SIGARTH

SUPPLY AIR VENT VENTPLUS
WALL DUCT S DUCT / STRAIGHT CIRCULAR DUCT

FOR A CLEANER AND HEALTHIER INDOOR ENVIRONMENT

A SAFER SOLUTION

At Sigarth, we are convinced that there is always a better solution and that we can make the world a little safer. Whether we are working on suspension systems for the radiator industry or any other area that requires our experience and ingenuity.

With our extensive industry experience, we are a safe development resource and market-leading partner, especially in the HVAC industry.

We manufacture the vast majority of components ourselves, making us a climate-smart choice: our transport and manufacturing methods are designed to be as sustainable as possible.

VENTPLUS

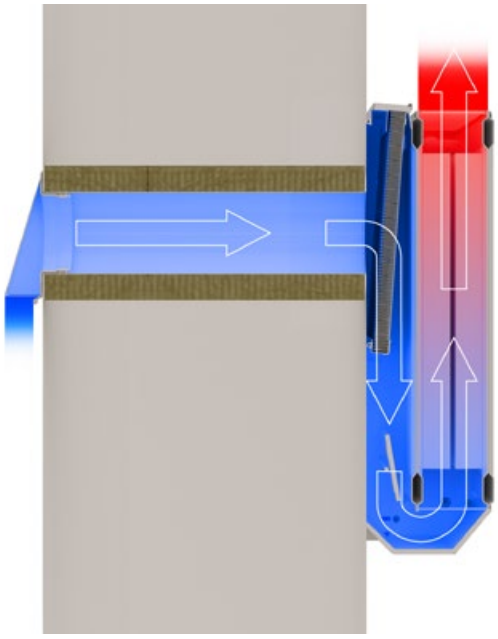
SUPPLY AIR VENT

Efficient, quiet and draught-free – an ideal solution for both new construction and renovation.

How it works

1. Outdoor air is channelled through the wall duct, either an S duct or straight circular duct.

2. The air passes through an allergen filter that separates particles.



4. The air is heated by the radiator, rises upward and further out into the room.

3. The cold outdoor air is drawn down into Ventplus.

Exploded view of an outer wall with straight circular wall duct. The Ventplus supply air vent is mounted on the inner wall and a suspended radiator. An exterior housing (accessory) is mounted on the outdoor of the wall.

Ventplus

Through Sigarth's Ventplus supply air vent, the incoming air is channelled through the radiator, where it is heated before continuing silently and draught-free into the home. Ventplus also increases the efficiency of the radiator.

Several different filter types can be used in Ventplus to capture particles from the outdoor air. The choice of filter type affects the air velocity and pressure drop over the installation. We recommend the use of F7 or F8 allergen filters. All design values specified are based on the use of an approved F7 filter.

Requirements for air exchange

The DIN 1946-6 standard specifies the following requirements for air exchange:
In order to avoid damage to building structures caused by humidity, the air in an apartment should be exchanged at least 0.5 times per hour (based on the total volume of air in the entire apartment.

Ventplus is easily opened at the bottom for easy cleaning.

Dimensions and design

Ventplus is suitable for radiators of the following type and format:

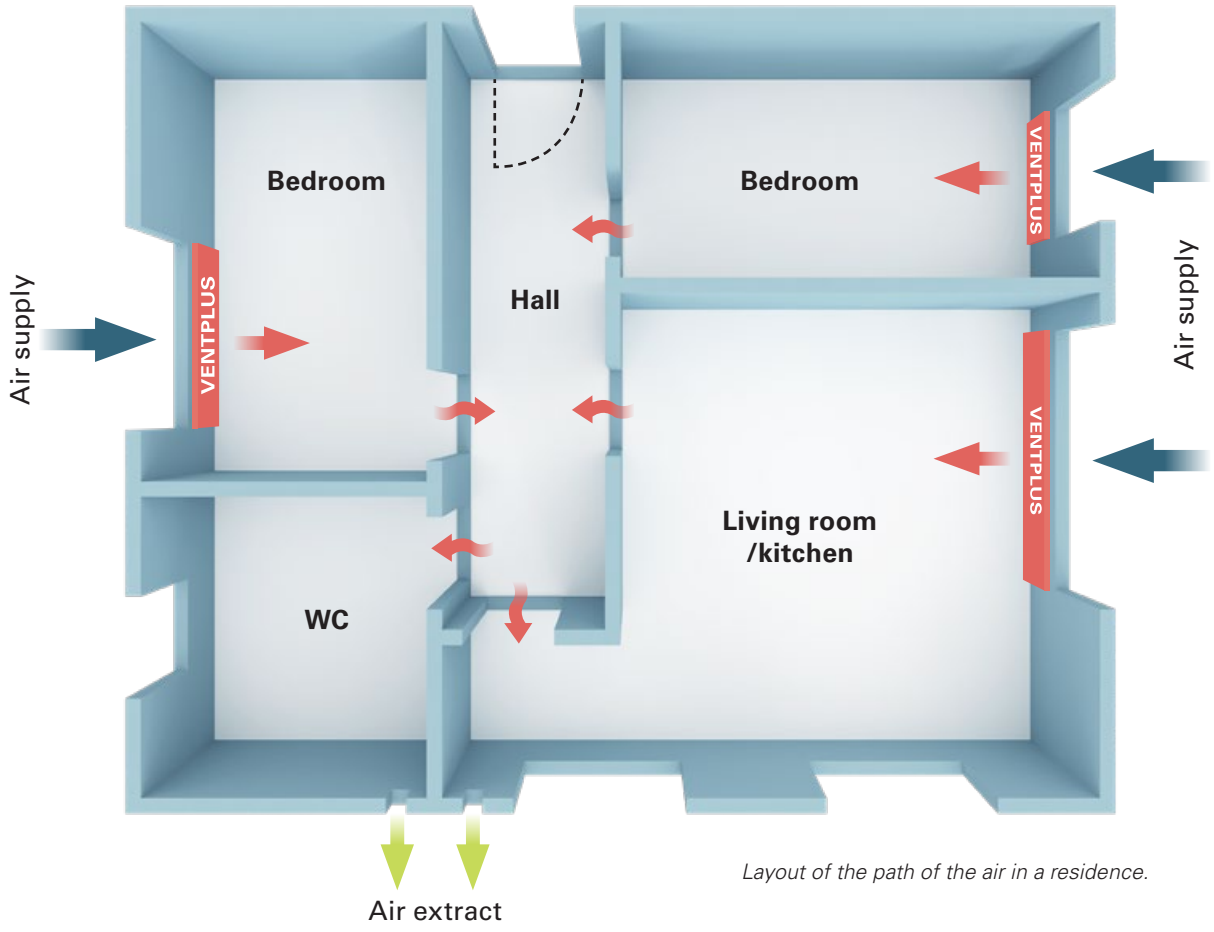
- Radiator type 21 and 22–33
- Radiator height 300, 400, 500, 600, 700 and 900 mm
- Radiator length from 600 mm onwards. For radiators with lugs on the back, Ventplus fits from 800 mm in length.

Take into account the risk of freezing when designing. Do not combine Ventplus with small radiators with low heat output, especially in colder climates.

The **Ventplus Maxi** model offers the possibility of completely closing off the airflow, for example, when the outdoor air contains gas or fire smoke. In such a situation, however, you should always first close the extract airflow.

Materials and surface treatments

- **Material:** White lacquered steel sheet, thickness 0.8-1.5 mm, with some exposed parts in galvanised steel sheet. All interior surfaces have condensation insulation.
- **Surface treatment:** white RAL 9016, 80 ± 5 gloss, layer thickness 40–120 µm.



