Building & Industry
NOVENCO
SCHAKO Group

EU Declaration of performance

1. Unique identification code of the product types

NOVENCO© ClearChoice™ Pressure Differential Systems kit 1, kit 2 and kit 3

2. Intended use

Pressure differential system kits and components to operate as part of a pressure differential system.

3. Manufacturer

NOVENCO Building & Industry A/S,
Oeverup Erhvervsvej 50-52, DK-4700 Naestved

4. Authorised representative

Technical director of R&D, Mr Peter Holt
NOVENCO Building & Industry A/S,
Oeverup Erhvervsvej 50-52, DK-4700 Naestved

5. Systems of assessment and verification of constancy of performance

ClearChoice™ PDS Kit 1a and 1b
ClearChoice™ PDS Kit 2a and 2b
ClearChoice™ PDS Kit 3a and 3b

6. Relevant standards

EN 12101-6:2022
EN 12101-3:2015

Notified body

I.F.I. Institut für Industrieaerodynamik GmbH Aachen,
Welkenrather Strasse 120, 52074 Aachen, Germany

7. Declared performance

System parameters of the kit 1, 2 and 3 for the tested performance in accordance with EN 12101-6:2022 paragraph 5.4.1.2.

Kit	Performance class	Δp_{Nom} [Pa]	V_{ar} [m³/h]	V_{TC} [m³/h]	V_{sa} [m³/h]	V_{rl} [m³/h]	$V_{to\ ps}$ [m³/h]	Δp_{ar} [Pa]	$\Delta p_{Nom,\ ab}$ [Pa]
1a	A	30	20.000	20.050	20.050	-	-	6	-5
1b	A	30	20.000	20.150	20.150	3.000	-	3,3	-5
1a	B	30	20.000	20.200	20.200	-	18.700 @ 15 Pa*	0,5	-5
1b	B	30	20.000	20.220	20.220	3.000 [2.000 @ 13 Pa]*	17.400 @ 13 Pa*	0,5	-5
2a	A	30	20.000	20.050	20.050	-	-	4	-5
2b	A	30	20.000	20.200	20.200	3.000	-	2,3	-5
2a	B	30	20.000	20.250	20.250	-	17.400 @ 13 Pa*	0,6	-5
2b	B	30	20.000	20.300	20.300	3.000 [2.000 @ 13 Pa]*	17.400 @ 13 Pa*	0,6	-5
3a	A	30	18.000	20.100	20.100	-	-	4	0
3b	A	30	18.000	20.150	20.150	3.000	-	2,3	0
3a	B	30	9.000	20.125	20.125	-	18.700 @ 15 Pa*	0,6	0
3b	B	30	9.000	20.140	20.140	3.000 [2.000 @ 13 Pa]*	17.400 @ 13 Pa*	0,6	0

*) Performance class B takes into consideration an additional leakage flow representing e.g. an open door at the escape level in performance class B. The leakage was realised by an opening of 1,55 m^2 in test room 1. With this leakage a pressure level of 13 Pa was achieved in test room 1, resulting in 18 Pa pressure difference between the test room 1 and test room 2, when the air release path is blocked.

V_{ar} Maximum volume flow rate through air release path
V_{TC} Total controlled volume flow rate
V_{rl} Required minimum leakage flow rate at nominal pressure difference Δp_{Nom}
V_{sa} Supply air volume flow rate
$V_{to\ ps}$ Additional leakage flow rate from test room 1 to ambient when the connection from test room 1 to test room 2 is closed
Δp_{Nom} Nominal pressure difference between the protected space and unprotected space (with closed air release path and closed temporary openings).
Δp_{ar} Pressure difference when the volume flow rate V_{ar} passes the open-air release

Ambient conditions are the conditions inside the laboratory hall where the test facility is located. The geometric free area of the additional leakage from test room 1 to ambient is 1,55 m².

Test results

The kits are ready for operation within 60 seconds (switching from bypass status to operational mode).

The initial functional test FU was conducted for kits (kit 1a, kit 1b, kit 2a and kit 2b) for classes (A and B) each.
It was not separately conducted for kit 3, as it shares the same supply system as kits 1 and 2 and its functionality was demonstrated during these tests.

The durability test DU of 10,000 cycles was successfully conducted for configuration kit 2b, class A, as this configuration represents the highest stress condition for the control.

The related functional tests FU after the durability test and the final oscillation OSC tests were successfully conducted separately for each subtype and each performance class.

Summary: All tests according EN 12101-6:2022 sections 5.1 to 5.4 were passed successfully for each kit subtype and performance class. All flow and pressure criterions were achieved within the 3 seconds.

Additional high temperature testing

The exhaust fan from kit 1 is also tested as a smoke control fan at 300°C during 2 hours with variable speed during operation in accordance with EN 12101-6:2022, Annex C, paragraph C1.3 to C1.5.

Fan type	øD [mm]	Nom. speed [RPM]	Nom. freq. [Hz]	Test freq. range [Hz]	Speed range [RPM]
ACN 630/330	630	2,940	50	5 – 57	294 – 3,374

Before the high temperature test, the fan was subjected to a general cycle test with more than 10.000 cycles as described in EN 12101-6:2022, Annex C, par. C1.2.

Allowed range of fans, based on the range criteria in EN 12101-3:2015, Annex A.

Fan type	øD [mm]	Min. fan speed [RPM]	Max. fan speed [RPM]
ACN 500/*	500	294	3,374
ACN 560/*	560		3,374
ACN 630/*	630		3,374
ACN 710/230	710		3,275
ACN 710/280			3,230
ACN 710/330			3,215
ACN 710/380			3,097
ACN 800/230	800		2,980
ACN 800/280			2,930
ACN 800/330			2,973
ACN 800/380			2,859

The performance of the products identified above conforms with the set of declared performances. This declaration of performance is in accordance with Regulation (EU) No 305/2011 and the amendment no. 574/2014, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by

Peter Holt
Technical director
Naestved, Denmark, 30th March 2026

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