Airpack B.V. - Air Compressor –

Integrated Methanol and Ammonia Plant

17735-COM Noise data sheet

REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
02	17-09-2025	Issued for Information	S.K.	J.J.	S.K.
01	25-06-2025	Issued for Information	S.K.	J.J.	S.K.

LIST OF REVISED PAGES

Page \ Rev.	01	02	03	04	05	Page \ Rev.	06	07	08	09	10	Page \ Rev.	01	02	03	04	05	Page \ Rev.	01	02	03	04	05
1	X					**26**						**51**						**76**					
2	X					**27**						**52**						**77**					
3	X					**28**						**53**						**78**					
4						**29**						**54**						**79**					
5						**30**						**55**						**80**					
6						**31**						**56**						**81**					
7						**32**						**57**						**82**					
8						**33**						**58**						**83**					
9						**34**						**59**						**84**					
10						**35**						**60**						**85**					
11						**36**						**61**						**86**					
12						**37**						**62**						**87**					
13						**38**						**63**						**88**					
14						**39**						**64**						**89**					
15						**40**						**65**						**90**					
16						**41**						**66**						**91**					
17						**42**						**67**						**92**					
18						**43**						**68**						**ATTACHMENT**					
19						**44**						**69**						**1**					
20						**45**						**70**						**2**					
21						**46**						**71**						**3**					
22						**47**						**72**						**4**					
23						**48**						**73**						**5**					
24						**49**						**74**						**6**					
25						**50**						**75**						**7**					

Integrated Methanol and Ammonia Plant

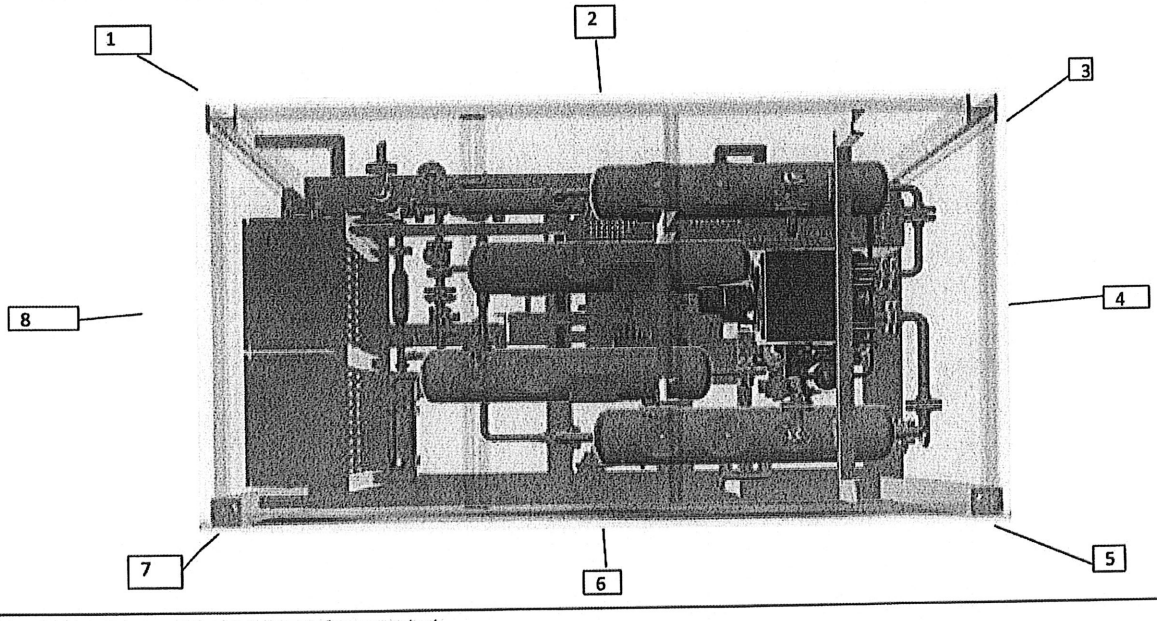
Document n° : 17735-14 attachment 4
Revision : 06

NOISE LEVEL

Unit : K-020
Service : Air booster compressor
Supplier : Airpack
Serial No. : T-2023-00799

Client: Lavan Industry Development Company (LIDCO)
Contractor: Nargan Company
Project: Integrated Methanol and Ammonia Plant

Supplier to Complete
Expected Noise Level Data



Noise test has been performed during performance test:

