

## Installation

**NOTICE:** Accumulation of condensate in the wall sleeve. Interruption of the thermal insulation composite system. Damage to exterior wall/masonry and the building structure.

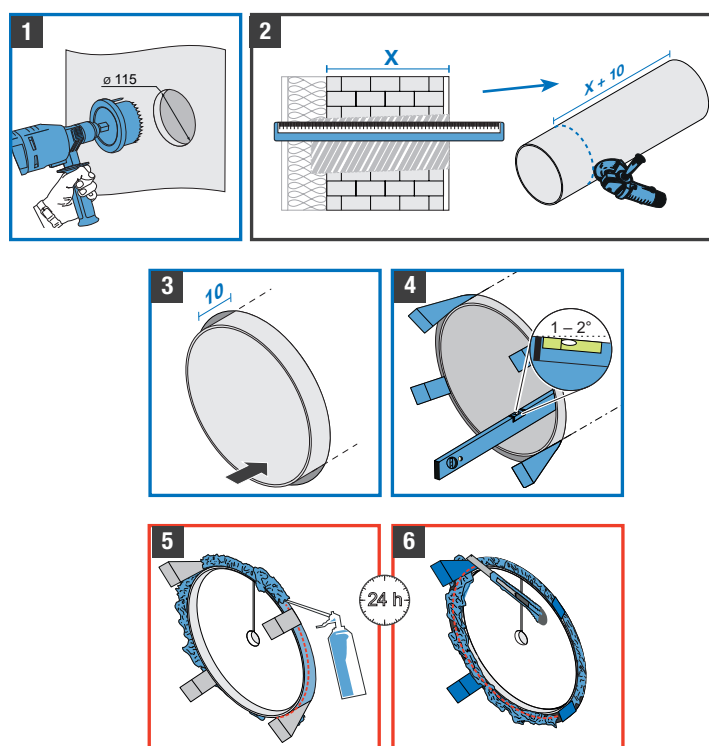
- ▶ Create the wall opening with a slope of 1 – 2° to the exterior wall. Attach the wall sleeve with a slope of 1 – 2° to the exterior wall.
- ▶ Replace the wall construction as far as the wall sleeve. Observe the necessary barrier levels.

**NOTICE:** Penetration of condensation water and/or algae accumulation around the flat duct/reveal grille may cause discolouration of the facade.

- ▶ Before installing the exterior closure, carry out all sealing measures (sealing tapes, outdoor sealing compound).
- ▶ In vulnerable areas, apply a biocidal/water repellent treatment to the plaster surface around the flat duct/reveal grille before installing. (Consult your planner!)

 Tape measure, angle grinder, spirit level, 2K fitting foam, cutter, marker pen, drill with 6 mm bit, Screws (8x, in scope of delivery)

### Step 1: Install the wall sleeve



**1** Drill a wall opening, Ø 115 mm, with a slope of 1 – 2° to the exterior wall.

**2** Determine the exact thickness of masonry and inner plaster/internal structure X.

Adjust the wall sleeve to the determined thickness X:  
Shorten wall sleeve to length X+10.

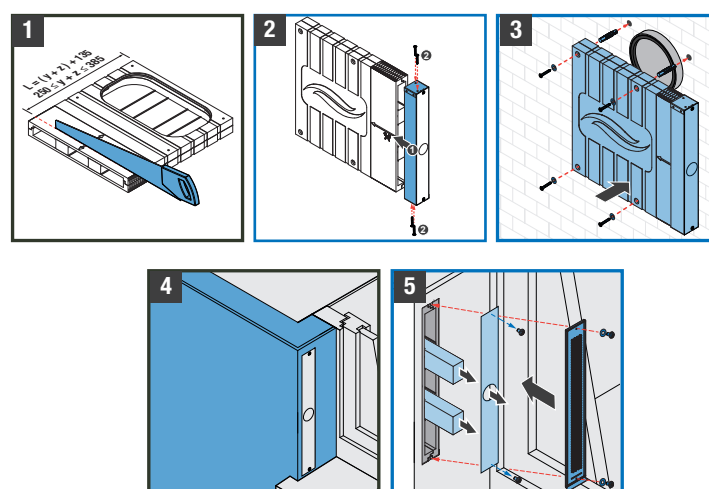
**3** Insert the wall sleeve into the wall opening from the outside with an overhang of 10 mm on the exterior wall.

