



Nordic KS3

ART.NO. 800300, 800301



USER MANUAL

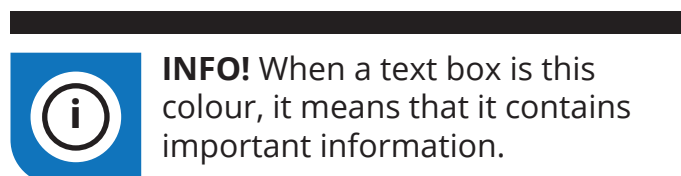
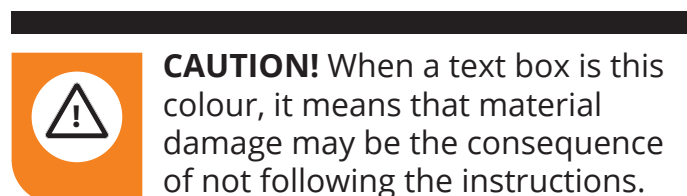
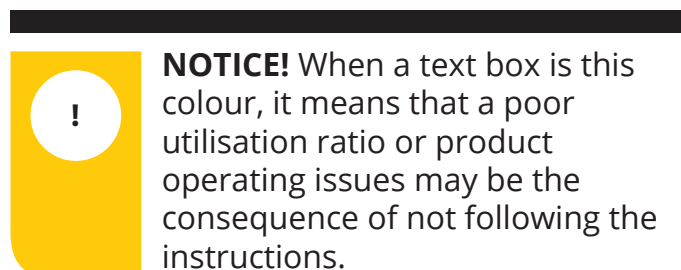
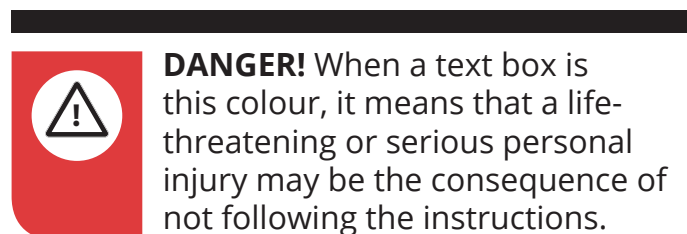
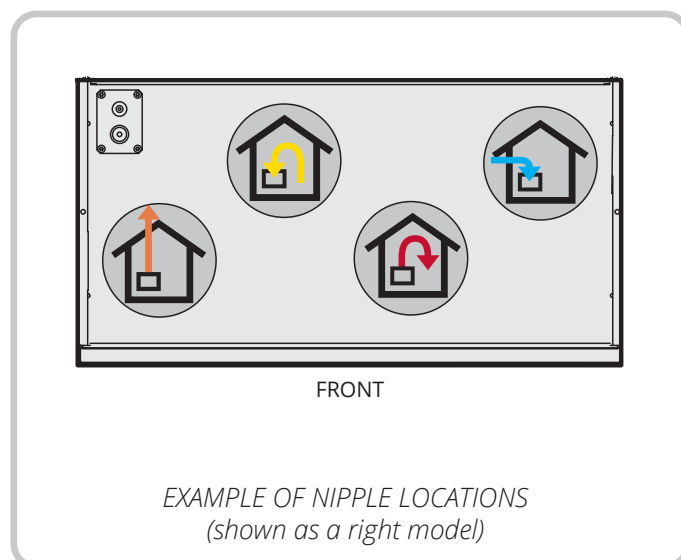
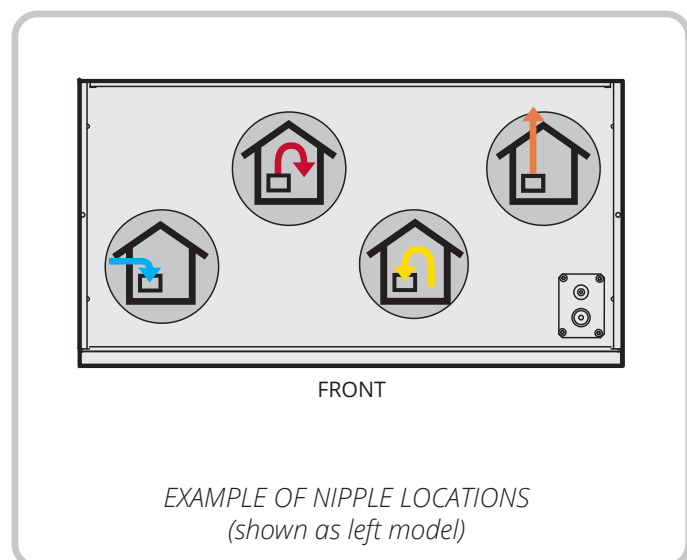
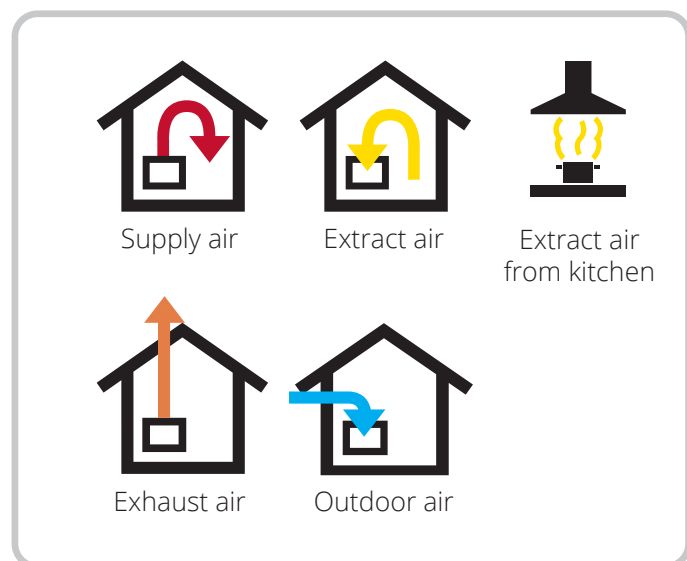
Air handling unit with optional kitchen hood connection