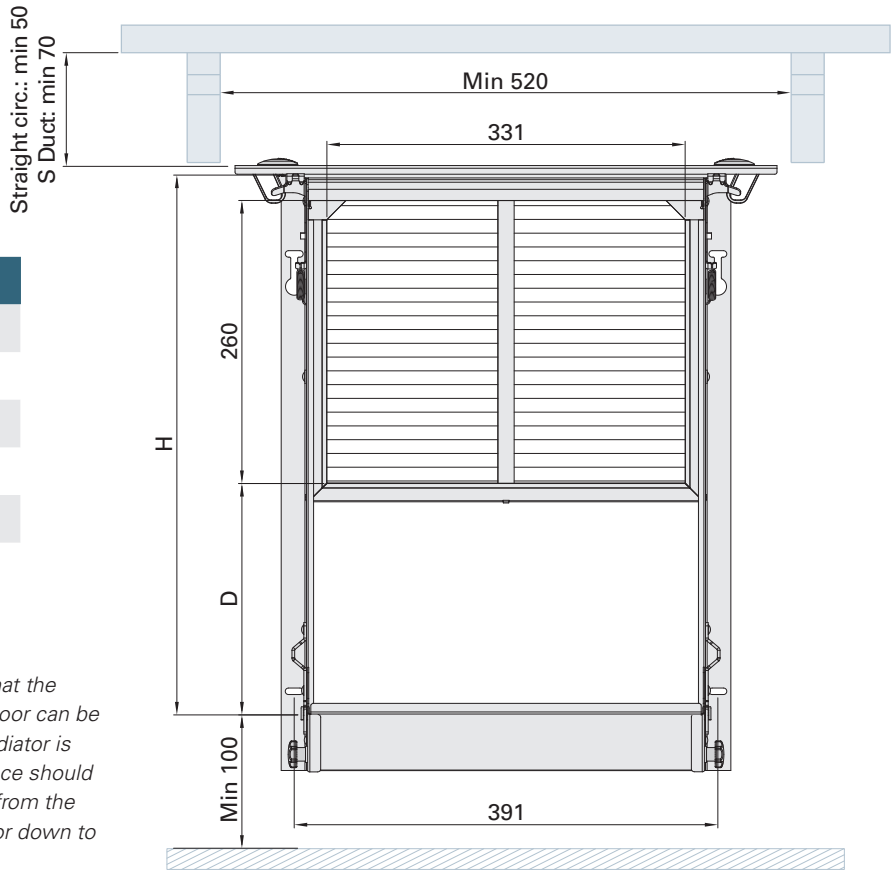
Layout of the path of the air in a residence.

How to install Ventplus

Ventplus has an integrated Monclac® suspension function. Radiators with length 600–1600 mm are therefore only fitted with Ventplus. All dimensions are shown in millimetres.

H = Radiator height. D = Distance from the bottom of the radiator to the bottom of the filter. The dimension is needed to adjust the hole for the wall duct.

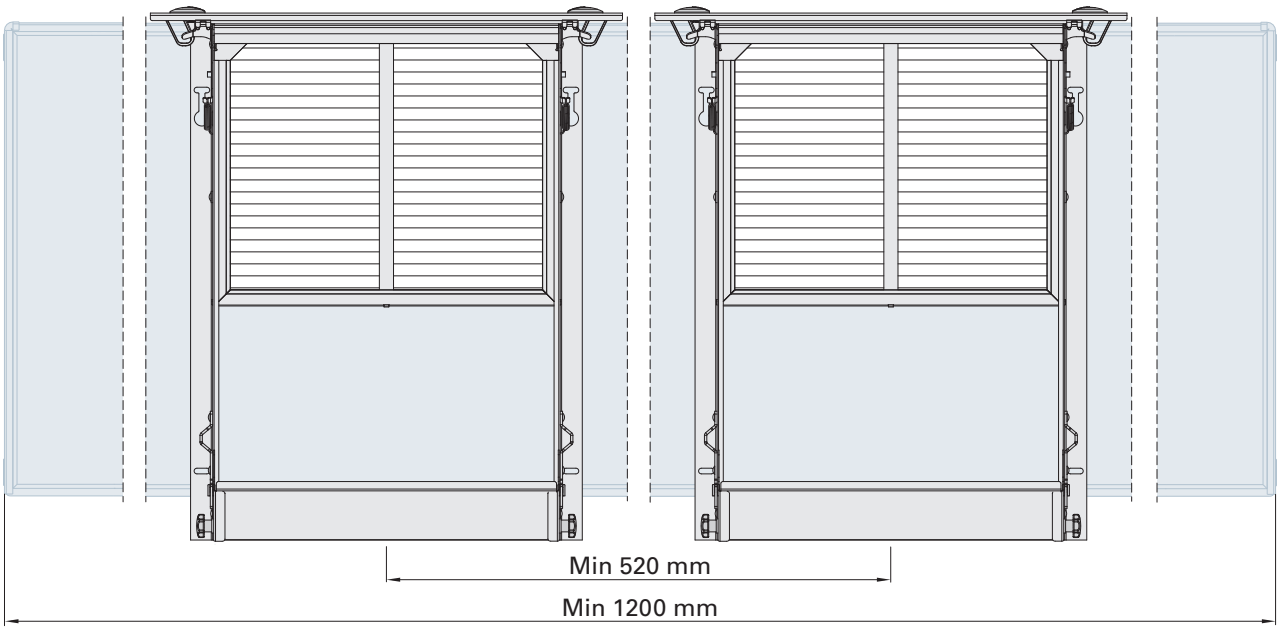
H	D
300	15
400	115
500	215
600	315
700	415
900	615



Install Ventplus so that the supply air cleaning door can be opened when the radiator is mounted. The distance should be at least 100 mm from the bottom of the radiator down to the floor.

