

**Roofmaster STEF and STOF  
Installation and Maintenance Instructions  
Spare parts**



# Roofmaster STEF and STOF

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**NB.** The power roof fan must be isolated from the mains power supply appr. 2 minutes before starting any maintenance work.

The STEF and STOF power roof ventilators are used as exhaust air fans in ventilation installations. The ventilator can be mounted either on a BOGA roof duct STEZ-01 flat roof socket or STEZ-07 sound attenuator or on a chimney built at site, fitted with the MORA or STEZ-03 mounting frame. The fan section is supported by hinges on one edge of the base plate and can be raised and locked in fully open position for cleaning.

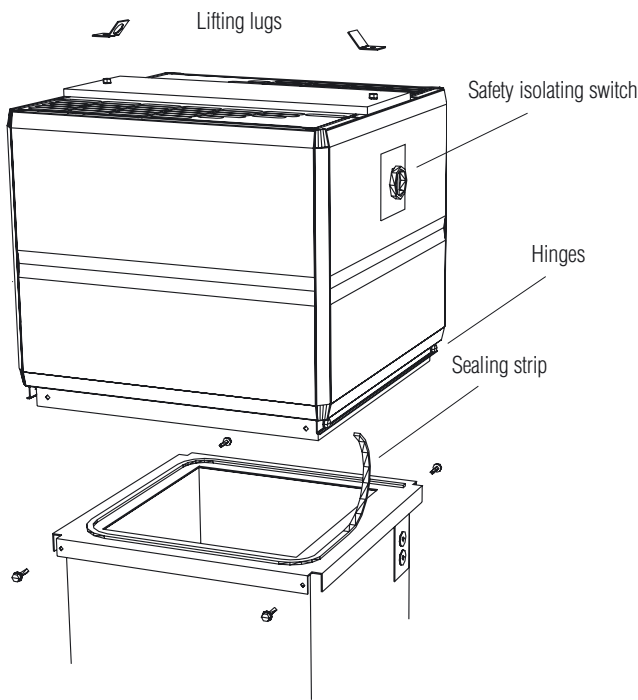


Fig. 1

### To mount the STEF/STOF on the BOGA roof duct (or STEZ-01/STEZ-07)

1. Fit the sealing strip supplied, to the top edge of the roof duct as shown in Figure 1.
2. Lift the STEF or STOF power roof ventilator onto the roof duct. Use the lifting lugs supplied, if necessary. See Figure 1.
 

**Make sure that:**

  - the ventilator base plate is seated over the edges of the chimney duct. Do not damage the sealing strip.
  - the safety isolating switch on the ventilator and that the cable gland on the roof duct are on the same side. This determines the position of the hinges. See Figure 1.
3. Secure the power roof ventilator via its base plate to the roof duct flanges (tapped holes) using the four M8 x 35 screws supplied in the bag of accessories.

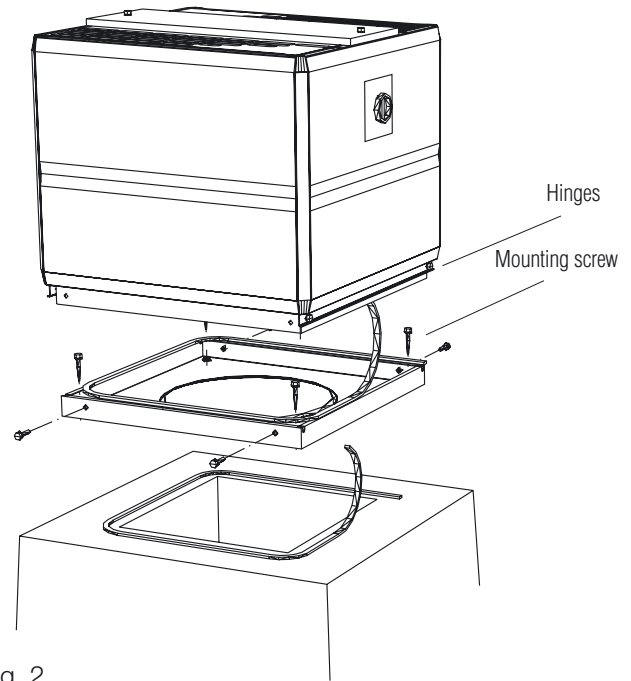


Fig. 2

### To mount the STEF on an in-situ built chimney with the MORA (STEZ-03) mounting frame.

(If the chimney has exactly the same dimensions as those of the BOGA roof duct, no mounting frame will be required, i.e. the ventilator can be mounted as described in the preceding instruction.)

1. Fit the sealing strip, supplied, to the chimney as shown in Figure 2.
2. Carefully mount the MORA mounting frame on the chimney securing it with the four screws supplied or wedge anchors. The mounting frame has four 12 mm dia. holes for the mounting screws. (The joint must bear the wind load when the power roof ventilator is opened for chimney sweeping.) Make sure that the location of the safety isolating switch and the direction of the hinges are appropriate.
3. Fit the sealing strip, supplied, to the upper edge of the mounting frame as shown in Figure 2.
4. Lift the power roof ventilator onto the mounting frame and secure it as described in item 3 under the heading “To mount the STEF on the BOGA roof duct”. See Figure 2.

