



TROX CFE-Z-PP Air Diffusers Installation Guide

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TROX CFE-Z-PP Air Diffusers



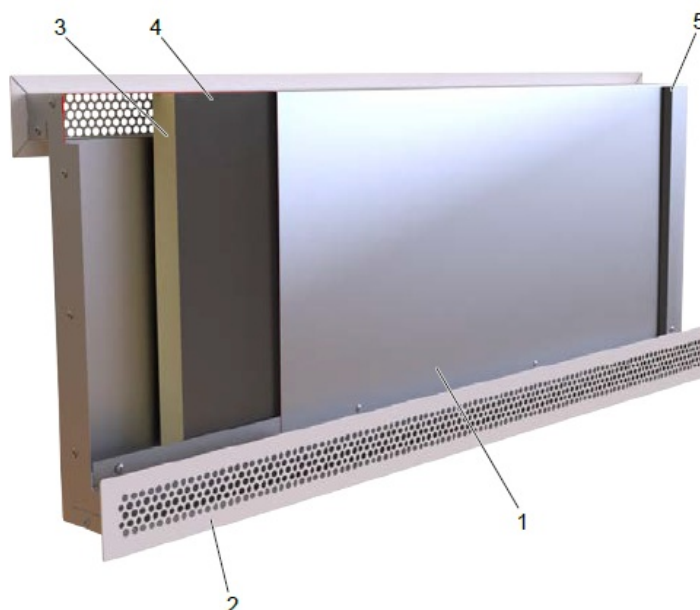
Product Information

The product described in this manual is the Crossflow element air diffuser, manufactured by TROX GmbH. It is designed to be used for ventilation in industrial and comfort areas. The Crossflow element allows for local pressure gradients that enable room air to flow through it. The element has integrated sound insulation material to reduce sound transmission. It can be used as part of a room air conditioning concept but is not connected to any air duct system.

Important Notes

Before starting any work, it is important to read and fully understand this manual. Compliance with the safety notes and instructions in this manual is essential for safe working. The installation, operation, and maintenance of the Crossflow element must comply with local regulations for health and safety at work and general safety regulations. Special hygiene requirements must be observed depending on the area of application. Possible installation in humid rooms, areas with potentially explosive atmospheres, or rooms with dusty or aggressive air must be assessed beforehand, depending on the actual site conditions.

Product Overview



1. Casing

2. Perforated sheet cover
3. Mineral wool
4. Glass fibre fabric
5. Sealing strips

Safety

Correct use

Crossflow elements are used to ventilate rooms in industrial and comfort areas. Local pressure gradients allow the room air to flow through the cross-flow element. Integrated sound insulation material reduces sound transmission through the crossflow element. Crossflow elements can be part of a room air conditioning concept, but are not connected to any air duct system.

Air diffusers are used to supply cooled or heated air to rooms (within the specified supply air temperature differences).

Depending on the area of application, special hygiene requirements must be observed during installation, operation, and maintenance.

Possible installation in humid rooms, areas with potentially explosive atmospheres or rooms with dusty or aggressive air must be assessed beforehand, depending on the actual site conditions.

Staff

Qualification

Trained personnel

Trained personnel are individuals who have sufficient professional or technical training, knowledge and actual experience to enable them to carry out their assigned duties, understand any potential hazards related to the work under consideration, and recognize and avoid any risks involved.

Personal protective equipment

Personal protective equipment must be worn for any work in order to reduce health or safety hazards to a minimum.

The appropriate protective equipment for a job must be worn for as long as the job takes.

Industrial safety helmet

Industrial safety helmets protect the head from falling objects, suspended loads, and the effects of striking the head against stationary objects.

Protective gloves

Protective gloves protect hands from friction, abrasions, punctures, deep cuts, and direct contact with hot surfaces.

Safety shoes

Safety shoes protect the feet from crushing, falling parts and prevent slipping on a slippery floor.

Repair and replacement parts

Only qualified personnel must repair the products, and they have to use genuine replacement parts.

Transport and storage

Delivery check

After delivery, carefully remove the packaging and check the unit for transport damage and completeness. In case of any damage or an incomplete shipment, contact the shipping company and your supplier immediately. After inspection of the goods, put the product back into its packaging to protect it from dust and contamination.

Transport and storage

CAUTION!

Danger of injury from sharp edges, sharp corners and thin sheet metal parts!
Sharp edges, sharp corners and thin sheet metal parts may cause cuts or grazes.

