lindab | for a better climate

Lindab **Roof Hoods**

Product overview

Lindab®

For a better climate

Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

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Aesthetical details

In a project imbued with good design, paying attention to details is of great importance in helping to complete a beautiful building. Here the roof hood becomes a natural part of the architecture.

At Lindab, we offer an extensive collection of roof hoods for you, who value the aesthetics. Roof hoods with ribs, angled top edge and rotating hood, are only few examples from our product line that includes roof hoods for both outdoor air and extract air.

Take a look through our assortment and find the missing detail to your next building project.

lindQST – Lindab Quick Selection Tool

lindQST is an advanced web tool that makes the selection of our solutions quick and simple.

With lindQST all documentation is made available directly on the web. That means consultants, installers and architects always have access to the latest documentation, installation instructions and product images etc. lindQST is a unique online tool were you can simulate your room in the Indoor Climate Designer, keep track of your projects and share it with your business partners etc. lindQST provides a simple shortcut to Lindab's material and is a tool that speeds up and simplifies the daily work. All information is just a mouse-click away.

Product overview

Roof hoods

Circular roof hoods


CENTROW


H


HU


HN


HF

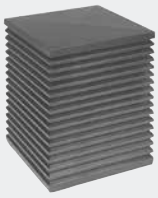

HV

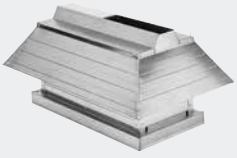

VHL


VHL

Rectangular roof hoods


HVR


LHR


HKOMR


HRR

Roof hoods

Roof transitions


TGR


TGKOMR

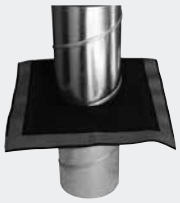

SRIP

Click on the product for link to detailed technical information, or visit www.lindab.com

Roof hoods

Vapour membranes


MG


MGL

Click here, to view assembly instructions for Lindab Roof hoods, Membrance lead through, or visit www.lindab.com

About roof hoods

General

Extract air – All Lindab's roof hoods are suitable for use as extract air hoods. When choosing extract air hood, the architectural design is important to ensure that the hood is in harmony with the rest of the building. Our range includes ribbed hoods, rectangular and circular roof hoods, models that are available with inclines adapted to the angle of the roof, as well as products with a horizontal profile, of course. If a high extract velocity and long ejection distance are required, choose our HN and HF roof hoods.

NOTE! When fans are not running there is always a risk for drifting snow and damp to penetrate into ducts. At some occasions also condensation can cause trouble.

Outdoor air – Out of Lindab's range of roof hoods, HN and HF are not suitable as outdoor air hoods. When choosing outdoor air hoods, too, the architectural design is important to ensure that it is in harmony with the rest of the building. Lindab's range of outdoor air hoods includes the same design as for extract air hoods (see above).

Connection options – Connection to a sleeve, flange or directly to the roof through connection must always be specified where these alternatives are possible. The recommended roof through connection is specified for each hood.

Dimensioning

Extract air – If high extract velocities are not required, as low a pressure drop as possible is desirable. The pressure drop should not exceed 100 Pa in order to minimise self-generated noise emissions and energy consumption.

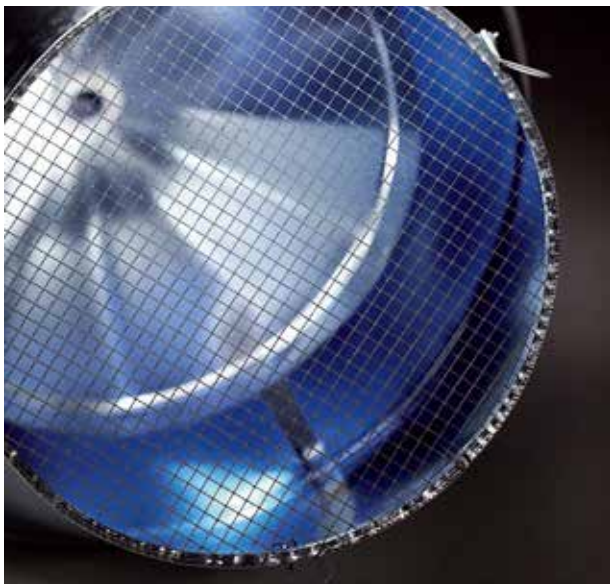
Outdoor air – When outdoor air hoods are used, there is always a risk of water and snow entering the duct. In order to minimise this risk, the velocity over the free area must not exceed 2 m/s.