### Weights

| Size | Weight, kg |      |
|------|------------|------|
|      | STEF       | STOF |
| 1    | 32         | 28   |
| 2    | 32         | 28   |
| 3    | 45         | 39   |
| 4    | 52         | 44   |
| 5    | 73         | 63   |
| 6    | 115        | -    |
| 7    | 205        | -    |

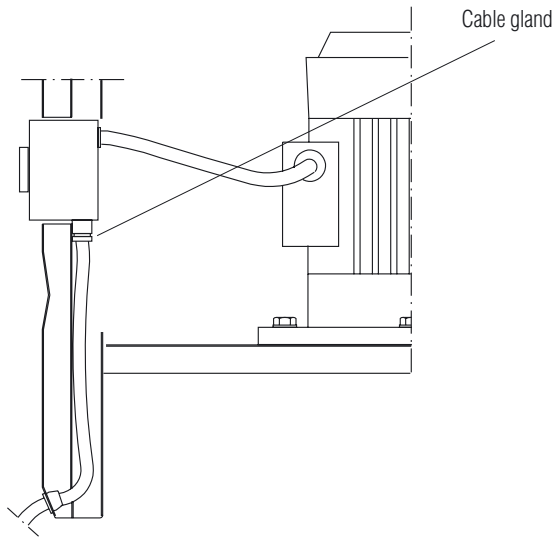


Fig. 3

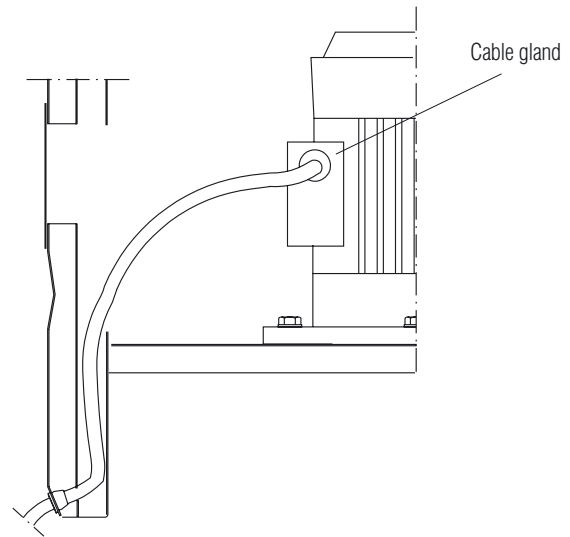


Fig. 4

## Electrical wiring

(To be carried out by an authorised electrician.) The wiring diagrams are on page 5. The wiring diagrams for the speed controllers (STYR), are included in the supply.

A. Power roof ventilator with SAFE safety isolating switch, Figure 3.

If the STEF power roof ventilator has been equipped with a factory-fitted SAFE safety isolating switch, the electrical wiring between the motor and safety isolating switch has already been done at the factory. The safety isolating switch has been mounted in a recess in the side of the ventilator casing. Only the front section of the switch is exposed.

1. Open the safety isolating switch protective cover.
2. Open safety isolating switch cover.
3. Run the flexible power supply cable through the cable seal at the lower edge of the ventilator casing to the safety isolating switch. Adjust the length of the electric cable so that sufficient slack will be available for raising the fan for servicing.
4. Wire the connections, close the safety isolating switch and the cover.
5. Check to make sure that the switch functions correctly.

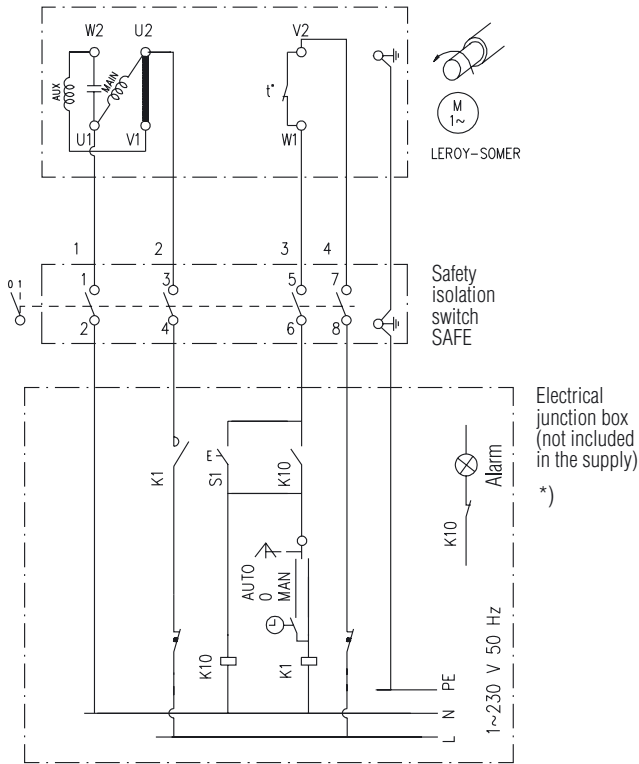
**NB. In case of spark-proof version, the safety isolation switch shall not be mounted in the fan casing. If the spark-proof roof fan is ordered with safety isolation switch, it is mounted externally on the fan casing.**

