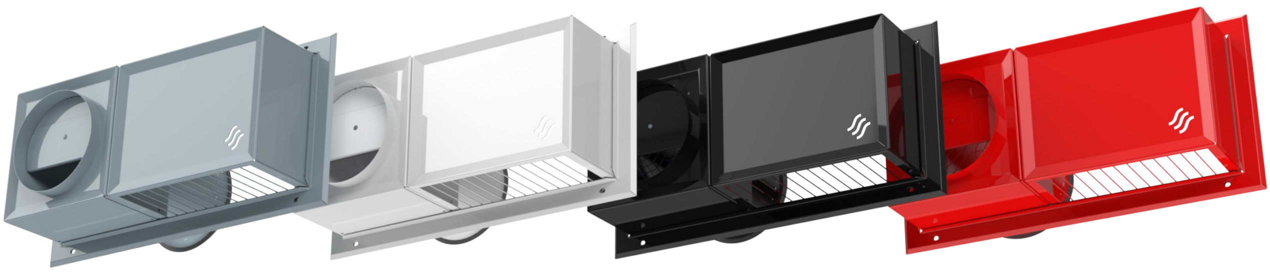
RVN Nordic Combined intake/exhaust grille

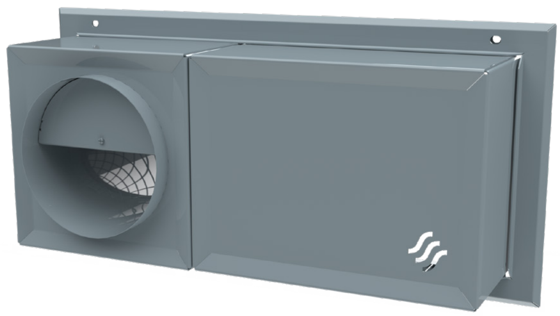
RVN Nordic is a compact combined outdoor air intake and exhaust grille designed specifically for cold and demanding climates.

The insulated exhaust duct, controlled exhaust air velocity and separated intake and exhaust air paths reduce the risk of icing, condensation and air mixing, ensuring reliable year-round operation.

RVN Nordic is an ideal solution for apartment-based and small ventilation units where space efficiency, façade integration and stable performance in winter conditions are essential.



- Insulated exhaust duct reduces the risk of icing and icicle formation*
- Separated intake and exhaust air paths prevent air mixing
- An exhaust air velocity of ≥5 m/s is ensured (with correct adjustment setting)
- Bottom air intake prevents water and snow from entering the intake duct
- Innovative two-in-one outdoor air intake and exhaust grille for wall mounting
- Compact design that integrates discreetly into the building façade
- Left- or right-hand configuration, easily adapted during installation
- Galvanized steel housing with powder coating ensures high weather resistance



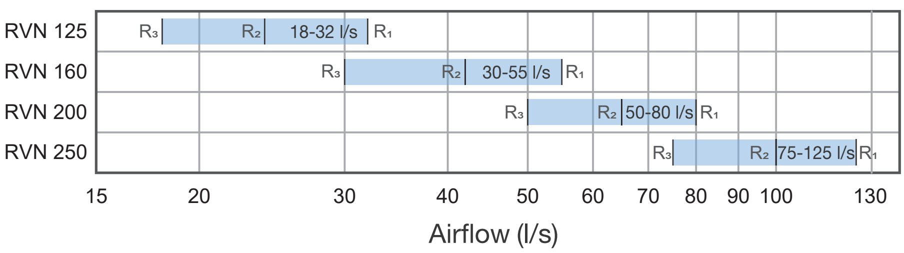
* RVN 125 and 160 tested according to EN 13141-8

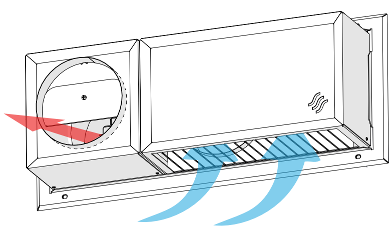
Application

RVN-type combined grilles are used where a compact solution is required to provide both air intake and exhaust through a single wall penetration.

