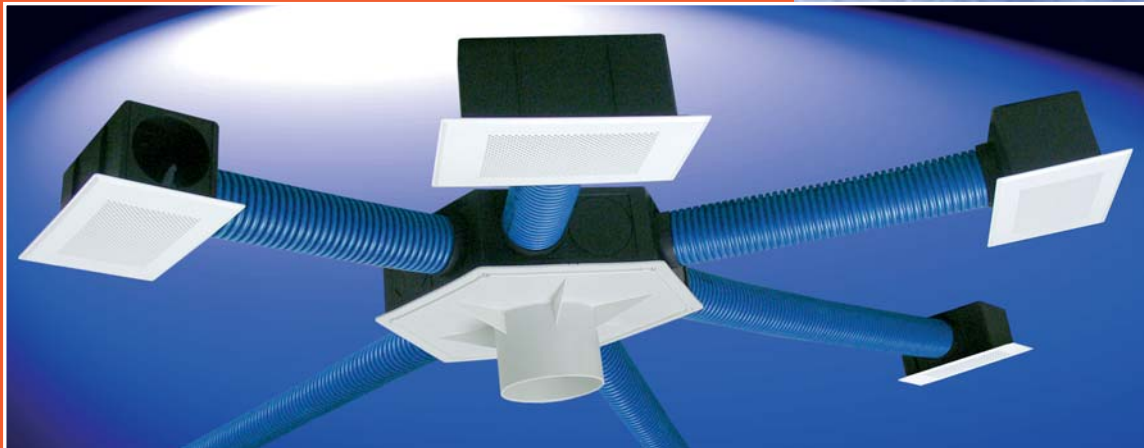
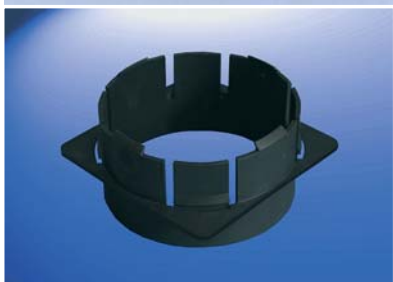
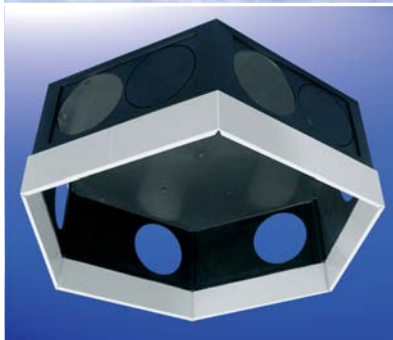
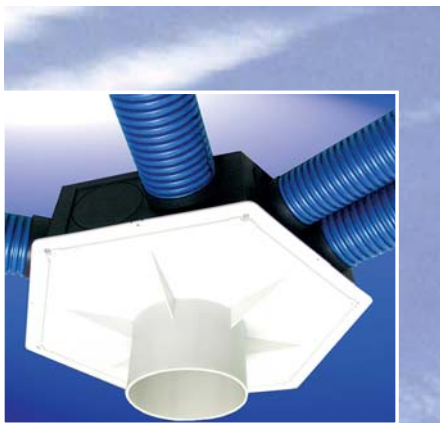


# The intelligent air distribution system!



for residential  
ventilation

**ROOMAIR**  
for your well-being



## I Collection and distribution boxes

### Collection and distribution box

The black hexagonal plastic box is unique, also due to its shape. The hexagonal box allows even air distribution without pressure loss. It has a maximum of 12 connection possibilities for connecting pieces of  $\varnothing$  75mm and 90 mm. Six are open and another six are still closed. The closed openings can anytime be broken open without problems. Unused open connections are closed with blind covers. The set consists of a removable cover (also used as inspection opening) with connecting piece 160 mm, the collection and distribution box itself, as well as the necessary mounting screws.

