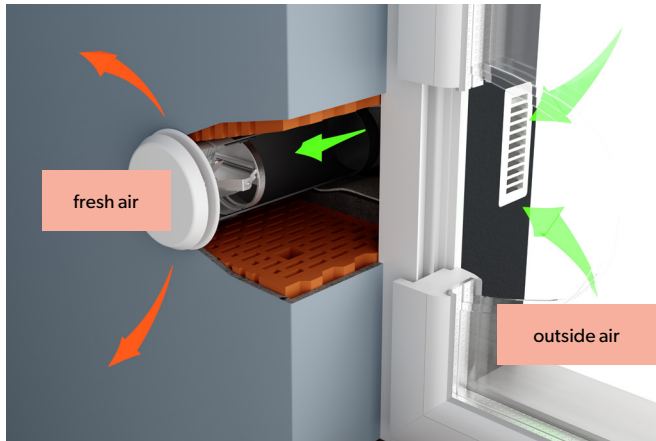
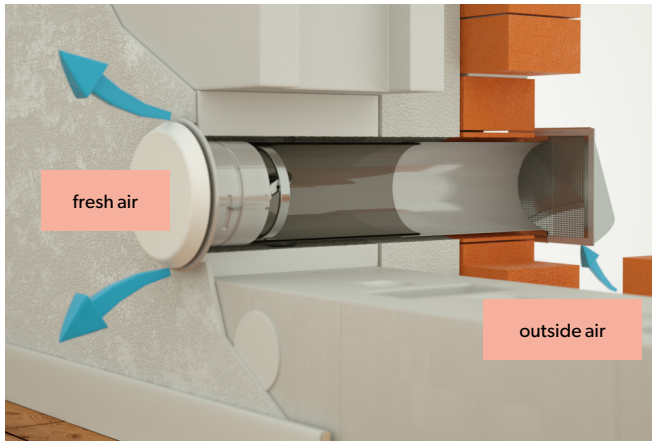


ROUND AIR INTAKE SET; WINDOW RECESS AIR INTAKE SET



Air intake set provides fresh air into the building. It is to be mounted above or next to the window, in the wall. Basic version is equipped with an air intake that assures proper air supply from outside. It is constructed in a way that protects from rainwater and is also equipped with wire mesh against rodents. On the side mounted inside the building air intake set is equipped with a flap valve with insulation, that prevents from water vapor condensation in winter as well as reduces noise. Valve allows to regulate the airflow precisely.

Positioning of the air intake in accordance with PN-83/B-03430/Az3

Air volume flow rate with the air intake open:

Requirement for mechanical exhaust ventilation: 20-30 [m³/h]

Requirement for gravity ventilation: 20-50 [m³/h]

Air volume flow rate with air intake closed:

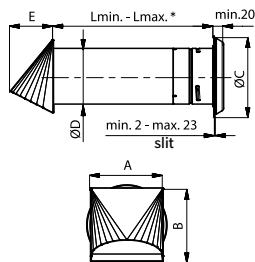
20% to 30% of the flow at its nominal opening

Air intakes NAP included in the National Technical Assessment can be installed in the external partitions of the residential buildings, collective residence (including hotels), public, office and business buildings. The design of the installation must take into account the flow characteristics, the tightness to rainwater penetration and the use in specific categories of corrosivity of the atmosphere.

Air intake set can be additionally equipped with airflow stabilizer. It controls the airflow: limits the air supply to certain limits as well as protects from backflow.

Each air intake set includes a filter (separately in the box, to be mounted by the user). Filter enables effective capturing of dust and other particles carried by the air.

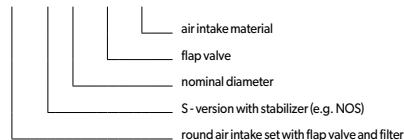
ROUND AIR INTAKE SET NO



Diameter	Dimensions [mm]					
	A	B	C	D	E	F
80	104	105	121	77	62	-
110	146	147	161	112	87	-
150	196	197	211	162	116	-

* L_{min.}-L_{max.} - in next tables with technical datas

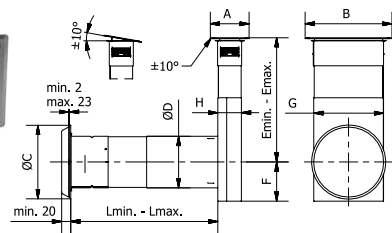
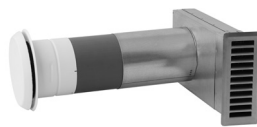
NO a x - A - b



Additional equipment:

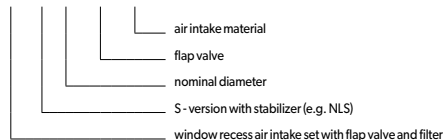
- basic filter
- stabilizer

WINDOW RECESS AIR INTAKE SET NL



Diameter	Dimensions [mm]							
	A	B	C	D	E	F	G	H
80	85	189	121	77	200±270	65	152	52
110	85	189	161	112	200±270	85	152	52
150	125	238	211	162	240±310	110	202	92

NL a x - A - b



Destination	W	W	W	W - air supply ventilation
Air intake material	OC	-	-	OC - galvanised steel sheet
	-	CC	-	CC - chrome-nickel steel sheet
	-	-	ML	ML - galvanised steel sheet powder coated
Channel material	PP	PP	P	PP - pipe

Flap valve material-mild steel powder coated (white)

