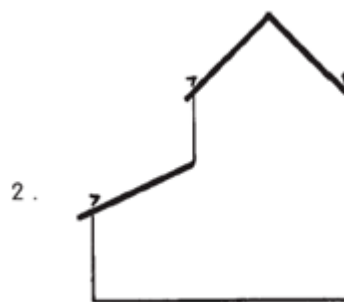


Grid-type snow guard for corrugated steel roofing and metal multi-tile roofing

1. Planning the location

- Entrances and accessways as well as play and recreational areas used during winter must be protected from snow and ice falling from the roof. This regulation also applies to the streets and other public areas surrounding the building (Nat. Building Code F2).
- When the slope of the roof is steeper than 1:8, snow guards are used for protection (Nat. Building Code F2).
- The snow guard should always be installed over the entire length of the eaves. It should not be used as short sections over the entrances only, for example. If this is necessary, however, two rows of snow guards must be used if the length of the roof plane above the snow guard is more than 6 metres (1).
- Snow must always be prevented from falling from one roof plane to another as well (RT instruction card 85-10708) (2).
- Place the snow guard close to the side eaves so that the snow loads are transferred to the load-bearing structures.



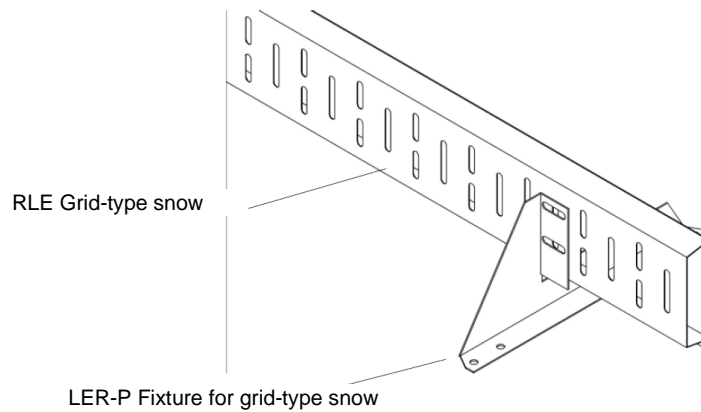
2. Dimensioning of snow guards

Maximum roof plane length above the snow guard (m)						
Angle (°) and slope ratio of the roof	Distance between snow guard fixtures (m)					
Snow load on the roof 1.8 kN/m2 (2.6 kN/m2)						
	0.5 m	0.6 m	0.75 m	0.9 m	1.0 m	1.2 m
< 15°, (1:3.7)	21.4 (15.0)	17.9 (12.5)	14.3 (9.9)	12.0 (8.3)	10.7 (7.4)	9.0 (6.2)
15...22°, 1:3.7...1:2.5	11.4 (8.0)	9.5 (6.6)	7.6 (5.3)	6.3 (4.4)	5.7 (4.0)	4.8 (3.3)
22...27°, 1:2.5...1:2	8.4 (5.8)	7.0 (4.8)	5.6 (3.9)	4.7 (3.3)	4.2 (2.9)	3.5 (2.4)
27...37°, 1:2...1:1.3	7.4 (5.2)	6.2 (4.3)	4.9 (3.4)	4.1 (2.8)	3.7 (2.6)	3.1 (2.1)
37...45°, 1:1.3...1:1	9.0 (6.2)	7.5 (5.2)	5.9 (4.1)	5.0 (3.5)	4.5 (3.1)	3.7 (2.6)

- If this load is exceeded, the snow load on the roof must be reduced.
- **NOTE!** The maximum allowed distance between the fixtures of a grid-type snow guard is 1,050 mm.

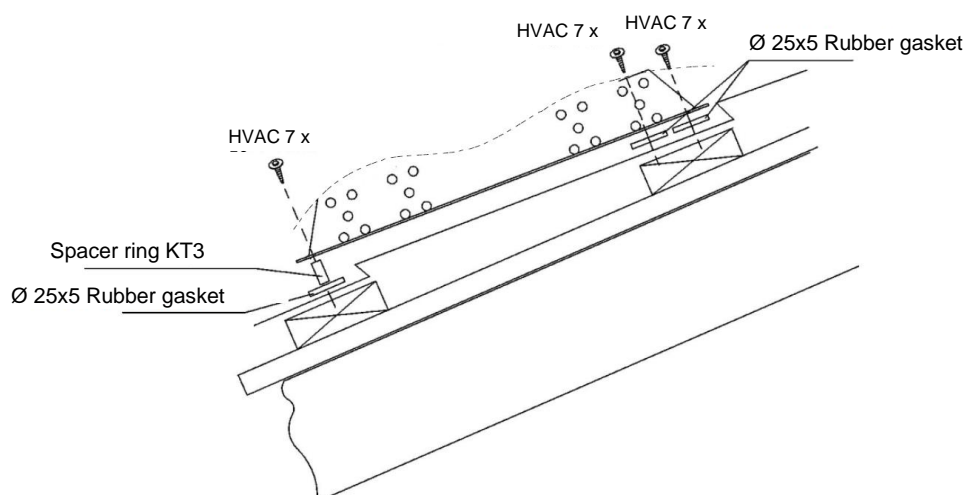
3. Parts of the snow guard

The length of the grid-type snow guard element is 3,000 mm, effective length 2,900 mm.



4. Installation order

1. Plan the placement.
2. Ensure that the distance between roof battens is 350 or 400 mm. The battens must be made of full-edged, close-grained wood.
3. Calculate the fixture distance according to the recommendation of the snow guard table.
4. Mark the locations of the snow guards (using a chalk line, for example) and make sure that the fixtures are in line.
5. Attach the fixtures one by one as shown in the figure.



Always make sure before fixing the screws that there is a roof batten underneath. Depending on the roofing type, the distance between roof battens may be 350 or 400 mm. Fixture RLE therefore has fixing holes for both the 350 and the 400 mm distribution. Seal the screw lead-throughs by placing Ø 25 x 5 mm EPDM rubber gaskets between the end support and the roofing as shown in the figure.

In the case of metal multi-tile roofing, place a 21 mm plastic spacer KT3 between the fixture and the rubber gasket for the bottom screw as shown in the figure. NOTE! In the case of a Finnera roof, spacer ring KT4 is used with height is 29 mm, and a 7 x 70 mm HVAC screw is used with the spacer ring.

No spacer rings are needed for corrugated steel roofing.

No spacer rings are needed for corrugated steel roofing.

Number of fixture screws:

Roof batten size 28–32 x 100 mm: 7 x 50 mm	Suitable for use as roof batten, fix with three HVAC screws.
Roof batten size 22 x 100 mm: are multiplied by 0.8 or to one another. Fix with three 7 x 50 screws.	The allowed roof plane lengths of the snow guard table the fixtures are placed closer mm HVAC

6. Finally, lift the grid in its place in the dent in the middle of the fixture. Use two M8 x 20 mm hexagonal screws, four M10 washers and two M8 nuts to attach the grid to the LER-P fixture frame. Place a washer between the oval holes in the top fixture and the nut/bolt head and between the grid and the nut/bolt head. The grid-type snow guard can be extended by overlapping the grids over a distance of minimum 85 mm and locking the connection with two M8 x 20 mm hexagonal screws and M8 nuts.