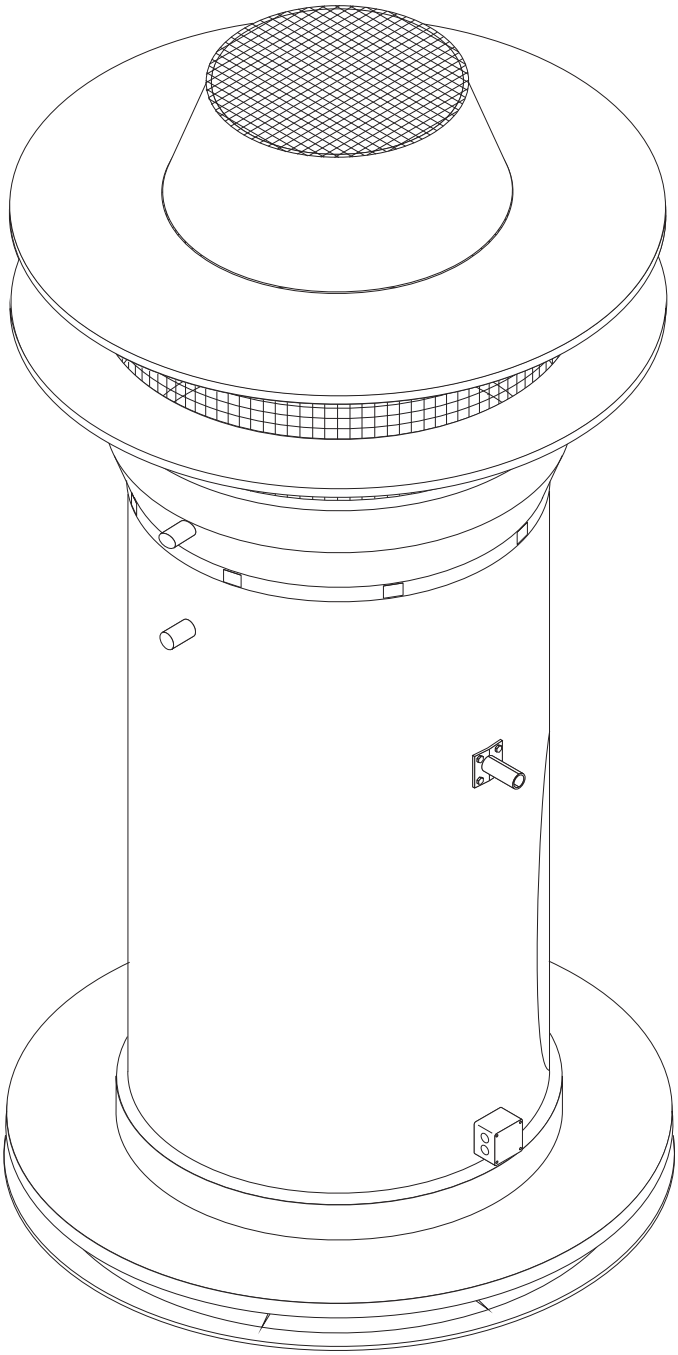
Mounting instructions

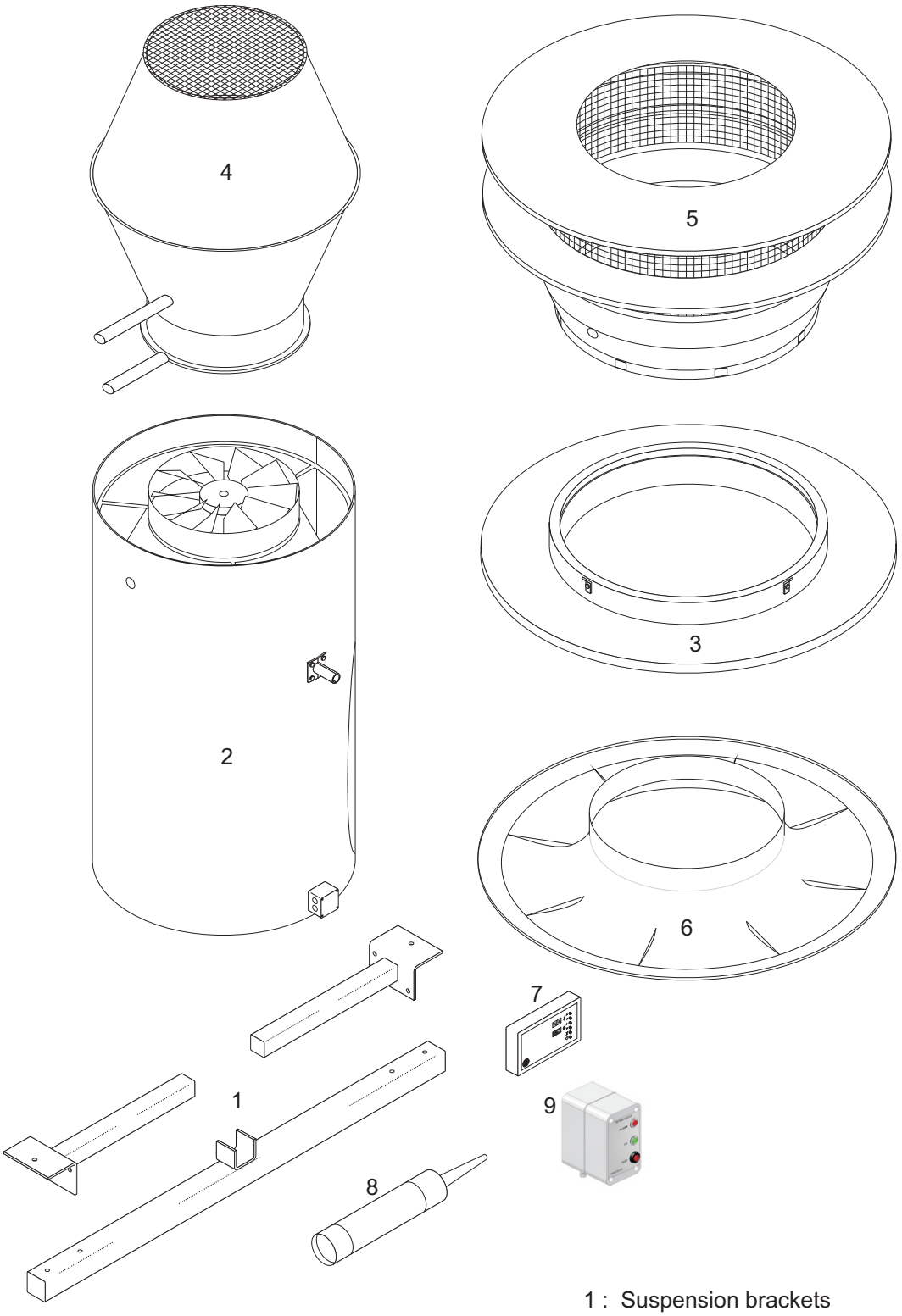
Turbovex TX 3000



TURBOVEX
~ frisk luft til alle

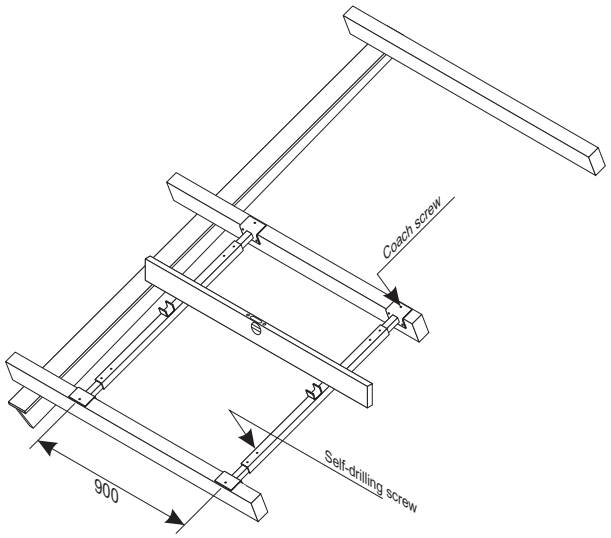
Turbovex A/S Industrivej 45 9600 Aars Tlf. 96 98 14 62 Fax 98 62 42 24 E-mail: info@turbovex.dk

Parts of contents

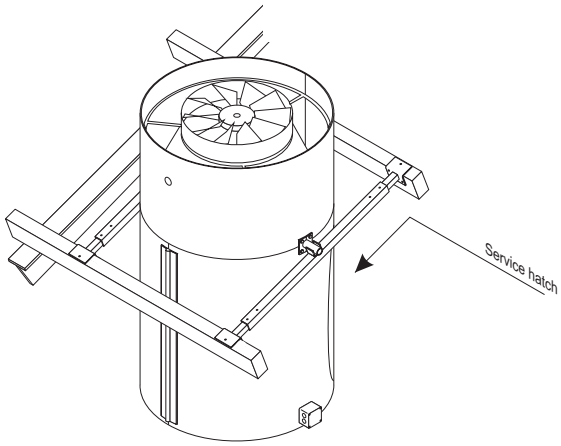


1 : Suspension brackets
2 : Fan and recovery unit
3 : Injection ring
4 : Exhaust cowl
5 : Intake cowl