Contents

1.	Automatic control.....	6
2.	Functional description	7
2.1.	Heating element	7
2.2.	Adjustment of airflows.....	7
3.	Door	8
3.1.	Unit door.....	8
3.2.	Design front/External front	8
4.	Cleaning and maintenance	9
4.1.	Information for buyers and users	9
4.2.	Changing the filters	10
4.3.	Cleaning the fans.....	11
4.4.	Changing the brush strips	12
4.5.	Cleaning the rotor	14
5.	Maintenance table	15
6.	Troubleshooting	16
7.	Complaints	17
8.	Disposal	17

Symbols used

These products bear a number of symbols used for labelling the actual product and in installation and user documentation.





SAFETY INSTRUCTIONS



- To avoid the risk of fire, electric shock or injury, read all the safety instructions and warning texts before using the unit.

- There is a fire risk if cleaning is not carried out in accordance with the instructions.
- All electrical connections must be carried out by qualified electricians.
- The unit must not be used to extract combustible or flammable gases.
- The air must not be released into extract air ducts used for air extracted from appliances which burn gas or other fuel.
- CAUTION! Accessible parts may become hot when used together with kitchen equipment.
- Do not flame food under the kitchen hood.
- It is the installer's responsibility to carry out a full safety and function assessment of the appliance.
- WARNING! Failure to install the screws or fixing device in accordance with these instructions may result in electrical hazards.
- Follow the current regulations for extract air.
- Before opening the door: The product must be set to service mode and powered off because the unit contains elements that must not be touched when hot. Refer to the user manual for FlexitGO.
- Connection/disconnection to supply mains and interconnection of separate components must be possible.
- Allow disconnection of the appliance after installation, by accessible plug or a switch in the fixed wiring.
- This appliance may be used by children of 8 years or above or by persons with reduced sensory capacity or reduced physical or mental capacity, or by persons lacking experience or knowledge, provided they have received instruction in the safe use of the appliance or are supervised to ensure

safe use and providing they are aware of the risks.

- The product is not suitable for use by children. Children must not be allowed to play with the appliance. Children must not carry out cleaning or maintenance without supervision.



