Barcol-Air Netherlands casing leakage test sheet

According to standard NEN-EN 1751-2014

Test setup			
Date	18-5-2018	Reference nr.	LM-18-0015A
Exp. Date	18-5-2021	Tested by	TK
Place	Barcol-Air	Witness by	MBs
		Air temperature	20 [°C]
		Atmospheric pressure	1013 [hPa]

Contact information	
Tel	+31 (0)299 689 300
Email	barcol-air@hcgroep.com
Website	www.barcol-air.nl

BARCOL-AIR
AIR DISTRIBUTION

Model (Name/Type):	Measuring and control terminal circular single skin type : AHQDOOB 100	Result:	Class C

Product specifications		
Productcode	AHQDOOB	
Model	100	
Case Width		[m]
Case Height		[m]
Case Diameter	0,100	[m]
Case Length	0,500	[m]
Real Duct surface	0,157	[m²]
Virtual Duct surface	0,314	[m²]
Note:	When Case Length <1m; 1m is used in calculations as specified by LUKA.	

Measurement specifications		
Pressure time		60 seconds
Pressure controller		PR-41X/20mbar/81955.50
Airflow meter(s)	Low Flow	F-111B-20K-RAD-00-V
	High Flow	F-112AC-M20-RAD-55-V
Rated Accuracy	Pressure Ctrl	± 0,05%Rd + 0,093%FS
	Low Flow	± 0.5%Rd + 0,1%FS
	High Flow	± 0,5%Rd + 0,1%FS
Date calibrated	Pressure Ctrl	20-4-2017
	Low Flow	12-4-2017
	High Flow	13-4-2017

Leakage is measured in normal liters (= 1 liter at 0°C and 101325 pa)

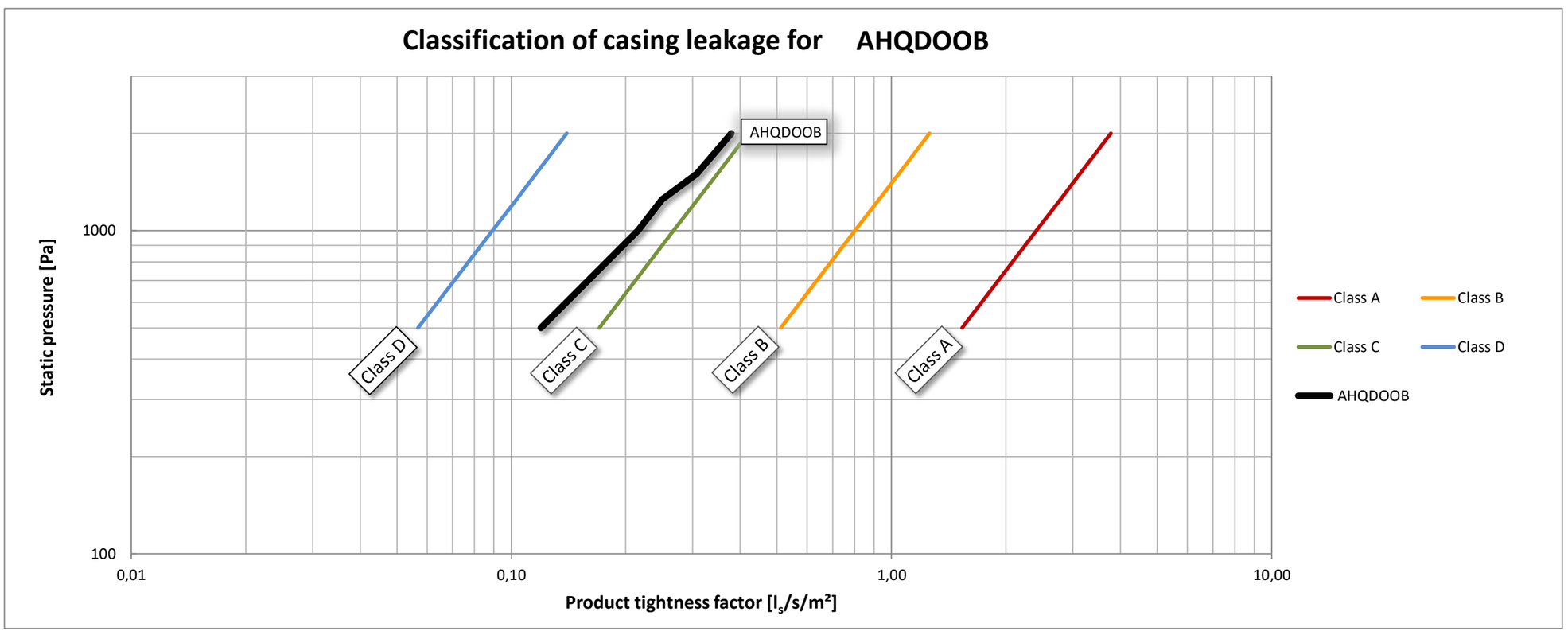
NEN-EN 1751-2014	
Max. Leakagefactor [l_s/s/m²]	
Class A	0,027
Class B	0,009
Class C	0,003
Class D	0,001

$$\Phi L = f \times Ps^{0,65}$$

ΦL = Leakage [l_s/s/m²]
f = Leakagefactor
Ps = Static Pressure

Measurements and calculations					
Reading	Measure instrument	Static pressure	Measured air leakage rate	Corrected air leakage rate 20°C	Product tightness factor
		[Pa]	[l_n/s]	[l_s/s]	[l_s/s/m²]
1	Low Flow	500	0,035	0,038	0,120
2	Low Flow	1000	0,063	0,068	0,215
3	Low Flow	1250	0,073	0,078	0,249
4	Low Flow	1500	0,090	0,097	0,307
5	Low Flow	2000	0,111	0,119	0,379

LUKA standards				
Class A	Class B	Class C	Class D	Estimated class
[l_s/s/m²]	[l_s/s/m²]	[l_s/s/m²]	[l_s/s/m²]	
1,53	0,51	0,17	0,06	Class C
2,41	0,80	0,27	0,09	Class C
2,78	0,93	0,31	0,10	Class C
3,13	1,04	0,35	0,12	Class C
3,78	1,26	0,42	0,14	Class C



Other results	
Visual deformation	Negative
Pressure [Pa]	2000

***As the tested model is the smallest model of this product range, the same classification result (or better) is valid for all larger models.**

Approved and certified by

TÜVRheinland®
Precisely Right.

Certificate nr. P-97/52-45

	Calibration certifications nr.
Low Flow	BHTG19/5369552
High Flow	BHTG22/5368561
Pressure ctrl	not specified