6 : Injection hood
7 : Digital control
8 : Silicone
9 : Flow Control
Wire and tensions
Various screws and fittings

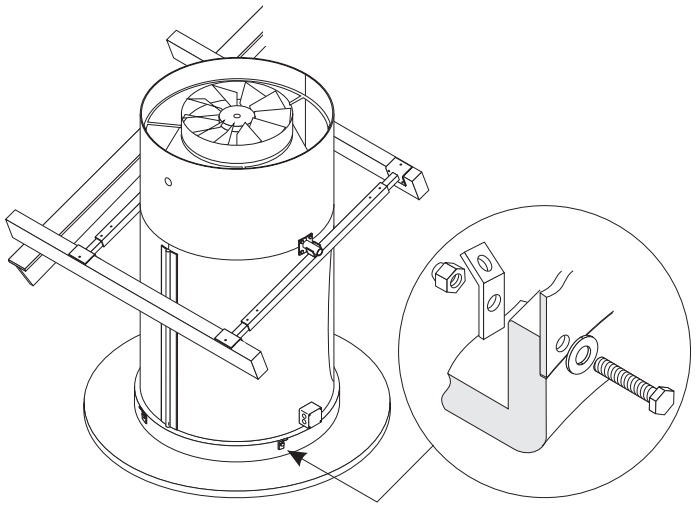
Place the suspension brackets between the purlins with a distance of 900 mm, and secure with coach screews in top and bottom.The fork-brackets must be adjusted to horisontal and fixed in this position by screwing the self-drilling screws through the bores and into the suspension brackets..



