



SDA

► Assembly, installation and operating instructions

Keep these instructions in a safe place for future use!

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1 General

1.1 About these instructions

These instructions ensure the safe and efficient handling of this equipment. These instructions form an integral part of the equipment and have to be kept in the direct vicinity of the equipment and available to personnel at all times.

All personnel must have carefully read through these instructions prior to commencing all work on the equipment. A fundamental prerequisite for safe working is compliance with all the stated safety instructions and other instructions contained in this manual.

In addition all local occupational health and safety at work regulations apply, as do general safety provisions governing the use of the equipment.

Illustrations in this guide are intended to provide a basic understanding and may differ from the actual model.

Ongoing tests and further developments may result in small variations between the unit supplied and the instructions.

1.2 Explanation of Symbols



WARNING!

This combination of symbol and signal word indicates a possible hazardous situation.



IMPORTANT NOTE!

It represents a potentially hazardous situation, which could lead to damage to property or for a measure to optimise workflows.



IMPORTANT NOTE!

This symbol highlights useful hints, recommendations and information for efficient and trouble-free operation.

2 Safety

This section provides an overview of all important safety aspects to ensure optimum protection of personnel as well as safe and trouble-free operation. In addition to the safety instructions in these operating instructions, the valid safety, accident prevention and environmental protection regulations must be observed for the area of use of the unit. It is the duty of the operator to ensure that instructions relating to maintenance (e.g. relating to hygiene) are complied with.

2.1 Correct use

Floor diffusers are designed to supply and distribute preconditioned air into air conditioned sealed indoor areas with ambient temperatures of between 0 - 50°C and a relative air humidity of up to a 90% max. The operating limits and limits of use described in Chapter 2.2 [► 5] must be observed.

Intended use of the unit also includes adherence to these instructions.

Information in accordance with EN60335-1

- ▶ This unit can be used by children aged 8 years or more and also by people with reduced physical, sensory or mental capabilities or a lack of experience and knowledge, if they are supervised or have been instructed in the safe use of the unit and the resulting dangers. Do not allow children to play with the unit. Do not allow children to clean and maintain the unit without supervision.
- ▶ The unit is not intended for operation above 2,000 m.a. s.l.
- ▶ This unit is not intended for permanent connection to the drinking water supply system.
- ▶ This unit is intended for being accessible to the general public.

Any use beyond or other than the stated intended use is considered as misuse.

Any change to the unit or use of non-original spare parts will cause the expiry of the warranty and the manufacturer's liability.

2.2 Limits of operation and use

Variable	Value	Unit
Temperature range	0 – 50	°C
Max. relative air humidity	90	%



IMPORTANT NOTE!

Warning of misuse!

In the event of misuse, as itemised below, there is a danger of limited or failing operation of the unit. Ensure that the airflow can circulate freely.

- ▶ Never operate the unit in humid areas, such as swimming pools, wet areas etc.
- ▶ Never operate the unit in rooms with an explosive atmosphere.
- ▶ Never operate the unit in aggressive or corrosive atmospheres (e.g. sea air).

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2.3 Personnel requirements - Qualifications

Expertise

The installation of this product requires specialist knowledge of heating, cooling, ventilation, installation and electrical engineering. This knowledge, generally learned in professional training in one of the fields mentioned above, is not described separately.

Damage caused by improper installation is the responsibility of the operator or installer. The installer of these units should have adequate knowledge of the following gained from specialist professional training

- ▶ Safety and accident prevention regulations
- ▶ Guidelines and recognised technical regulations, i.e. Association of German Electricians VDE regulations, DIN and EN standards.
- ▶ VDI 6022; maintenance personnel must be trained to Category B (possibly Category C) to comply with hygiene requirements (as required).

The installation, operation and maintenance of this unit must comply with the applicable laws, standards, provisions and regulations in the respective country and the current state of the art.