**Measurements:** Collection and distribution box: Diagonal / depth: 495 x 126 mm  
Cover: Diagonal 515 mm

SVS Cover black  
SVS-W Cover white

### Collection and distribution box with distance-frame (filigree-frame)

The collection and distribution box is also available with distance frame of 50 mm resp. 25 mm.

The advantages of the distance-frame are:

- The upper part of the collection and distribution box with the connecting pieces will be above the reinforcing irons in the ceiling. Therefore the cut in the bars can be reduced to a minimum because the installation of the ventilation ducts is always horizontal, above the reinforcing bars.
- If in the construction filigree ceilings are used, the collection and distribution box can be embedded in the filigree ceiling, which makes installations of the ducts much easier.

**Measurements:** Diagonal / Depth: 495 x 176 mm (Distance-frame: Height 50mm/25mm)  
Cover: Diagonal: 515 mm

SVF-50 Height of frame 50mm, cover black  
SVF-W-50 Height of frame 50mm, cover white  
SVF-25 Height of frame 25mm, cover black  
SVF-W-25 Height of frame 25mm, cover white

### Collection and distribution box MINI

For small apartments it is not always necessary to use a collection and distribution box with so many connection possibilities. For this purpose RoomAir has developed the collection and distribution box MINI.

Based upon the air inlet / outlet box it has a connection possibility on all four sides; an additional connection is possible on the backside of the box.

As connection to the heat recovering device resp. exhaust air serves a 125 mm connecting piece. This small component not only saves space but in addition is very economical.

**Measurements:** Length/width/depth: 260 x 150 x 122 mm

SVM Collection and distribution box MINI

### Connecting piece 90 and 75 mm

The connecting pieces for tube diameters 90mm and 75mm are designed so that in spite of different diameters they fit the same collection and distribution boxes resp. air inlet / outlet boxes. On the air inlet / outlet box and the air collection and distribution box they are placed by pressure (clips). When pressing the ventilation tube into the connecting piece, the studs are pressed towards the outside so that the connecting piece is fixed firmly.

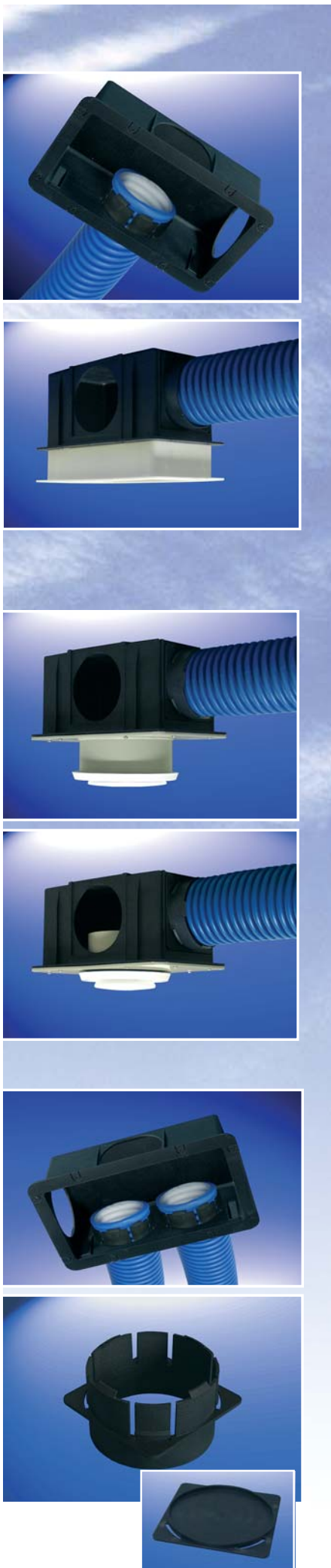
Furthermore the connecting piece is equipped with claws which retain the undulated ventilation tubes pressed into them. Installation therefore is easy and fast

AS-90 Connecting piece  $\varnothing$  90mm  
AS-75 Connecting piece  $\varnothing$  75mm

### Blind cover

The blind covers serve to close openings of collection and distribution boxes, as well as of air inlet / outlet boxes, which are not used to connect ventilation tubes. The covers are attached with a latch.