Two Ventplus on a radiator

Radiators with a length of 1200–2400 mm can be fitted with two Ventplus. The sketch indicates the minimum distance between them and the minimum radiator width for this assembly.

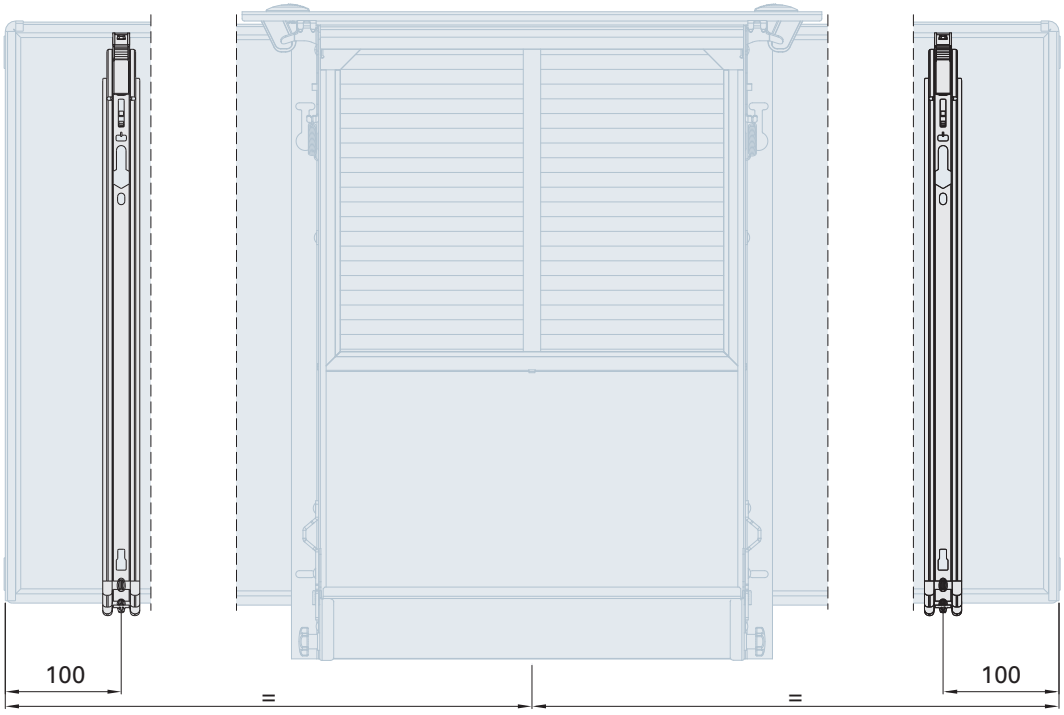


Mounting with extra wall brackets

One Ventplus: At radiator length 1700-2400 mm, two extra wall brackets are mounted.

Two Ventplus: At radiator length 2400 mm, at least one extra wall bracket is mounted.

The sketch shows the minimum distance between the console and the outer edge of the radiator.



Facilitate filter change with distance to the window sill

We recommend the use of F7 or F8 allergen filters.

To facilitate filter change and maintain the radiator's output, we recommend a minimum distance (A) between the bottom of the window sill and the entire upper side of the Ventplus. Also, make sure that the window sash fasteners do not interfere with filter replacement.

All dimensions are shown in millimetres.

A = Minimum distance between the bottom edge of the window sill and the Ventplus upper edge.

Wall ducts	A
Straight circular duct	50
S duct	70

WALL DUCTS
FOR RADIATOR SUPPLY AIR VENTS

Our cities are becoming increasingly densified in order to respond to the demand for new homes and premises. Often, prefabricated concrete elements are selected, even in places with a high noise level, which places high demands on noise reduction.

We offer a standard series of wall ducts with a noise reduction of up to 62 dB. Our starting point is that all noise reduction must be carried out in the wall duct. We offer two types of wall ducts: ***S duct*** *and* ***straight circular duct****.*

S duct

The S duct is available in five heights: 300, 320, 370, 465 and 570 mm. A telescopic function (32–200 mm) makes it flexible for various wall thicknesses. It also has a top cleaning lid that facilitates cleaning.

