

- ▶ **Freedom of design –
easy and efficient** ▶ ▶

**The FSL-U-ZAS
underfloor ventilation unit**





► The art of handling air ►►

FSL ventilation units are used to generate demand-controlled ventilation for rooms with controlled or limited fresh air flow rates. Filtration of the outside air, heat recovery and thermal treatment are some examples of the diverse range of functions in this unit. Although the units are decentralised, they can also be combined with the central BMS. All of this means that the units can be used for a wide range of applications.

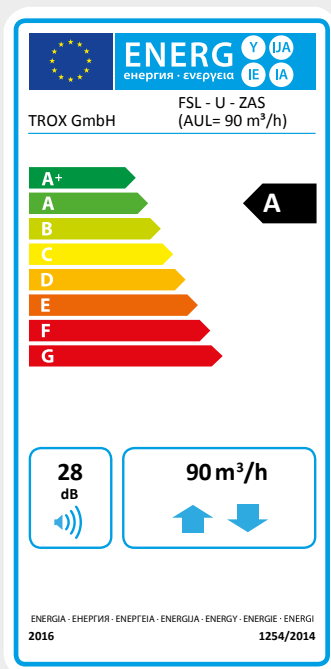
Decentralised ventilation units work in a demand-based manner and are arranged directly in or on external walls and façades. The units are quiet and efficient, as the air is transported along the shortest route possible through noise-insulated ducts.

TROX FSL units can be integrated into new or refurbished buildings for a wide range of façades. Coordinating with the façade designer makes it possible to connect the units to classic perforated façades, façades with parapet elements, façades with multifunctional elements, and unitised façades with floor to ceiling glazing.

We have the right unit type for every installation location – whether that be on an external wall, above or next to sashes and ceiling units. Under floor units are installed adjacent to the façade in the false floor and are the perfect visual and technical solution for buildings with floor to ceiling glazing.

Decentralised ventilation units all have one thing in common: **significant savings when it comes to construction and operating costs.**

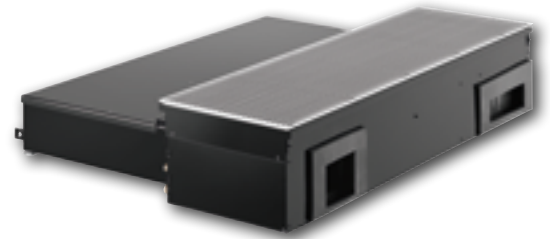
*Energy efficiency class A
in accordance with ErP guideline*



▶ FSL-U-ZAS supply air, extract air and secondary air function ▶▶

The FSL-U-ZAS underfloor ventilation unit has been designed for installation into false floors. It is available as a supply air and extract air combination with constant secondary air addition for the dissipation of increased thermal loads. The extensive range of functions includes secondary air operation, heat recovery all year round, heating and cooling, and protection against frost and condensation forming.

The FSL-U-ZAS controls the required temperature and the air quality based on preset parameters independently of each other. The system can be used as a stand-alone ventilation unit or can be integrated with a customer's central BMS. Its slim construction requires floor voids of only little depth, thereby allowing for rooms of maximum height. The frame construction can be combined with different grille cores.



In the grille area:
H* x W* x D = 240 x 1100 x 340 [mm]
 Under the floor void:
H x W x D = 150 x 1008 x 520 [mm]