Technical data

Version	Channel cross-section [cm ²]	Channel dimensions ** L _{min} -L _{max} [mm]	Mounting hole diameter [mm]	Efficiency at 10 [Pa] (without filter) flap valve opening 23 mm [m ³ /h]	Sound attenuation - flap valve opening Dn,e,w [dB]		Weight [kg]
					2 mm	23 mm	
NO080A	38	320÷550	90	37	37 (-1,-3)	31 (-1,-1)	0.8
NO110A	87	320÷550	120	60	38 (-1,-3)	29 (0,0)	1.3
NO150A	177	350÷580	170	124	36 (-1,-3)	27 (0,-1)	2.3
NOS080A	38	320÷550	90	27	37 (-1,-3)	31 (-1,-1)	0.9
NOS110A	87	320÷550	120	45	38 (0,-3)	29 (0,-1)	1.5
NOS150A	177	350÷580	170	83	37 (-1,-3)	27 (0,-1)	2.6

Version	Channel cross-section [cm ²]	Channel dimensions ** L _{min} -L _{max} [mm]	Mounting hole diameter [mm]	Efficiency at 10 [Pa] (without filter) flap valve opening 23 mm [m ³ /h]	Sound attenuation - flap valve opening Dn,e,w [dB]		Weight [kg]
					2 mm	23 mm	
NL080A	38	150*÷450	90	27	44 (-1,-4)	40 (-1,-2)	1.3
NL110A	87	150*÷450	120	30	40 (-1,-2)	34 (-1,-1)	1.4
NL150A	177	150*÷450	170	64	42 (-1,-3)	30 (0,0)	2.7
NLS080A	38	150*÷450	90	22	44 (-1,-4)	40 (-1,-3)	1.4
NLS110A	87	150*÷450	120	25	40 (-1,-2)	34 (-1,-1)	1.7
NLS150A	177	150*÷450	170	60	41 (-1,-3)	30 (0,0)	3.0

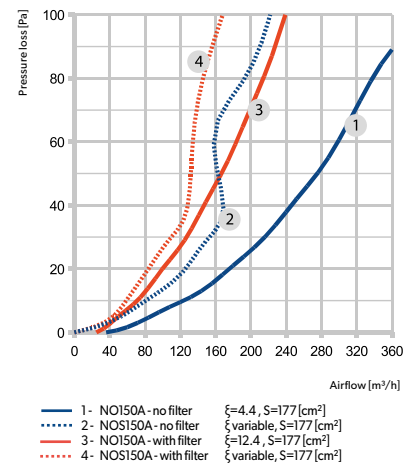
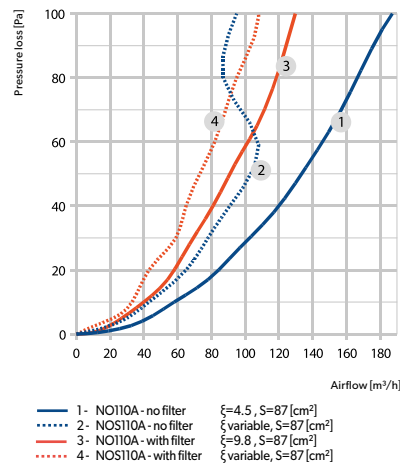
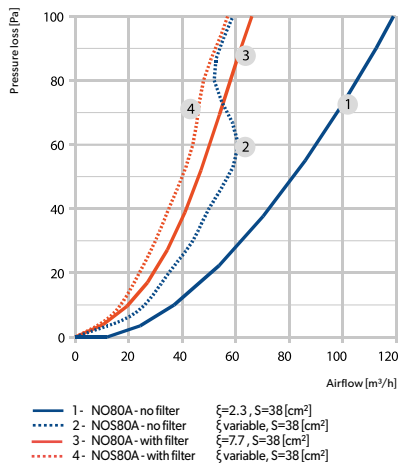
* dimensions to be reached after duct cutting

** see technical drawing on first page

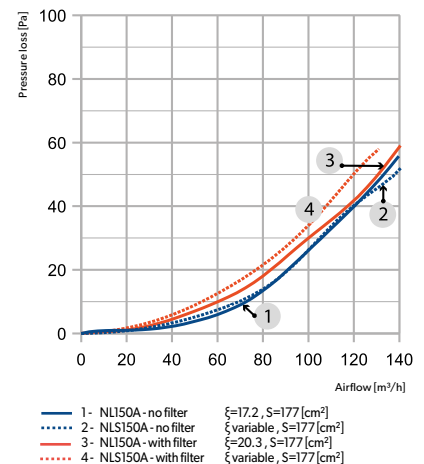
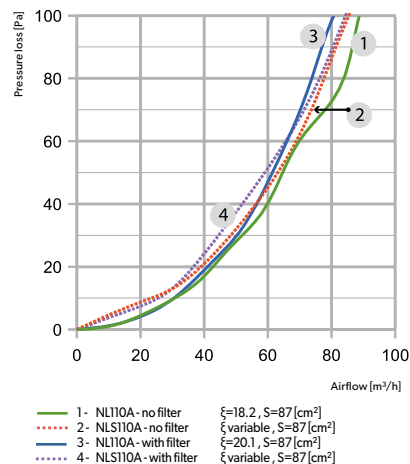
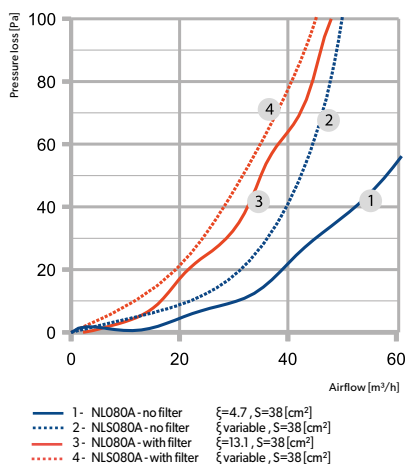
Version	Airflow at 10 [Pa] (with filter) acc. to PN-83/B-03430/Az3			
	minimum [m ³ /h]	opening [mm]	nominal [m ³ /h]	opening [mm]
NO080A	4,7	2	20	23
NO110A	6,1	2	28,8	22
NO150A	7,8	1	29,1	6
NOS080A	5,6	3	19	23
NOS110A	6,3	3	30	28
NOS150A	8,7	1	29,3	7