- This unit is only designed for ventilation air in homes and commercial buildings.
- To maintain a good indoor climate, comply with regulations and avoid condensation damage, the unit must never be stopped apart from during service/ maintenance or in connection with an accident.
- The unit must not be operated without the filters being in place.



- Tumble dryers must not be connected to the unit.
- The room must have a separate, adequate air supply when products such as gas cookers, gas heaters, fireplaces, wood-burning stoves, oil-fired boilers, etc., are used.



- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- **Applicable for Germany market only:** When the range hood and appliances supplied with energy other than electricity are simultaneously in operation, the negative pressure in the room must not exceed 4 Pa (4×10^{-5} bar).

1. Automatic control

These instructions only describe how to use the ventilation unit and do not go into the details of installing/using automatic control.

There are also automatic functions on the product which, if necessary, can override the selected operating mode of the product.

For more information on the automatic control system, see www.flexit.com.



User manual
Flexit GO

- **Flexit GO app**

To control the ventilation unit via a smartphone/tablet, download the app from Google Play or the App Store. See startup guide for installer (116628) and startup guide for end user (116908).

- **NordicPanel control panel (accessory)**

See manual (120018).

Flexit GO-app



Google Play



App Store



For installer, see startup guide (116628).
For end user, see startup guide (116908).

NordicPanel control panel (accessory)



Installation instructions
NordicPanel



2. Functional description

Cold outdoor air passes through one half of the rotor (HR-R), while warm extract air passes through the other half, without the two mixing. Using this principle, a large proportion of the heat in the extract air is transferred to the supply air - the heat store principle (see system sketches). If the outdoor temperature is extremely low, a thermostat-controlled heating element (EB) also ensures that the supply air has the desired temperature. This supply air is passed via ducts and valves to living rooms and bedrooms. The extract air is extracted either from the same room or via door gaps/overflow gratings to toilets and wet rooms. The used air is passed via a duct system back to the unit, gives off its heat and is expelled from the building via a roof cowl, combi-box or wall grating.

When there is no need for recovery, the rotor will stop. When outdoor temperatures are extremely low, it may be necessary to use electrical preheating of the duct heating coil type (accessory).

2.1. HEATING ELEMENT

The heating element is secured from overheating by the F20 thermostat, which cuts out at 40°C. For extra safety, the F10 thermostat cuts out at 80°C.

The F10 thermostat needs to be reset manually by pressing the reset button.

You can find the reset button by opening the unit door located just above the system plate on the electrical compartment cover.

2.2. ADJUSTMENT OF AIRFLOWS

Operating modes must be adjusted to ensure that the unit functions correctly. Airflows must be adjusted according to applicable national requirements by qualified personnel.

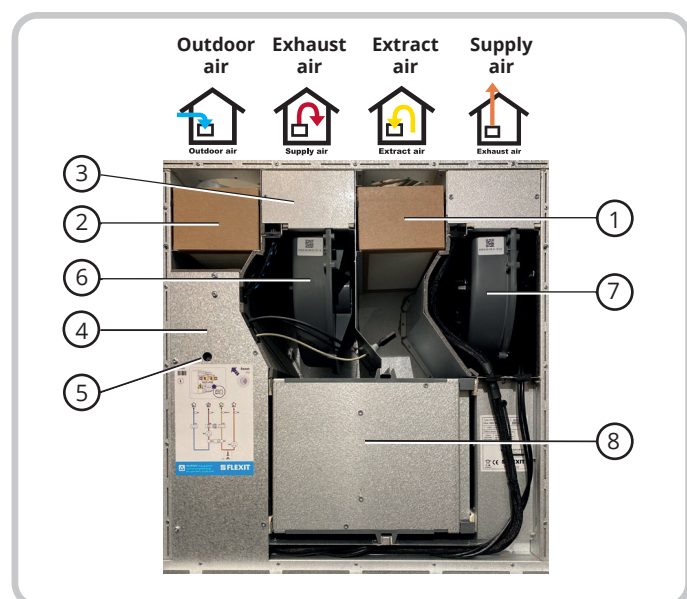


Insufficient/incorrect settings may cause damage to the product and the property, thereby affecting the outcome of a potential claim.

Damages resulting from a misadjusted ventilation system may lead to the rejection of a potential claim. For adjustment of ventilation modes, refer to the automation guide.