B. Power roof ventilator with a safety isolating switch, which is to be fitted at the building site.

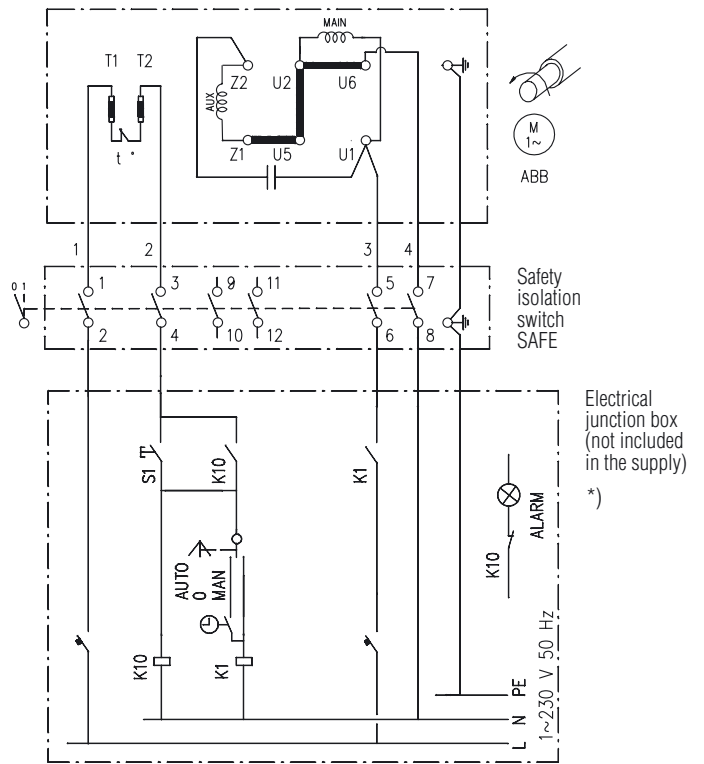
If the power roof ventilator has not been equipped with a factory-fitted safety isolating switch, fig. 4, the safety isolating switch can be mounted at an optional location, for example in the side of the roof duct or in the side of the power roof ventilator.

1. Mount the safety isolating switch at the desired location.
2. Wire the connections inside the safety isolating switch.
3. Open the connection cover on the side of the power roof ventilator. To facilitate the electric connection open the roof of the power roof ventilator and pull up the insulated cover plates of the motor.
4. Open the junction box on the electric motor.
5. Run the flexible power supply cable through the cable seal at the lower edge of the ventilator casing to the connection opening and then to the motor. Adjust the length of the electric cable so that sufficient slack will be available for raising the fan for servicing.
6. Make the electrical connections to the motor.
7. Mount the panels and the top grille.
8. Close the junction box in the switch and make sure that the safety isolating switch functions correctly.

