

Ross ventilation pole

Base floor ventilation and air inlets



An elegant choice for base floor ventilation

The Ross ventilation pole is an elegant choice for the ventilation of underfloor spaces and for the prevention of moisture damage and radon problems in the base floor. The Ross ventilation pole can also be used as an air inlet for a basement sauna, fireplace or forced ventilation system. Additionally, the Ross ventilation pole can be used with a mechanical exhaust ventilation system or mechanical radon mitigation system for underfloor space.

The Ross ventilation pole can be used for the ventilation systems of all building types. The new larger Ross 200 is particularly suited for the ventilation of larger buildings such as apartment blocks. It can also be used for the ventilation of lift shafts. The pole is designed to let air flow through it with practically no obstruction, preventing the creation of an air lock. The structure also prevents snow, trash and small animals from entering the space in the base floor.

Selection criteria

The Ross ventilation pole comes in three sizes: Ross 125, Ross 160 and Ross 200. Select the appropriate size according to the air flow through the duct. Ross 125 can be connected to a 125 mm ventilation duct, Ross 160 to a 160 mm duct and Ross 200 to a 200 mm duct.

The Ross renovation set is a quick and easy way to create a new look and improved ventilation for an old vertical pipe in an underfloor ventilation system. The renovation set's Ross adapter 125/110 fits between a Ross 125 and a 110 mm pipe, and the Ross adapter 160/160 fits between a Ross 160 and a 160 mm pipe.

You can also order vertical pipes, cowls, angle pipes, adapters and Ross wall sleeves separately.

There are six basic colours, letting you choose the ventilation pole colour that suits your taste and the building architecture. The colour can be chosen to match the base or the walls of the building.

Ross wall sleeve for easier installation

The Ross ventilation pole comes complete with the Ross wall sleeve. The Ross wall sleeve is installed onto the wall panel or cast base whilst already in the casting phase, and can also be used with a block base. Its structure helps create a firm bond with the concrete. The Ross wall sleeve can then be used to lead the Ross pole or another pipe easily through the wall at a later stage of the building project.

Installation instructions

The ventilation pole is easy to install. The Ross ventilation pole set includes a cowl, a vertical pipe, wall fastenings with screws, an angle pipe, the Ross wall sleeve, centring rings and detailed installation instructions. In the Ross renovation set, the angle pipe is replaced by an adapter. The adapter is used to connect the Ross ventilation pole to the vertical part of an old underfloor ventilation pipe above or below the ground. For best appearance, install the adapter below the ground.

The pipe length can be easily adjusted. For a longer pipe, install several vertical pipes on top of each other. When a shorter pipe is needed, you can install the cowl directly onto the angle pipe or cut the vertical pipe to the desired length.

1. Install the Ross wall sleeve
 - a) to the wall panel or cast base whilst already in the casting phase (can also be used with a block base)
 - b) by making a hole in the base as follows:
 - Ross wall sleeve 125: Ø 170 mm
 - Ross wall sleeve 160: Ø 208 mm
 - Ross wall sleeve 200: Ø 248 mm
2. Cut the pole to length when necessary.
3. Assemble the pole.
4. Install the fastenings included in the delivery to the wall.
 - Check vertical alignment using a level.
5. Tighten the centring rings around the part of the pole that goes through the wall.
6. Install the part of the pole that goes through the wall to the Ross wall sleeve attached to the base of the building, and fix the pole to the wall fastenings.
7. Seal the gap between the pole and the wall sleeve with urethane and finalise the joint with filler putty.



Ross ventilation poles



Ross 125



Ross 160



Ross 200

Ross wall sleeve



Three models : 125, 160 ja 200

Ross renovation sets



Ross 125



Ross 160

Package

The Ross ventilation pole set includes a cowl, a vertical pipe, wall fastenings with screws, an angle pipe, the Ross wall sleeve centring rings and detailed installation instructions.

Package dimensions:

- 125: 180 x 485 x 595 mm
- 160: 395 x 595 x 345 mm
- 200: 260 x 500 x 1200 mm

Material

The Ross ventilation pole, like all other VILPE® products, is made of tinted, recyclable, corrosion-, weather- and impact-proof polypropylene (PP) plastic, complete with UV protection. The material is chemically neutral and can be used in continuous temperatures of -30°C – +80°C and temporarily in temperatures of -40°C – +120°C.