INFO! This is purely a ventilation system and not a heating system. The home must be heated in the normal manner.



No.	Abbreviation	Description
1	FI2	Extract air filter
2	FI1	Supply air filter
3	EB	Heating coil
4	F10	Overheating thermostat, manual reset
4	F20	Overheating thermostat, automatic reset
5		F10 reset button
6	M1	Supply air fan
7	M2	Extract air fan
8	HR-R	Rotary wheel-type heat exchanger

3. Door



DANGER! Before opening the door of the heat recovery unit or carrying out maintenance on the kitchen hood: switch off the heat, let the fans continue for three minutes to remove hot air, disconnect power from the unit and wait 2 minutes before opening the doors.

For more information on switching off the heating element, see the user manual for Flexit GO (117078) or NordicPanel (120426).



User manual
Flexit GO



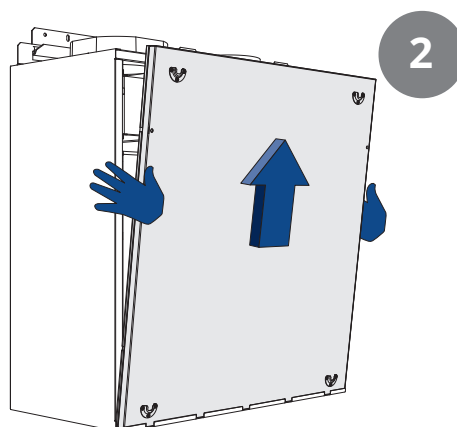
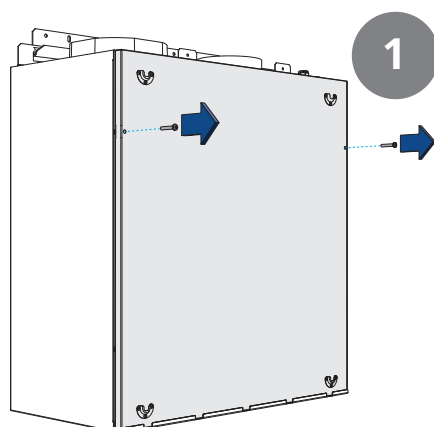
User manual
NordicPanel



DANGER! Remember that the unit door (7 kg) and design front (5 kg) are heavy when lifting them down from the unit.

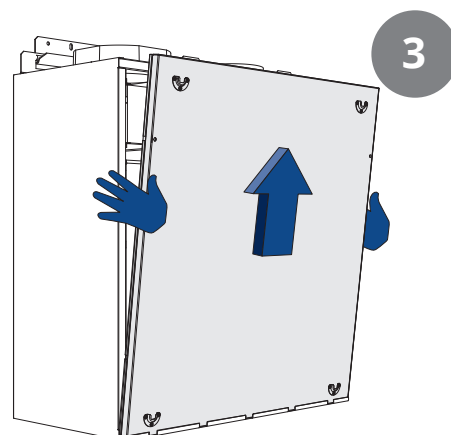
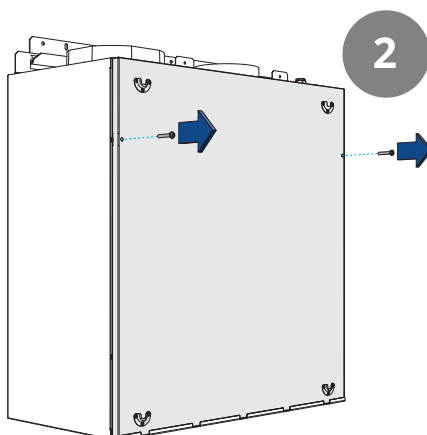
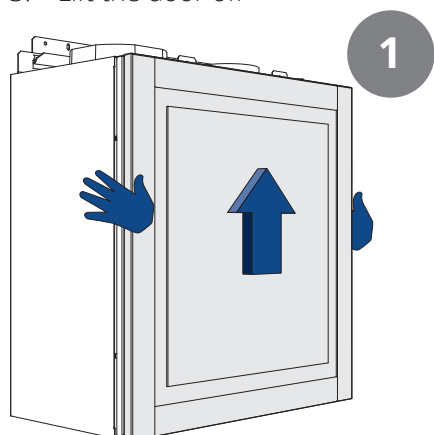
3.1. UNIT DOOR

1. Undo the four screws in the unit door
2. Lift the door off



3.2. DESIGN FRONT/EXTERNAL FRONT

1. Unhook the design front/external front
2. Undo the four screws in the unit door
3. Lift the door off



4. Cleaning and maintenance



DANGER!