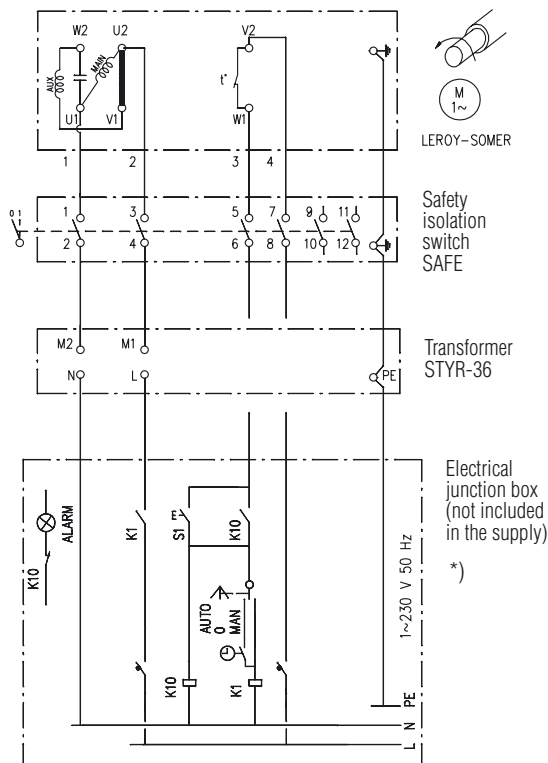
Single-phase motor  
STEF/STOF-1, 2



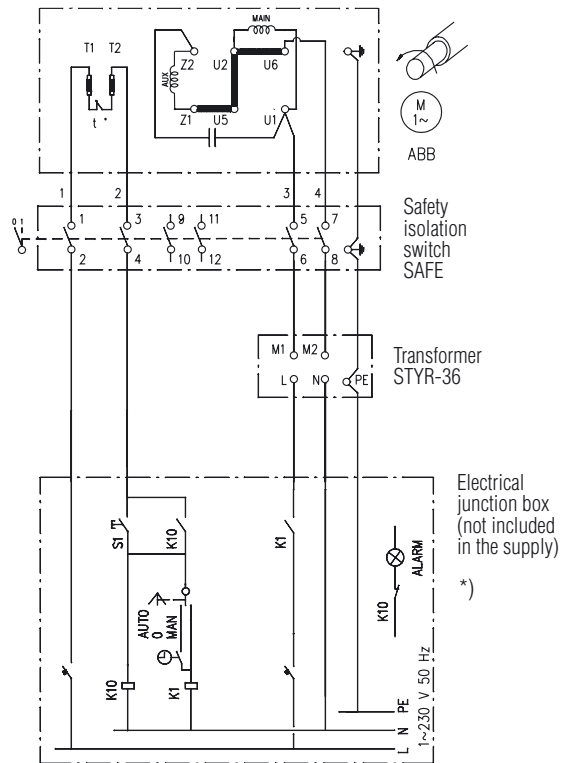
Single-phase motor  
STEF/STOF-3, 4



Single-phase motor with transformer  
STEF/STOF-1, 2



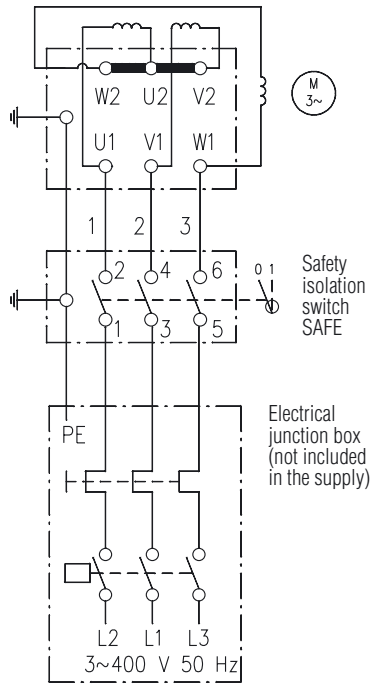
Single-phase motor with transformer  
STEF/STOF-3, 4



We reserve the right to make changes.

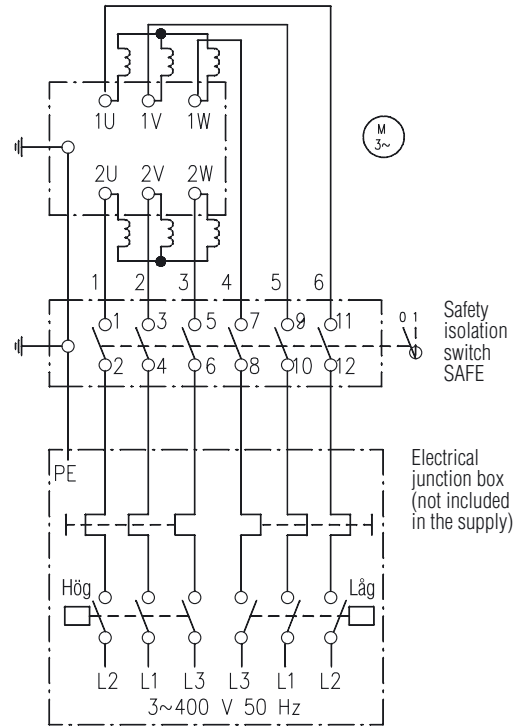
\*) This connection prevents the automatic restart when the thermocontact has switched off the motor.

Three-phase, single speed motor star coupled



(Spark-proof version STEF-7-006-c-9 Δ-coupled 400 V)

Three-phase, two-speed motor with separate windings



## Maintenance

Under normal operating conditions, the power roof ventilator does not require any maintenance. If the ventilator is used for extracting air from polluting environments, such as kitchens, the impeller and the fan casing must be cleaned to remove impurities, if any, deposited on their surfaces. All local regulations must be complied with.

Spark-proof version: the impeller and the motor must be checked at least once a year to guarantee problem-free operation.

### To clean the fan impeller, casing and duct.

1. Isolate the power roof ventilator from the mains power supply by opening the safety isolating switch.
2. To facilitate the opening of sizes 5, 6 and 7, the handles (included in delivery) can be used. The handles are mounted to the casing as shown in Figure 6.
3. Back off the arresting screws about 10 mm, so that the fan section can be raised on its hinges. The stay rod (1 or 2 stay rods depending on the size of ventilator) locks the fan section automatically in the fully open position as shown in Figure 5.
4. Make sure that the stay rod has become locked properly in the open position and that the mounting of the ventilator base plate and mounting frame are in good condition.
5. Clean as required. The sound insulated fan casing surfaces can also be cleaned since the insulation is protected by perforated sheet metal.
6. On having completed the servicing work, release the stay support by depressing the locking lever (see

Figure 5) and lower the fan section back to its initial position. Re-tighten the arresting screws. The fan casing can also be cleaned from the top after opening the top grille.