Technical performance

The following characteristics and performance mean that the duct meets the requirements for wall ducting:

- With the F7 filter type and an airflow of 10 L/s, the final pressure drop is 15 Pa.
- The noise reduction is at least 58 dB (sound class B corresponds to 57 dB). This was tested by Rise (Research Institute of Sweden) in accordance with EN ISO 10140-2.
- The duct can be cleaned over its entire length.
- The duct's opening has a pest-proof grid.

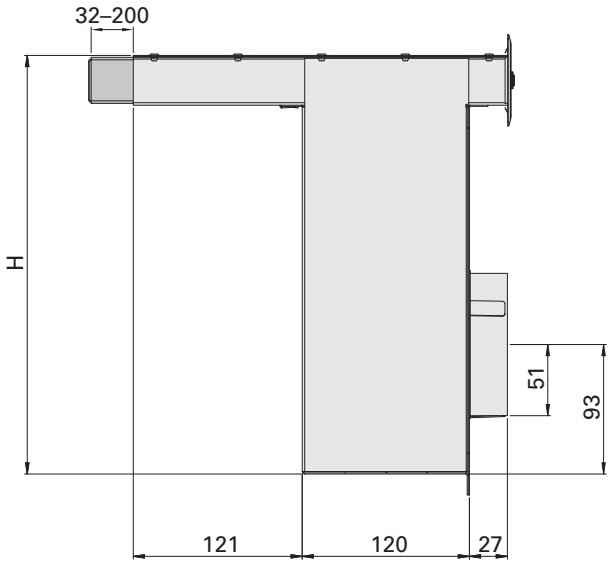
Materials and surface treatments

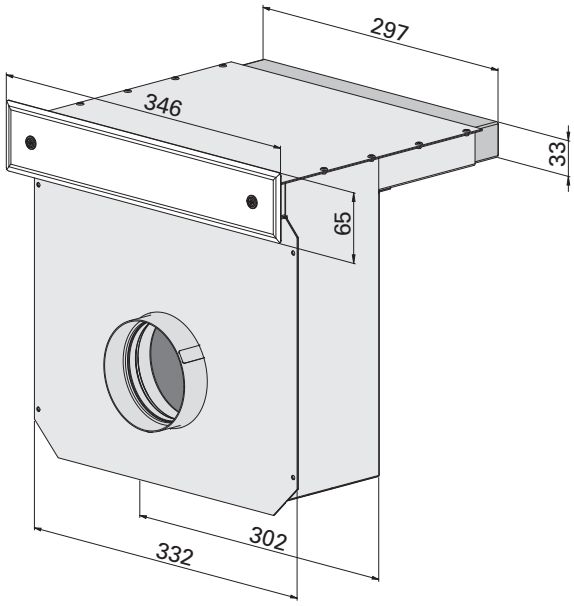
- **Material:** Sheet details in galvanised sheet metal. The telescopic part has a magnesium coating, Magnelis®. This is the only magnesium coating approved by SITAC (Swedish Institute for Technical Approval in Construction) in the highest corrosion class C5, which means that it can withstand marine environment.
- **Insulation:** Stone wool with fibreglass weave as protection against fibre shedding.
- **Surface treatment:** RAL 9016 on all powder coated details.

Dimensions

All dimensions are shown in millimetres. H = wall duct height.

H
300
320
370
465
570





Straight circular duct

This noise-reducing wall duct is well adapted for both new production and renovation.

The outer diameter of the duct is 167 mm and the inner diameter 102 mm. With the help of a spigot, which is purchased as an accessory, the opening can be kept constant.

The straight duct is delivered in standard lengths of 400 mm or 1200 mm, which can easily be cut to the desired dimensions. On request, we also offer other lengths.

Technical performance

The duct meets the requirements for wall ducts.

The noise reduction is up to 53 dB. The result has been tested in accordance with EN ISO 10140-2.

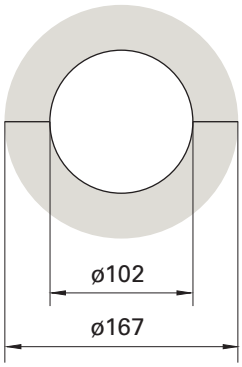
Materials

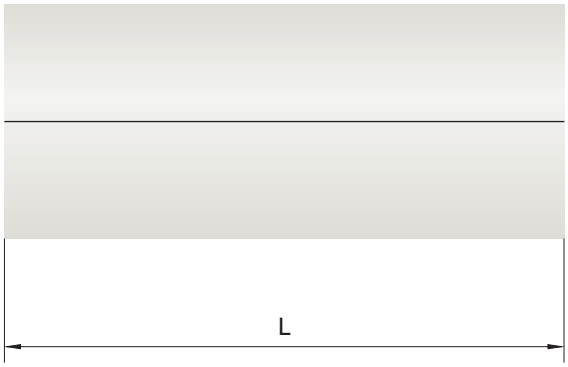
The duct is made of stone wool. Inside, it is lined with heavy, black fibreglass fabric, which is type-approved for fibre shedding. The outer layer of fabric has a cotton/viscose dust cover.