Location – When locating roof hoods, the design of the roof should be taken into consideration to ensure that there are no 'snow pockets'. The hoods must also be positioned so that extract fumes from vehicles etc. cannot be drawn into the outdoor air hood. In the same way, it is necessary to avoid short-circuits arising between outdoor air and extract air. If there is a risk of short-circuits, our combination hood HKOMR should be chosen in the first instance.

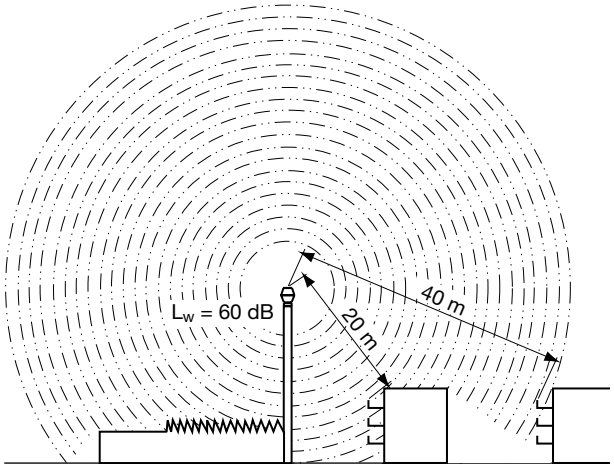
Noise – To avoid self-generated noise emissions, the pressure drop must not exceed 100 Pa. At this pressure drop, self-generated noise emissions are so low that they do not need to be added to the fan noise. To calculate noise to the surrounding environment, the calculation example shown to the right can be used.

Material and colour

Please contact your local sales unit for more information about material manufacturing and colour alternatives.



Noise dispersion outdoors without obstacle



L_W = Sound power level radiated from sound source [dB]
r = Distance from sound source to point of listening [m]
L_p = Sound pressure level at point of listening [dB]
Q = Direction factor [–]
1 = in free field, far from all surfaces
2 = on one surface
4 = in the corner between two surfaces
8 = in the corner between three surfaces

$$L_p = L_w - 10 \cdot \log\left(\frac{4 \cdot \pi \cdot r^2}{Q}\right)$$

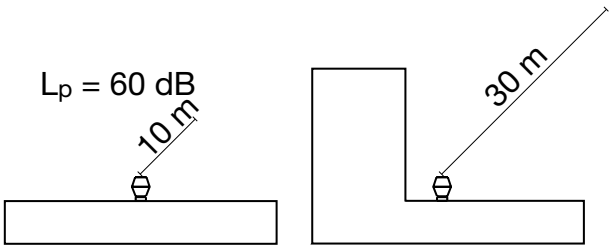
$$L_p = 60 - 10 \cdot \log\left(\frac{4 \cdot \pi \cdot 20^2}{1}\right) = 23 \text{ dB}$$

$$L_p = 60 - 10 \cdot \log\left(\frac{4 \cdot \pi \cdot 40^2}{1}\right) = 17 \text{ dB}$$

Example – Noise from roof hood

Conditions – A level of 60 dB(A) has been measured 10 metres from an existing roof hood, the noise output level of which we do not know.

This is now to be moved, and we want to know the sound pressure level 30 metres from its new location closer to a vertical wall surface. We assume that the noise from the fan is unchanged in the two cases.



First you extract the sound power level LW from the equation above.

$$L_W = L_p + 10 \cdot \log\left(\frac{4 \cdot \pi \cdot r^2}{Q}\right)$$

$$L_W = 60 + 10 \cdot \log\left(\frac{4 \cdot \pi \cdot 10^2}{2}\right) = 88 \text{ dB}$$

I.e. the radiated sound power level LW from the hood = 88 dB.