- Be careful when carrying out any work.
- Wear protective gloves, safety shoes and a hard hat.

Please note during transport:

- Be careful when unloading or moving the product, and pay attention to the symbols and information on the packaging.
- If possible, take the product in its transport packaging to the installation site.
- Use only lifting and transport gear designed for the required load.
- During transport, always secure the load against tipping and falling.
- Bulky equipment should be transported by at least two people to prevent injury and damage.

Storage

Please note for storage:

- Store the product only in its original packaging
- Protect the product from the weather
- Protect the product from humidity, dust and contamination
- Storage temperature: -10 °C to 90 °C.
- Relative humidity: 80 % max., no condensation

Packaging

Properly dispose of packaging material.

Staff Qualification

Trained personnel are individuals who have sufficient professional or technical training, knowledge, and actual experience to enable them to carry out their assigned duties, understand any potential hazards related to the work under consideration, and recognize and avoid any risks involved.

Personal Protective Equipment

Personal protective equipment must be worn for any work to reduce health or safety hazards to a minimum. The appropriate protective equipment for a job must be worn for as long as the job takes. Industrial safety helmets protect the head from falling objects, suspended loads, and the effects of striking the head against stationary objects.

Product Usage Instructions

The Crossflow element air diffuser should be installed by trained personnel who have read and understood this manual and any other applicable documentation. Before installation, it is important to assess the actual site conditions and ensure that the installation complies with local regulations for health and safety at work and general safety regulations. Special hygiene requirements must be observed depending on the area of application.

During operation, the Crossflow element should be used to ventilate rooms in industrial and comfort areas. Local pressure gradients allow the room air to flow through the element, and integrated sound insulation material

reduces sound transmission.

The element can be part of a room air conditioning concept but is not connected to any air duct system.

When performing maintenance, it is important to comply with the safety notes and instructions in this manual. Personal protective equipment must be worn to reduce health or safety hazards to a minimum. The actual scope of delivery may differ from the explanations and illustrations provided in this manual for special versions, the use of additional order options, or as a result of recent technological changes.

Assembly

General installation information Installation note:

- For room heights up to 4 m (lower edge of ceiling)
- Wall installation in the lightweight partition wall
- After installation, all devices must be easily accessible for cleaning purposes.
- Fixing material provided by the manufacturer and additional material for sound decoupling.

Protect the product from dust and contamination

Before you install the product, take suitable precautions to protect air distribution components from contamination during installation (VDI 6022). If this is not possible, at least cover the devices or take other precautions to protect them from contamination. In this case, make sure the unit is not in operation. Ensure that all components are clean before you install them. If necessary, clean them thoroughly. If you have to interrupt the installation procedure, protect all openings from the ingress of dust or moisture.

Assembly in lightweight partition walls Installation in lightweight partition walls

