

# KSW

## ► 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

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



#### 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).

## 2.3 Personnel requirements - Qualifications

### Expertise

The installation of this product requires specialist heating, cooling, ventilation, installation and electrical knowledge. As this knowledge is normally acquired through vocational training in one of the above fields, it is not dealt with further here.

Damage caused by improper installation is the responsibility of the operator or installer. Installers of these units should have adequate knowledge of the following based on their qualifications

- ▶ Safety and accident prevention regulations
- ▶ Guidelines and recognised technical regulations, i.e. Association of German Electricians (VDE), 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.

### Expertise

The installation of this product requires specialist knowledge of heating, cooling, ventilation, installation and electrical engineering.

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
- ▶ Country-specific 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).

## 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 Kammann website)



#### **IMPORTANT NOTE!**

2 people are needed to transport the unit. Wear personal protective clothing when transporting the unit. Only lift the unit on both sides and not by the pipes / valves.



#### **IMPORTANT NOTE!**

##### **Material damage caused by incorrect transport!**

Units being transported can drop or topple over if transported wrongly. This can cause serious material damage.

- ▶ Proceed carefully when unloading the equipment on delivery and when transporting it on site and note the symbols and instructions on the packaging.
- ▶ Only use the holding points provided.
- ▶ Only remove packaging shortly before assembling the unit.

#### 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

Weight of KSW				
Length [mm]	500	800	1000	1200
Weight of 1-slotted unit [kg]	2.9	4.8	6.7	8.1
Weight of 2-slotted unit [kg]	3.1	4.9	6.1	7.3

## 5 Construction and function

### 5.1 Overview

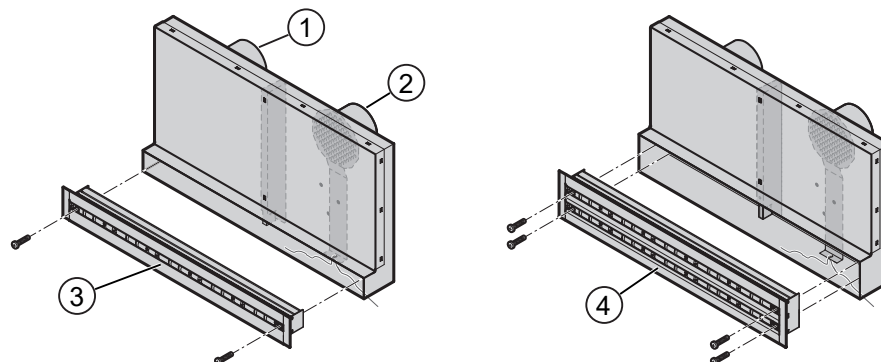
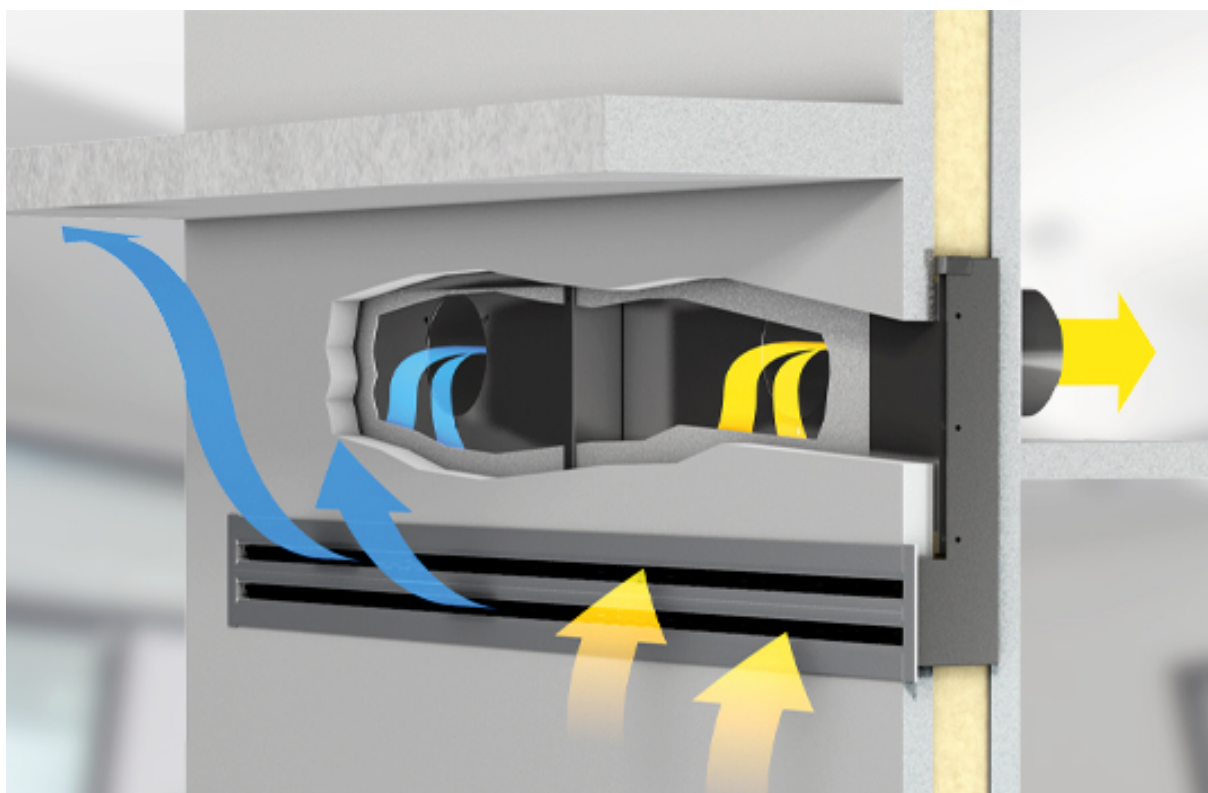