**4** Fix the wall sleeve inside and outside with a slope of 1 – 2° to the exterior wall.

**5** Fill the gap between the wall sleeve and the masonry on the exterior and interior wall with non-pressing fitting foam.

**6** Cut the fitting foam and protruding mounting wedges flush with the exterior and interior wall.

### Step 2: Install the flat duct Corner and reveal grille



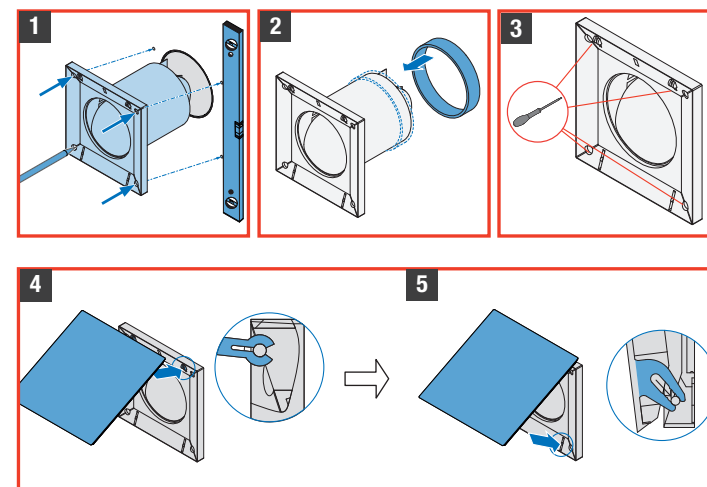
**NOTICE:** For the installation of the Corner flat duct see the installation instructions „Corner“ (item no.: 5040-0023). There, the work steps are described in detail:

- 1 Shorten the flat duct to the calculated installation length
- 2 Mounting the sliding sleeve (Push the sleeve to the stop of the protruding screw brackets.)
- 3 Mounting the Corner flat duct (The flat duct is mounted without gradient.)
- 4 Plastering of flat duct and sleeve

**NOTICE:** For the installation of the reveal grille see the installation instructions „Corner reveal grille“ (tem no.: 5040-0024). There, the work steps are described in detail:

- 5 Remove protective lid
- Remove mounting wedges
- Mounting of reveal grille

### Step 3: Install the ALD insert



**1** Insert the ALD insert into the wall sleeve from the interior. Level it using a spirit level. Mark the 4 corner drill holes. Remove the ALD insert from the wall sleeve. Drill the 4 corner drill holes with Ø 6 mm, min. 50 mm deep.

**2** Push the sealing ring flush with the casing onto the ALD insert.

**3** Screw the casing to the interior wall.

**4** Attach the top of the inner cover to the locking hook on the casing.

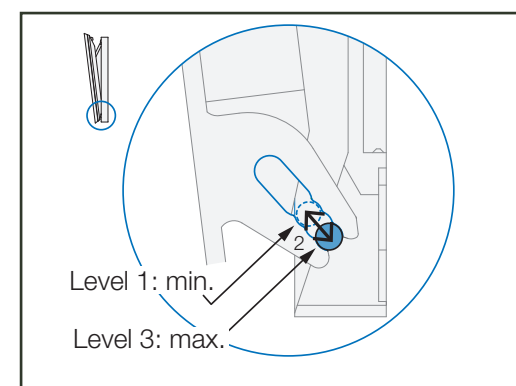
**5** Fold the lower area onto the casing.

Set the desired intensity of the air flow (see: **Setting the flow rate**).

## Operation

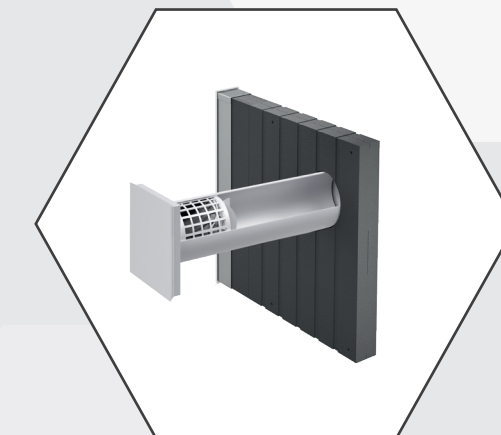
### Setting the flow rate

The air volume is regulated via the lower part of the inner cover. There is a mechanism for changing the opening angle. Set the opening angle as follows to increase/decrease the flow rate:



Adjust the lower locking hook to the required level by lifting it out slightly in the lower part of the inner cover (Flow rates see: **Specifications/ Pressure/flow rate curve**)





## aV100 ALD Corner

### Instructions for use

Read before use and keep with product.