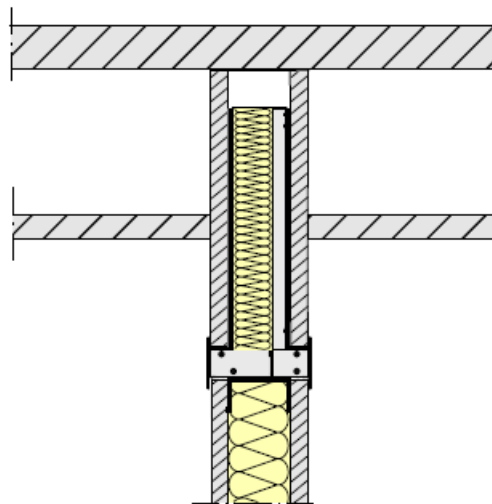


Fig. 2: Installation T-form in lightweight walls

Installation in lightweight partition walls

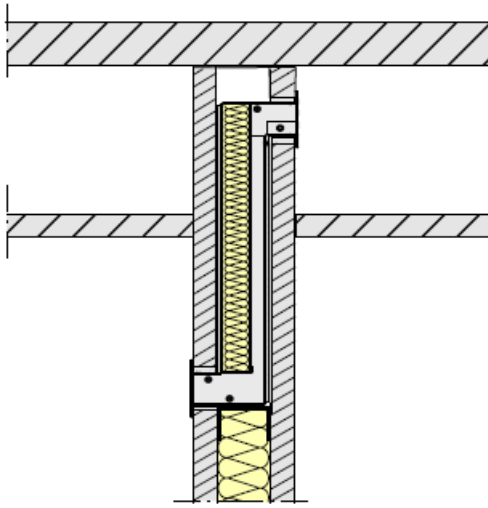
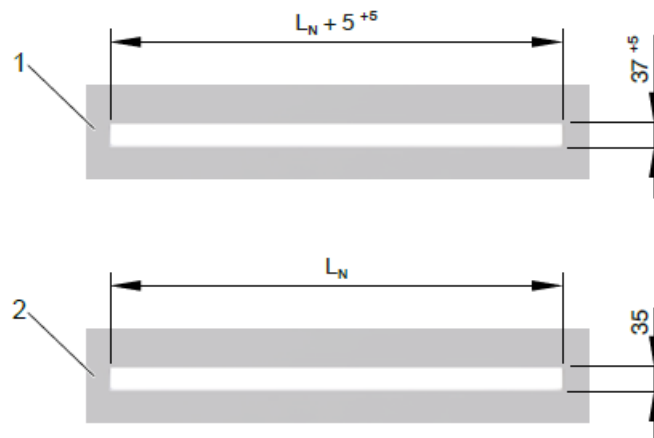


Fig. 3: Installation Z-form in lightweight walls

Installation opening in lightweight walls



1. With recess for diffuser face
2. Without recess for the diffuser face, the maximum wall opening

Installation of crossflow element

Install crossflow element

Personnel:

- Trained personnel
- Protective equipment:
 - Industrial safety helmet
 - Protective gloves
 - Safety shoes

Wall installation in light partition wall.

Construction lengths suitable for the common distances of the metal stud frame, some changes might be required for the CW sections.

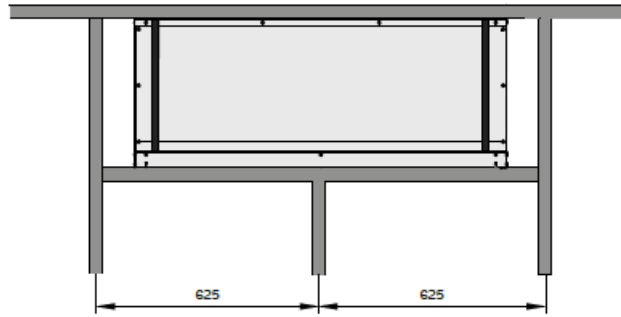
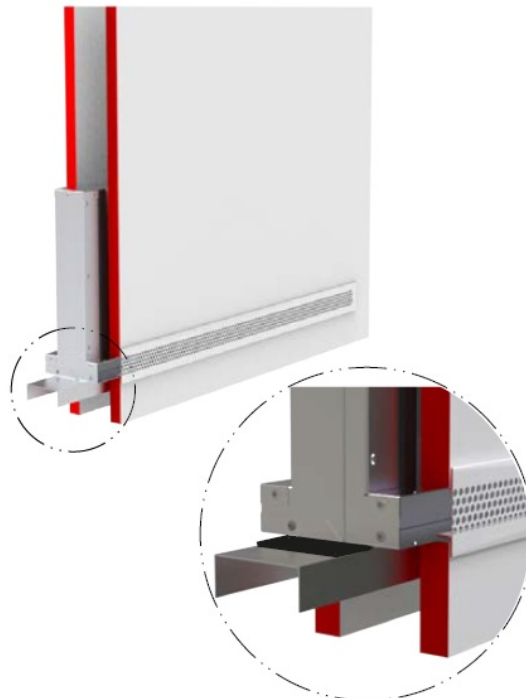


Fig. 5: Change CW sections

Use suitable fixing material and additional material for sound decoupling (not included in delivery). Consider weights Å Chapter 7.1 'Dimensions and weight' on page 7.

For larger dimensions, we recommend that two people carry out the assembly.

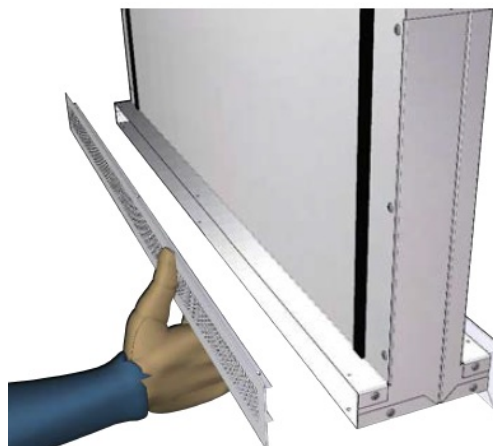
1. Mounting on C-profile.