2.4 Personal Protective Equipment

Personal protective equipment is used to protect people from impaired safety and health when working with the unit. The applicable accident prevention regulations at the place of use apply in all cases.

Personnel have to wear personal protective equipment during maintenance and troubleshooting on and with the unit.

3 Transport, storage and packaging

3.1 General transport instructions

Check on delivery for completeness and transport damage.

Proceed as follows in the event of visible damage:

- ▶ Do not accept delivery or only accept with reservations.
- ▶ Record any transport damage on the transportation documents or on the transport company's delivery note.
- ▶ Submit a complaint to the freight forwarder.



IMPORTANT NOTE!

Warranty claims can only be made within the applicable period for complaints. (More information is available in the T&Cs on the Kampmann website)

3.2 Scope of delivery



IMPORTANT NOTE!

Check the scope of delivery!

- ▶ Check the delivery for damage.
- ▶ Check that the articles and type numbers are correct.
- ▶ Is the delivery and number of items delivered correct?

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3.3 Storage

Store packaging under the following conditions:

- ▶ Do not store outdoors.
- ▶ Store in a dry and dust-free place.
- ▶ Store in a frost-free place.
- ▶ Do not expose to aggressive media.
- ▶ Protect from direct sunlight.
- ▶ Avoid mechanical vibrations and shocks.



IMPORTANT NOTE!

Under certain circumstances, packages can carry storage instructions that exceed the requirements listed here. Comply with these instructions accordingly.

3.4 Packaging

Handling packaging materials



IMPORTANT NOTE!

Dispose of packaging materials in line with the applicable statutory requirements and local regulations.

4 Technical data

Nominal size	Number of slots	Sound power level L_w dB(A)	Spec. volume flow [m³/h]	volume flow V^0 [m³/h]	pressure loss Δp [Pa]
500	1	30	97	48	44
		35	118	59	65
		40	141	70	91
	2	30	85	85	34
		35	105	105	52
		40	127	127	74
1000	1	30	85	85	34
		35	105	105	52
		40	127	127	74
	2	30	73	146	25
		35	93	186	40
		40	114	228	60
1500	1	30	78	117	29
		35	98	147	45
		40	119	179	66
	2	30	66	198	21
		35	86	257	35
		40	106	319	53
2000	1	30	73	146	25
		35	93	186	40
		40	114	228	60
	2	30	61	245	18
		35	81	323	31
		40	101	404	48