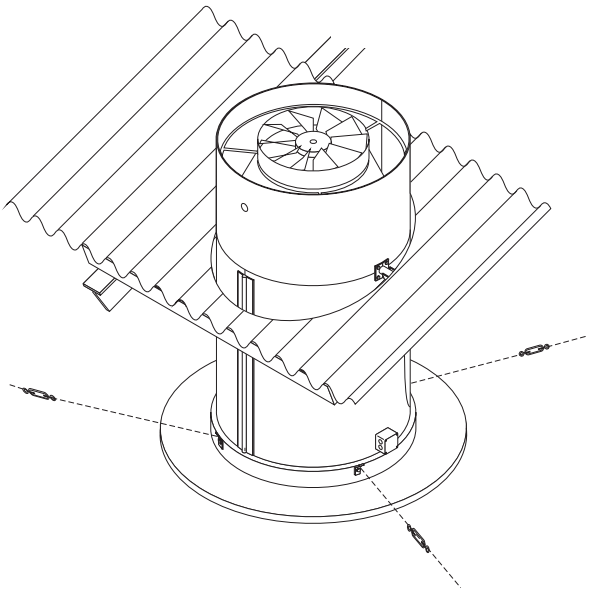
The pre-mounted fan and recovery unit, with a weight of apr. 100 kg., must now be hanged to the suspension brackets so that the “fingers” of the unit will fit into the fork brackets. Be sure to mount the unit so that the service hatch is pointing to the middle of the building so that acces to the hatch is possible under the roof. It is possible to adjust the position of the “fingerbrackets” at the side of the unit.
The unit can be lifted to the brackets from outside, or raised up between the suspensions and turned into place in the forks.



Mount the injection ring to the bottom of the unit so that the pre-bored holes in unit and ring is placed opposite each other. The mounting bolts, with washer, is placed through the bores from the inside of the unit and through the sleeve of the injection ring. Push the wire brackets over the end of the bolts, and tighten it all with the self-locking nuts. (Notice the cut-away in the drawing)



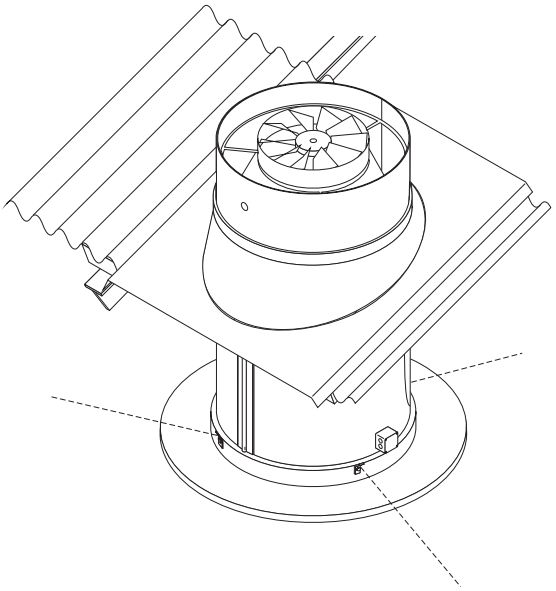
Fasten the wire and tensioners to the brackets and secure the other end in the ceiling or rafter. Tighten the wires so that the unit is fixed and held in a vertical position.
Finish the roof work for preparing the mounting of flashing.



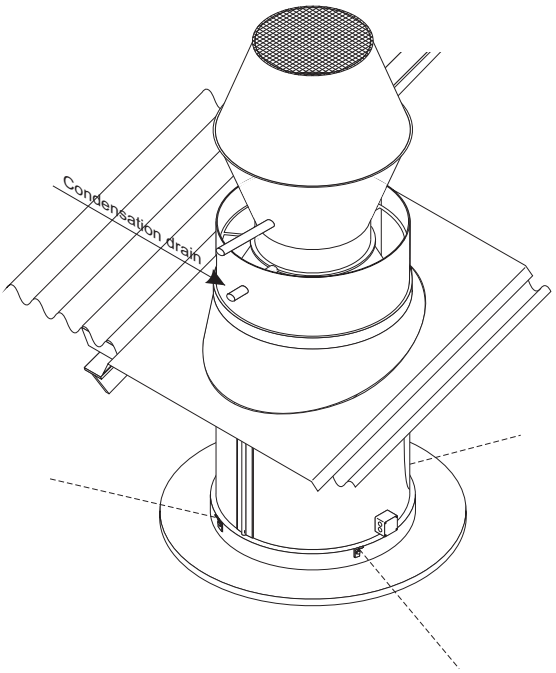
The flashing sheet of soft PVC is now mountet over top of the unit. Cut the hole according to the drawing, and notice that the hole can be placed eighter to the top or the bottem of the sheet, or in any other place, as long as the top of the sheet goes under the roof-plate at the upper side of the unit, to prevent water from running under the sheet.

It is allowed to use self-cutting screws into the unit, as long as the end of the screw does not go further than 5 mm through the wall of the unit. If a longer screw comes through the unit, it can prevent the inside swivel damper to work, and block for the fresh air intake.

Notice the special instruction for mounting the flashing sheet to secure a tight connection around the unit.



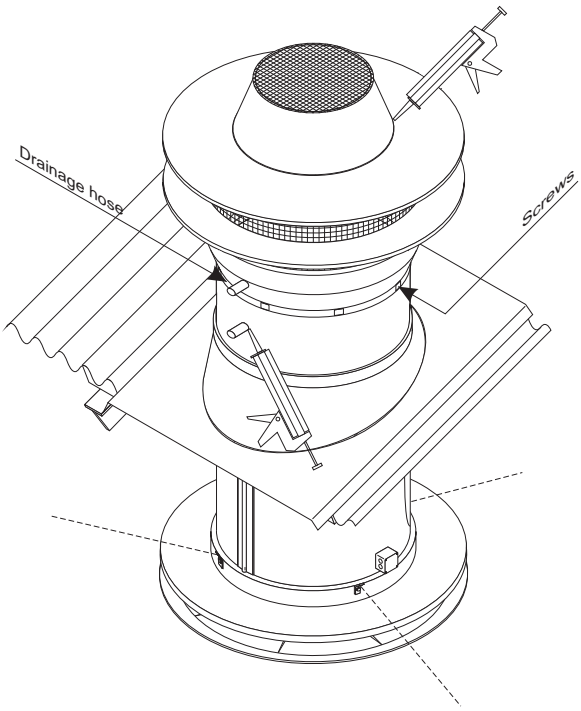
The exhaust cowl is now placed over the housing of the top fan, and at the same time the hose for condensation drain is fixed through the bore in the unit. The cowl will be held in place when the injektion hood is mounted, so **do not** fit any screws to hold the cowl.