### To change the motor and the fan impeller

1. Isolate the power roof ventilator from the mains power supply by opening the safety isolating switch.
2. Open the top grille on the power roof ventilator and remove the panels.
3. Raise the fan section as you do for cleaning, see items 2 and 3 above.
4. Open the end plate of the fan impeller and prise the impeller off the motor shaft. Note! It is advisable to cover the chimney opening before doing the dismantling, so that parts and tools will not inadvertently fall down the chimney.
5. Lower the fan section, remove the electrical cables from the junction box and remove the fan from its mounting plate.
6. Mount a new motor and fan impeller in the reverse order.
7. Close the power roof ventilator, start it and listen making sure that no abnormal sound or vibration is generated by the power roof ventilator.

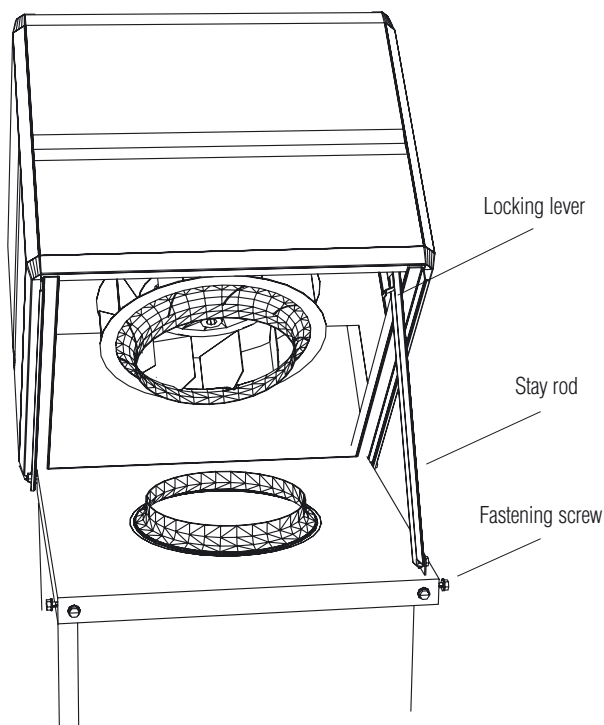


Fig. 5

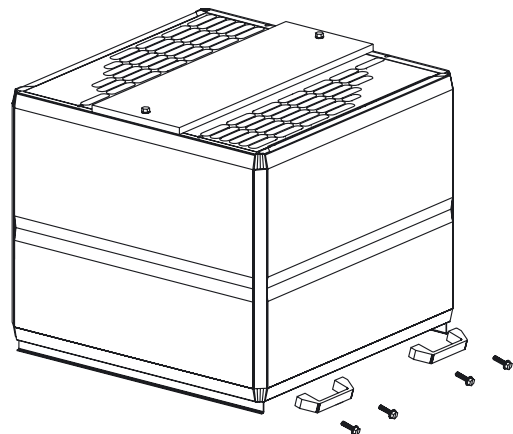


Fig. 6

Spare parts  
 Reservdelar  
 Varaosat  
 Запасные части  
 Varuosad  
 Ersatzteile  
 Reservedele