2. The unit is inserted into the drywall with protective foil.

Sound insulation between C-profile and crossflow element.

The wall is completed with panels etc. and polished. The protective foil remains on the unit until the final coating of the wall to pre-vent soiling.



3. Fitting of the diffuser face

After completion of the drywall and paint work, the protective foil is removed, e.g. by cutting out the unit opening with the help of a carpet knife.

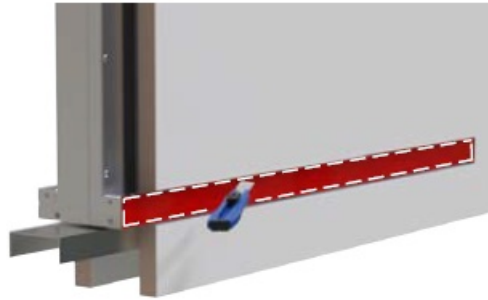
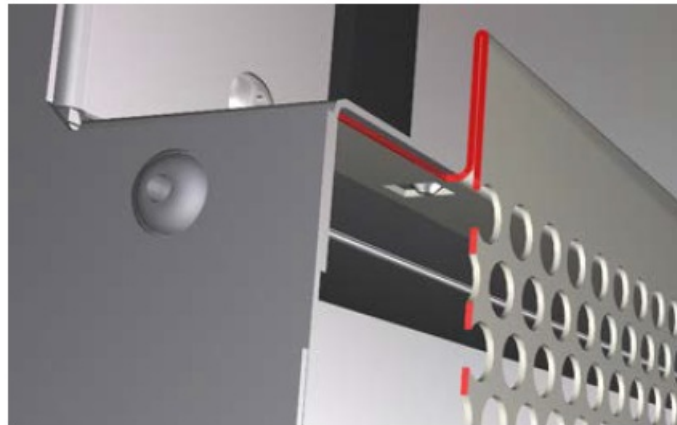


Fig. 7: Protective foil

4. Use both hands to insert the diffuser face into the slot provided in the crossflow element.



5. Mounting the diffuser face – First, carefully compress the diffuser case a little on one side and insert it into the opening of the unit. Then, starting from this point, carefully push the diffuser face over the entire length of the unit into the opening.