The following **components** are included in the delivery:

- **aV100 ALD Corner**, item number 1002-0034  
Corner flat duct incl. reveal grille, sealing ring (1x), wall sleeve, inner cover, dust filter and wind protection

The following **accessories** are available from inVENTer GmbH:

- **Pollen filter aV100 ALD (2x)**, item number 1004-0163
- **Dust filter aV100 ALD (2x)**, item number 1004-0164
- **Flimmer filter aV100 ALD (1x)**, item number 1004-0165
- **Sound insulation insert aV100**, item number 1004-0166
- **Wind protection insert WSE R-D100**, item number 1004-0173

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Version dated 02/2020  
Item number 5012-0009

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## User and safety instructions

This documentation provides an overview of the product and basic safety precautions for safe and proper operation of your ventilation unit.

The safety and warning instructions in these operating instructions have a uniform structure and are marked with a symbol on the left side of the instruction. A signal word above the text indicates the severity of the hazard that may occur unless preventative measures are taken. If several hazard levels exist, the highest level safety instruction is always used.

**CAUTION:** Direct danger of minor/significant injury.

**NOTICE:** Imminent or possible damage to property.

Tools and materials required for the task.

graphic shows the interior wall.

graphic shows the exterior wall.

Before performing any work on the system, read the user instructions carefully and observe all information that refers to installation and cleaning. Non-observance of safety warnings may result in injury and/or property damage. Observe the relevant standards, regulations and guidelines, especially the applicable building codes and fire and accident prevention regulations issued by the respective trade association. Installation may only be carried out in conjunction with this documentation and by qualified personnel. The aV100 ALD Corner is designed to supply outdoor air in residential areas or similar. In particular, it must not be used in environments that contain a high concentration of oil or grease, areas in which extreme dust loads or inflammatory, aggressive and corrosive gases, liquids or vapours may be present, or to dry buildings.

## Product description

The exterior-wall air outlet aV100 ALD Corner is used to provide outdoor-air ventilation in residential units in accordance with DIN 18017-3 and DIN 1946-6. It consists of an insert with adjustable inner cover, integrated back-draught shutter and filter, as well as a wall sleeve and a flat duct with reveal grille as exterior closure. The corner model is particularly suitable when subsequently fitting insulation or if a weather protection hood cannot be fitted to the outside wall for structural or other reasons. Due to the reveal grille in the window reveal the ventilation unit disappears subtly into the external wall. Installation is carried out in the exterior wall.

The ALD insert, including all filters and back-draught shutter, is easily accessible from the interior. The air volume is regulated via the inner cover, which includes a mechanism for changing the opening angle.

## Features

- aV100 ALD Corner with exterior closure situated in the window reveal
- Expansion for the aV100 extract air system
- Use when:  
Thickness of masonry + inner plaster/internal structure = 150 – 490 mm and insulation is at least 80 mm

Also available as

- aV100 ALD with weather protection grille
- aV100 ALD Plus with driving rain proof weather protection hood

## Installation conditions

- The aV100 ALD Corner must not be covered by cabinets or protruding constructions. Outside air must be able to flow in freely.
- Maintain a minimum circumferential clearance of 100 mm.
- Installation should be performed close to the ceiling to obtain better air distribution.
- Install the wall opening above a radiator. This ensures that the inflowing air is pre-heated when entering the interior.
- The unit must not be installed above delicate furniture, surfaces or pictures.
- Do not place the unit near a room thermostat.
- Position the ventilation unit in a way that persons in the common area are not exposed directly to the flow. Maintain a distance of 1 – 1.2 m to the common area.
- In order to ensure that the device does not interfere with other ventilation processes and that its functioning is not affected by them, it must always be installed in its own wall sleeve.
- The velocity of inflowing air should be kept to a minimum required in order to avoid cold draughts.