Tab. 1: Technical data, SDA

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5 Construction and function

5.1 Overview

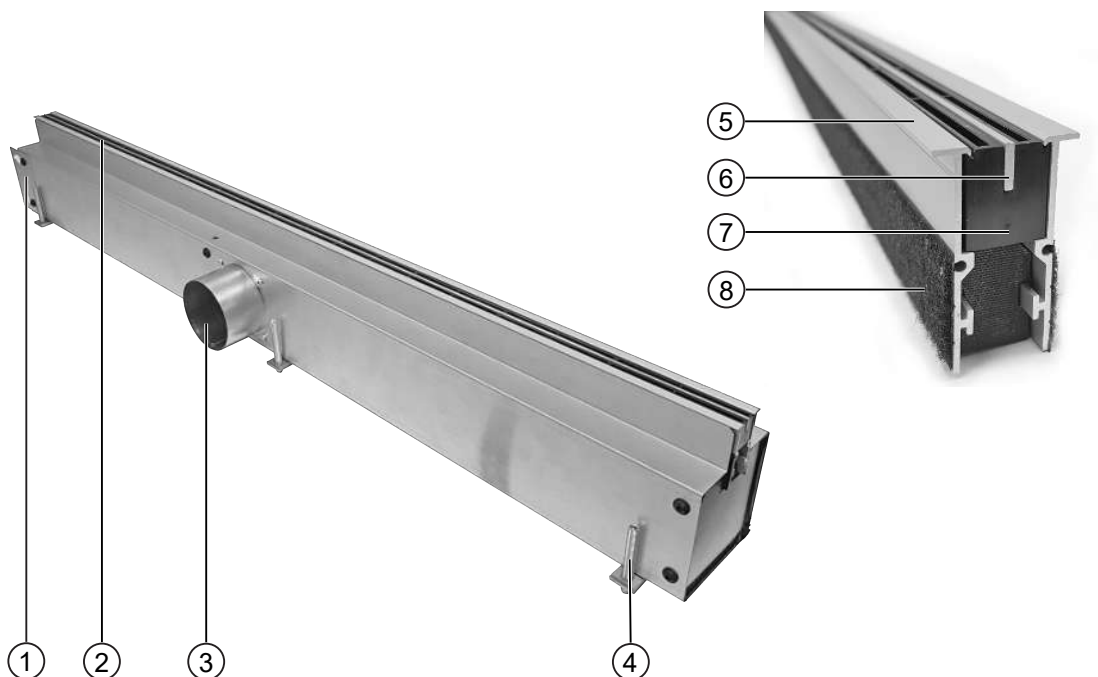


Fig. 1: SDA at a glance (example with 1-row slot outlet)

1	Connecting plate for belt installation	5	Support profile
2	Slot outlet (1-row) with trim profile	6	Trim profile
3	Connection fittings	7	Nozzle
4	Height adjustment	8	Seal to the junction box

5.2 Brief description

The SDA is a walk-on floor slot diffuser for supplying air along façades and interior walls. Different air directions can be pre-set through the 100 mm long ABS nozzle elements. The SDA aluminium profiles can be ordered in various RAL colours and anodised finishes. Their narrow support surface allows the outlet to be unobtrusively integrated into the floor. The front of the outlet is pushed into the junction box neck in the floor to create a hermetic seal without the use of tools. The SDA junction box is suitable for double floor installation and has a height adjustment mechanism, making the outlet suitable for various double floors and installation heights.

5.3 Dimensions/Nominal lengths

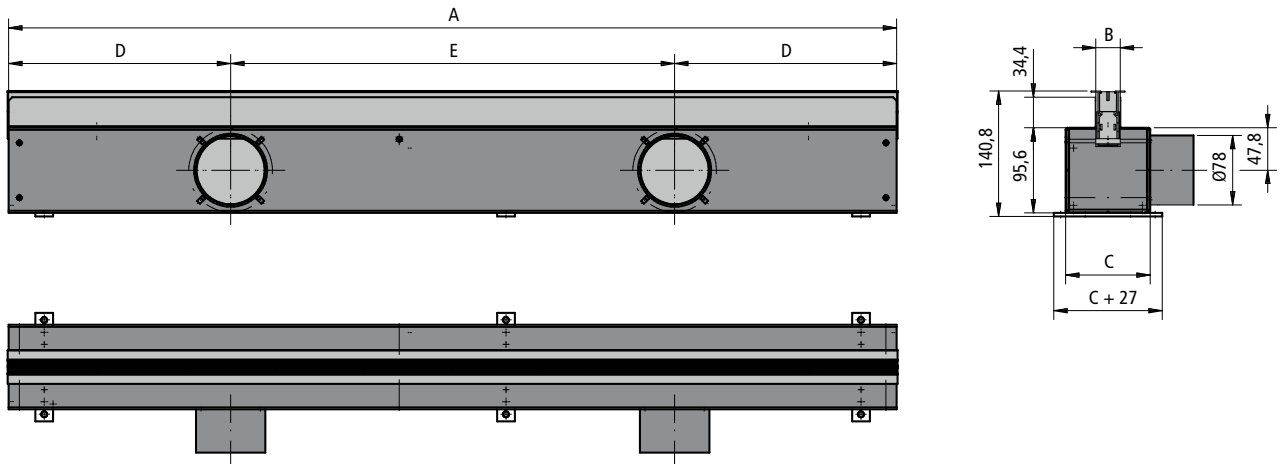


Fig. 2: Dimensions of SDA (example shows 1-row slot diffuser)