H*) 196 – 300 [mm] variable

W*) 1100 – 1700 [mm] variable



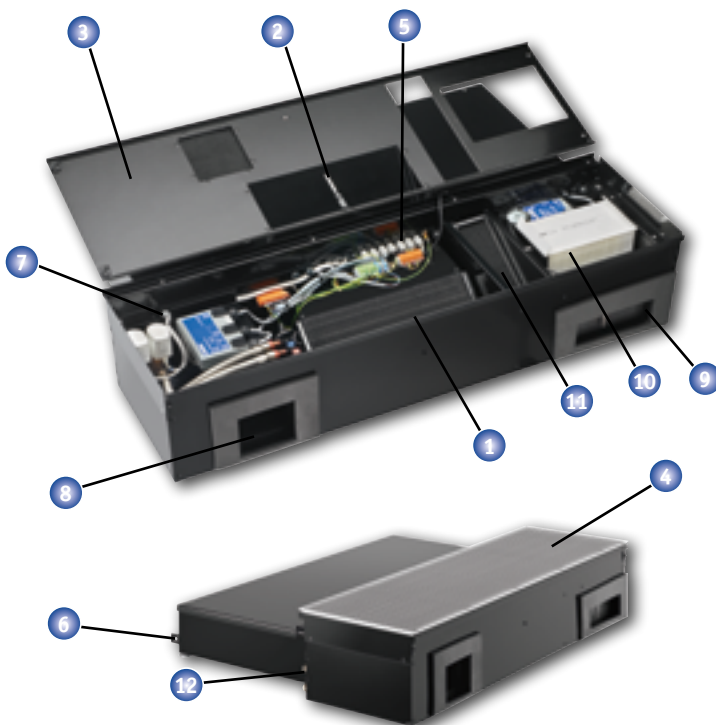
Fresh air flow rate: 60 – 150 m³/h
 Secondary air volume flow rate: 30 – 90 m³/h



Max. room cooling capacity: 400 W
 Max. room heating capacity: 1000 W

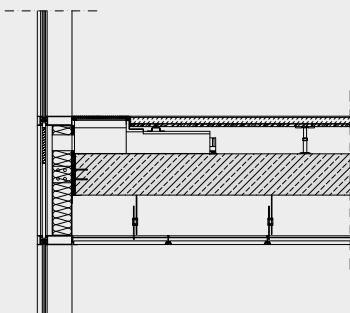


Sound pressure level: 34 dB(A) at 120 m³/h

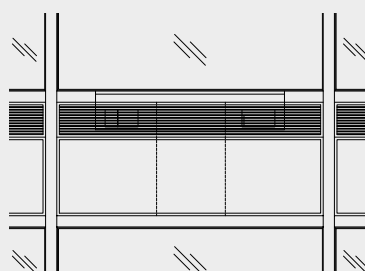


- 1 Heat exchanger
- 2 Supply air temperature sensor
- 3 Inspection access panel
- 4 Grille ledge, grille (optional)
- 5 Internal electric wiring
- 6 Levelling foot
- 7 Control valves
- 8 Exhaust air opening
- 9 Fresh air opening
- 10 F7 outdoor air filter
- 11 G3 extract air filter
- 12 Water connections

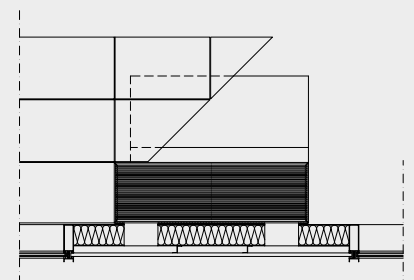
Vertical cross-section: the low installation height allows you to use the slab to slab height effectively



Façade view: complete integration into the floor makes floor to ceiling glazing possible



Horizontal cross-section: different heights and widths for great freedom of design



► All the advantages at a glance ►►

Great freedom of design

- Free grille selection
- Flexible construction of grille height, grille length and recess
- Fresh air and exhaust air ideally separated thanks to a mirrored unit design that effectively prevents exhaust air from being used as supply air
- Floor to ceiling glazing possible, as the unit is completely concealed in the intermediate floor panel
- Live load up to 5 KN/m²



Top energy efficiency

- Year-round use of the frost and condensation-free operation, meaning a significant reduction in heat generator size
- Extra-deep fresh air filter with longer service life for energy-efficient air filtration
- Demand-based, automatic switching between pure supply air operation, pure secondary air operation or mixed air operation
- Energy efficiency class A in accordance with ErP guideline – according to EU Directive 1254/2014



Simple maintenance, maximum hygiene

- Easy and quick inspection and maintenance through the grille
- Components and unit interiors can be cleaned through the grille
- Hygienic and reliable operation throughout the service life thanks to condensation-free heat recovery



High comfort level

- Efficient airflow and air mixing in the room thanks to constant supply air speed regardless of volume flow rate
- Air volume control depending on room air quality and humidity

TROX, thinking of you – every component is easy to maintain and inspect through the grille



The condensation-free heat recovery operation guarantees maximum hygiene and functional reliability throughout the entire service life.

► TROX references ►►





TROX[®] TECHNIK

The art of handling air

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