| Fan code<br>Fläktkod<br>Puhallin<br>Код вентилятора<br>Ventilaatori kood<br>Ventilator<br>Ventilatorkode | Spare parts code<br>Fan Impeller<br>Reservdelskod<br>Fläkthjul<br>Varaosakoodi<br>Puhallinpyörä<br>Код зап. части<br>Крыльчатка<br>Varuosa kood<br>Tiivik<br>Ersatzteilkode<br>Laufrad<br>Reservedelskode<br>Ventilatorhjul | d<br>mm | D   |
|--|---|---------|-----|
| STEF/STOF-1-104-c-1-3  | STEF-99-01-01   | 14      | 245 |
| STEF/STOF-1-004-c-1-3  | STEF-99-01-01   | 14      | 245 |
| STEF/STOF-1-406-c-1-3  | STEF-99-01-01   | 14      | 245 |
| STEF/STOF-1-408-c-1-3  | STEF-99-01-01   | 14      | 245 |
| STEF/STOF-2-104-c-1-3  | STEF-99-01-02   | 14      | 305 |
| STEF/STOF-2-004-c-1-3  | STEF-99-01-02   | 14      | 305 |
| STEF/STOF-2-006-c-1-3  | STEF-99-01-02   | 14      | 305 |
| STEF/STOF-2-406-c-1-3  | STEF-99-01-02   | 14      | 305 |
| STEF/STOF-2-408-c-1-3  | STEF-99-01-02   | 14      | 305 |
| STEF/STOF-3-104-c-1-3  | STEF-99-01-03   | 14      | 372 |
| STEF/STOF-3-004-c-1-3  | STEF-99-01-04   | 19      | 372 |
| STEF/STOF-3-006-c-1-3  | STEF-99-01-03   | 14      | 372 |
| STEF/STOF-3-406-c-1-3  | STEF-99-01-04   | 19      | 372 |
| STEF/STOF-3-408-c-1-3  | STEF-99-01-04   | 19      | 372 |
| STEF/STOF-4-104-c-1-3  | STEF-99-01-05   | 19      | 410 |
| STEF/STOF-4-004-c-1-3  | STEF-99-01-05   | 19      | 410 |
| STEF/STOF-4-406-c-1-3  | STEF-99-01-05   | 19      | 410 |
| STEF/STOF-4-408-c-1-3  | STEF-99-01-05   | 19      | 410 |
| STEF/STOF-4-006-c-1-3  | STEF-99-01-06   | 14      | 410 |
| STEF/STOF-5-004-c-1-3  | STEF-99-01-07   | 24      | 480 |
| STEF/STOF-5-006-c-1-3  | STEF-99-01-08   | 19      | 480 |
| STEF/STOF-5-408-c-1-3  | STEF-99-01-07   | 24      | 480 |
| STEF-6-006-c-1-3   | STEF-99-01-09   | 24      | 600 |
| STEF-6-612-c-1-3   | STEF-99-01-10   | 28      | 600 |
| STEF-6-812-c-1-3   | STEF-99-01-10   | 28      | 600 |
| STEF-7-006-c-1-3   | STEF-99-01-11   | 38      | 744 |
| STEF-7-008-c-1-3   | STEF-99-01-11   | 38      | 744 |
| STEF-7-612-c-1-3   | STEF-99-01-11   | 38      | 744 |
| STEF-7-812-c-1-3   | STEF-99-01-11   | 38      | 744 |

| Fan code<br>Fläktkod<br>Puhallin<br>Код вентилятора<br>Ventilaatori kood<br>Ventilator<br>Ventilatorkode | Spare parts code<br>Motor<br>Reservdelskod<br>Motor<br>Varaosakoodi<br>Moottori<br>Код зап. части<br>Двигатель<br>Varuosa kood<br>Mootor<br>Ersatzteilkode<br>Motor<br>Reservedelskode<br>Motor | d<br>mm | IEC |
|--|---|---------|-----|
| STEF/STOF-1-104-c-1-3  | STEF-99-02-01   | 14      | 71  |
| STEF/STOF-1-004-c-1-3  | STEF-99-02-37   | 14      | 63  |
| STEF/STOF-1-406-c-1-3  | STEF-99-02-39   | 14      | 71  |
| STEF/STOF-1-408-c-1-3  | STEF-99-02-38   | 14      | 71  |
| STEF/STOF-2-104-c-1-3  | STEF-99-02-04   | 14      | 71  |
| STEF/STOF-2-004-c-1-3  | STEF-99-02-37   | 14      | 63  |
| STEF/STOF-2-006-c-1-3  | STEF-99-02-40   | 14      | 71  |
| STEF/STOF-2-406-c-1-3  | STEF-99-02-39   | 14      | 71  |
| STEF/STOF-2-408-c-1-3  | STEF-99-02-38   | 14      | 71  |
| STEF/STOF-3-104-c-1-3  | STEF-99-02-08   | 14      | 71  |
| STEF/STOF-3-004-c-1-3  | STEF-99-02-14   | 19      | 71  |
| STEF/STOF-3-006-c-1-3  | STEF-99-02-40   | 14      | 71  |
| STEF/STOF-3-406-c-1-3  | STEF-99-02-15   | 19      | 80  |
| STEF/STOF-3-408-c-1-3  | STEF-99-02-16   | 19      | 80  |
| STEF/STOF-4-104-c-1-3  | STEF-99-02-13   | 19      | 80  |
| STEF/STOF-4-004-c-1-3  | STEF-99-02-32   | 19      | 80  |
| STEF/STOF-4-406-c-1-3  | STEF-99-02-15   | 19      | 80  |
| STEF/STOF-4-408-c-1-3  | STEF-99-02-16   | 19      | 80  |
| STEF/STOF-4-006-c-1-3  | STEF-99-02-33   | 14      | 71  |
| STEF/STOF-5-004-c-1-3  | STEF-99-02-19   | 24      | 90  |
| STEF/STOF-5-006-c-1-3  | STEF-99-02-20   | 19      | 80  |
| STEF/STOF-5-408-c-1-3  | STEF-99-02-35   | 24      | 90  |
| STEF-6-006-c-1-3   | STEF-99-02-23   | 24      | 90  |
| STEF-6-612-c-1-3   | STEF-99-02-24   | 28      | 100 |
| STEF-6-812-c-1-3   | STEF-99-02-25   | 28      | 100 |
| STEF-7-006-c-1-3   | STEF-99-02-26   | 38      | 132 |
| STEF-7-008-c-1-3   | STEF-99-02-27   | 38      | 132 |
| STEF-7-612-c-1-3   | STEF-99-02-28   | 38      | 132 |
| STEF-7-812-c-1-3   | STEF-99-02-29   | 38      | 132 |