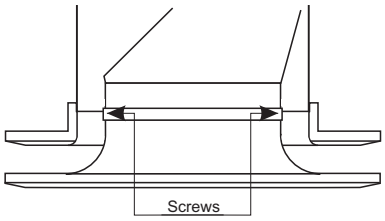


Now the intake cowl is edged over the exhaust cowl, and secured with screws through the pre-drilled holes to the upper part of the unit. Be sure to turn the cowl so that the hose from the condensation drain at the exhaust cowl can go through the bore in the intake cowl.

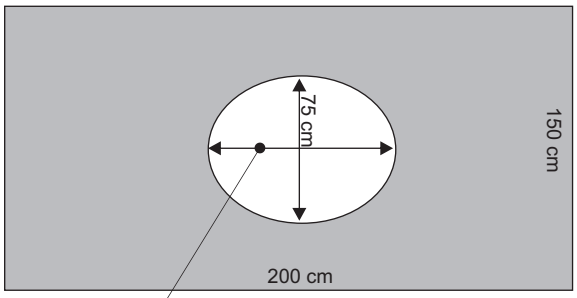
Seal the connection between the two cowls and around the ducts where the hoses are passed through the unit and the intake cowl.

Finish the work by mounting the injection hood inside the unit, by pushing it over the guide ring for the swivel damper, and fix it with screws from the inside.





Flashing sheet

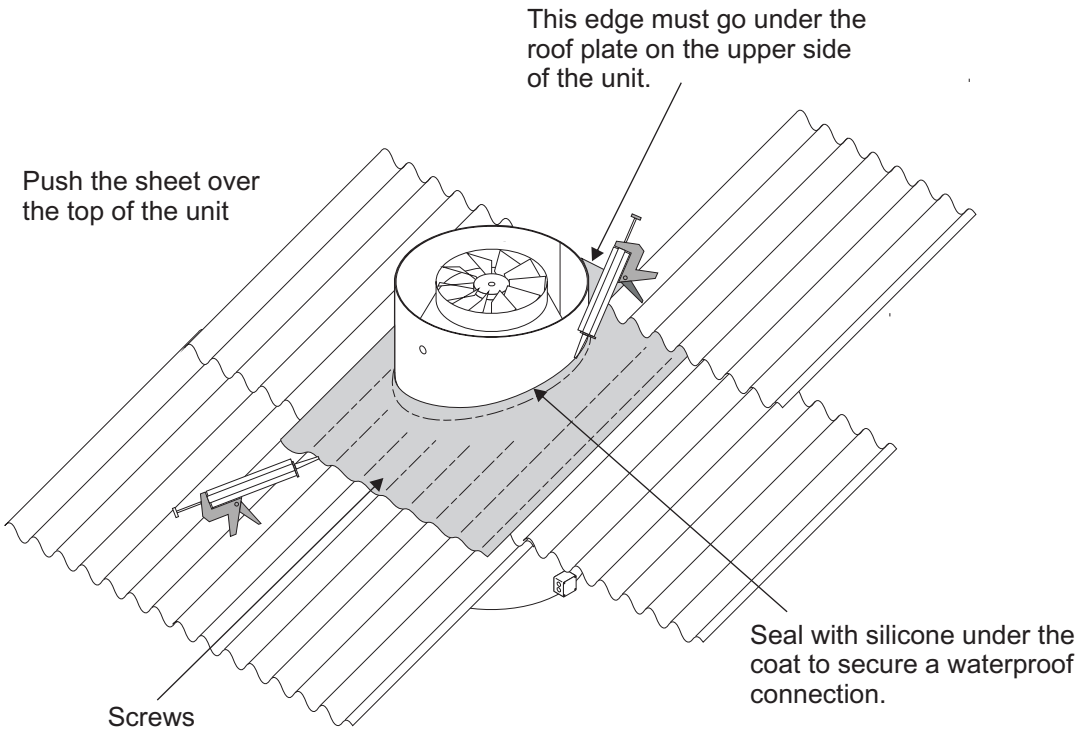


Cut the hole according to
the instructions in this manual.

This measure depends of the pitch of the roof.

Pitch:

0° - 75 cm
10º - 76 cm
15º - 77 cm
20º - 78 cm
25º - 80 cm
30º - 82 cm



In buildings with loft it is possible to extend the unit, so that only the injection ring and injection hood are visible under the ceiling, and the inspection hatch is at the loft.

