

FCHV Trench Heaters with Fans

Technical Specifications

1. General Requirements

Forced convection trench heaters with fans Konveka FCHV or equivalent, designed for heating, cooling and ventilation applications. The heating and cooling capacities of the units shall be certified by an independent accredited laboratory according to European standard EN 16430.

2. Casings

Casings are manufactured from stainless steel, steel thickness – 1.2 mm. Fully sealed casings protecting against concrete ingress during installation. Pipe and cable entry points are sealed with rubber grommets protecting them from mechanical contact with the casings. Transverse reinforcement ribs (quantity depending on casing length) protect the casings against deformation during installation. Integrated air flow guiding elements separating incoming and outgoing air streams. Valve connection cover plates – 2 pcs. Stainless steel condensate trays with drain connection fittings. Integrated openings for fresh air duct connection.

3. Fans

Tangential fans with 24 VDC brushless EC type motors, protected by grilles against mechanical damage and ingress of foreign objects.

4. Filters

Incoming air filters supplied as standard.

5. Control Units

Control units are supplied with 24 VDC power supplies and cable connection kits.

6. Heat Exchangers

Heat exchangers are manufactured from copper tubes and aluminium fins. Factory test pressure – 30 bar, maximum allowable working pressure – 25 bar. Heat exchangers are equipped with 1/8" air vents. Tubes and fittings are brazed using copper-silver-phosphorus alloy filler material. Heat exchangers are fixed inside the casings using fastening elements compensating vibration and thermal expansion. Integrated protective elements prevent heat exchangers from contacting steel casing supports due to thermal expansion.

7. Fixing and Adjustment Elements

For fixing the casings to the base, at least 4 fixing elements with sound-insulating pads shall be used, ensuring vibration and sound insulation between the casings and the base.

6–12 height-adjustable support legs with sound-insulating pads (depending on casing length). The legs adapt to uneven floor surfaces. Minimum height adjustment range: 0–30 mm.

8. Decorative Frames

Decorative frames are manufactured from anodized aluminium. Available colours: silver, brown, dark bronze, black. Corner joints are formed using 45° mitre cuts.

9. Mounting Accessories

All fixing accessories required for installation are supplied as standard.

10. Decorative Grilles

Aluminium grille profiles are manufactured from anodized aluminium. Available colours: silver, champagne, dark bronze, black. Profile height – 18 mm, width – 6 mm, spacing between profiles – 12 mm. Oak grille profile height – 18 mm, width – 10 mm, spacing between profiles – 13 mm.

11. Bill of Quantities Description

Forced convection trench heaters Konveka FCHV or equivalent, designed for heating, cooling and ventilation, with:

- fresh air supply connection from the ventilation system;
- sealed stainless steel casings;
- sealing of pipe and cable entry points with protection against mechanical contact with the casings;
- casing reinforcement ribs protecting the casings against deformation;
- height-adjustable support legs capable of bearing the load of the convector itself and pedestrian loads without additional supports. Distance between support legs along the casings shall not exceed 800 mm;
- minimum 4 casing fixing elements for mounting to the base;
- tangential fans with 24 VDC brushless EC type motors;
- control units supplied with 24 VDC power supplies and cable connection kits;
- incoming air filters supplied as standard;
- fan protection against mechanical damage and ingress of foreign objects;
- valve connection cover plates – 2 pcs.;
- anodized aluminium frames;
- copper-aluminium heat exchangers with air vents;
- protective elements preventing contact between heat exchangers and steel casing parts;
- heat exchanger fixing elements;
- stainless steel condensate trays with drain connection fittings;
- maximum allowable working pressure 25 bar;
- anodized aluminium or wooden grilles;
- minimum 2 openings for air supply duct connection;
- all fixing accessories required for installation.

Decorative grilles:

- anodized aluminium profiles;
- profiles connected using steel springs inserted into plastic tubes;
- anodized aluminium tubes used for maintaining spacing between profiles.

For sound insulation purposes, metal casing components shall not be in direct contact with floor structures or the base. The heating and cooling capacities of the units shall be certified by an independent accredited laboratory according to European standard EN 16430.