Version	Airflow at 10 [Pa] (with filter) acc. to PN-83/B-03430/Az3			
	minimum [m ³ /h]	opening [mm]	nominal [m ³ /h]	opening [mm]
NL080A	4,4	2	20,3	24
NL110A	7	1	23,8	25
NL150A	8	1	26	14
NLS080A	5,5	1	19,9	23
NLS110A	6,2	2	24	29
NLS150A	7,5	1	29,3	21

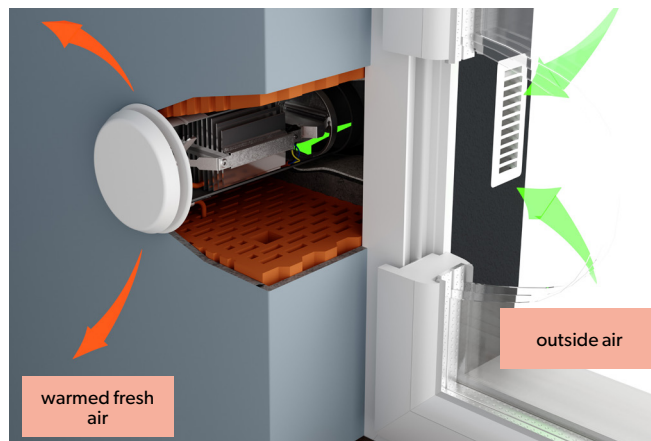
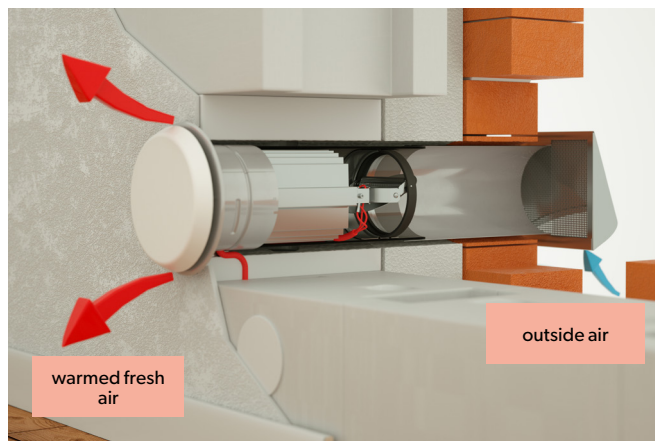
Airflow charts (round air intake set)



Airflow charts (window recess air intake set)



AIR INTAKE SET WITH HEATER



Air intake set with heater provides fresh and preheated air into the building. Thermostat turns the heating module on when temperature falls below 3°C and switches it off when temperature rises above 10-15°C. Semiconductor heating elements automatically regulate power consumption in relation to the amount and temperature of flowing air.

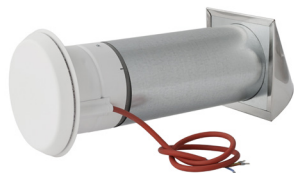
Basic version is equipped with a flap valve. Optionally a version with stabilizer is available. Airflow stabilizer controls the airflow: limits the air supply to certain limits as well as protects from backflow. Each air intake set includes a filter (separately in the box, to be mounted by the user). Filter enables effective capturing of dust and other particles carried by the air.

Destination	W	W	W - air supply ventilation
Air intake and flap valve material	CC	-	CC - chrome-nickel steel sheet
Channel material	PP	PP	PP - pipe
		ML	ML - galvanised steel sheet powder coated

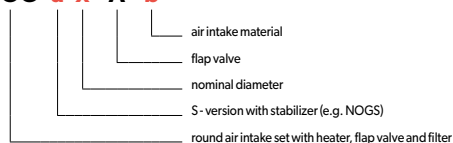
Additional equipment:

- basic filter
- stabilizer

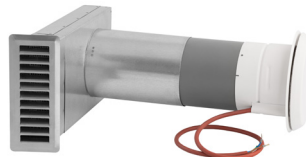
ROUND AIR INTAKE SET WITH HEATER NOG



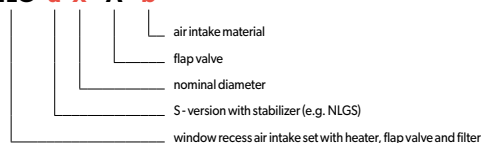
NOG a x A - b



WINDOW RECESS AIR INTAKE SET WITH HEATER NLG



NLG a x A - b



Technical data

Version	Channel cross-section [cm²]	Channel dimensions ** L _{min} × L _{max} [mm]	Mounting hole diameter [mm]	Airflow at 10 [Pa] (without filter) flap valve opening 23 mm [m³/h]	Sound attenuation - Flap valve opening D _{n,e,w} [dB]		Weight [kg]
					2 mm	23 mm	
NOG080A	38	320×550	90	28	38 (-1,-3)	32 (0,-2)	1.3
NOG110A	87	320×550	120	49	38 (0,-3)	30 (0,-1)	2.4
NOG150A	177	350×580	170	97	36 (0,-2)	28 (-1,-2)	4.1
NOGS080A	38	320×550	90	22	38 (-1,-3)	32 (0,-1)	1.4
NOGS110A	87	320×550	120	40	38 (-1,-3)	30 (0,-1)	2.6
NOGS150A	177	350×580	170	74	37 (-1,-3)	28 (0,-1)	4.4