Dimensions with 1-row slot diffuser

Slot length [mm]	500	1000	1500	2000
A [mm]	498	998	1498	1998
B [mm]	27.5	27.5	27.5	27.5
C [mm]	95	95	95	95
D [mm]	124.5	249.5	374.5	499.5
E [mm]	249	499	749	999

Tab. 2: Dimensions with 1-row slot diffuser

Dimensions with 2-row slot diffuser

Slot length [mm]	500	1000	1500	2000
A [mm]	498	998	1498	1998
B [mm]	48.6	48.6	48.6	48.6
C [mm]	116	116	116	116
D [mm]	124.5	249.5	374.5	499.5
E [mm]	249	499	749	999

Tab. 3: Dimensions with 2-row slot diffuser

6 Installation and wiring

6.1 Requirements governing the installation site

Only install and assemble the unit if the following conditions are met:

- ▶ Make sure that the wall/ceiling is sufficiently load-bearing to take the weight of the unit (Technical data [▶ 9]).
- ▶ Make sure that the ceiling is sufficiently load-bearing to take the weight of the unit (Technical data [▶ 9]).
- ▶ Make sure that the unit is securely suspended/standing.
- ▶ Ensure that the airflow can circulate freely.

6.2 Installation

2 people are needed to install the unit.



CAUTION!

Risk of injury from sharp metal housing!

The inner metal of the casing can have sharp edges.

- ▶ Wear suitable protective gloves.

6.2.1 Installing the SDA

General installation information

- ▶ When aligning the unit, make sure that the air connectors are on the room side.
- ▶ Ensure that there is access to the air intake spigots for connection of the ventilation ducts supplied by others.
- ▶ Fix any ducts or flexible hoses for supply and extract air to the air connectors with self-tapping screws.
- ▶ Make sure that the connection is sufficiently air-tight.
- ▶ The plenum box is not designed to support the raised floor.



Fig. 3: Protective cover

- ▶ The plenum box is supplied with a protective cover to avoid site dirt.
- ▶ Only remove the cover once the plenum box is aligned and installed.
- ▶ Then insert the slot outlet supplied separately so that the yellow sticker on the slot outlet is located above the groove of the plenum box!

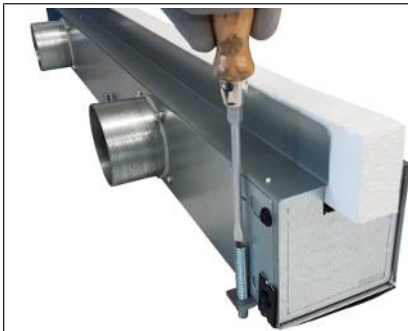


Fig. 4: Height adjustment

- ▶ Use a screwdriver to screw in the adjusting screws.
- ▶ Align the plenum box and use the adjusting screws to set the provisional height of the raised floor height adjustment feet.
- ▶ Using installation aids on site, fix the plenum box to the floor with rawlplugs and screws.



Fig. 5: Delivery condition of the connecting panels

- ▶ With strip installations, the connecting panels are pre-installed as shown when delivered.



Fig. 6: Loosening the screws of the connecting panel

- ▶ Loosen the screws of the connecting panels and move the connecting panel so that 2 plenum boxes can be connected together (similarly to the left-hand connecting panel in the figure).



Fig. 7: Screwing the plenum boxes together

- ▶ Connect plenum boxes installed in series on site to the next box using the connecting panels.

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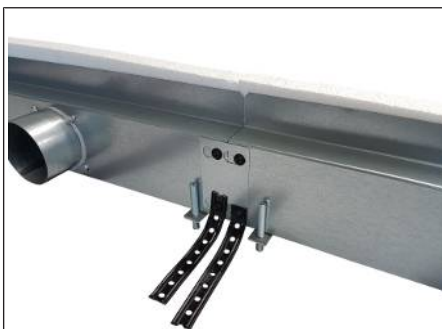


Fig. 8: Fixing the SDA using a perforated strip

- ▶ Use the perforated strips supplied to fix the plenum boxes to the floor.



