

# Barcol-Air Netherlands casing leakage test sheet

## According to standard NEN-EN 1751-2014

Test setup		
Date	23-5-2018	Reference nr. LM-18-0020
Exp. Date	23-5-2021	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



Model (Name/Type): **VAV ventilatie controlunit CERA-1**

Result: **class c**

Product specifications		
Productcode	NXOJOOB	
Model	CERA-1 125L	
Case Width	0,410	[m]
Case Height	0,432	[m]
Case Diameter		[m]
Case Length	0,265	[m]
Real Duct surface	0,751	[m²]
Virtual Duct surface	0,751	[m²]
Note:	When Case Length <1m; 1m is used in calculations as specified by LUKA.	

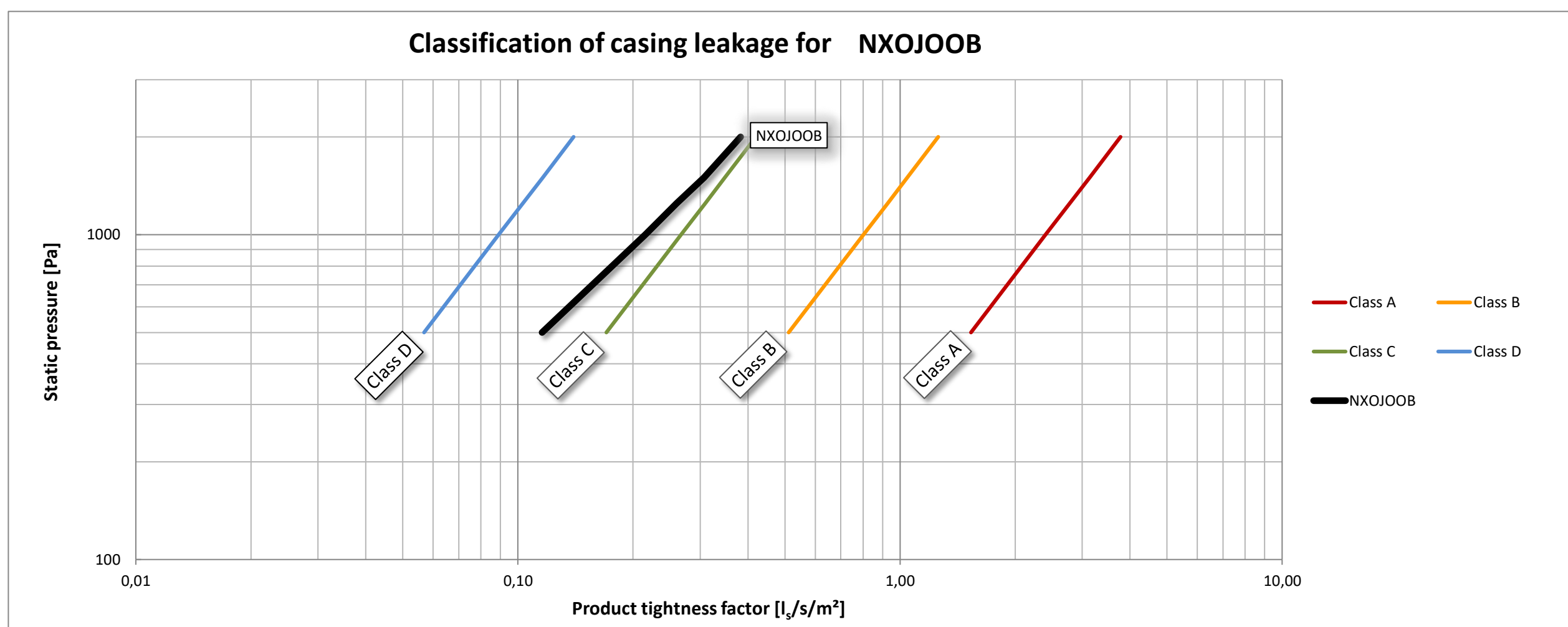
Measurement specifications		
Pressure time	120 seconds	
Pressure controller	PR-41X/20mbar/81955.50	
Airflow meter(s)	Low Flow	F-111B-20K-RAD-00-V
	High Flow	F-112AC-M20-RAD-55-V
Rated Accuracy	Pressure Ctrl	± 0,05%Rd + 0,093%FS
	Low Flow	± 0,5%Rd + 0,1%FS
Date calibrated	High Flow	± 0,5%Rd + 0,1%FS
	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 <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	High Flow	500	0,081	0,087	0,116
2	High Flow	1000	0,151	0,162	0,216
3	High Flow	1250	0,182	0,195	0,260
4	High Flow	1500	0,215	0,231	0,307
5	High Flow	2000	0,268	0,288	0,383

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



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/CHK/2300538  
 High Flow BHTG19/2300981  
 Pressure ctrl not specified