Version	Airflow at 10 [Pa] (with filter) acc. to PN-83/B-03430 / Az3			
	minimum [m³/h]	opening [mm]	nominal [m³/h]	opening [mm]
NOG080A	5,2	2	20,4	24
NOG110A	5,8	3	26,3	24
NOG150A	8,1	2	33	8
NOGS080A	5,2	3	13,4	24
NOGS110A	7,8	3	28,9	25
NOGS150A	7,6	1	27,8	7

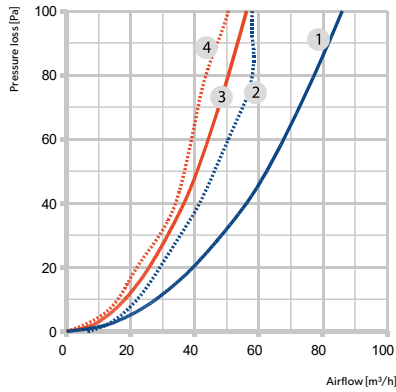
Version	Channel cross-section [cm²]	Channel dimensions ** L _{min} × L _{max} [mm]	Mounting hole diameter [mm]	Airflow at 10 [Pa] (without filter) flap valve opening 23 mm [m³/h]	Sound attenuation - Flap valve opening D _{n,e,w} [dB]		Weight [kg]
					2 mm	23 mm	
NLG080A	38	200×450	90	23	44 (-1,-4)	40 (-1,-3)	1.8
NLG110A	87	200×450	120	33	40 (-1,-2)	34 (0,0)	2.8
NLG150A	177	200×450	170	76	42 (-1,-4)	30 (0,0)	4.8
NLGS080A	38	320×450	90	20	44 (-1,-4)	40 (-1,-3)	1.9
NLGS110A	87	320×450	120	23	40 (-1,-2)	34 (-1,-1)	2.9
NLGS150A	177	320×450	170	55	41 (-1,-3)	31 (0,0)	5.1

Version	Airflow at 10 [Pa] (with filter) acc. to PN-83/B-03430 / Az3			
	minimum [m³/h]	opening [mm]	nominal [m³/h]	opening [mm]
NLG080A	6,3	1	11,1	24
NLG110A	6,8	1	22,9	25
NLG150A	8	1	29,1	15
NLGS080A	4,4	2	20,6	23
NLGS110A	6,3	2	22,8	21
NLGS150A	7,6	2	26,2	23

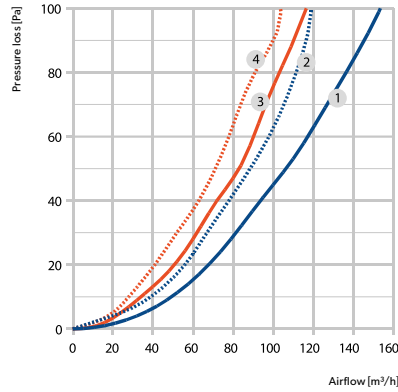
* dimensions to be reached after duct cutting

** see technical drawing on first page

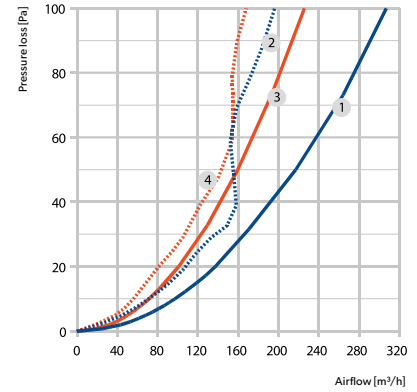
Airflow charts - round air intake set with heater



- 1- NOG80A - no filter $\xi=4.0, S=38 [\text{cm}^2]$
- 2- NOG80A - no filter $\xi \text{ variable}, S=38 [\text{cm}^2]$
- 3- NOG80A - with filter $\xi=9.4, S=38 [\text{cm}^2]$
- 4- NOG80A - with filter $\xi \text{ variable}, S=38 [\text{cm}^2]$

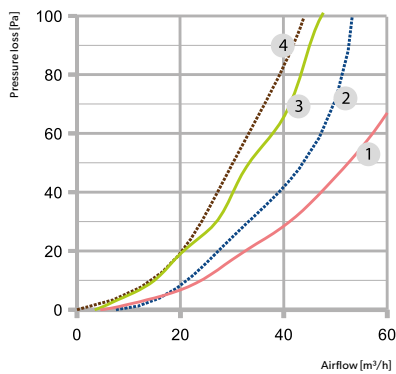


- 1- NOG110A - no filter $\xi=6.9, S=87 [\text{cm}^2]$
- 2- NOG110A - no filter $\xi \text{ variable}, S=87 [\text{cm}^2]$
- 3- NOG110A - with filter $\xi=12.4, S=87 [\text{cm}^2]$
- 4- NOG110A - with filter $\xi \text{ variable}, S=87 [\text{cm}^2]$