The product must be set to service mode and powered off before service is performed. Refer to the user manual for FlexitGO.

4.1. INFORMATION FOR BUYERS AND USERS



Choose a quality filter for an optimal indoor climate!

4.1.1. Selecting filters for residential ventilation units

Flexit residential ventilation units provide homes with fresh, filtered air. Filters play a crucial role in preserving air quality and protecting us from dust, pollution and pollen. Between 1.5 and 2 million cubic metres of air pass through the filter each year, which directly affects the health of those living in the home.

Choose high-quality filters to ensure optimal indoor climate!

4.1.2. The importance of filters in ventilation systems

Filters play a crucial role in ventilation systems. Here are some important considerations:

1. **Air quality:** Filters affects the air we breathe. They remove particles and provide better indoor air quality.
2. **Energy consumption:** Proper filters contribute to lower energy consumption and optimal operation.
3. **Energy labelling:** The product must meet energy efficiency standards to be legal. Incorrect filters may violate labelling requirements according to ecodesign requirements, Eurovent and energy labelling rules.
4. **Service life:** Proper filters help the system last as long as possible, making it both sustainable and environmentally friendly, preserving the value of the home.
5. **Warranty:** Using incorrect filters may affect warranty claims and lead to problems.

4.1.3. Responsibility for choosing the right filter



As the homeowner and system owner, you are responsible for choosing the right filter.

Flexit warns against blindly trusting standard recommendations from filter manufacturers. Our experience shows that this does not always ensure the desired performance. **Choose high-quality filters to ensure optimal indoor climate!**

4.1.4. Requirements for filters used in Flexit ventilation units

1. **Filterclass:** The filter must meet the ePM1 50–85% standard for both supply and exhaust air. The supplier must document this through accredited laboratory tests.
2. **Service life:** The filter must maintain this class throughout its service life, typically six months but in some cases 12 months. The performance of a new filter alone is not sufficient documentation.
3. **Quality assurance:** The manufacturer must regularly test production to ensure consistent quality. The filter must be tested in Flexit units. Annual documentation of testing procedures and outcomes is also a requirement.
4. **Pressure drop:** To ensure proper function, the filter's pressure drop must be tested and documented in approved laboratories.
5. **Fit and seal:** The filter's fit and sealing around the filter must be tested and documented. There should be no air leakage past the filter.
6. **Eurovent certification:** Note that general Eurovent certification is not sufficient documentation, as results may vary in residential ventilation units.

4.1.5. Known issues with incorrect filter use and warranty claims



Using filters that do not meet the requirements may result in warranty claims being rejected.

Many problems can be traced back to such filters. Users are responsible for the consequences of using the wrong filter quality.

Typical problems with poor filters:

1. **Air quality and health:** The air quality you breathe in the home is crucial. In urban areas, traffic pollution is a problem. The pollen season can also affect indoor climate. That's why it is important to choose a filter that meets health requirements.
2. **Filter quality over time:** Some filters lose quality quickly, especially if they are made of cheap or inadequate materials. This can lead to increased energy consumption and damage to the ventilation unit.
3. **Pressure drop and fans:** Poor filters clog quickly and result in a higher pressure drop. This can increase energy consumption and damage fans and heat exchangers. Poor filters can cause imbalance in the system, leading to moisture problems with condensation and moisture damage in the home.

Remember that Flexit requires documentation of filter performance for warranty claims. **Choose high-quality filters to ensure optimal indoor climate!**

4.2. CHANGING THE FILTERS

See important information about correct filter use on the previous page.

How often the filters need to be changed depends on the degree of contamination of the air where they are installed. In general, the filters need to be changed at least once a year, preferably in the autumn (after the pollen season). In areas with a lot of dust and contamination, the filters should be changed in the spring and autumn.