Basic colours

Light grey

Reference colours RR 21, RAL 7040

Black

Reference colours RR 33, RAL 9005

Grey

Reference colours RR 23, RAL 7015

Red

Reference colours RR 28/29, RAL 3009

Off-white

Reference colour RAL 9016

Beige

Reference colours RR 30, RAL 1001

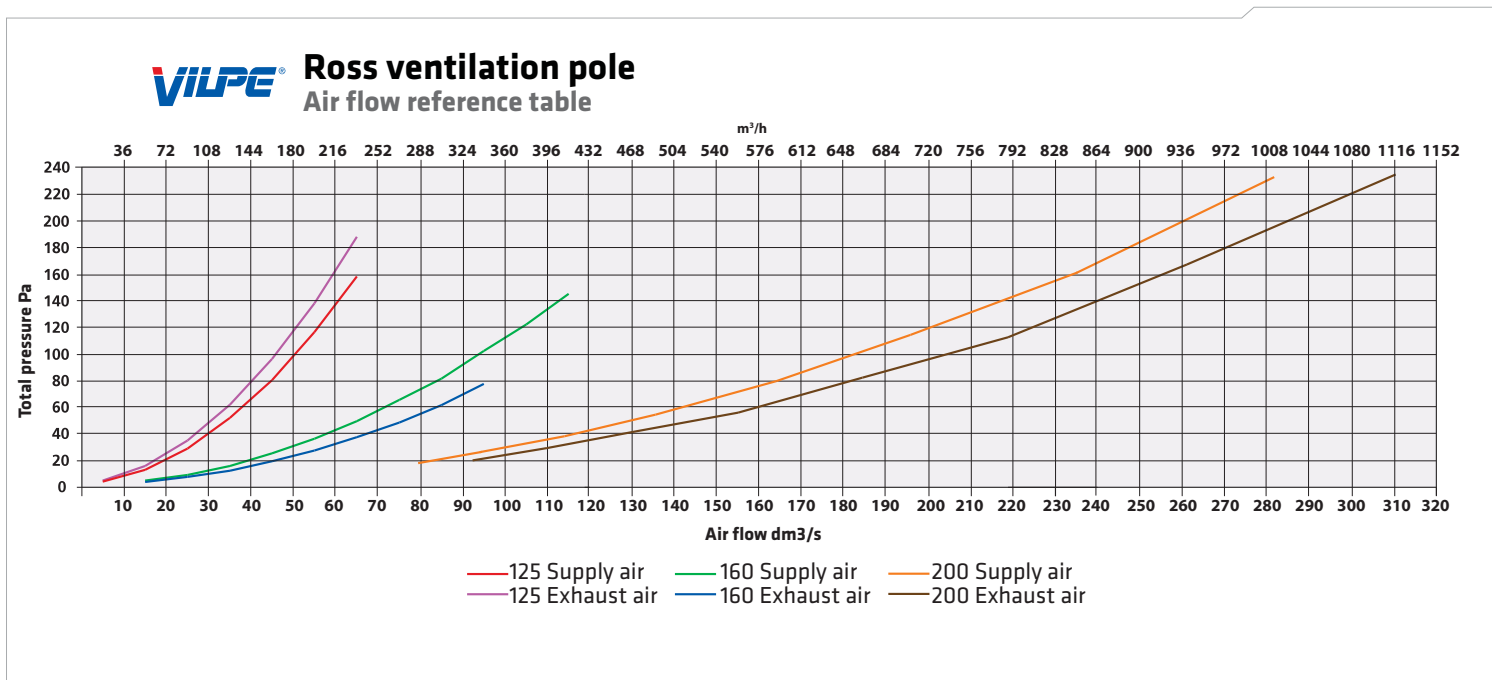


Calculation example

An approximate calculation of an underfloor mechanical exhaust ventilation system (dimensioning is based on an air change rate of 0.5 for the underfloor space):

| Size of the underfloor space A x h = V | Exhaust air flow dm ³ /s | Recommended Ross ventilation pole | |
|---|--|-----------------------------------|-------|
| | | ø 125 | ø 160 |
| 50 m ² x 0,8 m = 40 m ³ | 5,6 | 4 pcs | 2 pcs |
| 100 m ² x 0,8 m = 80 m ³ | 11,2 | 6 pcs | 4 pcs |
| 150 m ² x 0,8 m = 120 m ³ | 16,8 | 6 pcs | 4 pcs |
| 200 m ² x 0,8 m = 160 m ³ | 22,4 | 8 pcs | 6 pcs |

The design of the underfloor ventilation must take into account the shape and location of the building as well as any obstacles to the air flow. Part C2 of the National Building Code of Finland contains additional information of the combined minimum size of ventilation openings.