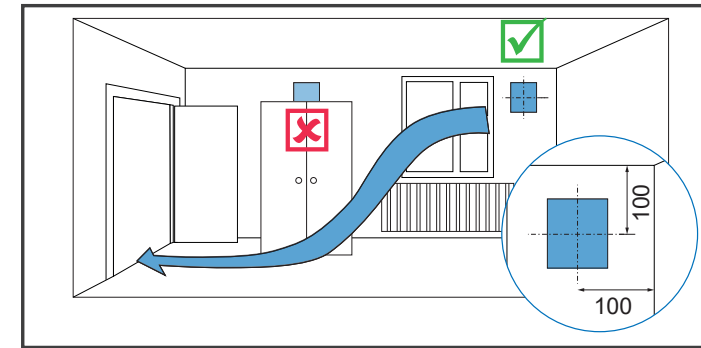


Figure 3: Installation position aV100 ALD Corner

## Cleaning and maintenance

The exterior-wall air outlet aV100 ALD is virtually maintenance-free. In order to maintain full functionality and performance and to ensure good air quality, the ventilation unit must be checked every six months for contamination of the wall sleeve and filter. Adjust the cleaning interval as needed and/or to the air quality.

The included dust filters are reusable and can be washed under warm running water. Replace excessively contaminated or defective filters.

Remove the inner cover for cleaning: Carefully unscrew the inner cover from the locking hooks on the bottom and top of the casing.

Then pull the filter cartridge out of the wall sleeve.

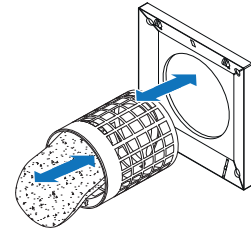
Remove the contaminated filter from the filter cartridge and clean it under warm running water.

Wait until the filter is completely dry.

Insert the clean filter into the filter cartridge.

Wipe the interior of the wall sleeve with a damp cloth.

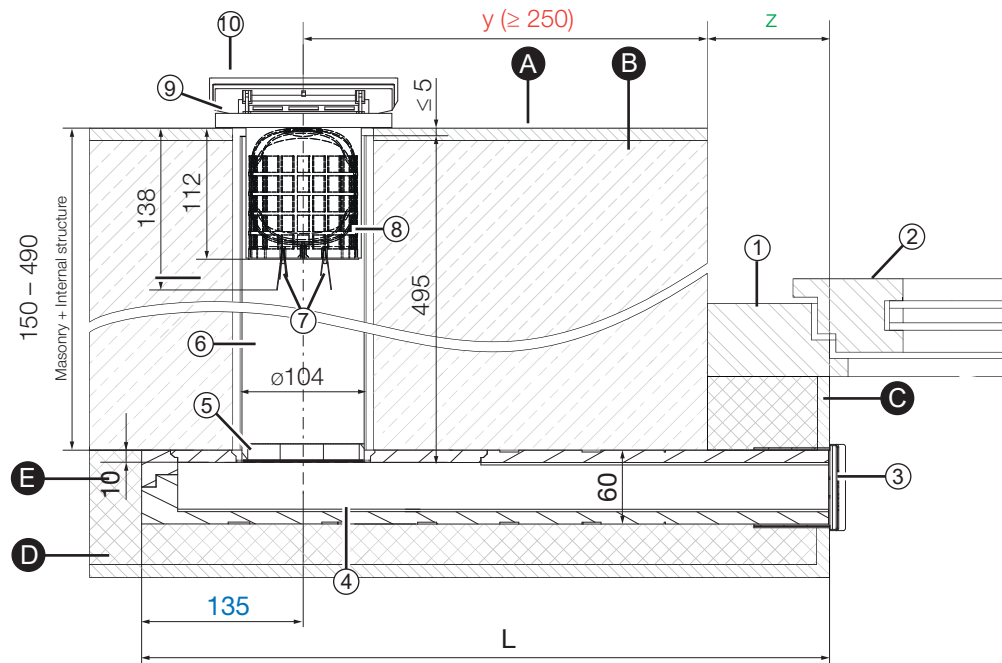
Slide the filter cartridge into the wall sleeve as far as the stop.