The straight circular duct can easily be cut to the desired dimensions, and the opening is kept constant by a spigot (accessory).

Dimensions

All dimensions are shown in millimetres. L = Standard lengths.





L
400
1200

SUPERIOR
NOISE REDUCTION

Noise (dB)

With the incoming air follows noise, sound from outside sound sources, which move with the airflow. In order to create a comfortable indoor environment, the wall duct needs to reduce these. The noise reduction in wall ducts takes place both through the design solution itself and with the help of sound-absorbing material.

Measured noise reduction

Our wall ducts were tested in December 2015 by RISE in accordance with international standard, EN ISO 10140-2:2010, with the following results:

Without the distributor plate

S duct 300:	56 dB
S duct 570:	60 dB
Straight circular duct:	53 dB

With distributor plate

S duct 300:	59 dB
S duct 570:	62 dB

ACCESSORIES
FOR WALL DUCTS

Exterior intake housing

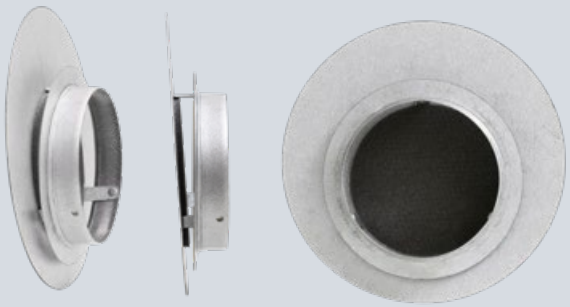
A straight circular exterior housing for wall ducts works in all forms of ventilation, such as mechanical ventilation and self-draught. The diameter of the tube is 100 mm, and it is easily mounted with concealed mounting in the wall.

The hood is protected against small animals, and the openable cover makes it easy to clean the duct.

All exterior sheet metal parts are made of Magnelis®, which complies with the highest corrosion class. By default, the hood is untreated, but it can also be powder-coated in a different colour.

Frame

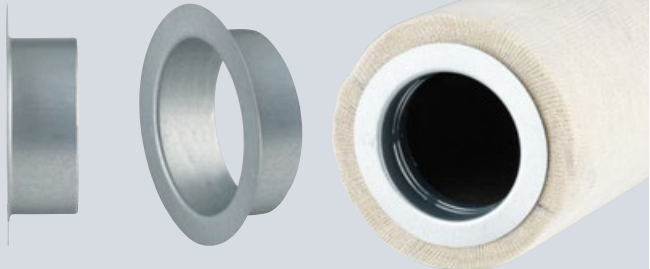
The frame cover is intended for the air intake to the S duct. It is manufactured in Magnelis®, which complies with the highest corrosion class. By default, the frame covering is untreated, but it can also be powder-coated in a different colour.



Distributor plate

The distributor plate is a patented solution that reduces pressure shocks in the air intake caused by turbulent air. They occur, among others, in tall buildings open-field environments and marine environments.

The distributor plate can be retrofitted to the wall duct with a diameter of 100 mm where the Ventplus supply air vent is used. It smooths the airflow through the filter, which also extends the life of the filter.



Spigot

The spigot can be mounted on the straight circular wall duct to maintain the dimensions and function of the opening and to hold the outer layer of fabric in place. The spigot is mounted after the wall duct has been cut to the desired length.

Sigarth in Hillerstorp, Sweden is a market leader in suspension systems and accessories for the radiator industry. A market leader that puts in the extra effort, rising high to see that little bit further.

We take responsibility and deliver what we promise. We also know what it takes to be a leading and competent partner in the HVAC industry. Our Monclac® suspension system is well known for its time savings and stability, and has set the standard for an entire industry.

Through many innovative collaborations with radiator manufacturers in Europe for more than 50 years, we can offer our customers unique experience and knowledge.

SIGARTH
a safer solution

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