The product is particularly suitable for apartment-based and other small ventilation units where space efficiency and façade integration are important.

Quick selection table





Structure and dimensions

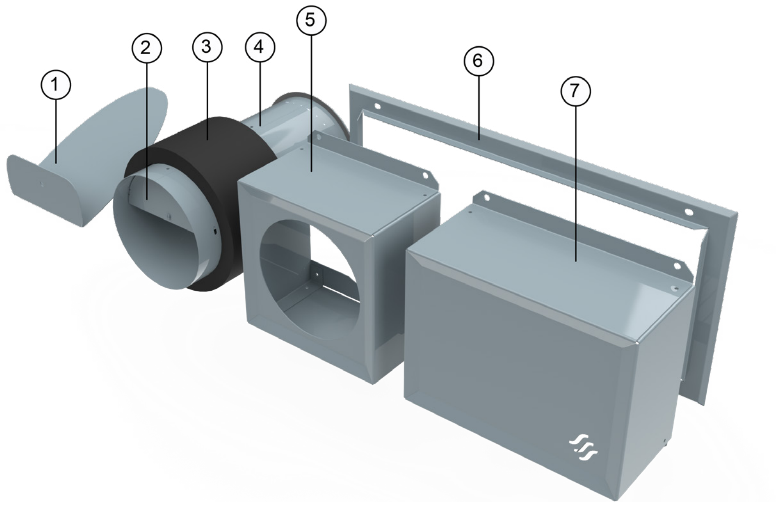
RVN consists of separate air intake and exhaust sections connected via an installation frame, allowing left- or right-hand configuration to suit installation requirements.

The exhaust duct is insulated within the housing with 19 mm thick Armaflex thermal insulation, significantly reducing the risk of condensation and ensuring reliable operation even in damp and cold conditions.

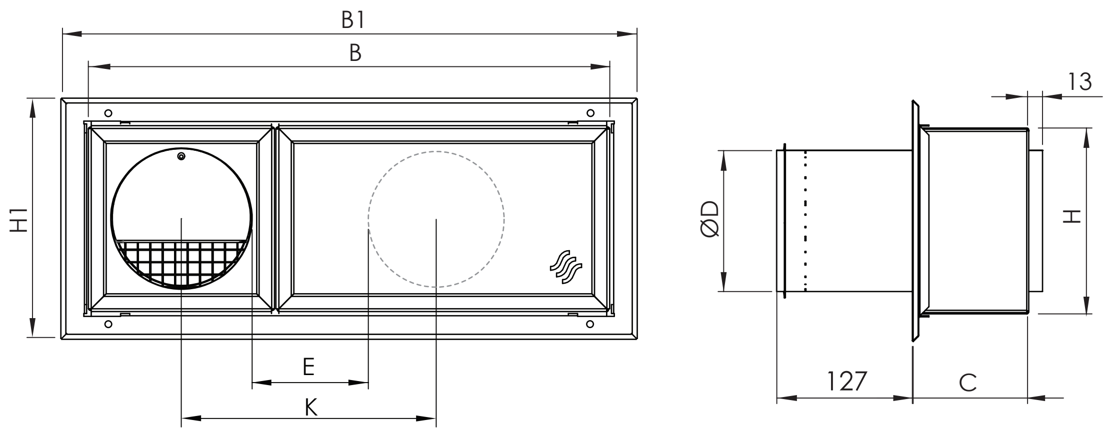
RVN grilles are manufactured as standard from hot-dip galvanized steel (Z275) and finished in grey (RAL 7000). Custom orders are available in all RAL colours.

The set includes three different adjustment sections to achieve the required exhaust air velocity of 5 m/s across various airflow rates.