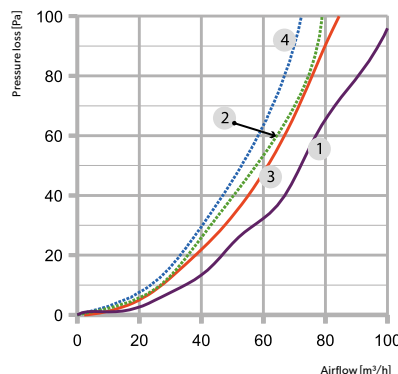


- 1- NOG150A - no filter $\xi=7.2, S=177 [\text{cm}^2]$
- 2- NOG150A - no filter $\xi \text{ variable}, S=177 [\text{cm}^2]$
- 3- NOG150A - with filter $\xi=13.3, S=177 [\text{cm}^2]$
- 4- NOG150A - with filter $\xi \text{ variable}, S=177 [\text{cm}^2]$

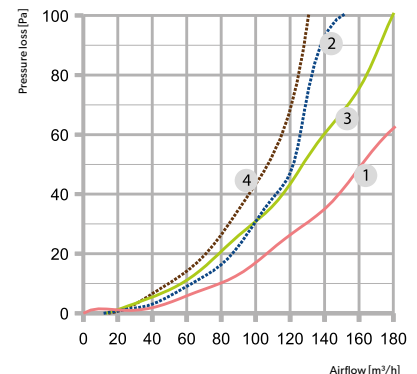
Airflow charts - window recess air intake set with heater



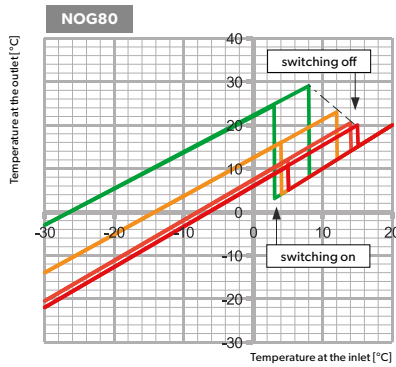
- 1- NLG080A no filter $\xi=6.2, S=38 [\text{cm}^2]$
- 2- NLG080A no filter $\xi \text{ variable}, S=38 [\text{cm}^2]$
- 3- NLG080A with filter $\xi=15.2, S=38 [\text{cm}^2]$
- 4- NLG080A with filter $\xi \text{ variable}, S=38 [\text{cm}^2]$



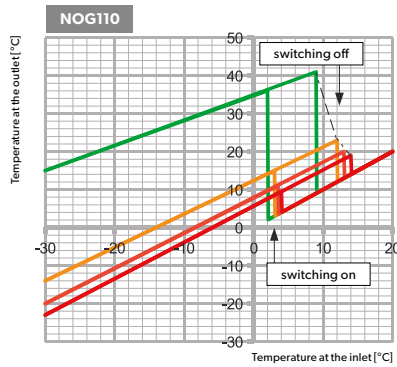
- 1- NLG110A no filter $\xi=14.7, S=87 [\text{cm}^2]$
- 2- NLG110A no filter $\xi \text{ variable}, S=87 [\text{cm}^2]$
- 3- NLG110A with filter $\xi=21.7, S=87 [\text{cm}^2]$
- 4- NLG110A with filter $\xi \text{ variable}, S=87 [\text{cm}^2]$



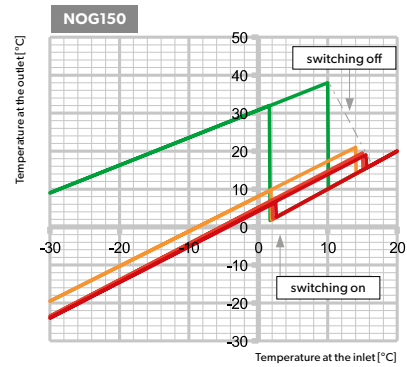
- 1- NLG150A no filter $\xi=12.4, S=177 [\text{cm}^2]$
- 2- NLG150A no filter $\xi \text{ variable}, S=177 [\text{cm}^2]$
- 3- NLG150A with filter $\xi=22.0, S=177 [\text{cm}^2]$
- 4- NLG150A with filter $\xi \text{ variable}, S=177 [\text{cm}^2]$



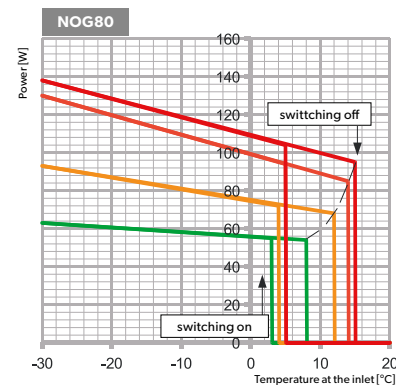
- Airflow 56 [m³/h]
- Airflow 18 [m³/h]
- Airflow 42 [m³/h]
- Airflow 8 [m³/h]



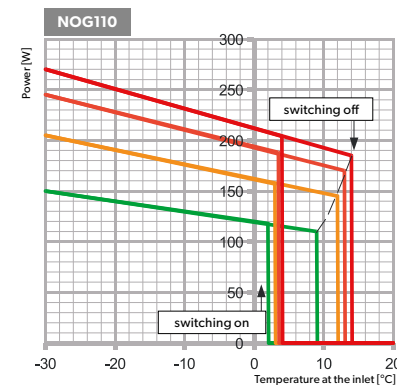
- Airflow 115 [m³/h]
- Airflow 40 [m³/h]
- Airflow 77 [m³/h]
- Airflow 11 [m³/h]