Spare parts  
Reservdelar  
Varaosat (savunpoisto)  
Запасные части  
Varuosad  
Ersatzteile  
Reservele

| Fan code<br>Fläktkod<br>Puhallin<br>Код вентилятора<br>Ventilaatori kood<br>Ventilator<br>Ventilatorkode | Spare parts code<br>Fan Impeller<br>Reservdelskod<br>Fläkthjul<br>Varaosakoodi<br>Puhallinpyörä<br>Код зап. части<br>Крыльчатка<br>Varuosa kood<br>Tiivik<br>Ersatzteilkode<br>Laufrad<br>Reservedelskode<br>Ventilatorhjul | d<br>mm | D   | Fan code<br>Fläktkod<br>Puhallin<br>Код вентилятора<br>Ventilaatori kood<br>Ventilator<br>Ventilatorkode | Spare parts code<br>Motor<br>Reservdelskod<br>Motor<br>Varaosakoodi<br>Moottori<br>Код зап. части<br>Двигатель<br>Varuosa kood<br>Mootor<br>Ersatzteilkode<br>Motor<br>Reservedelskode<br>Motor | d<br>mm | IEC |
|--|---|---------|-----|--|---|---------|-----|
| STEF-1-004-c-6-3   | STEF-99-03-01   | 14      | 245 | STEF-1-004-c-6-3   | STEF-99-04-01   | 14      | 63  |
| STEF-1-408-c-6-3   | STEF-99-03-01   | 14      | 245 | STEF-1-408-c-6-3   | STEF-99-04-02   | 14      | 71  |
| STEF-1-406-c-6-3   | STEF-99-03-01   | 14      | 245 | STEF-1-406-c-6-3   | STEF-99-04-03   | 14      | 71  |
| STEF-2-004-c-6-3   | STEF-99-03-02   | 14      | 305 | STEF-2-004-c-6-3   | STEF-99-04-01   | 14      | 63  |
| STEF-2-006-c-6-3   | STEF-99-03-02   | 14      | 305 | STEF-2-006-c-6-3   | STEF-99-04-04   | 14      | 71  |
| STEF-2-408-c-6-3   | STEF-99-03-02   | 14      | 305 | STEF-2-408-c-6-3   | STEF-99-04-02   | 14      | 71  |
| STEF-2-406-c-6-3   | STEF-99-03-02   | 14      | 305 | STEF-2-406-c-6-3   | STEF-99-04-03   | 14      | 71  |
| STEF-3-004-c-6-3   | STEF-99-03-04   | 19      | 372 | STEF-3-004-c-6-3   | STEF-99-04-05   | 19      | 80  |
| STEF-3-006-c-6-3   | STEF-99-03-03   | 14      | 372 | STEF-3-006-c-6-3   | STEF-99-04-04   | 14      | 71  |
| STEF-3-408-c-6-3   | STEF-99-03-04   | 19      | 372 | STEF-3-408-c-6-3   | STEF-99-04-06   | 19      | 80  |
| STEF-3-406-c-6-3   | STEF-99-03-04   | 19      | 372 | STEF-3-406-c-6-3   | STEF-99-04-07   | 19      | 80  |
| STEF-4-004-c-6-3   | STEF-99-03-06   | 19      | 410 | STEF-4-004-c-6-3   | STEF-99-04-08   | 19      | 80  |
| STEF-4-006-c-6-3   | STEF-99-03-05   | 14      | 410 | STEF-4-006-c-6-3   | STEF-99-04-09   | 14      | 71  |
| STEF-4-408-c-6-3   | STEF-99-03-06   | 19      | 410 | STEF-4-408-c-6-3   | STEF-99-04-06   | 19      | 80  |
| STEF-4-406-c-6-3   | STEF-99-03-06   | 19      | 410 | STEF-4-406-c-6-3   | STEF-99-04-07   | 19      | 80  |
| STEF-5-004-c-6-3   | STEF-99-03-08   | 24      | 480 | STEF-5-004-c-6-3   | STEF-99-04-10   | 24      | 90  |
| STEF-5-006-c-6-3   | STEF-99-03-07   | 19      | 480 | STEF-5-006-c-6-3   | STEF-99-04-11   | 19      | 80  |
| STEF-5-408-c-6-3   | STEF-99-03-08   | 24      | 480 | STEF-5-408-c-6-3   | STEF-99-04-12   | 24      | 90  |
| STEF-6-006-c-6-3   | STEF-99-03-09   | 24      | 600 | STEF-6-006-c-6-3   | STEF-99-04-13   | 24      | 90  |
| STEF-6-612-c-6-3   | STEF-99-03-10   | 28      | 600 | STEF-6-612-c-6-3   | STEF-99-04-14   | 28      | 100 |
| STEF-7-006-c-6-3   | STEF-99-03-11   | 38      | 744 | STEF-7-006-c-6-3   | STEF-99-04-15   | 38      | 132 |
| STEF-7-612-c-6-3   | STEF-99-03-11   | 38      | 744 | STEF-7-612-c-6-3   | STEF-99-04-16   | 38      | 132 |