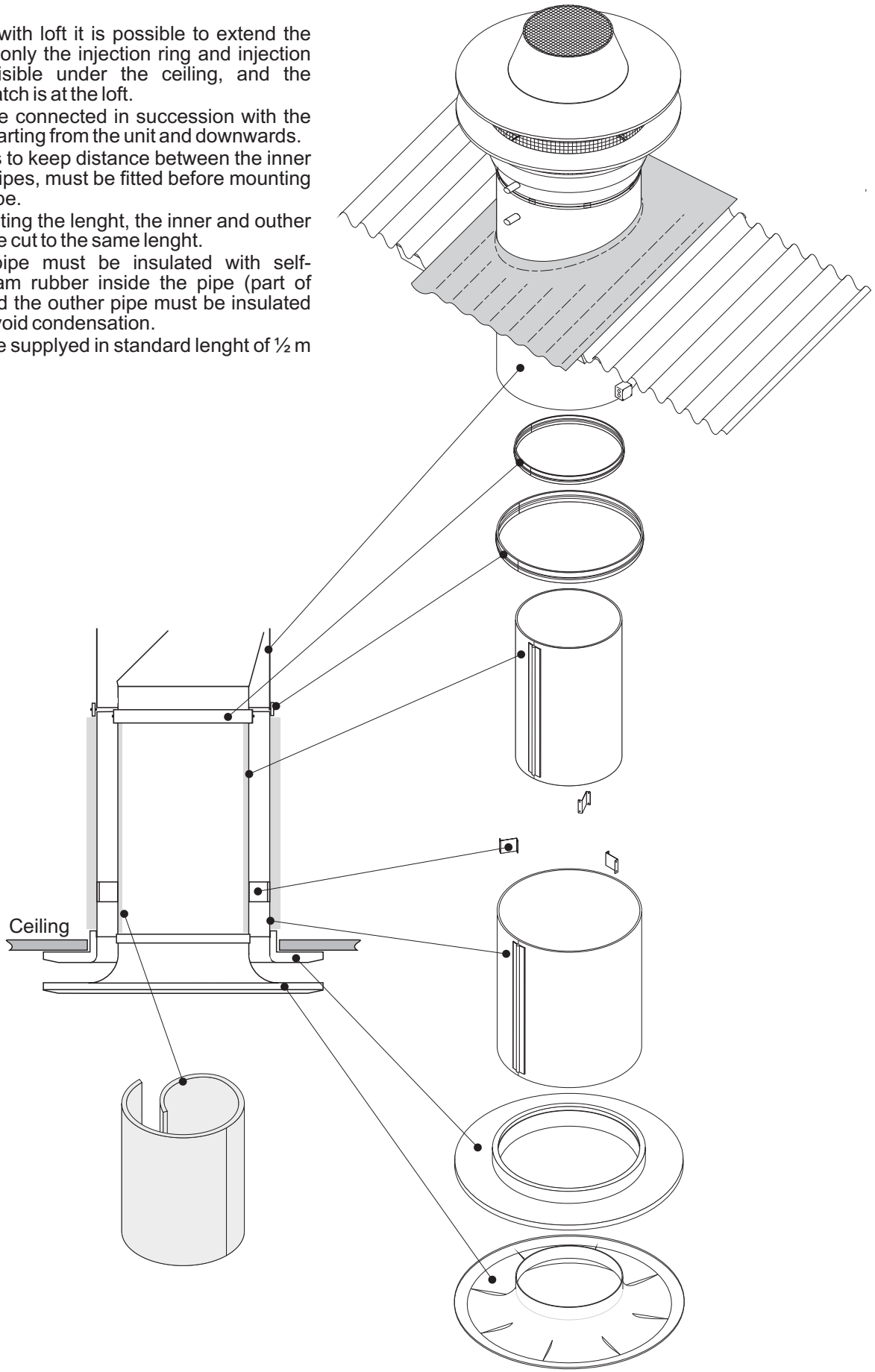
The parts are connected in succession with the illustration starting from the unit and downwards.

The brackets to keep distance between the inner and outher pipes, must be fitted before mounting the outher pipe.

PS! By adjusting the lenght, the inner and outher pipes must be cut to the same lenght.

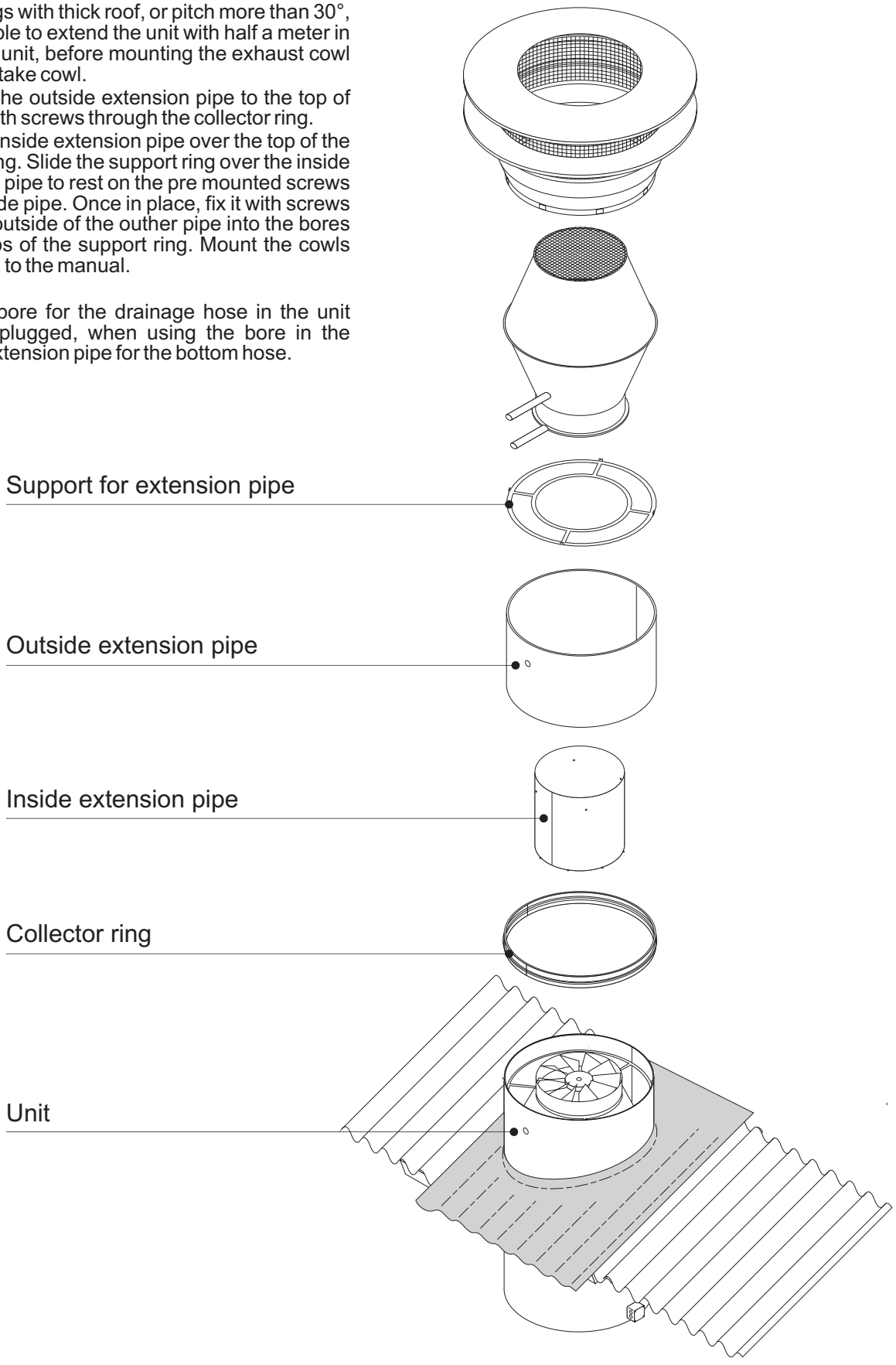
The inner pipe must be insulated with self-adhesive foam rubber inside the pipe (part of delivery), and the outher pipe must be insulated outside, to avoid condensation.