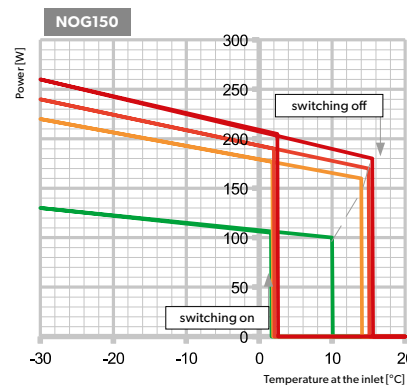
- Airflow 141 [m³/h]
- Airflow 73 [m³/h]
- Airflow 123 [m³/h]
- Airflow 11 [m³/h]



- Airflow 56 [m³/h]
- Airflow 18 [m³/h]
- Airflow 42 [m³/h]
- Airflow 8 [m³/h]

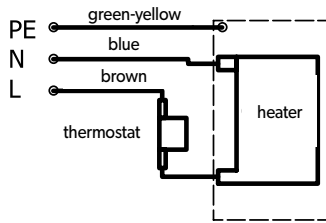


- Airflow 115 [m³/h]
- Airflow 40 [m³/h]
- Airflow 77 [m³/h]
- Airflow 11 [m³/h]



- Airflow 141 [m³/h]
- Airflow 73 [m³/h]
- Airflow 123 [m³/h]
- Airflow 11 [m³/h]

Electric diagram



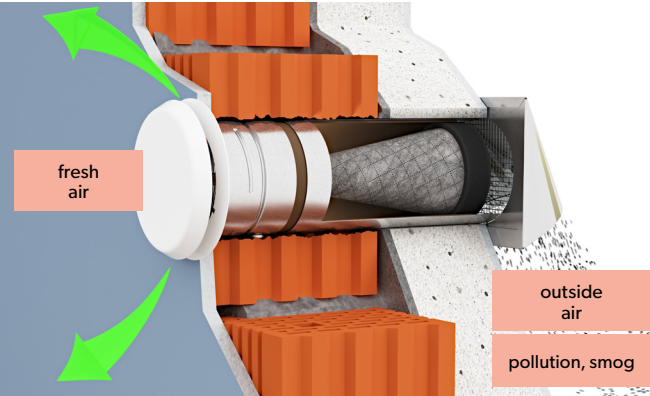
Electric parameters	NOG80	NOG110	NOG150
Supply voltage	230 V		
Nominal power	138 W	270 W	305 W
Max current	2 A	3 A	3.5 A
Protection level	IP 33		

ANTI POLLEN ROUND AIR INTAKE SET

Anti-pollen round air intake set is equipped with a nano-filter made of patented membrane. It catches even the smallest particles of harmful dust (PM 2.5), thanks to that it protects not only against smog, but also against allergens. Caution! Periodic membrane cleaning is necessary. Dust or pollution may cause airflow reduction.

Destination	W	W	W	W - air supply ventilation
Air intake material	OC	-	-	OC - galvanised steel sheet
	-	CC	-	CC - chrome-nickel steel sheet
	-	-	ML	ML - galvanised steel sheet powder coated
Channel material	PP	PP	PP	PP - pipe

Flap valve material-mild steel powder coated (white)



Technical data

Version	Channel cross-section [cm²]	Channel dimensions * [mm]	Mounting hole diameter [mm]	Airflow at 10 [Pa] (without filter) flap valve opening 23 mm [m³/h]	Weight [kg]
NON080A	38	320÷550	90	14	0.9
NON110A	87	320÷550	120	26	1.5
NON150A	177	350÷580	170	39	2.6
NLN080A	38	320÷450	90	15	1.3
NLN110A	87	320÷450	120	22	1.4
NLN150A	177	320÷450	170	33	2.7

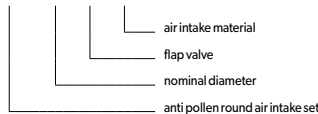
* see technical drawing on first page

Version	Airflow at 10 [Pa] (with filter) acc. to PN-83/B-03430/Az3			
	minimum [m³/h]	opening [mm]	nominal [m³/h]	opening [mm]
NON080A	4,3	2	19,9	24
NON110A	5,5	2	27,2	25
NON150A	8,1	2	27	12
NLN080A	4,5	1	20,1	23
NLN110A	5,8	1	21	22
NLN150A	7,2	1	23,3	22