Fig. 9: Remove the protective cover.

- ▶ Remove the protective cover and dispose of it properly.



Fig. 10: Plenum box flush in the floor

- ▶ Use the adjusting screws to adjust the precise height of the plenum box so that the neck of the plenum box is flush with the floor covering.
- ▶ Then finish the floor up to the plenum box.

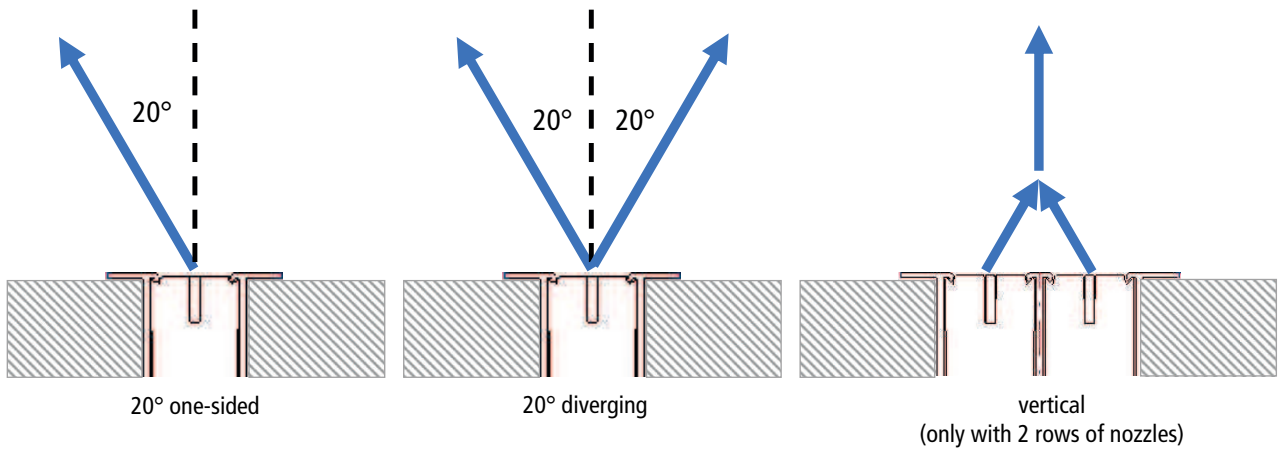


Fig. 11: Inserting the slot outlet

- ▶ Insert the slot outlet into the plenum box until the support profiles finish flush with the floor covering.
- ▶ Note: Pay attention to the correct installation position (correct air flow direction) when fitting the slot outlet!

6.2.2 Nozzle installation options

3 air stream shapes are possible depending on the installation position of the nozzles.



7 Pre-commissioning checks

When commissioning the device for the first time, ensure that all the necessary requirements are met so that the device can function safely and in accordance with its intended use.

Structural tests

- ▶ Check that the unit is securely standing and fixed.
- ▶ Check the horizontal installation/suspension of the unit.
- ▶ Check whether all components are properly fitted.
- ▶ Check whether all dirt, such as packaging or site dirt, has been removed.

- ▶ Check all external electrical connections and terminal connections are fixed in place and tighten if necessary.

Air-side checks

- ▶ Check whether there is unimpeded flow at the air inlet and outlet.

8 Maintenance

8.1 Clean the inside of the unit

Check all elements that come into contact with air (internal surfaces of the unit, outlet elements etc.) for dirt or deposits during maintenance and use a commercially available product to remove.

Cleaning the junction box



Fig. 12: Cleaning the SDA

- ▶ Pull out the slot outlet (see "Installing the SDA [▶ 12]") [Installing the SDA].
- ▶ Exhaust the junction box with crevice nozzle.

<https://www.kampmanngroup.com/hvac/products/diffusers/sda>

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