

RVRU Snow shield

The RVRU snow shield is designed to protect air intake openings against snow and to reduce the entry of precipitation into the ventilation system.

Standard:

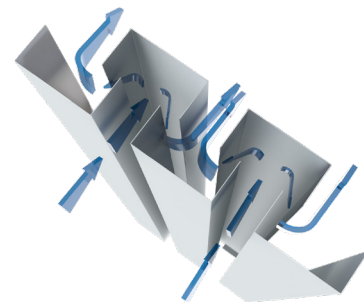
- Material: hot galvanized steel Z275
- Powder coating: RAL 7000
- Inner grille: removable
- Minimum size: 400×400 mm
- Grille size increment: 100 mm
- Maximum single-piece louvre size: 2000×2000 mm



Grilles larger than 2000 × 2000 mm are made up of several inner modules; for even larger dimensions, frame modules are also used.

Options:

- Materials: ZM, Al
- Other colors: RAL Classic K7 and RR
- Grilles of special shape

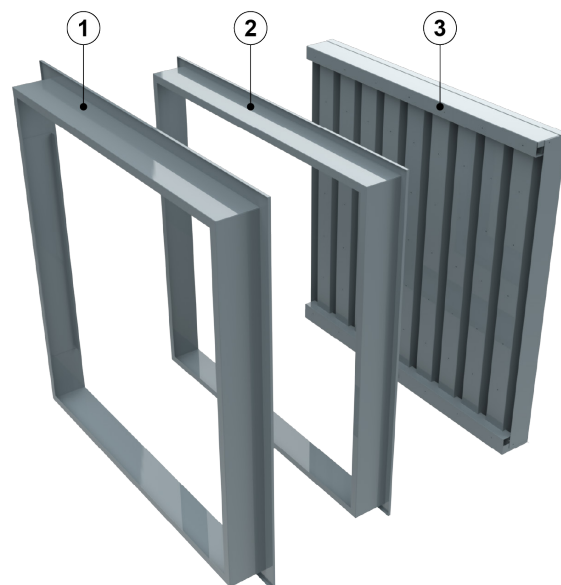


Application and Construction

The RVRU snow shield is intended to protect air intake openings, preventing snow and water from entering the ventilation system. The snow shield is installed flush with the wall surface.

The labyrinth-design inner blades of the snow shield separate precipitation from the air flow and direct the water into the collection channel located at the bottom of the grille.

The frame of the snow shield is made of 1,0 mm thick hot galvanized steel (Z275) and the inner blade structure of 0,7 mm thick hot galvanized steel (Z275). The snow shield can also be made of zinc-magnesium coated steel (ZM310) or aluminium. In the aluminium version, the inner grille is also made of 1,0 mm thick material.



The RVRU snow shield consists of:

1. Outer frame
2. Inner frame
3. Grille blades

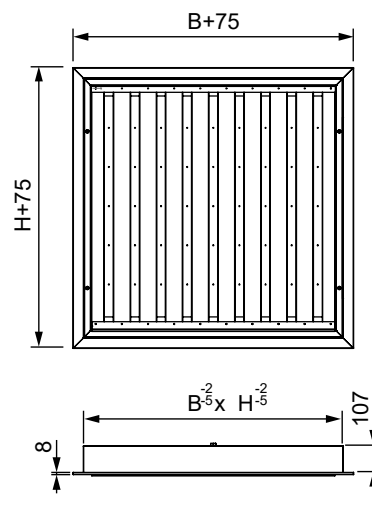
Dimensions

Dimensions B and H are the nominal sizes of the snow shield. The tolerance of the nominal sizes is -2/-5 mm.

The standard snow shield is rectangular. The minimum size is 400×400 mm, with a size increment of 100 mm.

The maximum one-piece snow shield is 2000 × 2000 mm. Larger grilles are made up of several inner modules (see page x).