! Change both filters (supply air and exhaust air) at the same time.

! Make sure that the filter is not damaged during fitting. A damaged filter reduces the unit's power and air purity.

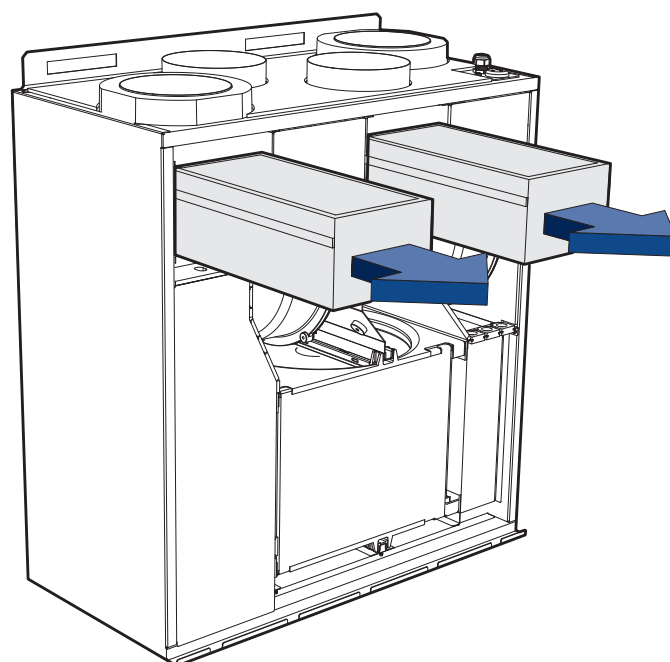
! Check that the filter's seal is intact before inserting the filter. Then push the filter properly into place to prevent air leakage.

CAUTION! The unit must not be used without a filter.

! Clogged filters may reduce heat recovery in the ventilation unit and cause humidity damage.

Please note that a complaint may be rejected if you use a filter other than an original Flexit filter.
For the right filter, see 'Accessories' under your unit on Flexit's website.

The filters are removed as follows:



i When replacing the filters, it is important to push the short end with the gasket in first.

4.3. CLEANING THE FANS

Clean the fans at the time intervals specified in chap. 5. Maintenance table on page 15. Clean the fan blades with a grease solvent on a cloth (e.g. methylated spirits) and compressed air if possible.

NB: Take care that the motor is not exposed to water.

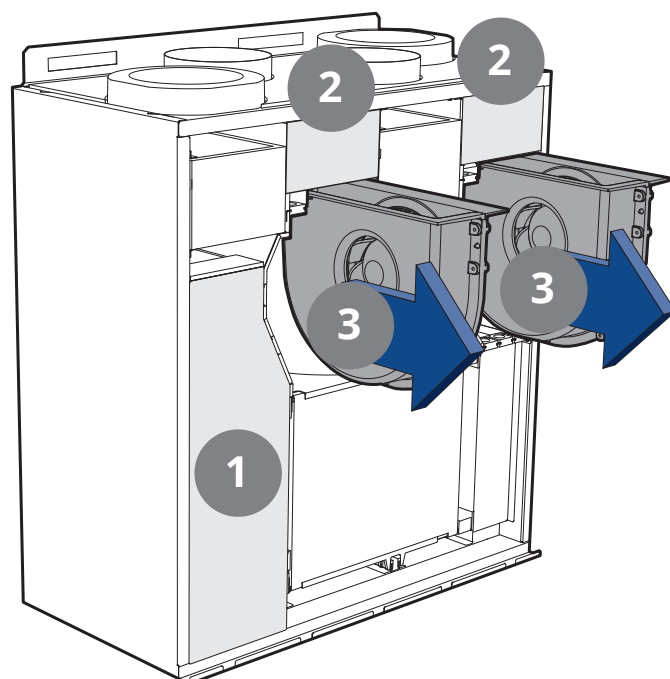
CAUTION! If the unit is connected to a kitchen hood and used frequently, the extract air fan must be checked, and if necessary cleaned more often than indicated in the maintenance table.

To avoid mixing the fans up, it is best to disconnect one fan at a time.

