A182	23.3 bar(g)	30.5 bar(g)	39.65 bar(g)	157°C	175°C	Personal protection	N/A	3	Metallic Gray	
3/4"-IA-320-04-F42-H	1st stage discharge	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	SS316L	600#	ASTM A182	23.3 bar(g)	30.5 bar(g)	39.65 bar(g)	46°C	185°C	Personal protection	N/A	3	Metallic Gray	10% RT
3/4"-IA-320-05-F42-N	2nd stage suction	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	SS316L	600#	ASTM A182	23.3 bar(g)	30.5 bar(g)	39.65 bar(g)	157°C	175°C	Not Insulated	N/A	1	RAL-9006	welds, Leak
3/4"-IA-320-06-F42-H	2nd stage discharge	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	SS316L	600#	ASTM A182	22.1 bar(g)	39 bar(g)	50.7 bar(g)	60°C	175°C	Personal protection	N/A	3	Metallic Gray	test &
3/4"-IA-320-07-F42-H	2nd stage discharge	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	SS316L	600#	ASTM A182	30 bar(g)	39 bar(g)	50.7 bar(g)	60°C	175°C	Personal protection	N/A	3	Metallic Gray	Hydrotest
1 1/2"-IA-320-08-D42-N	Package outlet	N278-VD-6019-PR-PID-0002	1 1/2"	S-405	BE	SS316L	300#	ASTM A182	30 bar(g)	39 bar(g)	50.7 bar(g)	60°C	75°C	Not Insulated	N/A	1	RAL-9006	with water
3/4"-IA-320-09-D42-N	Package outlet	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	SS316L	300#	ASTM A182	30 bar(g)	39 bar(g)	50.7 bar(g)	60°C	75°C	Not Insulated	N/A	1	RAL-9006	
3/4"-IA-320-10-D42-N	Package outlet	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	SS316L	300#	ASTM A182	30 bar(g)	39 bar(g)	50.7 bar(g)	60°C	75°C	Not Insulated	TP-8202	1	RAL-9006	
3/4"-IA-320-11-D42-N	Bypass	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	SS316L	300#	ASTM A182	30 bar(g)	39 bar(g)	50.7 bar(g)	60°C	75°C	Not Insulated	N/A	1	RAL-9006	
P&ID for High Pressure Air Compressor K020 water system																		
3/4"-CWS-320-20-B24C-N	Cooling water inlet	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	CS	150#	ASTM A 105	4.5 bar(g)	7 bar(g)	9.1 bar(g)	36°C	75°C	Not Insulated	TP-8203	1	RAL-9006	
3/4"-CWS-320-21-B24C-N	Cooling water inlet	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	CS	150#	ASTM A 105	4.5 bar(g)	7 bar(g)	9.1 bar(g)	36°C	75°C	Not Insulated	N/A	1	RAL-9006	10% RT
1 1/2"-CWR-320-22-B24C-N	Cooling water outlet	N278-VD-6019-PR-PID-0002	1 1/2"	S-105	BE	CS	150#	ASTM A 105	5 bar(g)	7 bar(g)	9.1 bar(g)	46°C	75°C	Not Insulated	N/A	1	RAL-9006	welds, Leak
3/4"-CWS-320-23-B24C-N	Cooling water inlet	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	CS	150#	ASTM A 105	4.5 bar(g)	7 bar(g)	9.1 bar(g)	36°C	75°C	Not Insulated	N/A	1	RAL-9006	test &
1 1/2"-CWR-320-24-B24C-N	Cooling water outlet	N278-VD-6019-PR-PID-0002	1 1/2"	S-105	BE	CS	150#	ASTM A 105	5 bar(g)	7 bar(g)	9.1 bar(g)	46°C	75°C	Not Insulated	N/A	1	RAL-9006	Hydrotest
3/4"-CWR-320-25-B24C-N	Cooling water outlet	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	CS	150#	ASTM A 105	5 bar(g)	7 bar(g)	9.1 bar(g)	46°C	75°C	Not Insulated	N/A	1	RAL-9006	with water
3/4"-CWR-320-26-B24C-N	Cooling water outlet	N278-VD-6019-PR-PID-0002	3/4"	S-405	BE	CS	150#	ASTM A 105	5 bar(g)	7 bar(g)	9.1 bar(g)	46°C	75°C	Not Insulated	TP-8204	1	RAL-9006	

Notes:

- 1) pipe class will be followed for all component mentioned like, tem NPS, Rating, Schedule, Type, Specification Notes, NIPPLES, FITTINGS - threaded & Butt Welded /Caps, elbows, Tees, Couplings, Plug Unions, Swaged Nipples, Boss, Blinds, spectacle blinds, GASKETS, bolts / Fasteners, valves, etc.
- 2) All Components in water system are CS material and will externally painted (except for the valves which will be carbon steel and externally painted)
- 3) Corrosion allowance = 0 mm, Corrosion allowance watersystem= 3,2mm
- 4) Design code = ASME B31.3
- 5) Stress Relieving = Not applicable
- 6) Welding Spec : N278-000-Pi-JSS-1300-009
- 7) BE = Beveled Ends (for pipe)
- 8) Valve body material with ASTM A105 shall be supplied in Normalized condition