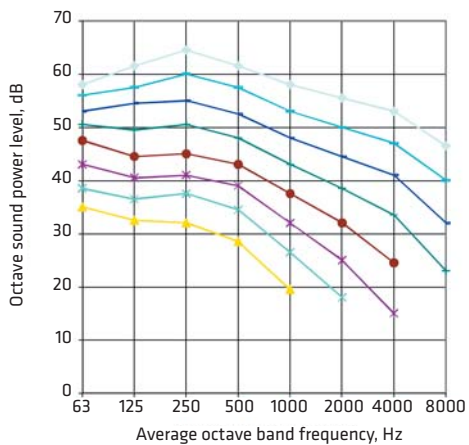


Acoustic properties of the Ross 200 ventilation pole

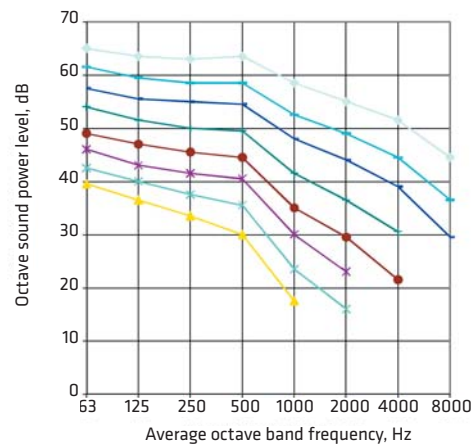
EN 12239:2001

ISO 5135:1997

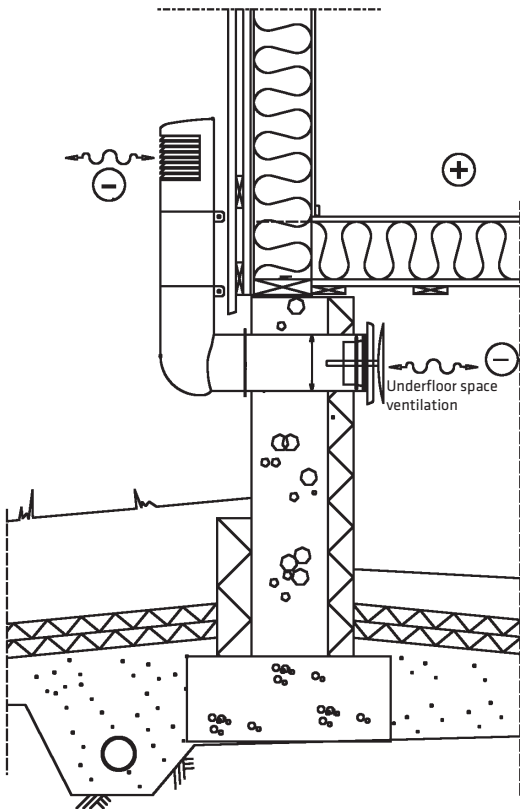
Supply flow:



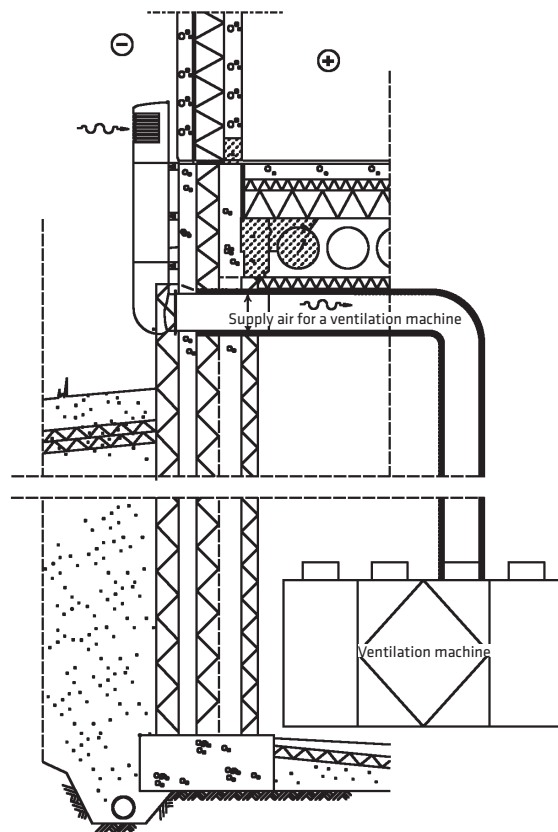
Exhaust flow:



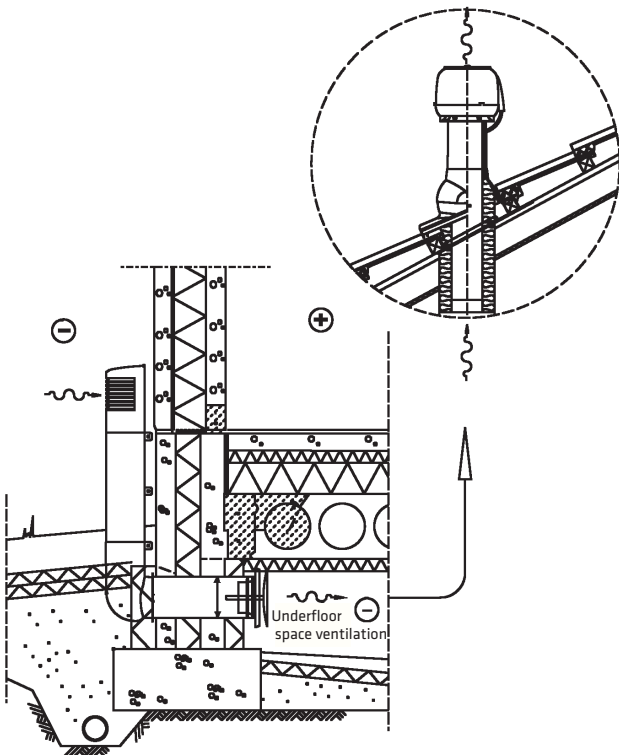
Applications



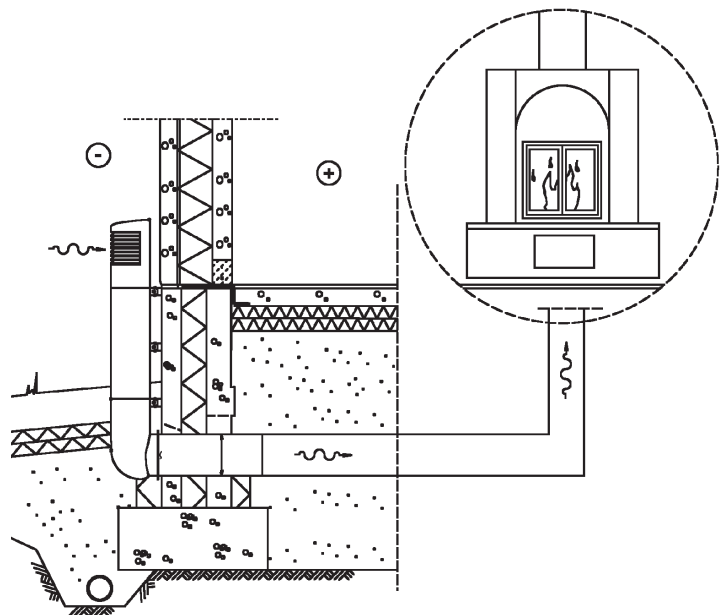
Ventilating the underfloor space with Ross ventilation pole.



Ventilating the underfloor space with Ross ventilation pole.



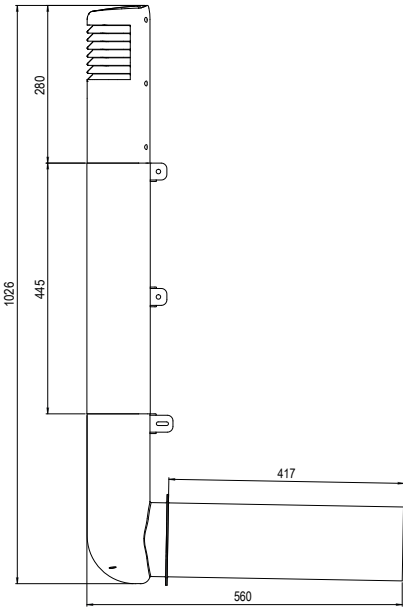
Mechanical radon exhaust system with Ross ventilation pole and Radon fan.



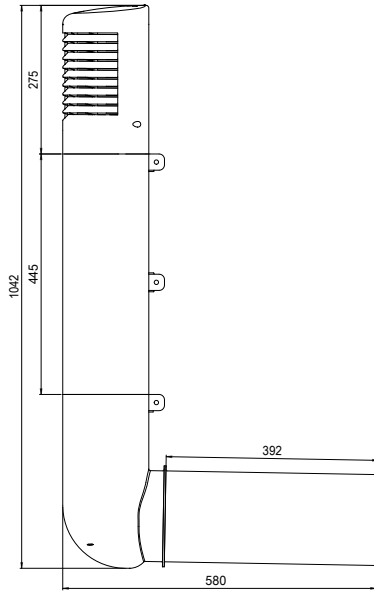
Ross ventilation pole as an inlet channel to a fireplace.