BD Blind cover



## I Air inlet / outlet box

### Inlet / outlet box standard

The air inlet / outlet box offers three connecting possibilities: It has openings in the front as well as the side. An additional connection can be placed on the back, defined by a predetermined breaking-point. The opening in the back can be opened at any moment, without problems. Open unused connecting possibilities are closed with blind covers.

**Measurements:** Inside: Length/width/depth: 230 x 120 x 118 mm

Outside: Length/width/depth: 260 x 150 x 122 mm

ZAS-3 Inlet / outlet box standard

### Inlet / outlet box with distance-frame (filigree-frame)

The inlet / outlet box can also be supplied with a distance-frame of 50 mm.

The advantages of the distance-frame are:

- The box itself in the ceiling, with its connecting pieces, will be placed above the reinforcing bars and the cut in the bars can be reduced to a minimum because the installation of the air ducts is always horizontal, above the reinforcing bars.
- If in the construction filigree ceilings are used, the inlet / outlet box can be sealed in the filigree ceiling, which makes the installation of the duct much simpler. The ventilation grid of course also fits into the distance-frame.

**Measurements:** Inside: Length/width/depth: 230 x 120 x 168 mm

Outside: Length/width/depth: 260 x 150 x 172 mm

ZAF-3 Inlet / outlet box with filigree-frame 50 mm

### Round fixture

As complement to the rectangular inlet / outlet box a module with a round outlet is available, which is simply placed on top of the rectangular inlet / outlet box. The following two versions are possible:

- Ceiling inlet and outlet:  $\varnothing$  125mm. Suitable for ceilings with reinforcing bars, as well as filigree ceilings.
- Ceiling/wall inlet and outlet:  $\varnothing$  100mm. Suitable for ceilings with reinforcing bars, as well as filigree ceilings. This fixture can also be inverted so that the connecting piece is on the inside. Then, it is possible to install it also in the wall.

**Measurements:** Ceiling inlet / outlet: 125mm (inside diameter) x 50mm height of connecting piece

Ceiling/wall inlet / outlet: 100mm (insidediameter) x 50mm height of connecting piece

ZAS-3/100 Inlet / outlet box with round fixture 100 mm, connecting piece outside

ZAS-3/125 Inlet / outlet box with round fixture 125 mm, connecting piece outside

ZASI-3/100 Inlet / outlet box with round fixture 100 mm, connecting piece inside

RAZ-100 Round outlet  $\varnothing$  100mm with seal and six screws for installation on inlet / outlet box (also suitable for MINI)

RAZ-125 Round outlet  $\varnothing$  125mm with seal and six screws for installation on inlet / outlet box (also suitable for MINI)

### Inlet / outlet box MINI

If walls or ceilings are not thick enough to use standard inlet / outlet boxes, a box with reduced depth (only 92 mm), suitable only for air ducts of 75 mm in diameter, is available. On the other hand, however, this box can have up to six connections. On one side, two connections are possible so that, e.g. in bathrooms more air can be absorbed. However, for this version special connecting pieces and blind covers are required which are not compatible with the standard inlet / outlet box.

Thanks to the modular system, other fixtures are available in the same versions as for the standard box: with filigree-frames as well as round connecting pieces 100 mm and 125 mm. Also the ventilation grids are same as for standard boxes.

