

Barcol-Air Netherlands casing leakage test sheet

According to standard NEN-EN 1751-2014



Test setup		
Date	22-5-2018	Reference nr. LM-18-0016
Exp. Date	22-5-2021	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):	Constant Air Volume (CAV) terminal circular single wall type NROBOVO 100	Result:	Class D
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Product specifications		
Productcode	NROBOVO	
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.	

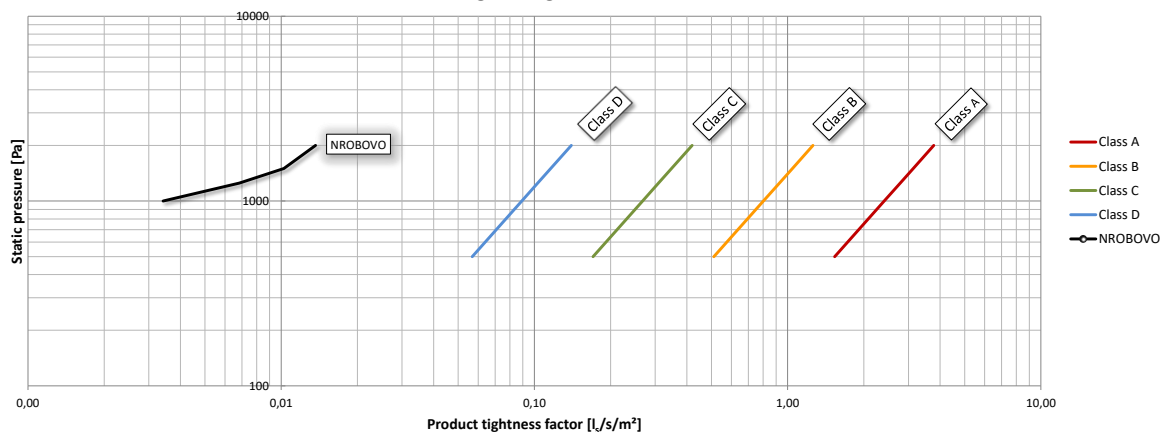
Measurement specifications	
Pressure time	120 seconds
Pressure controller	PR-41X/20mbar/81955.50
Airflow meter(s)	Low Flow F-111B-20K-RAD-00-V
	High Flow F-112AC-M20-RAD-55-V
Rated Accuracy	Pressure Ctrl ± 0.05%Rd + 0.093%FS
	Low Flow ± 0.5%Rd + 0.1%FS
	High Flow ± 0.5%Rd + 0.1%FS
	Pressure Ctrl 20-4-2017
Date calibrated	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 _v /m²]	
Class A	0,027
Class B	0,009
Class C	0,003
Class D	0,001
$\Phi L = f \times P_s^{0,65}$	
ΦL = Leakage [L _v /m²]	
f = Leakagefactor	
P_s = Static Pressure	

Measurements and calculations				
Reading	Measure instrument	Static pressure [Pa]	Measured air leakage rate [L _v /s]	Corrected air leakage rate 20°C [L _v /s]
				Product tightness factor [L _v /m²]
1	Low Flow	500	0,000	0,00
2	Low Flow	1000	0,001	0,00
3	Low Flow	1250	0,002	0,00
4	Low Flow	1500	0,003	0,00
5	Low Flow	2000	0,004	0,00

LUKA standards				
Class A	Class B	Class C	Class D	Estimated class
[L _v /m²]	[L _v /m²]	[L _v /m²]	[L _v /m²]	
1,53	0,51	0,17	0,06	Class D
	0,80	0,27	0,09	Class D
	0,93	0,31	0,10	Class D
	1,04	0,35	0,12	Class D
	1,26	0,42	0,14	Class D

Classification of casing leakage for NROBOVO



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 bigger models.

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Calibration certifications nr.
 Low Flow BHTG19/CHK/2300538
 High Flow BHTG19/2300981
 Pressure ctrl not specified