Fig. 1: KSW at a glance

1	Extract air spigot	2	Supply air spigot
3	Output front (1-slot version)	4	Output front (2-slot version)

### 5.2 Brief description

The KSW is a combined diffuser for use in drywalls. The diffuser combines a supply and extract air opening in a single system. The visible outlet front runs continuously so that the opening has the appearance of a continuous slot.



## 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 Installation situation (unit installed)

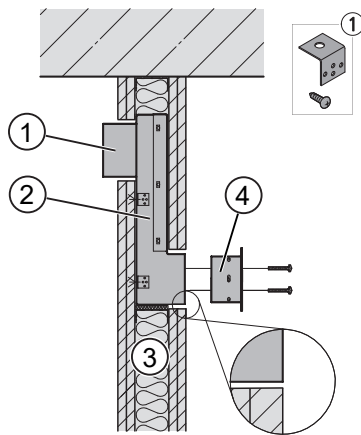


Fig. 2: KSW installation situation (cross-section)

1	Supply/exhaust air spigot	2	KSW
3	Dry wall, double panelled (A = 100 mm) diffuser front	4	Diffuser front

#### 6.2.2 Installing the KSW in a dry wall

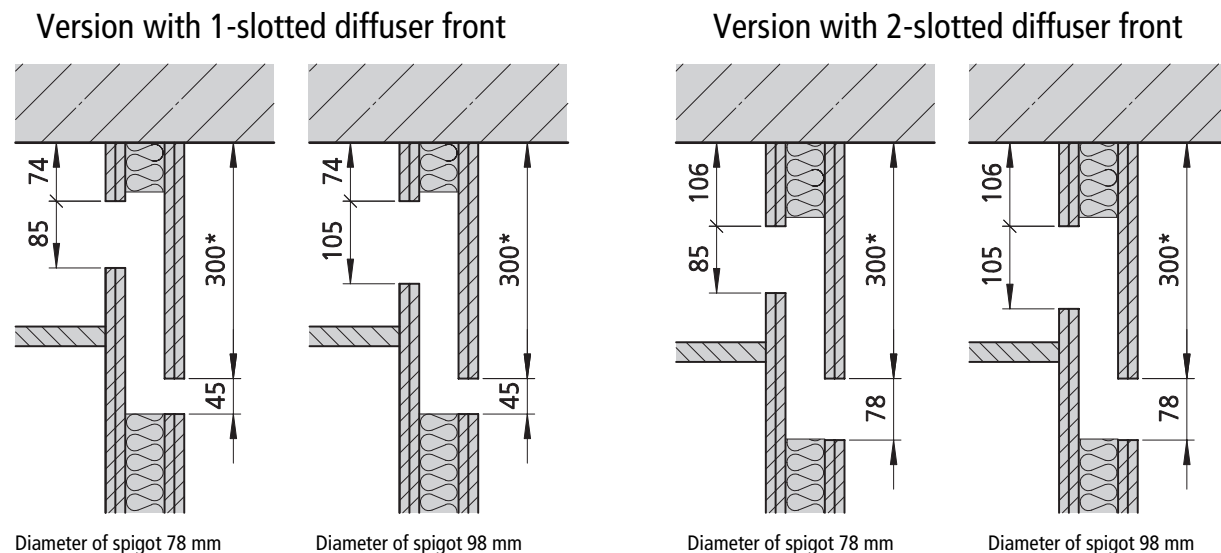


Fig. 3: Dimensions of KSW installation openings

- Provide installation openings in drywall according to the drawing dimensions and the dimension "cut-out width" from the table below.
- (\* Maximum distance to the ceiling)

Width of plenum box [mm]	Cut-out width [mm]	Cut-out height, 1 slit [mm]	Cut-out height, 2 slit [mm]
518	522	45	78
818	822	45	78
1018	1022	45	78
1218	1222	45	78

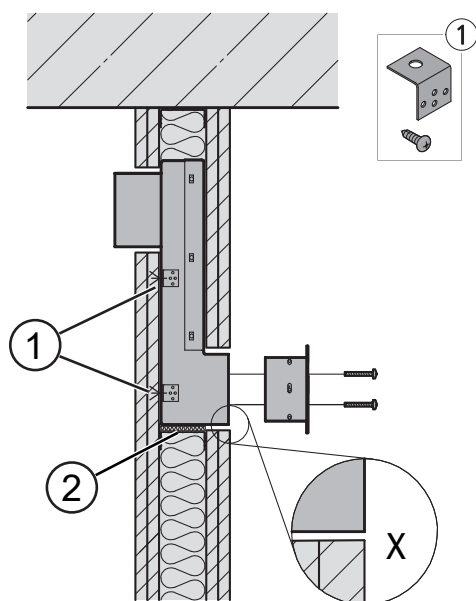


Fig. 4: Installing the KSW

- ▶ Using brackets <sup>①</sup> (by others), fix the KSW to the dry wall.
- ▶ Support the KSW from below with a dry wall profile <sup>②</sup> and provide this with adequate insulation for acoustic decoupling.
- ▶ **Note:** To ensure that the slot profile sits flush with the wall, install the KSW so that its neck lies flush with the gypsum board panel (detail X).

### 6.2.3 Adjusting the eccentric rollers

The air stream can be manually adjusted using the eccentric rollers as shown on the diagram below using a slot-head screwdriver.