Reattach the inner cover to the casing (see reverse: **Install the ALD insert**, step 3 onwards) and set the required air flow intensity (see reverse: **Setting the flow rate**).

Remove the reveal grille yearly and wipe the interior of the flat duct with a damp cloth. Brush free the fins of the reveal grille. Snap the reveal grille audibly in place by pushing it onto the sliding sleeve.

## Construction and dimensions



### Installation length of the flat duct:

$$L_{\text{installation}} = (y + z) + 135 \text{ mm}$$

$$250 \leq (y + z) < 385$$

Figure 2: Sectional drawing aV100 ALD Corner

- |                                    |                    |   |
|------------------------------------|--------------------|---|
| A inner plaster/internal structure | 1 Window frame     | 6 Wall sleeve, L = 495 mm, can be shortened on site |
| B Masonry                          | 2 Window casement  | 7 Wind protection                                   |
| C Window reveal                    | 3 Reveal grille    | 8 Filter cartridge incl. dust filter                |
| D Render                           | 4 Corner flat duct | 9 Inner cover casing                                |
| E Insulation (at least 80 mm)      | 5 Sealing tape     | 10 Inner cover panel, insulated/lockable            |

## Pressure/flow rate curve

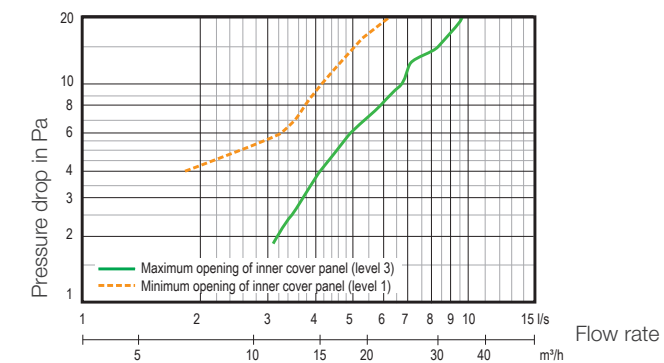


Figure 4: Curve depends on the opening angle of the inner cover

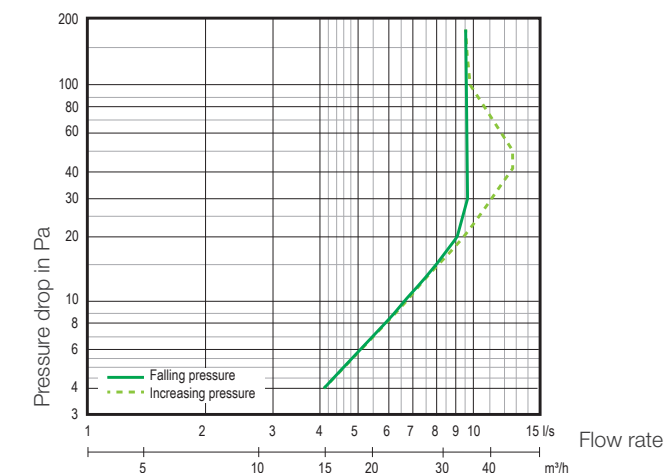


Figure 5: Curve depends on pressure build-up

## Specifications

Feature	Value
Air flow [m³/h at 4 Pa]	min. 7 (level 1) max. 15 (level 3)
Air flow [m³/h at 8 Pa]	min. 14 (level 1) max. 22 (level 3)
Standard sound level differential [dB]	min. 55 max. 59 <sup>1)</sup>
Thickness of masonry + internal structure [mm]	150 – 490
Insulation thickness [mm]	> 80
Wall opening [mm]	∅ 115
Wall sleeve [∅, L in mm]	∅ 100, 495
ALD insert [W x H x D in mm]	160 x 160 x 154
Corner flat duct [W x H x D in mm]	515 x 490 x 60
Reveal grille [W x H x D in mm]	93 x 232 x 76
Operating range [°C]	-20 – 50
Material/colour of wall sleeve	ABS/white
Material/colour of ALD insert	ABS/white
Material/colour of flat duct	PVC/white
Material/colour of reveal grille	ABS/white

<sup>1)</sup> with soundproofing measures (optionally available)