The pipes are supplyed in standard lenght of ½ m and 1 m.



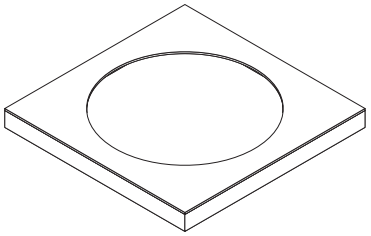
In buildings with thick roof, or pitch more than 30°, it is possible to extend the unit with half a meter in top of the unit, before mounting the exhaust cowl and the intake cowl.
Connect the outside extension pipe to the top of the unit with screws through the collector ring.
Slide the inside extension pipe over the top of the fan housing. Slide the support ring over the inside extension pipe to rest on the pre mounted screws in the inside pipe. Once in place, fix it with screws from the outside of the outher pipe into the bores in the flaps of the support ring. Mount the cowls according to the manual.

PS! The bore for the drainage hose in the unit must be plugged, when using the bore in the outside extension pipe for the bottom hose.

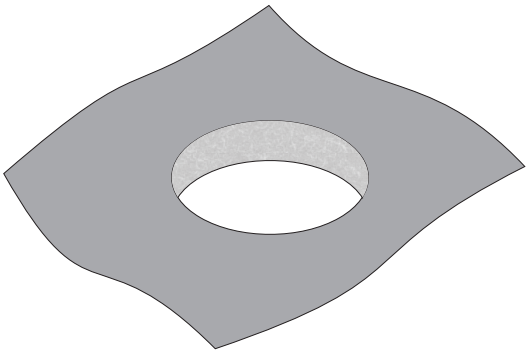


Turbovex TX 3000

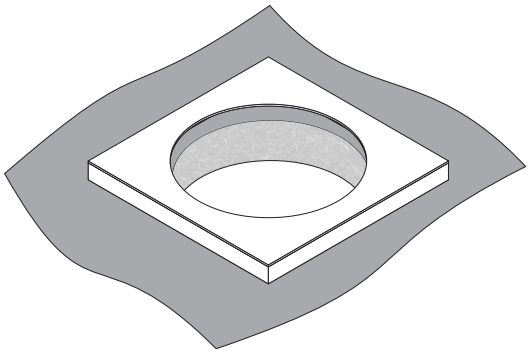
Flashing frame for flat roof.



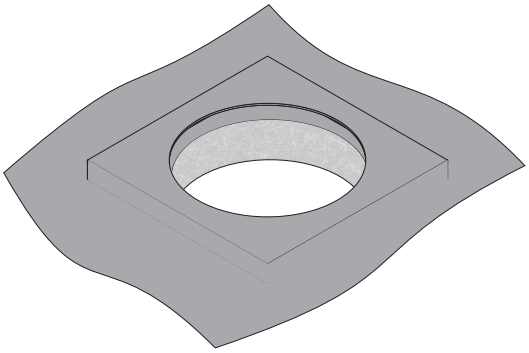
1. Make a bore of Ø 850 mm in the roof.



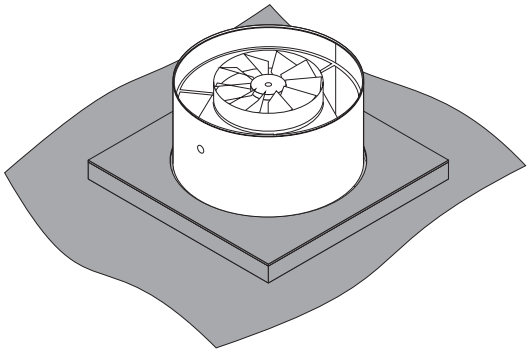
2. Fix the flashing frame over the bore.



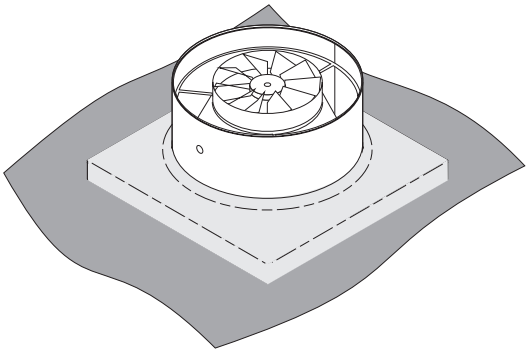
3. Burn the roofing fabric to the frame to seal it.