**Measurements:** Inside: Length/width/depth: 230 x 120 x 88 mm

Outside: Length/width/depth: 260 x 150 x 92 mm

ZAM-5 Inlet / outlet box MINI

ZAMF-5 Inlet / outlet box MINI with filigree-frame 50mm

ZAM-5/125 Inlet / outlet box MINI with round outlet 125mm, connecting piece towards the outside

ZAM-5/100 Inlet / outlet box MINI with round outlet 100 mm, connecting piece towards the outside

ZAMI-5/100 Inlet / outlet box MINI with round outlet 100 mm, connecting piece towards the inside

ASM 75 Connecting piece 75mm for inlet / outlet box MINI

BDM Blind cover for inlet / outlet box MINI



## I Ventilation grids

There are several designs of ventilation grids available. The set always includes a grid and two spring steel mounting clamps of stainless steel. The metal grids are available in white and natural. For customers wishing a special colour we supply a version with a primer. Thus, the desired colour can be applied by the customer.

**Measurements:** Length x Width: 290 x 180 mm

### Ventilation grid standard Rom

The standard grid is made of stable odourless plastic. The colour is white (RAL 9016) and has a perforation of  $\varnothing$  3mm.

LGS Standard grid plastic

### Metal grid Rom

The classic among ventilation grids! The popular version with round holes ( $\varnothing$  5mm) is and will always be the favorite.

LGW-Rom Sheet steel, powder coating white (RAL 9016)

LGE-Rom Stainless steel natural (polished)

### Metal grid Paris

The metal grid with diamond design brings change and a somewhat „more open “ design.

LGW-Paris Sheet steel, powder coating white (RAL 9016)

LGE-Paris Stainless steel natural (polished)

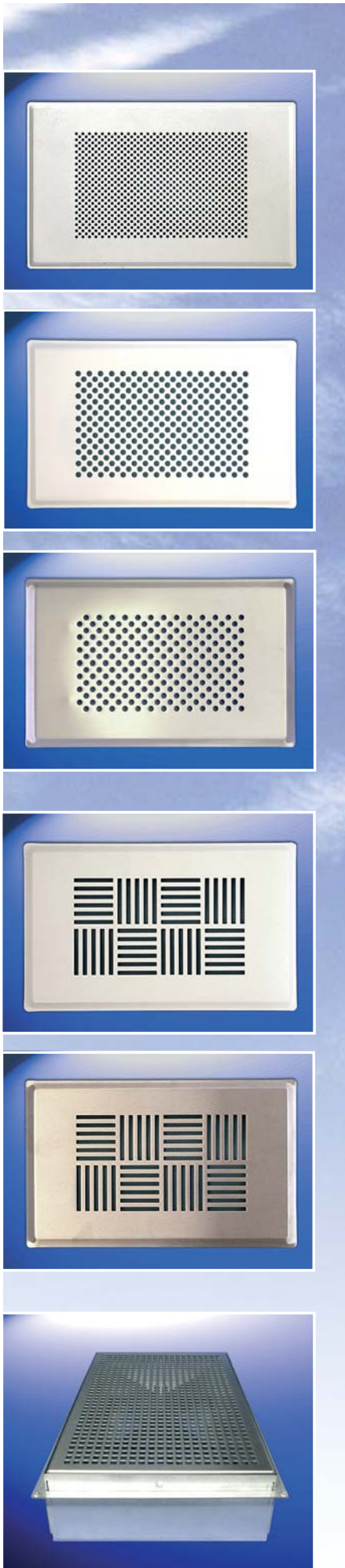
### Floor outlet

Of course there exists also the possibility of the air outlet above the floor. For this purpose, the floor outlet adaptor is placed on the air inlet / outlet box connected in the floor to the ventilation ducts.

The height of the floor outlet is adjustable so that it can be adapted to the existing floor construction. The metal grid of the floor outlet is safe to step on.

**Measurements** Inside: Length x width: 300 x 165mm  
Outside: Length x width: 325 x 185mm

BA Floor outlet incl. metal grid





## I Special items

### I Crossing

In spite of the most meticulous planning it is not always possible to place the ducts for inlet and outlet air on the same level, side by side. The solution for this problem is the crossing piece by RoomAir, very simple and economic. The exhaust air is conducted in an uninterrupted tube in transverse direction through the air inlet / outlet box, whereas in longitudinal direction the duct for the inlet air is interrupted so that the fresh air can find its way around the closed exhaust air tube to the continuation of the inlet air duct.