Procedure:
Measure point will be defined by a distance of 1 metre from the package and 1,5 metre above the ground level to measured round the package. Final measure points will be the same as start measure points. This is for checking correct functioning of the noise level meter. Noise shall not exceed 85 dB(A) for complete package.
Noise meter calibration certificate is available during test

Points	Unit	Noise Estimated	Noise measured	Average of anti logs	Noise level (Logarithmic Avg)	Noise level (Arithmetic Avg)
P1	dB(A)	83	70	16402224	72.14903	71.875
P2	dB(A)	84	73			
P3	dB(A)	85	72			
P4	dB(A)	85	74			
P5	dB(A)	85	71			
P6	dB(A)	84	74			
P7	dB(A)	83	70			
P8	dB(A)	83	71			

Surrounding Noise measured (dB(A)) : 85
Noise level (After correction(If required) as per 5.3 of ISO 2151):

Correction Factor	
Level increase due to	Value to be subtracted from measured

Test Condition : Noise level test as per ISO 2151

Test Result:

Tested By : SK

Date: 28/02/2025

NOTE:

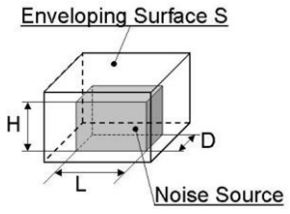
	NOISE SOURCE DATA SHEET												
POS	NOISE SOURCE : Air Booster Compressor				ITEM : K-020								
1	INSTALLED POWER (KW) : 11		ROTARY SPEED (RPM) : 1485						DIMENSIONS(1) 2500 x 1500 x 3000 mm				
2	SOUND POWER LEVEL TEST METHOD		STD. ISO 2151										
3	OCTAVE BAND FREQUENCY (Hz)		63	125	250	500	1k	2k	4k	8k	OVERALL		
											"A"	Lin	
4	CUSTOMER SPECIFIED NOISE LEVELS	$Lw^{(2)}$	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	85 dB		
		$Lp^{(3)}$	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	85 dB		
5	VENDOR GUARANTEED NOISE LEVELS FOR STANDARD EQUIPMENT(1)	$Lw^{(2)}$	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	85 dB		
		$Lp^{(3)}$	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	85 dB		
6	**VENDOR GUARANTEED NOISE LEVELS FOR INTRINSECALLY LOW NOISE EQUIPMENT(1)**	$Lw^{(2)}$	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
		$Lp^{(3)}$	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
7	VENDOR GUARANTEED NOISE LEVELS WITH ACOUSTIC TREATMENT(1)	$Lw^{(2)}$	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
		$Lp^{(3)}$	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
8	THE SOUND POWER LEVELS HAVE BEEN OBTAINED BY		DIRECT MEASURING										
			MEASURING ON ANALOGOUS SOURCE										
9	LOAD CONDITIONS		NORMAL OPERATION										
10	DRIVER		INCLUDED										
11	DESCRIPTION OF INTRINSECALLY LOW NOISE EQUIPMENT												
12	DESCRIPTION OF ACOUSTIC TREATMENT												
13	WE GUARANTEE OUR EQUIPMENT, WHEN INSTALLED AND OPERATING UNDER DESIGN CONDITION, WILL NOT PRODUCE SOUND POWER LEVELS IN EXCESS OF THE ABOVE MENTIONE DATE _____ VENDOR STAMP AND SIGNATURE _____												

NOTES: **THE Lw VALUES IN ANY CASE MUST BE REPORTED**

(1) IF SOUND POWER LEVEL (Lw) IS NOT AVAILABLE, IT SHALL BE ESTIMATED FROM THE SOUND PRESSURE LEVEL (Lp) IN FREE-FIELD MEASURED AT 1 METER FROM EQUIPMENT, BY MEANS THE FOLLOWING FORMULA (SEE FIGURE BY SIDE):
$Lw=Lp+10Log_{10}(S)$ WHERE: $S=4(ab+bc+ca)m^2$ WITH: a=(L/2+1)m, b=(D/2+1)m, c=(H+1)m

(2) Lw = SOUND POWER LEVEL, dB ref. 1·pW

(3) Lp = SOUND PRESSURE LEVEL AT 1 METER, dB ref. 20 µPa



ISS.	DESCRIPTION	DRAWN UP	CHECKED	APPROVED	DATE
2					
1					

RESULTS / GUARANTEE:

Measured Noise Level (Arithmetic Avg): 71.88 dB(A)

Measured Noise Level (Logarithmic Avg): 72.15 dB(A)

Result: PASS (all measured points ≤ 74 dB(A), below limit of 85 dB(A))