If the snow shield is larger than 2800×2000 mm or 2000 × 2800 mm, the grille is made up of several frame modules



H \ B (mm)	400...2000	2100...2800	>2800
400...2000	One inner module	Several inner modules	Several inner and frame modules
2100...2800	Several inner modules	Several inner and frame modules	Several inner and frame modules
>2800	Several inner and frame modules	Several inner and frame modules	Several inner and frame modules

Technical data

The recommended air velocity at the face area of the RVRU snow shield is $v \leq 0,8 \text{ m/s}$.

Air velocity at the face area:

$v = Q / A_0 \text{ (m/s)}$, where

Q – desired airflow rate (m^3/s)

A_0 – face area (m^2)

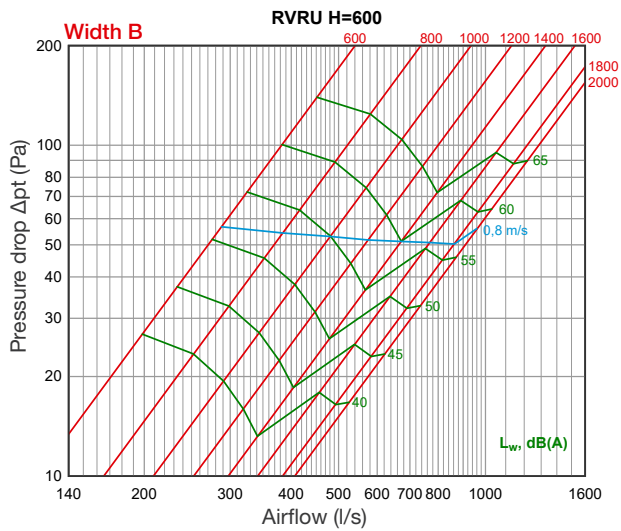
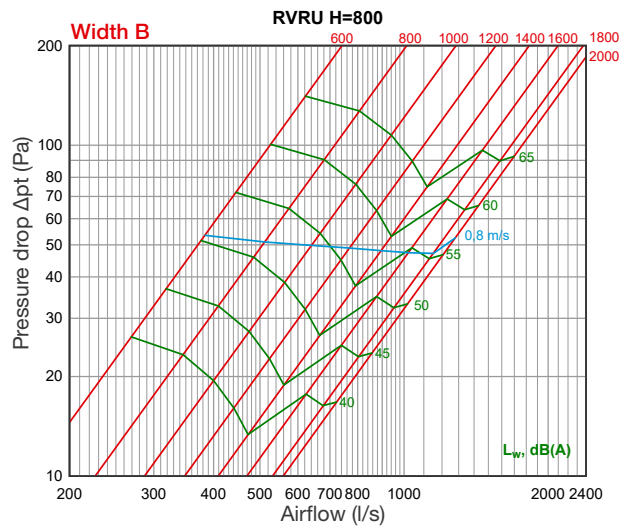
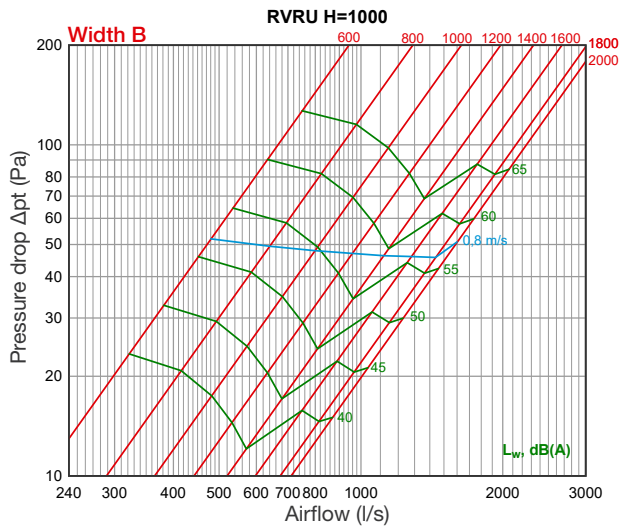
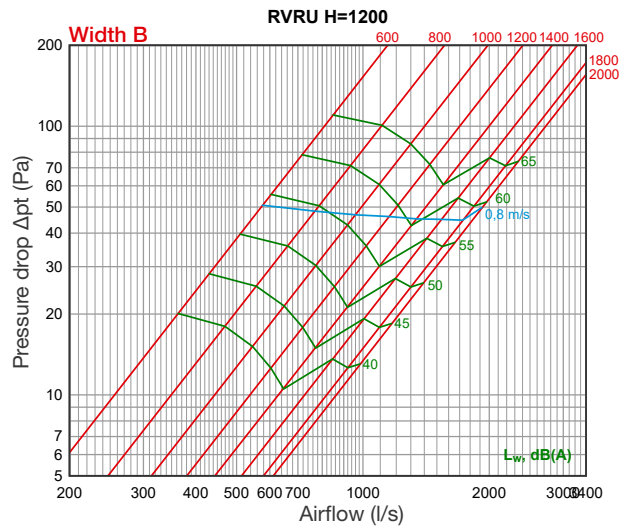
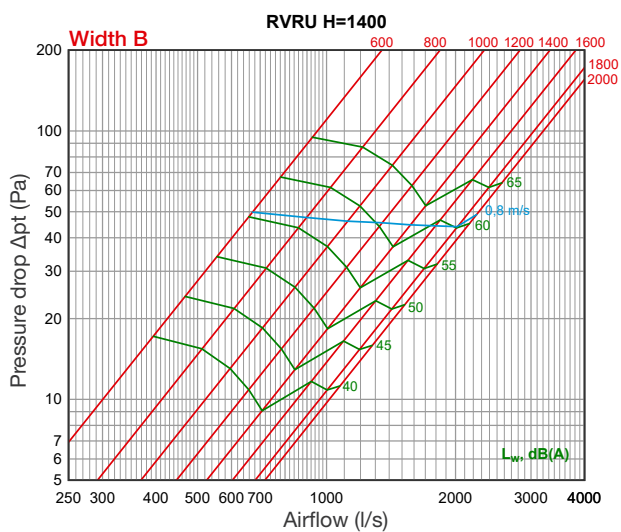
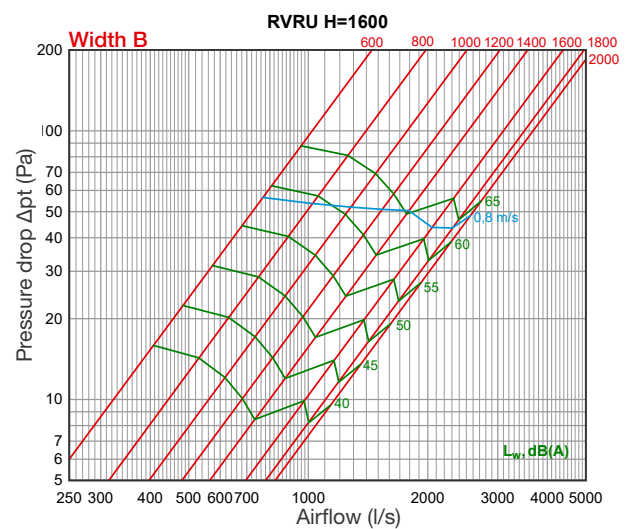
The face area of the RVRU snow shield is calculated on the basis of the nominal dimensions:

