

# Barcol-Air Netherlands casing leakage test sheet

## According to standard NEN-EN 1751-2014

Test setup		
Date	23-3-2021	Reference nr. LM-21-0005c
Exp. Date	23-3-2024	Tested by TK
Place	Barcol-Air	Witness by MBs
Air temperature	20 [°C]	
Atmospheric pressure	1013 [hPa]	

Contact information	
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**Model (Name/Type):** variable air volume (VAV) AFQ.OOB

**Result:** Class D

Product specifications		
Productcode	NAOBOOB	
Model	100	
Case Width	[m]	
Case Height	[m]	
Case Diameter	0,098	[m]
Case Length	0,500	[m]
Real Duct surface	0,154	[m²]
Virtual Duct surface	0,308	[m²]
Note:	When Case Length <1m; 1m is used in calculations as specified by LUKA.	

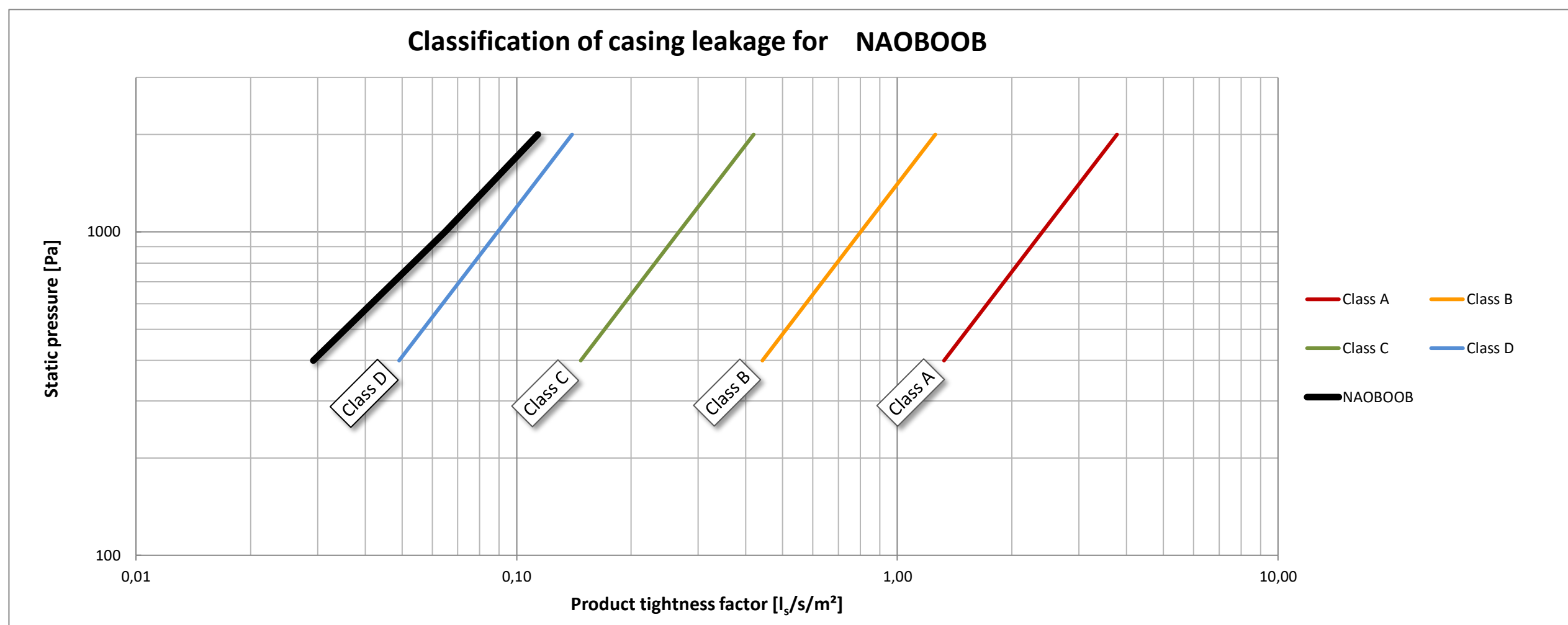
Measurement specifications		
Pressure time	60 seconds	
Pressure controller	PR-41X/20mbar/81955.50	
Airflow meter(s)	Low Flow	F-111B-20K-RAD-00-V
	High Flow	F-112AC-M20-RAD-55-V
Rated Accuracy	Pressure Ctrl	± 0,05%Rd + 0,093%FS
	Low Flow	± 0,5%Rd + 0,1%FS
Date calibrated	High Flow	± 0,5%Rd + 0,1%FS
	Pressure Ctrl	21-2-2020
Date calibrated	Low Flow	8-10-2020
	High Flow	9-10-2020

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

NEN-EN 1751-2014	
Max. Leakagefactor [l <sub>v</sub> /s/m²]	
Class A	0,027
Class B	0,009
Class C	0,003
Class D	0,001
$\Phi L = f \times P_s^{0,65}$	
$\Phi L$ Leakage [l <sub>v</sub> /s/m²]	
f = Leakagefactor	
P <sub>s</sub> = Static Pressure	

Measurements and calculations					
Reading	Measure instrument	Static pressure [Pa]	Measured air leakage rate [l <sub>v</sub> /s]	Corrected air leakage rate 20°C [l <sub>v</sub> /s]	Product tightness factor [l <sub>v</sub> /s/m²]
1	Low Flow	400	0,009	0,009	0,029
2	Low Flow	1000	0,020	0,020	0,065
3	Low Flow	2000	0,035	0,035	0,114
4					
5					

LUKA standards				
Class A	Class B	Class C	Class D	Estimated class
[l <sub>v</sub> /s/m²]	[l <sub>v</sub> /s/m²]	[l <sub>v</sub> /s/m²]	[l <sub>v</sub> /s/m²]	
1,33	0,44	0,15	0,05	Class D
2,41	0,80	0,27	0,09	Class D
3,78	1,26	0,42	0,14	Class D
0,00	0,00	0,00	0,00	Class D
0,00	0,00	0,00	0,00	Class D



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.

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Calibration certifications nr.  
 Low Flow BHTG19/5615748  
 High Flow BHTG22/5617022  
 Pressure ctrl not specified