The fans are removed as follows:

TIP: You need a T20 

- Remove the door as shown in the previous chapter.
- Undo the screws in the electrical compartment cover and take the cover off (1).
- Disconnect the electric quick-release contact in the electrical compartment by pressing in at the same time as pulling the contact apart.
- Pull the cable feeds out of the grooves.
- Remove the covers placed over the fans (2).
- Pull out the fans (3).



When the fans are replaced, they must be pushed in firmly.

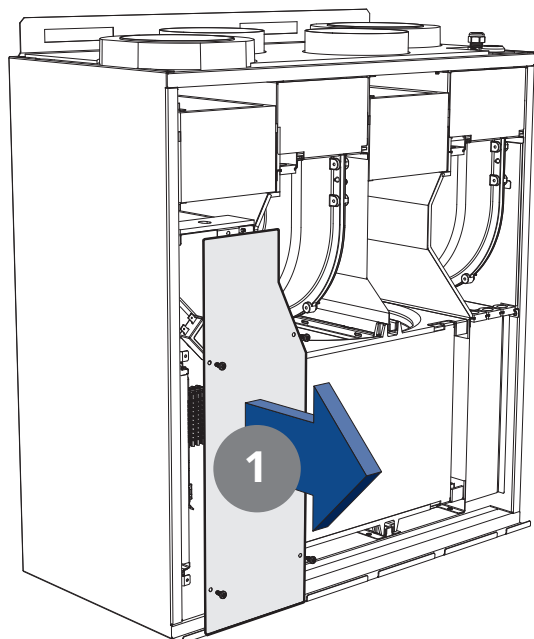
4.4. CHANGING THE BRUSH STRIPS

The brush strips become worn over time. If they do not lie tightly against the rotary exchanger, it may be necessary to change them.

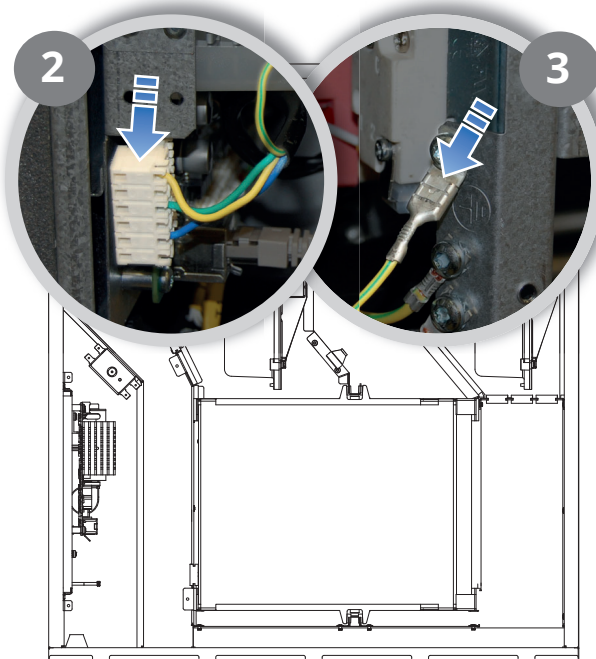
Alternatively, they may be moved closer to the rotor, as the profile they are mounted in has two grooves.

Proceed as follows:

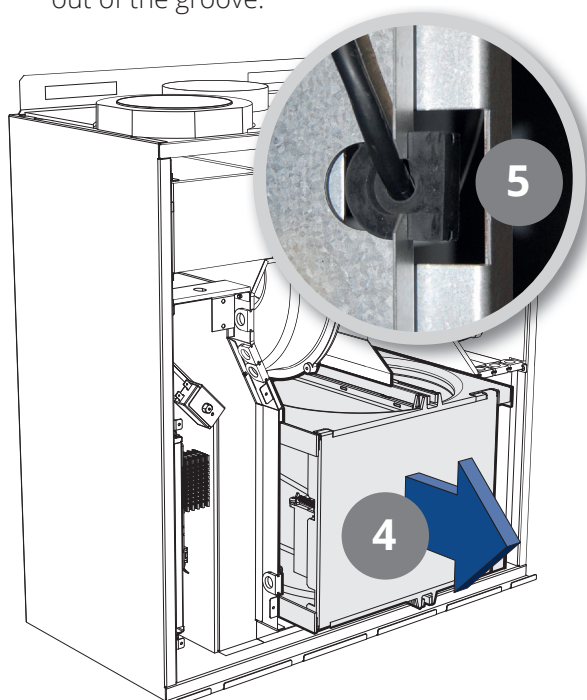
1. Undo the screws on the electric cover and take the cover off.