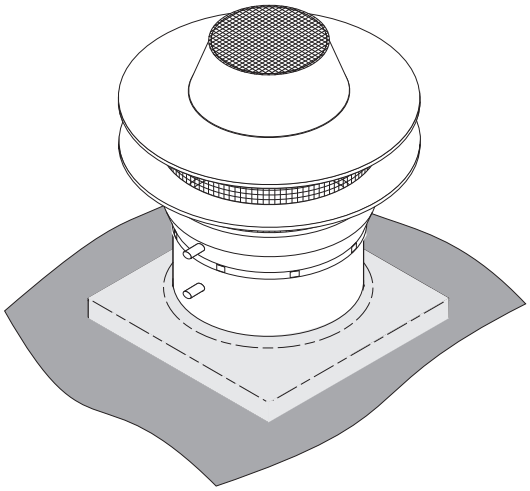
4. Place the unit, from below, in the suspension brackets through the bore in the flashing frame.



5.Cut a hole of Ø 750 mm in the flashing sheet and slide it over the top of the unit. Secure the flashing sheet with screws into the sides of the frame, using silicone underneath the folded sides of the flashing sheet.



6. Mount the cowls as described in the mounting instructions.

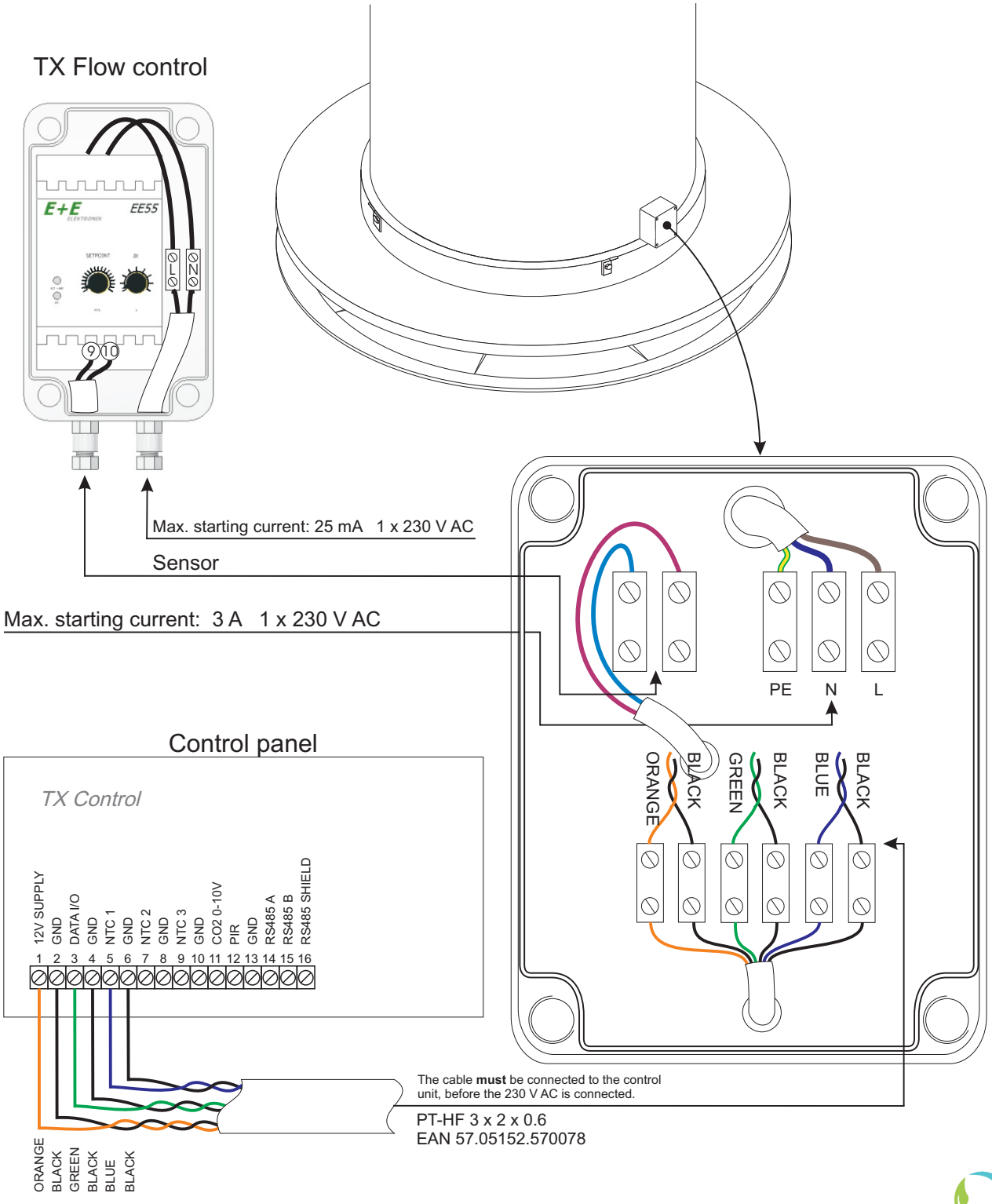


TURBOVEX
~ frisk luft til alle

Power connection

Connect the cables for power supply, TX flow control and control panel to the box at the side of the unit, as shown in the illustrations below.

The pair-twisted data cable must be connected from the unit to the control panel, before applying 230 V AC. This is to prevent shortcut in the 12 V DC circuit, which is supplied from the unit.
A separate supply voltage is connected to the TX flow control.
Cables are not a part of delivery.