The exhaust duct connection is equipped with a rubber gasket and a hot-dip galvanized protective mesh.



1 – Additional adjustment section
2 – Adjustment section
3 – Armaflex 19mm
4 – Exhaust duct
5 – Exhaust housing
6 – Installation frame
7 – Intake housing



Product	D (mm)	B (mm)	H (mm)	H1 (mm)	B1 (mm)	C (mm)	K (mm)		E (mm)		Weight (kg)
							min	max	min	max	
RVN 125	125	459	164	213	509	103	160	300	35	170	3,3
RVN 160	160	587	196	247	634	152	195	390	35	225	5,8
RVN 200	200	669	239	288	716	201	240	430	35	225	8,5
RVN 250	250	829	287	338	875	271	290	540	35	285	13,4

Adjustment section

The product includes three (R1, R2, R3) adjustment options to achieve the required exhaust air velocity of 5 m/s at different airflow rates. R1 represents the largest free outlet area (least restricted configuration), while R3 represents the smallest free outlet area (most restricted configuration).

Adjustment sections R1 and R2 are attached to the exhaust duct as standard.

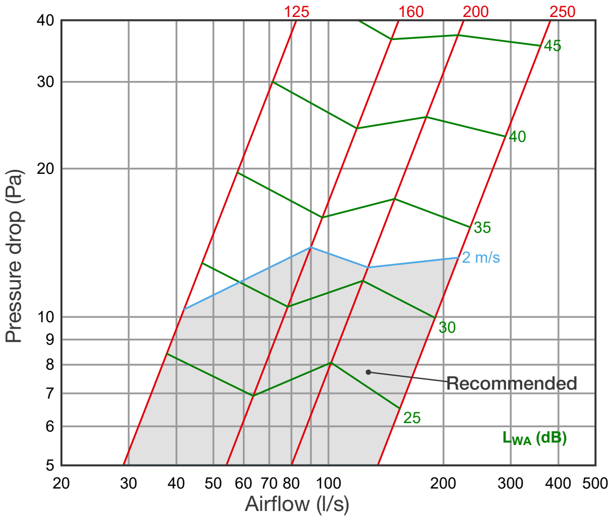
When operating at lower airflow rates, the exhaust opening is restricted by installing the appropriate adjustment section. The suitable adjustment section can be selected according to the table provided:

Product	Airflow range (l/s)	Airflow (l/s) for adjustment settings					
		R3		R2		R1	
		Nominal	Range	Nominal	Range	Nominal	Range
RVN 125	18-32*	18	18-23	24	24-31	32	32- *
RVN 160	30-55*	30	30-41	42	42-54	55	55- *
RVN 200	50-80*	50	50-64	65	65-79	80	80- *
RVN 250	75-125*	75	75-99	100	100-124	125	125- *

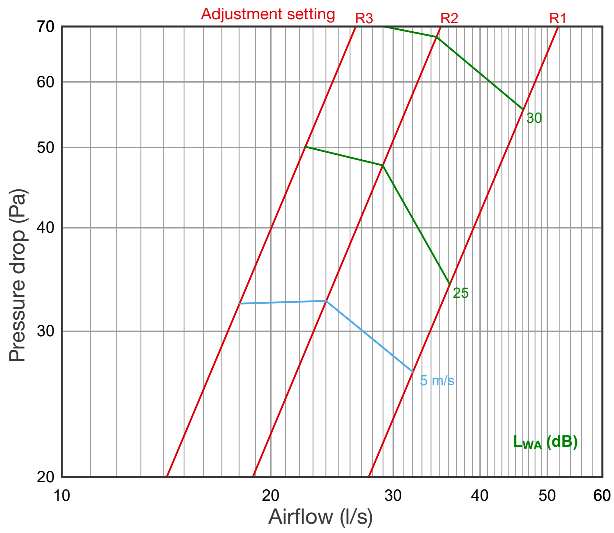
* Upper airflow limits depend on system pressure conditions and shall be verified using the airflow/pressure graphs provided.