6. The diffuser face has to lock into the indentations.

Technical data

Dimensions and weight

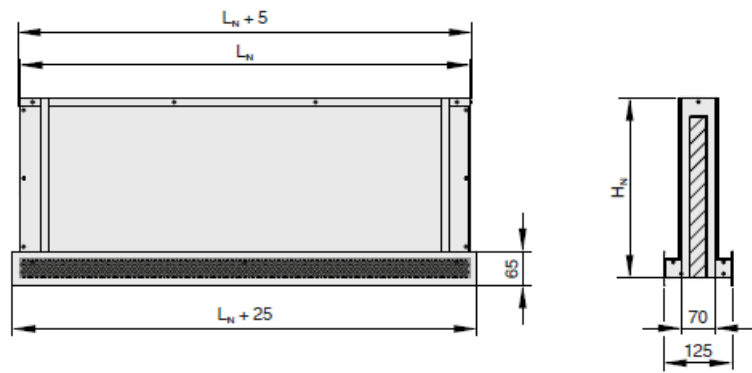


Fig. 8: CFE-T-PP/SC, with recess and diffuser face

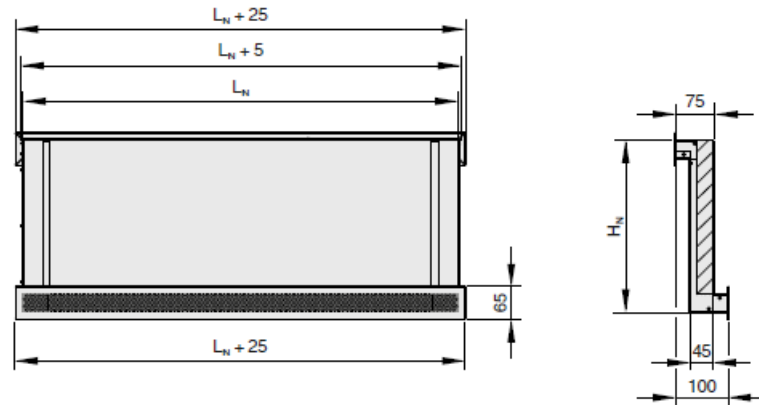


Fig. 9: CFE-Z-PP/SC, with recess and diffuser face

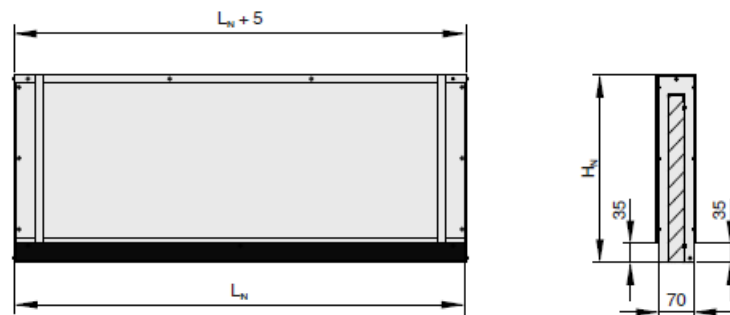


Fig. 10: CFE-T, without recess

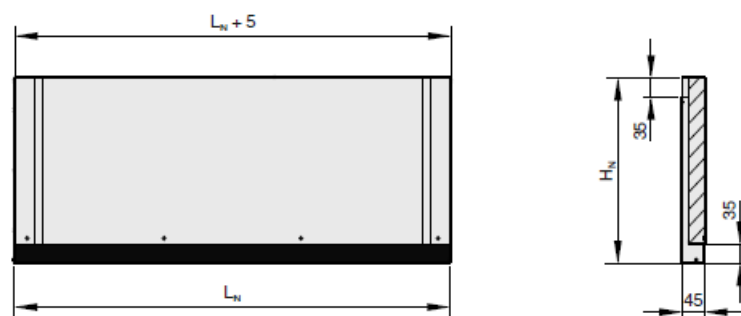


Fig. 11: CFE-Z, without recess

L _N	H _N [mm]	H _N [mm]	H _N [mm]
550	290	340	440
850			
1000			
1175			

L _N	Dif- f user face PP/S C	T-style casing						Z-style casing					
		without recess for di f- fuser face			with recess for diffu ser face			without recess for di f- fuser face			with recess for diffu ser face		
		H _N =290	H _N =340	H _N =440	H _N =290	H _N =340	H _N =440	H _N =290	H _N =340	H _N =440	H _N =290	H _N =340	H _N =440
550	0.3	4.6	5.4	6.8	4.9	5.7	7.2	2.6	3.0	4.0	3.0	3.5	4.3
850	0.5	6.9	8.0	10.3	7.4	8.5	10.8	4.0	4.6	5.8	4.5	5.2	6.4
1000	0.6	8.0	9.4	12.0	8.6	10.0	12.6	4.6	5.4	6.8	5.3	6.0	7.5
1175	0.7	9.4	11.0	14.0	10.0	11.6	14.7	5.4	6.2	8.0	6.2	7.0	8.7
Total weight = 2 × diffuser face + casing (with recess for diffuser face) or casing (without recess for diffuser face) Note: For intermediate sizes, use the weights of the next larger unit size													

Initial commissioning

General information

Before you start commissioning:

- Check that the air diffusers are fitted correctly.
- Remove protective foils, if any.
- Make sure that all air diffusers are clean and free from residues and foreign bodies.

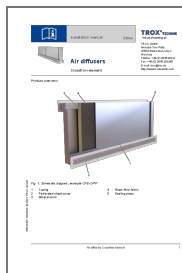
For commissioning, see also VDI 6022, part 1 –Hygiene requirements for ventilation and air-conditioning systems.

Maintenance and cleaning

Please note:

- The cleaning intervals given in the VDI 6022 standard apply.
- Clean surfaces with a damp cloth.
- Use only common household cleaners, do not use any aggressive cleaning agents.
- Do not use cleaning agents that contain chlorine.
- Do not use equipment for removing stubborn contamination, e.g. scrubbing sponges or scouring cream, as it may damage the surfaces.

Documents / Resources



TROX CFE-Z-PP Air Diffusers [pdf] Installation Guide
CFE-Z-PP Air Diffusers, CFE-Z-PP, Air Diffusers, Diffusers

References

- [Homepage | TROX GmbH](#)

Manuals+.