Thanks to the removable cover at the bottom of this box, cleaning is very easy.

The pressure loss in the system is very small, as shown by the measurements of HSLU Luzern.

**Measurements:** Inside: Length/Width/Depth: 230 x 120 x 118 mm

Outside: Length/Width/Depth: 260 x 150 x 122 mm

KLS Standard

KLF with Filigree-frame 50mm

### I Heating element VWE

The heating element VWE additionally provides a comfortable room temperature. Along with the heating elements (PTC) the room temperature can be optimally adjusted. Should the room temperature fall below the desired level, the air heating element is activated. The resistance in the element is increased which warms up the air. If the temperature in the room rises, the resistance is lowered until the set room temperature is again achieved and the heating element is switched off. The reaction time of this element is by far superior to a floor or radiator heating system which makes the conversion of electric energy into heat optimal and economical. VWE-D Ceiling connection with adjustable disc valve

### I RoomAir accessories

#### Regulation of air volume

To be able to take into account the varying requirements of air volume in different rooms, a disc valve is available for each of both tube diameters. It can be placed directly in the tube, both in the distribution box and in the inlet / outlet box.

TV-75 Disc valve for tube diameter 75mm (inside diameter 60mm)

TVR-90 Disc valve for tube diameter 90mm (inside diameter 75mm)

#### Air filter

To clean the exhaust air, a G3-filter is used to absorb coarse particles, thus avoiding dirt in the exhaust air ducts. The filters can be installed without problems behind the grids. Changing them is simple.

G3 Filter for exhaust air

#### Mounting lid for round outlet

The mounting lid is used to cover the opening of the connecting piece (round outlet 100 mm and 125 mm), to keep liquid concrete from entering the connecting piece during pouring concrete. After removing the casings, also the mounting lids are taken off again, too.

**Measurements:** 100 x 17mm (for round outlet 100mm)

125 x 25mm (for round outlet 125mm)

MD-100 for RAZ-100, ZAS-3/100 and ZAM-5/100

MD-125 for RAZ-125, ZAS-3/125 and ZAM-5/125

## I Test report

All components which are important to assure perfect functioning have been tested by the Technical College Luzern HSLU. The corresponding test reports are available and can be consulted. A digest can be found on our homepage.

We are proud to say that all tested components have shown excellent results, e.g. the values regarding pressure loss and soundproofing both of air collection and distribution boxes, as well as the air inlet / outlet boxes, are outstanding, without necessity of taking extra measures. This is also confirmed by practical experience.

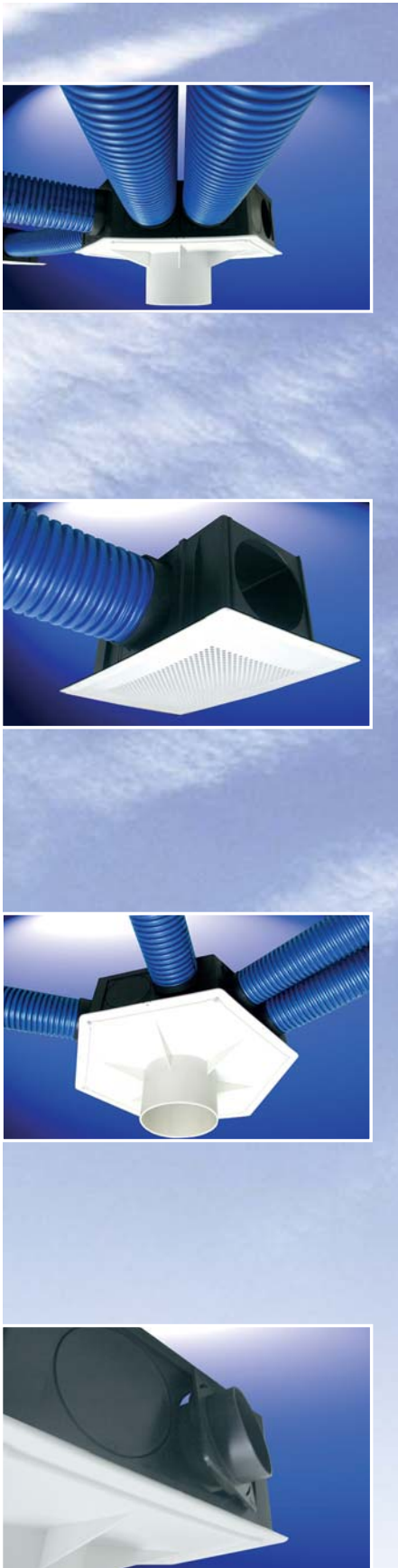
For the following components test reports are available:

- Collection and distribution box: sound measurements
- Collection and distribution box: pressure loss measurements
- Air inlet/outlet box: sound measurements
- Air inlet/outlet box: pressure loss measurements
- Collection and distribution box MINI: pressure loss measurements
- Crossings: pressure loss measurements

All components were tested by HSLU with ventilation tubes with  $\varnothing$  75mm and 90mm.



Measured by the accredited Test center HLK



## | The RoomAir Concept

**RoomAir offers new innovative components which allow realizing the concept of controlled ventilation of apartments better and at even notably lower costs.**

RoomAir primarily works with central components for air distribution, which now are considerably more flexible and efficient due to standardization. Thanks to modularity, significant cost savings are possible. What at first view appears to be contradictory is, considered more closely, very simple: Central elements, such as collection resp. distribution boxes, as well as air inlet / outlet boxes are standardized and now made of high-value, heavy duty plastic material. This allows a reduction of costs. Furthermore especially the air collection and distribution box is hexagonal so that it is suitable for air inlet and distribution towards all sides.

With twelve (!) openings the box offers considerably more possibilities than other, hitherto existing collection and distribution box systems.

## | Advantages of RoomAir

### | Cost saving of up to 20 - 30%

With RoomAir cost for ventilation of rooms can be reduced substantially. Depending on the volume of the room ventilation material savings of 20 - 30% are possible. This reduction of costs will allow many home builders who up to now have done without this added comfort for reasons of economy, to install a ventilation system in their new home.

### | Enormous flexibility

Not included are savings in installation costs. Installation becomes very simple and therefore much more efficient.

Due to the numerous openings and predetermined breaking points, which can be opened by a single blow, additional connections are possible. A single element can be used in many different ways, at minimal time and effort, even on-site. Unused openings are closed with a blind cover. As the whole concept is modular, such changes can be made in seconds. Even the diameter of the connecting pieces can be modified on-site because the entire system (except the air inlet / outlet box MINI) are suitable for pipe diameter 75mm and 90mm, which means reduced stock requirements and offers increased flexibility.

### | Heavy duty | lightweight | corrosion resistant

The load capacity and robustness of the plastic parts are guaranteed by the use of glass fiber reinforced polypropylene. Even embedding into the heaviest concrete ceilings cannot harm the distribution box. In spite of the proven strength the parts are very lightweight.

Another important advantage is the absolute corrosion resistance which is due to the fact that no metal which could corrode is incorporate

### | Sound transmission and cleaning

Thanks to the use of plastics the sound transmission is clearly lower than with metal. With RoomAir cleaning is very easy: The collection and distribution box can be opened quickly by loosening six screws which provides optimal access for cleaning. At the air inlet / outlet boxes the covering grids can be taken off by hand and the whole box is accessible for cleaning.

### | Applications of RoomAir

RoomAir can be used practically everywhere, such as:

- Single and multiple dwellings
- Owner occupied flats
- Service centers
- Hotels
- Industry