Technical data

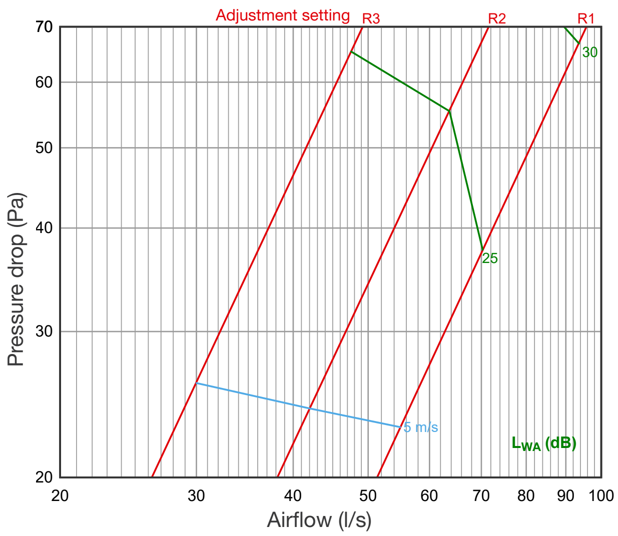
RVN - Intake air



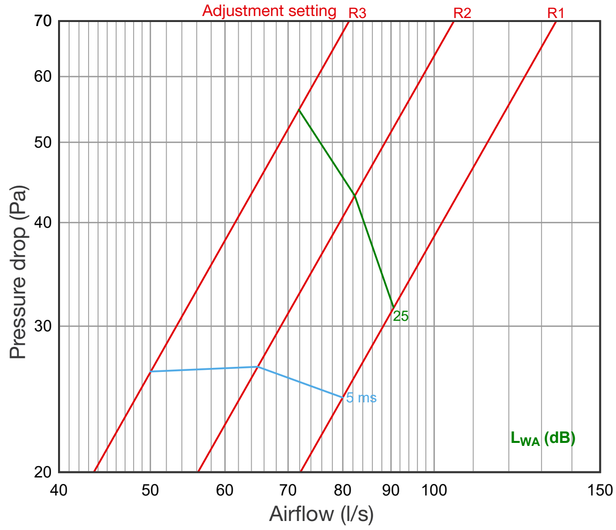
RVN 125 - Exhaust air



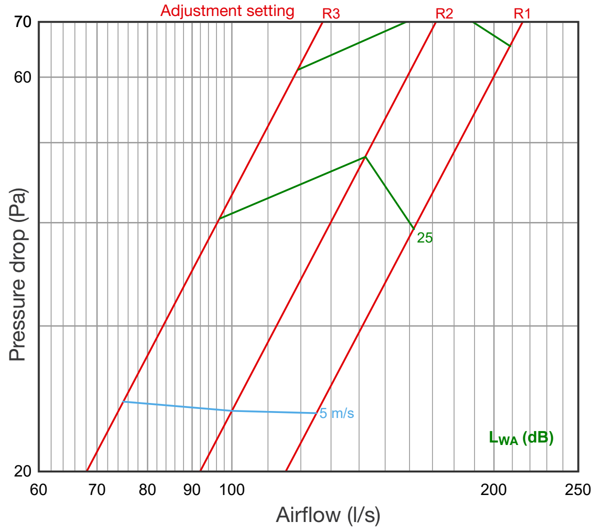
RVN 160 - Exhaust air



RVN 200 - Exhaust air



RVN 250 - Exhaust air



Acoustic data

$L_w = L_{wA} + K_{okt}$

RVN, exhaust air	Adjust-ment	Sound level correction factor K_{okt} (dB) Mean frequency of octave band (Hz)							
		63	125	250	500	1k	2k	4k	8k
RVN 125	R1	14	-4	-3	0	-7	-13	-16	-12
	R2	19	-1	-2	1	-3	-3	-6	-8
	R3	18	2	0	2	1	1	-1	-5
RVN 160	R1	15	1	0	-2	-8	-13	-13	-7
	R2	17	2	0	-2	-4	-7	-10	-8
	R3	17	-1	-3	-5	-9	-13	-12	-7
RVN 200	R1	16	2	-1	-6	-11	-10	-11	-4
	R2	15	2	-2	-6	-9	-11	-10	-3
	R3	18	3	0	-4	-7	-11	-11	-4
RVN 250	R1	8	1	-1	-2	-6	-12	-14	-8
	R2	8	1	0	-1	-3	-7	-11	-9
	R3	11	4	3	3	4	1	-3	-6

RVN, intake air	Sound level correction factor K_{okt} (dB) Mean frequency of octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
RVN 125	3	-4	-2	-1	-4	-12	-17	-19
RVN 160	4	-4	0	-2	-9	-16	-21	-18
RVN 200	6	-1	0	-2	-8	-13	-17	-14
RVN 250	9	1	2	-4	-11	-15	-18	-14

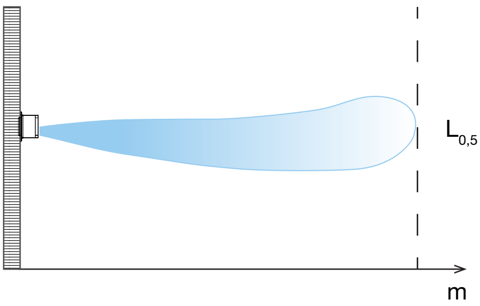
Sound attenuation