ANTI POLLEN ROUND AIR INTAKE SET NON



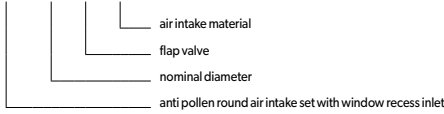
NON x - A - b



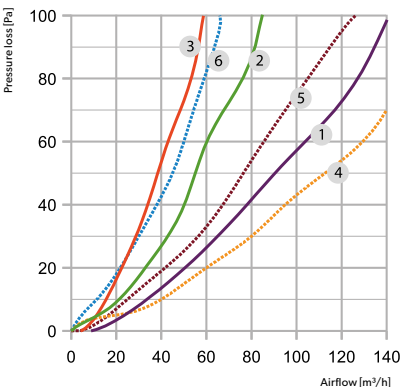
ANTI POLLEN ROUND AIR INTAKE SET WITH WINDOW RECESS INLET NLN



NLN x - A - b



Airflow charts



1- NLN150A
2- NLN110A
3- NLN080A
4- NON150A
5- NON110A
6- NON080A

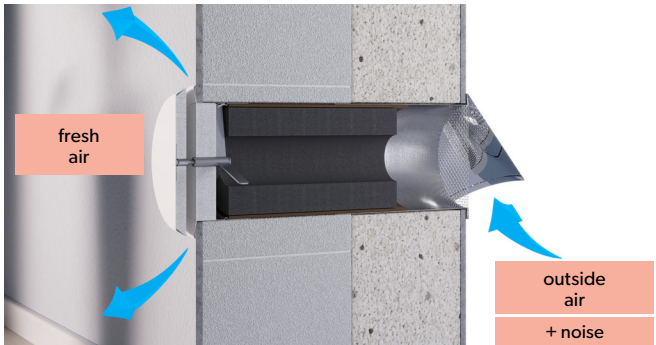
{ variable, S=177 [cm²]
{ variable, S=87 [cm²]
{ variable, S=38 [cm²]
{ variable, S=177 [cm²]
{ variable, S=87 [cm²]
{ variable, S=38 [cm²]

ACOUSTIC AIR INTAKE SET

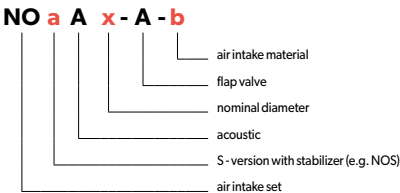
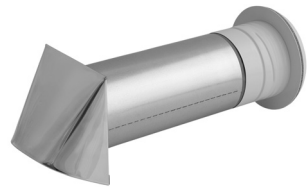
Acoustic round air intake set is equipped with noise reducing channel.

Destination	W	W	W	W - air supply ventilation
Air intake material	OC	-	-	OC - galvanised steel sheet
	-	CC	-	CC - chrome-nickel steel sheet
	-	-	ML	ML - galvanised steel sheet powder coated
Channel material	PP	PP	PP	PP - pipe

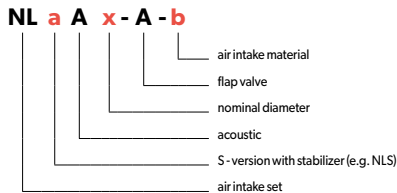
Flap valve material-mild steel powder coated (white)



ACOUSTIC ROUND AIR INTAKE SET NOA



ACOUSTIC WINDOW RECESS AIR INTAKE SET NLA



Technical data

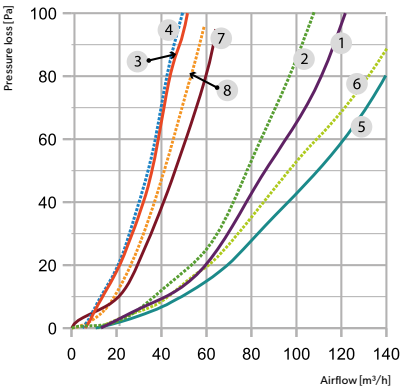
Version	Channel cross-section [cm ²]	Channel dimensions * L _{min} -L _{max} [mm]	Mounting hole diameter [mm]	Airflow at 10 [Pa] (without filter) flap valve opening 23 mm [m ³ /h]	Sound attenuation - Flap valve opening D _{n,e} w [dB]		Weight [kg]
					2 mm	23 mm	
NOA110A	14	320+550	120	21	51 (-1; -4)	48 (-1; -4)	1.4
NOA150A	38	350+580	170	49	48 (-1; -5)	43 (-1; -4)	2.4
NLA110A	14	320+450	120	14	51 (-1; -4)	49 (0; 3)	1.5
NLA150A	38	320+450	170	41	49 (-2; 5)	45 (-1; -4)	2.8

* see technical drawing on first page

Version	Airflow at 10 [Pa] (with filter) acc. to PN-83/B-03430/Az3			
	minimum [m ³ /h]	opening [mm]	nominal [m ³ /h]	opening [mm]
NOA150A	7,7	2	29,2	20
NLA150A	7,4	2	26,1	22
NOSA150A	5,5	2	19,8	23
NLSA150A	6,3	2	22,5	23

Version	Airflow at 10 [Pa] (no filter) acc. to PN-83/B-03430/Az3			
	minimum [m ³ /h]	opening [mm]	nominal [m ³ /h]	opening [mm]
NOA110A	5,1	2	25,4	13
NLA110A	4,4	1	20,2	23

Airflow charts



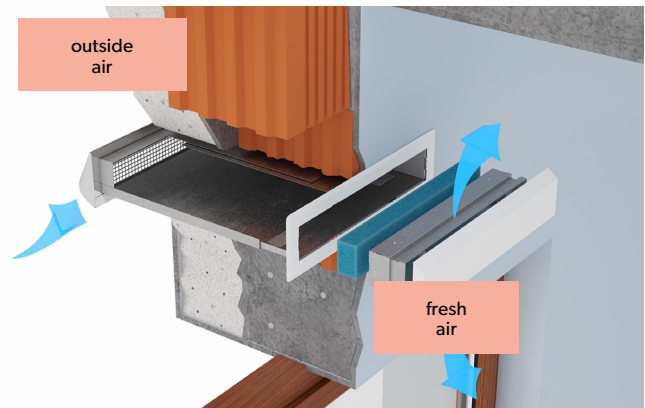
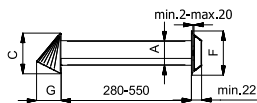
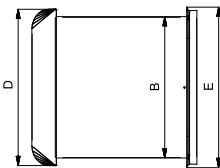
1 - NLA150A - no filter	$\xi=45,5, S=38$ [cm ²]
2 - NLA150A - with filter	$\xi=55,7, S=38$ [cm ²]
3 - NLA110A - no filter	$\xi=72,7, S=14$ [cm ²]
4 - NLA110A - with filter	$\xi=73,4, S=14$ [cm ²]
5 - NOA150A - no filter	$\xi=1,3, S=38$ [cm ²]
6 - NOA150A - with filter	$\xi=1,7, S=38$ [cm ²]
7 - NOA110A - no filter	$\xi=1,0, S=14$ [cm ²]
8 - NOA110A - with filter	$\xi=1,2, S=14$ [cm ²]