$A_0 = B \times H \text{ (m}^2\text{)}$, where

B – nominal width of the snow shield (m)

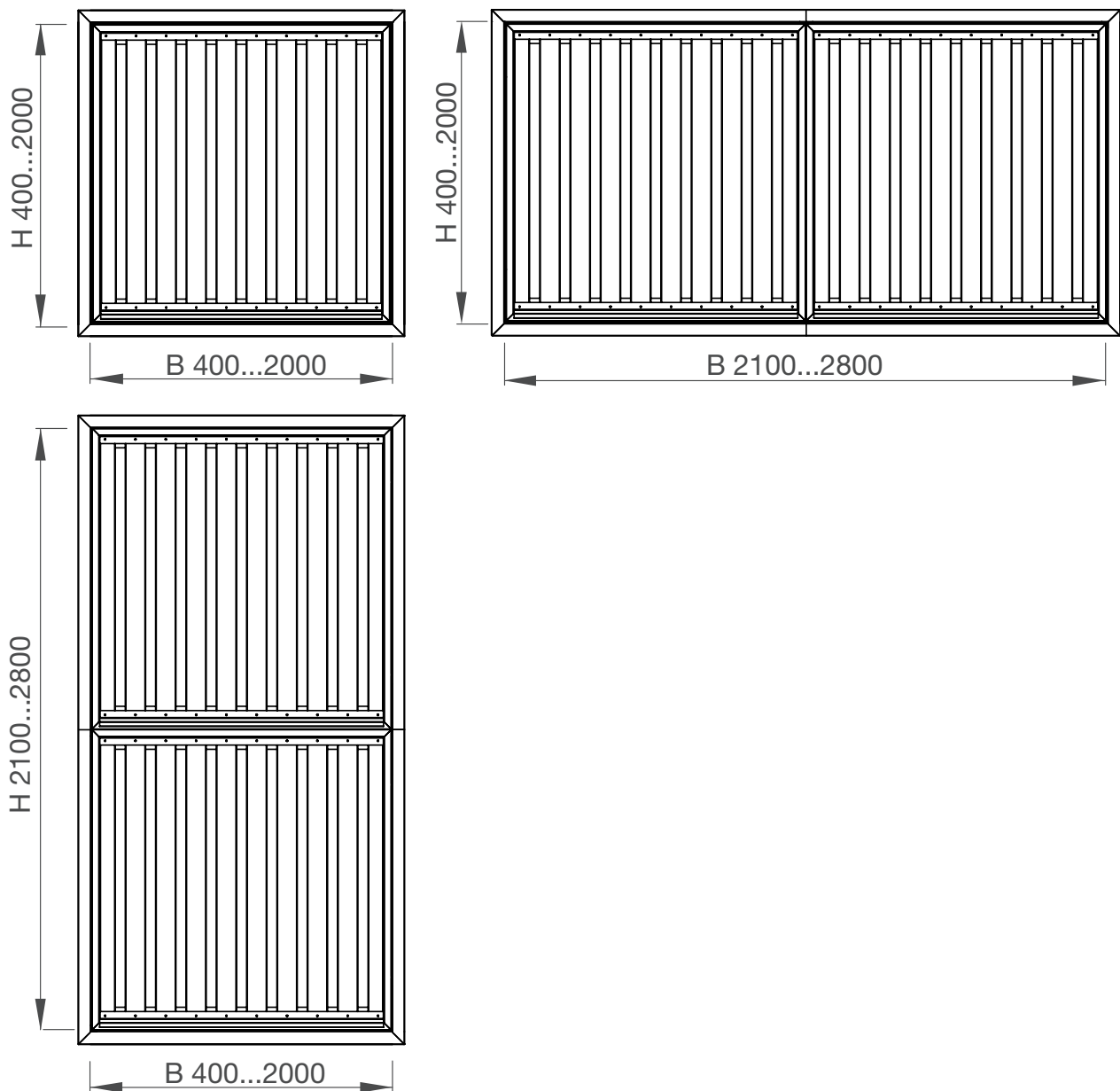
H – nominal height of the snow shield (m)

Airflow, pressure drop, noise level



Distribution of inner modules with one frame module

The maximum dimensions of a snow shield with one frame module are 2800 × 2000 mm or 2000 × 2800 mm. In the standard solution, the inner modules are divided equally.



Product marking

	RVRU	-	ZM	-	BxH	-	COLOUR
Marking							
Material							
	Standard material galvanized steel + powder coating, not indicated						
	ZM – zinc–magnesium coated steel (ZM310)						
	AL – aluminium						
Size BxH							
	Width B in 100 mm increments						
Colour							
	RAL or RR colour code						

Example: RVRU 1200x1000