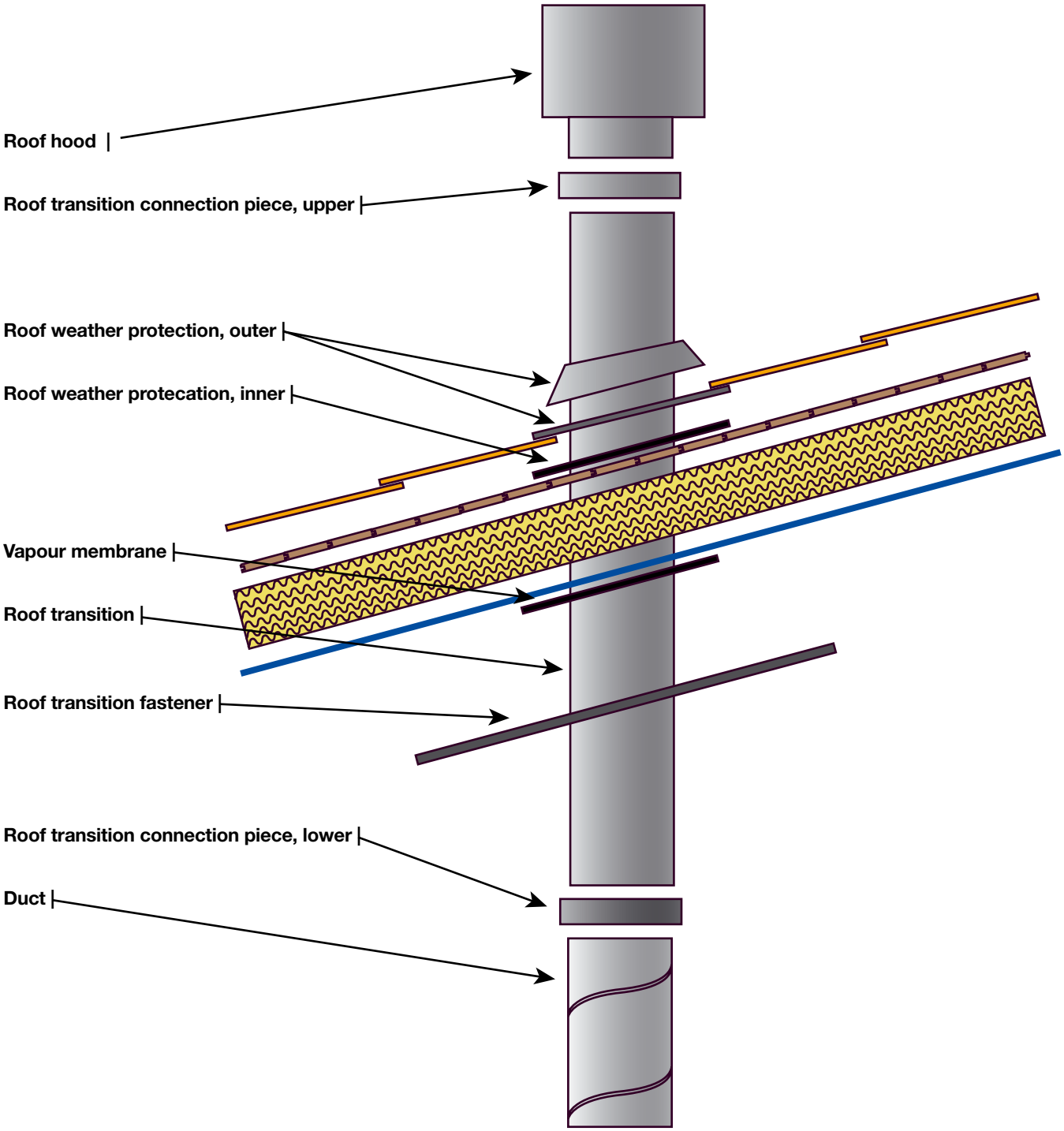
$$L_p = L_w - 10 \cdot \log\left(\frac{4 \cdot \pi \cdot r^2}{Q}\right)$$

$$L_p = 80 - 10 \cdot \log\left(\frac{4 \cdot \pi \cdot 30^2}{4}\right) = 53 \text{ dB}$$

I.e. the sound pressure level at 30 m distance from the new location is 53 dB.

Products used for penetration of roofs

Prinipal sketch



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