RVN, intake air	Sound attenuation D_{okt} (dB)							
	63	125	250	500	1k	2k	4k	8k
RVN 125	21	14	7	3	8	5	3	4
RVN 160	18	11	4	8	9	4	3	4
RVN 200	14	10	4	11	6	3	3	4
RVN 250	15	7	2	9	4	2	2	4

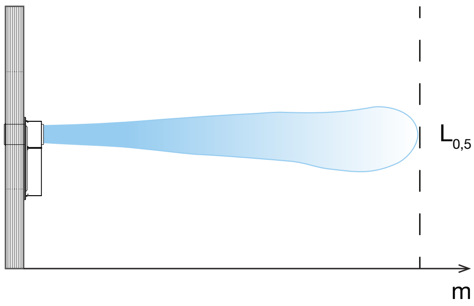
RVN, exhaust air	Position	Sound attenuation D_{okt} (dB)							
		63	125	250	500	1k	2k	4k	8k
RVN 125	R1	22	15	11	9	5	1	3	2
	R2	25	16	12	11	8	2	5	5
	R3	25	16	12	13	8	2	5	5
RVN 160	R1	19	13	10	9	2	2	3	2
	R2	19	14	11	10	3	2	4	4
	R3	19	14	12	13	4	3	6	5
RVN 200	R1	15	11	10	7	2	3	3	3
	R2	16	12	11	8	3	3	4	4
	R3	17	13	12	11	3	4	5	5
RVN 250	R1	16	11	10	5	1	3	3	3
	R2	17	11	10	6	2	4	4	4
	R3	18	12	13	8	3	6	6	6

Exhaust airflow pattern at 5,0 m/s outlet velocity

Side view



Top view



Product	Adjustment setting	Flow rate (l/s)	Throw length $L_{0,5}$*
RVN 125	R1	40	3,2
RVN 125	R3	15	3,2
RVN 160	R1	60	4,0
RVN 160	R3	25	3,4

*0,5 m/s end velocity; isothermal conditions; open outdoor environment.

Product marking

RVN - d - RAL 7000

Product
RVN - intake and exhaust air grille

Nominal size

RAL Color Code
RAL color: if other than standard color (standard color RAL 7000, light grey)

Example: RVN 160