## DECLARATION OF CONFORMITY

**Manufacturer:** Fläkt Woods Oy

**Adress:** Kalevantie 39  
FIN-20520 Turku  
Finland

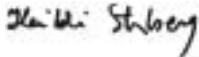
We declare herewith that

**Products:** Roof extraction fan serie type **STEF** and **STOF** with accessories

a) meet the fundamental requirements of the directives below, on condition that the mentioned products have been installed in accordance with the instructions included in the supply. Should any alterations be made in the products, this declaration will no longer apply.

Directives:  
Consolidated Directive for Machinery 98/37/EEC  
Consolidated EMC Directive 89/336/EEC  
Consolidated Low voltage Directive 73/23/EEC  
ATEX Directive 94/9/EC, TC 305/WG2/SG1 WI 00305066 Doc N107-2 (only STEF)

**Date:** 27.5.2004

**Signature:**   
Heikki Stenberg

**Position of signatory:** R&D Manager



## FÖRSÄKRAN OM ÖVERENSSTÄMMELSE

**Tillverkare:** Fläkt Woods Oy

**Adress:** Kalevantie 39  
FIN-20520 Turku  
Finland

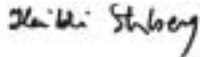
Vi försäkrar härmed att:

**Produkterna:** Takfläktserie typ **STEF** och **STOF** med tillbehören

a) uppfyller de grundläggande krav, som ställs i nedanstående direktiv under förutsättning att de ovannämnda produkter installeras i anläggning enligt medlevererad instruktion. Om ändringar görs på produkten blir denna försäkran ogiltig.

Direktiv:  
Konsoliderad Maskindirektiv 98/37/EEC  
Konsoliderad EMC Direktiv 89/336/EEC  
Konsoliderad Lågspänningsdirektiv 73/23/EEC  
ATEX Direktiv 94/9/EC, TC 305/WG2/SG1 WI 00305066 Doc N107-2 (gäller bara STEF)

**Datum:** 27.5.2004

**Signatur:**   
Heikki Stenberg

**Ställning:** Produktutvecklingschef



## VAATIMUSTENMUKAISUUSVAKUUTUS

**Valmistaja:** Fläkt Woods Oy

**Osoite:** Kalevantie 39  
FIN-20520 Turku  
Finland

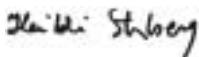
Vakuuttaa täten, että

**Tuotteet:** huippuimurisarja **STEF** ja **STOF** lisätarvikkeineen

a) täyttää allaolevien direktiivien olennaiset vaatimukset edellyttäen, että mainitut tuotteet asennetaan laitokseen noudattaen laitteen mukana seuraavia ohjeita. Jos tuotteisiin tehdään muutoksia, ei tämä vakuutus ole voimassa.

Direktiivit:  
Konsolidoitu Konedirektiivi 98/37/EEC  
Konsolidoitu EMC- direktiivi 89/336/EEC  
Konsolidoitu Pienjännitedirektiivi 73/23/EEC  
ATEX-Direktiivi 94/9/EC, TC 305/WG2/SG1 WI 00305066 Doc N107-2 (vain STEF)

**Päiväys:** 27.5.2004

**Allekirjoitus:**   
Heikki Stenberg

**Asema:** Tuotekehityspäällikkö



## KONFORMITÄTSERKLÄRUNG

**Hesrteller:** Fläkt Woods Oy

**Adresse:** Kalevantie 39  
FIN-20520 Turku  
Finnland

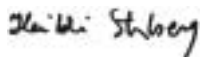
Wir versichern hiermit, daß die

**Produkte:** Dachventilatoren **STEF** und **STOF** samt Zubehörteilen

a) die wesentlichen Gesundheits- und Sicherheitsanforderungen der oben erwähnten Direktiven und die auf sie bezüglichen Änderungen erfüllt, vorausgesetzt, daß bei der installation in Anlagen die mit dem Gerät gelieferten Anweisungen befolgt werden. Werden am Gerät Veränderungen vorgenommen, ist diese Versicherung nicht mehr gültig.

Die Direktiven:  
Die maschinendirektive der EC 98/37/EEC  
EMC-Direktive 89/336/EEC  
Niederspannungsrichtlinie 73/23/EEC  
ATEX Richtlinie 94/9/EG, TC 305/WG2/SG1 WI 00305066 Doc N107-2 (nur STEF)

**Datum:** 27.5.2004

**Unterschrift:**   
Heikki Stenberg

**Position:** Produktentwicklungsleiter





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