

Snow screen LSJ

The snow screen is designed for use as an external louvre in outdoor air intakes in conditions, where efficient snow prevention is required.



Properties

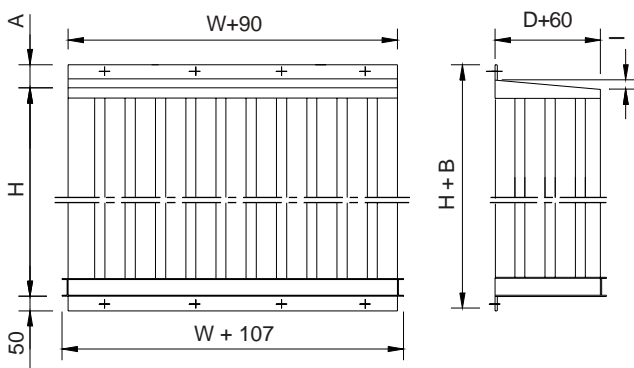
- Efficient snow prevention until face velocity $v = 0,7$ m/s.
- Water prevention practically perfect until face velocity $v = 0,7$ m/s.
- Service-free, does not require electrical energy.
- Self-cleaning due to the open blade construction in the lower part.
- Self-supporting construction until the depth of 400 mm.
- Modular construction, which does not limit the vertical or horizontal size of the product.

Construction

The snow screen consists of vertical blades which are held together by top and bottom plates. The vertical blades form a kind of labyrinth for the inflowing air, which efficiently prevents the penetration of snow, regardless of e.g. wind direction. The air flows in through the front surface and both side surfaces. The upper plate surface is slightly inclined outwards.

The width, height and depth of the snow screen can be selected independently of each other. The nominal width and depth can be selected at intervals of 100 mm. The standard depth amounts to 300 mm and maximum depth to 900 mm. The snow screen is made of hot-galvanized steel enamelled in white (RAL 9010) or grey (RAL 7000).

Dimensions



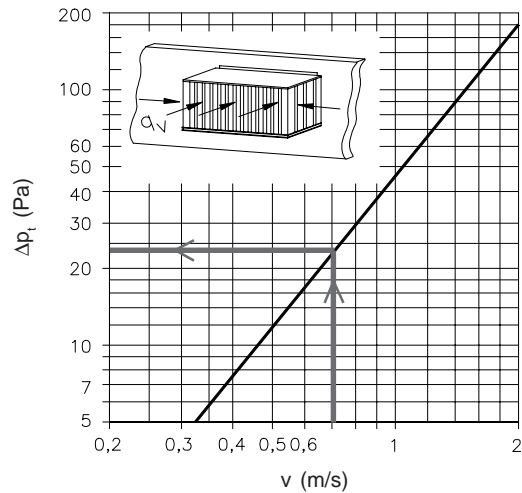
Nominal depth D	Inclination I (mm)	A	B
100	17	67	117
200	27,5	77,5	127,5
300	38	88	138
400	48,5	98,5	148,5
500	59	109	159
600	69,5	119,5	169,5
700	80	130	180
800	90,5	140,5	190,5
900	101	151	201

Installation

The snow screen must be supported, if $D > 400$ mm. The supports are included in the delivery.

Large modular constructions require a support construction in the installation opening. This is not included in the delivery (separate installation instructions).

Pressure drop

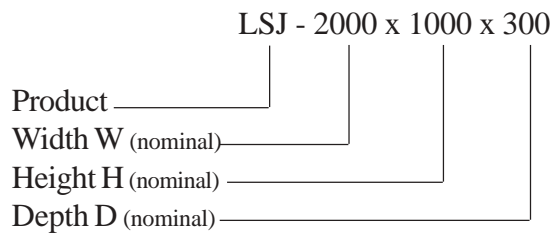


Weights

The weight of the snow screen specified in the order example below is 69 kg. The maximum weight of one module is 173 kg (largest standard model).

An approximation of the total weight of the snow screen can be acquired by multiplying the face area ($W \times H + 2 \times D \times H$) by 25 kg/m^2 .

Order example



The nominal dimension, e.g. 2000x1000, is always measured at the front surface of the louvre. The height of the rear surface grows along with the depth of the louvre. The height of the rear surface can thus be acquired by means of the inclination table on the left.

Selection diagram

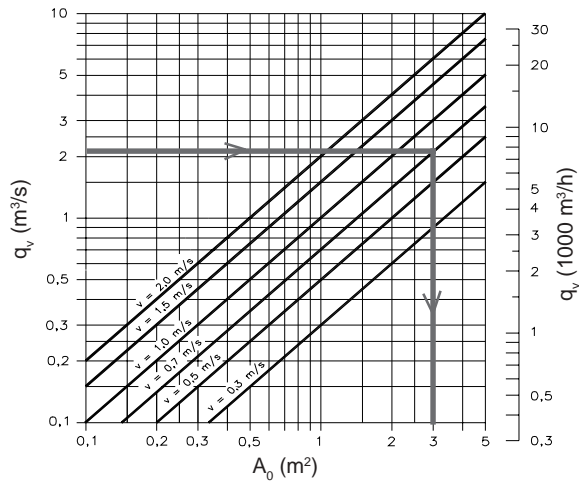
Air volume $q_v = 2,1 \text{ m}^3/\text{s}$, and the desired face velocity $v = 0,7 \text{ m/s}$.

The pressure drop $\Delta p_t = 23 \text{ Pa}$ can be obtained on basis of the diagram.

This leads to the face area $A_0 = 3,0 \text{ m}^2$, which would suggest the selection of e.g. LSJ-2000x1000x500.

Definitions

q_v	air volume flow	(l/s)
v	average face velocity	(m/s)
Δp_t	total pressure drop	(Pa)
A_0	face area ($B \times H + 2 \times S \times H$)	(m ²)





Fläkt Woods Oy P.O.Box 6, 37801 Toijala, FINLAND t +358 20 442 3000 f +358 20 442 3504 w www.flaktwoods.com