Dimensions

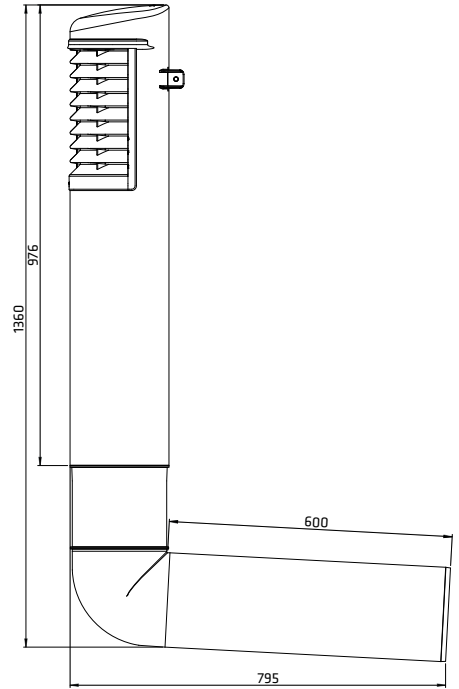
Ross ventilation poles



125

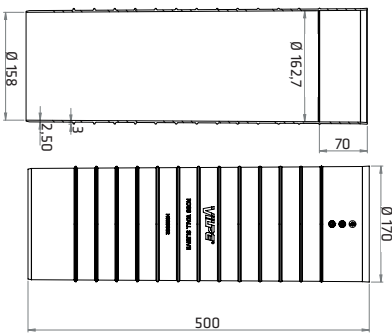


160

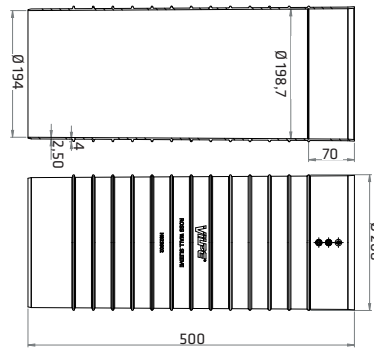


200

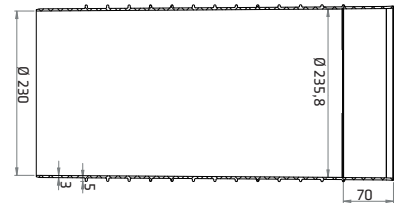
Ross wall sleeves



125

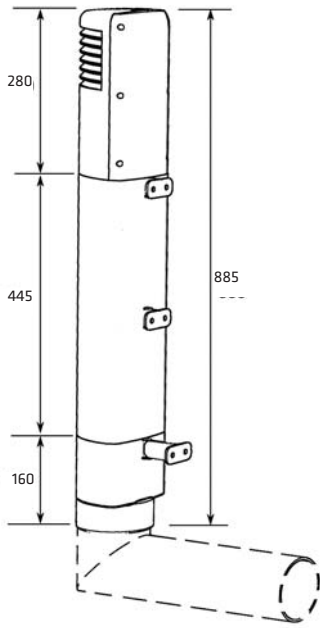


160

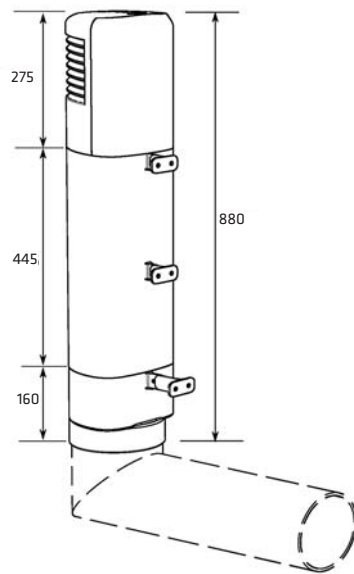


200

Ross renovation sets



125



160





The VILPE® product family provides an exceptionally large selection of high quality ventilation products and roof accessories adapted to variety of roofs. Appropriate applications are pitched and low-pitched roofs of almost any material and both new and reconstruction objects.

VILPE® products are manufactured by SK Tuote Oy, a Finnish company with almost 40 years of passion in the roofing business. VILPE® products are characteristically innovative, stylish, serviceable, easy to install and durable, even in demanding conditions.

Installed as an integral part of the ventilation system, VILPE® products provide fresh indoor air and maintain roof and attic constructions healthy.



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