Power consumption:

Step 1 - 4 : 340 W - 670 W

TURBOVEX
- frisk luft til alle

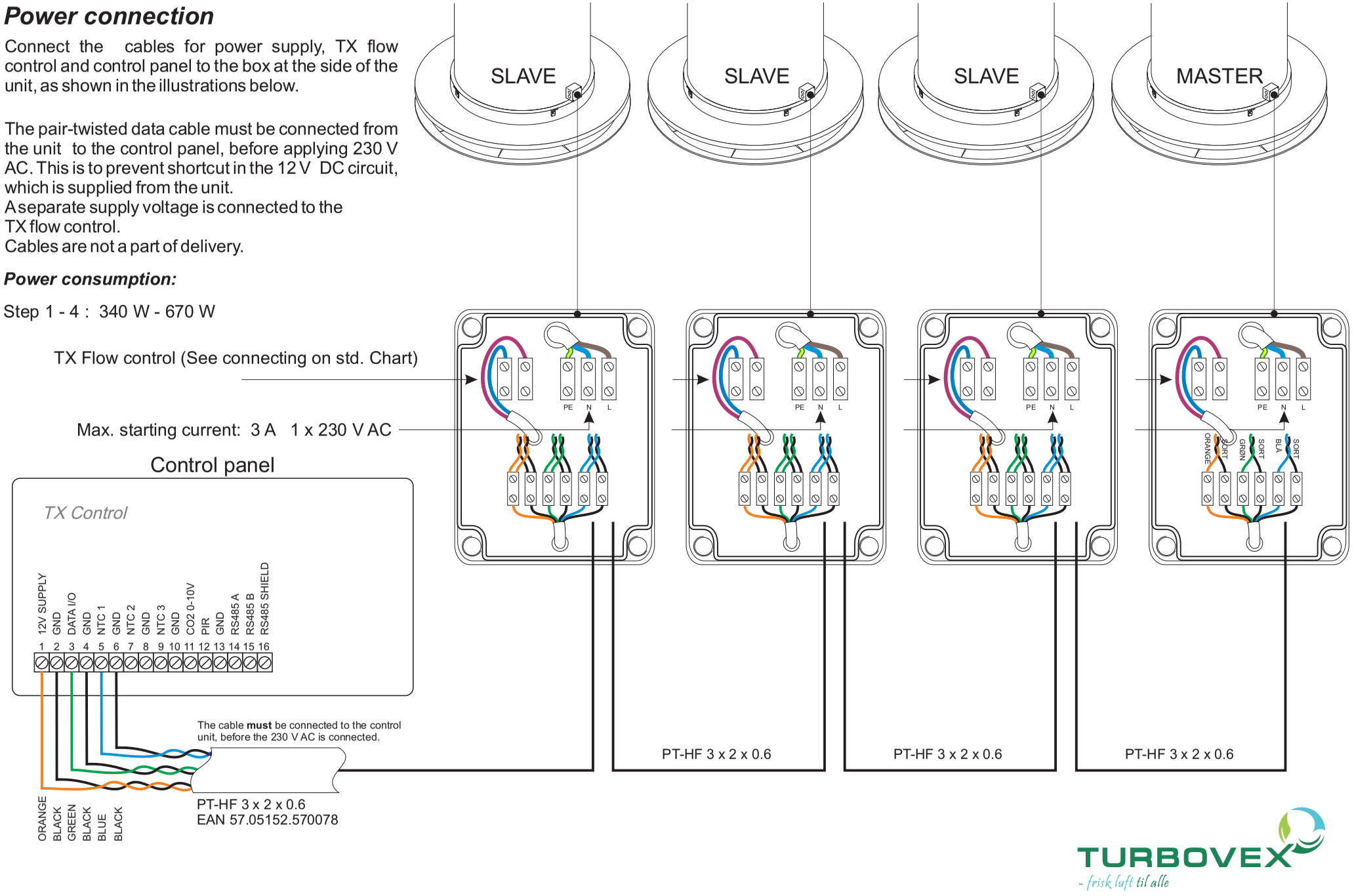
Power connection

Connect the cables for power supply, TX flow control and control panel to the box at the side of the unit, as shown in the illustrations below.

The pair-twisted data cable must be connected from the unit to the control panel, before applying 230 V AC. This is to prevent shortcut in the 12 V DC circuit, which is supplied from the unit.
A separate supply voltage is connected to the TX flow control.
Cables are not a part of delivery.

Power consumption:

Step 1 - 4 : 340 W - 670 W



TURBOVEX
- frisk luft til alle

EC Declaration of Conformity

Manufacturer:

Turbovex A/S
Industrivej 45
9600 Aars
Denmark
Telephone: +45 9698 1462

Dealer:

hereby declare that

Product:

TURBOVEX TX 3000
Ventilation Unit

was manufactured in conformity with the following national standards and technical specifications.

COUNCIL DIRECTIVE of June 1998 on mutual approximation of the laws of the Member States on the safety of machines (89/392/EEC as amended by directive 91/368/EEC) with special reference to Annex 1 of the Directive on essential safety and health requirements in relation to the construction and manufacture of machines.

COUNCIL DIRECTIVE 89/336/EEG of 3 May 1989 on the approximation of the laws of the Member States relating to Electromagnetic Compatibility

EN 292-1
Safety of machinery. Basic concepts, general principles for design. Basic terminology, methodology

EN 292-2
Safety of machinery. Basic concepts, general principles for design.
Technical principles and specifications

EN 294
Safety of machinery; safety distances to prevent danger zones from being reached by the upper limbs.

EN 50081-1
Generic Emissions: Residential, Commercial, and Light Industrial Environments.

EN 50081-2
Generic Emissions: Heavy Industrial Environments.

EN 50082-1
Generic Immunity: Residential, Commercial, and Light Industrial Environments

EN 60269-1
Low-voltage fuses. General requirements.

EMC
Generic emission standard - Part 2 . Industrial environment.

Aars, January 2006

Frede Sørensen

TURBOVEX
~ frisk luft til alle