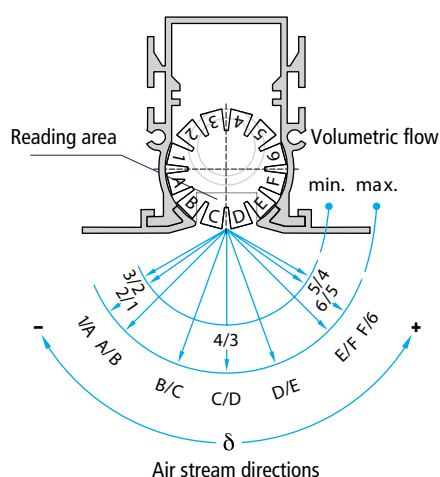


Fig. 5: Control of the air stream direction

### 6.2.4 Adjusting the throttle

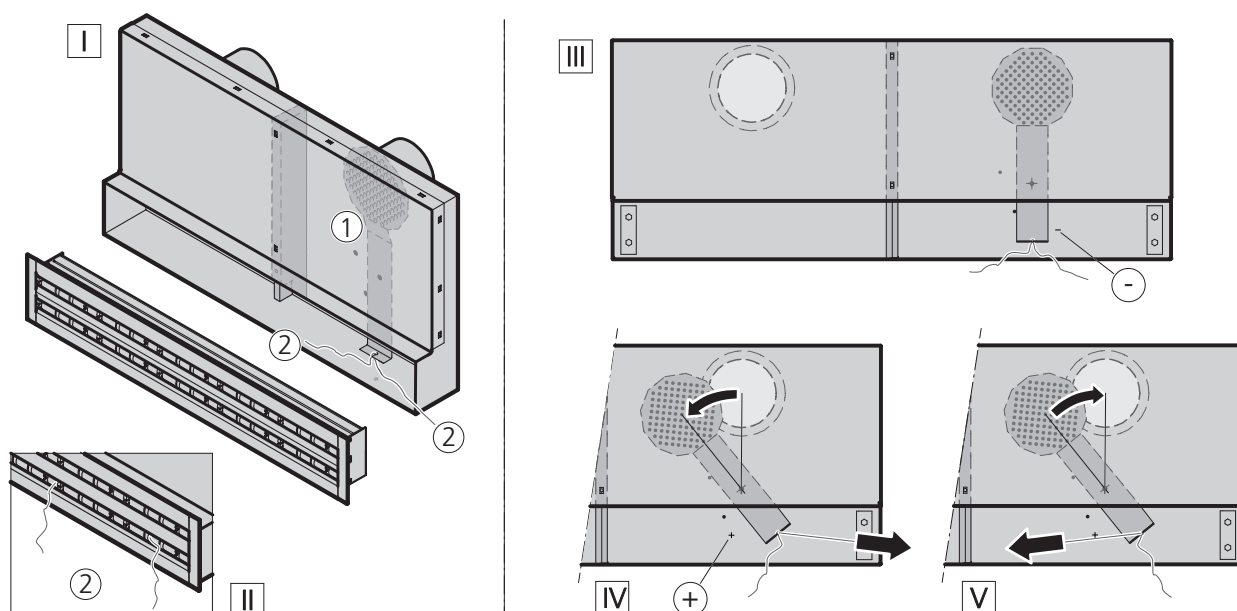


Fig. 6: Adjusting the throttle

1	Throttle	2	Adjustment straps
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- ▶ I: Adjust the throttle <sup>①</sup> with the diffuser front dismantled by pulling the adjustment straps <sup>②</sup>.

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- ▶ II: Adjust the throttle ① with the diffuser front fitted by pulling the adjustment straps ②. Once you have adjusted the throttle, push the adjustment straps back into the plenum of the diffuser front.
- ▶ III: A minus symbol will be visible at the highlighted position when the throttle is closed.
- ▶ IV: Open the throttle by pulling the adjustment straps to the right. The plus symbol will be visible at the highlighted position.
- ▶ V: Close the throttle again by pulling the adjustment straps to the left.

## 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.

### Electrical tests

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

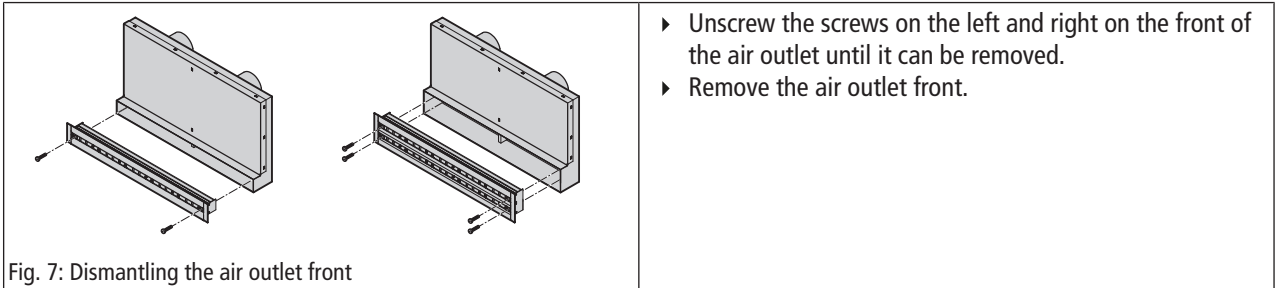
### Air-side checks

- ▶ 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.











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

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