RECTANGULAR AIR INTAKE SET



Additional equipment:

- basic filter
- directional valve



Destination	W	W	W	W	W - ventilation
Air intake material	CH	-	-	-	CH - chrome-nickel steel sheet
	-	CH	-	-	CH - chrome-nickel steel sheet
	-	-	ML	-	ML - galvanised steel sheet powder coated (white)
	-	-	-	OC	OC - galvanised steel sheet
Channel material	CH	-	-	-	CH - chrome-nickel steel sheet
	-	OC	OC	OC	OC - galvanised steel sheet
Flap valve material	CH	-	-	-	CH - chrome-nickel steel sheet
	-	ML	ML	ML	ML - mild steel powder coated (white)

Technical data

Version	Dimensions [mm]							Channel cross-section S [cm ²]	Pressure loss ratio ζ with filter	Airflow at 10 [Pa] (without filter) flap valve opening 20 mm [m ³ /h]	Sound attenuation - Flap valve opening Dn,e,w [dB]		Weight [kg]
	A	B	C	D	E	F	G				2 mm	20 mm	
NP1	53	304	87	336	345	95	52	147	10.8	115	33 (-1,-)	26 (0,0)	2.50
NPS1								147	13.0	84	33 (-1,-)	26 (0,0)	2.90
NP2	75	594	109	626	635	116	64	419	15.9	249	38 (-1,-2)	26 (0,0)	4.80
NPS2								419	18.1	218	38 (-1,-2)	26 (0,0)	5.70

Version	Airflow at 10 [Pa] (with filter) acc. to PN-83/B-03430 / Az3			
	minimum [m ³ /h]	opening [mm]	nominal [m ³ /h]	opening [mm]
NP1	7,9	2	26,9	5
NPS1	6,6	2	26,5	5
NP2	7,3	2	25,2	4
NPS2	8,7	1	28,7	max. u.t.

max. u.t. - maximum upper tilt

Positioning of the air intake in accordance with PN-83/B-03430/Az3

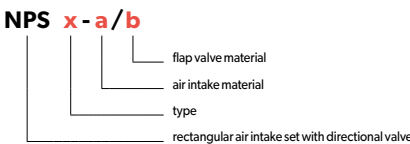
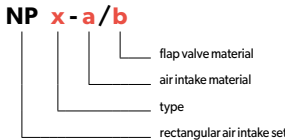
Air volume flow rate with the air intake open:

Requirement for mechanical exhaust ventilation: 20-30 [m³/h]

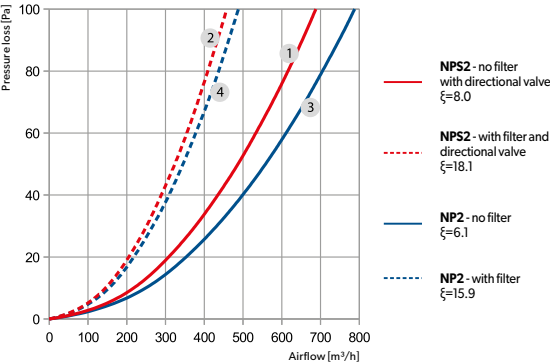
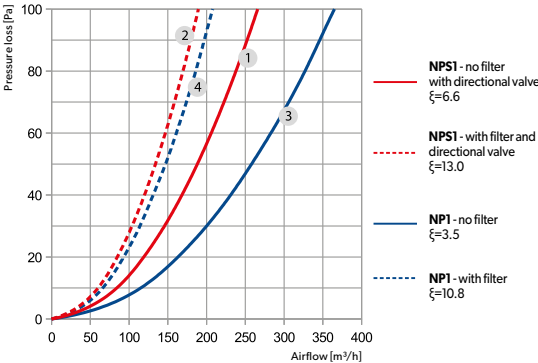
Requirement for gravity ventilation: 20-50 [m³/h]

Air volume flow rate with air intake closed:

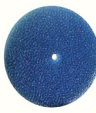
20% to 30% of the flow at its nominal opening



Airflow charts:



ADDITIONAL EQUIPMENT

N°	Name	Picture	Symbol	Usage
1	Flap valve		Anemostat ANP-...	Round air intake set additional equipment ... - inlet diameter (ø 080, 110, 150)
2	Airflow stabilizer		Stabilizator Przepływu SNP-...	
3	Filter		Filtr FNP-...	
4	Nano filter		Filtr antysmogowy FNON-...	
5	Filter FNP		FNP1	Rectangular air intake set additional equipment ... - material (OC - galvanised steel sheet, CH - chrome-nickel steel sheet)
6	Filter FNP		FNP2	
7	Directional valve SNP		SNPS1-...	
8	Directional valve SNP		SNPS2-...	