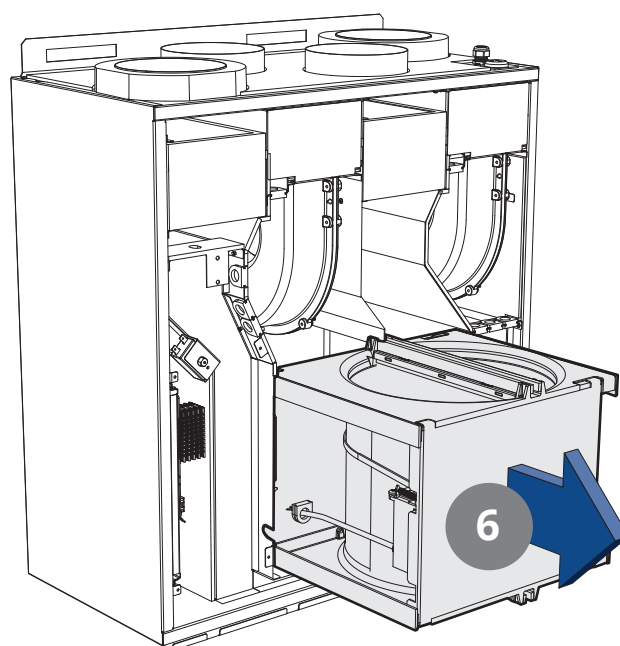
2. Disconnect the rotor's quick-release contact from the circuit board.
3. Also pull the cable lug out to disconnect the earth on the circuit board.



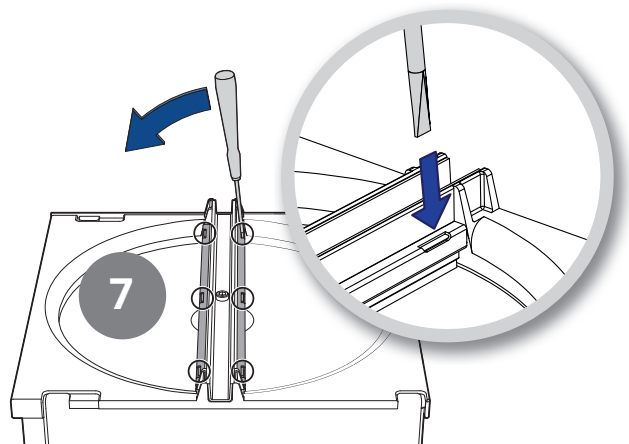
4. Pull the rotor module approximately 2-3 cm out.
5. Pull the cable feed attached to the side of the rotor out of the groove.



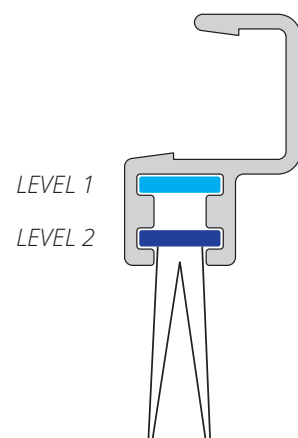
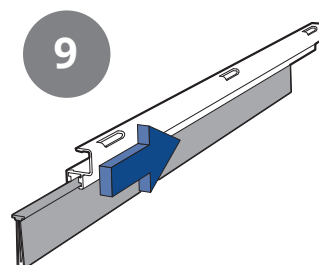
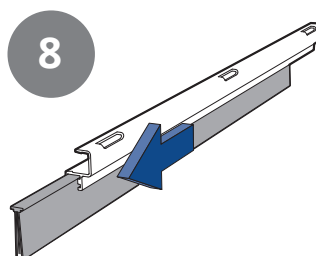
6. Pull the rotor module right out and position it with the brush strips facing up.



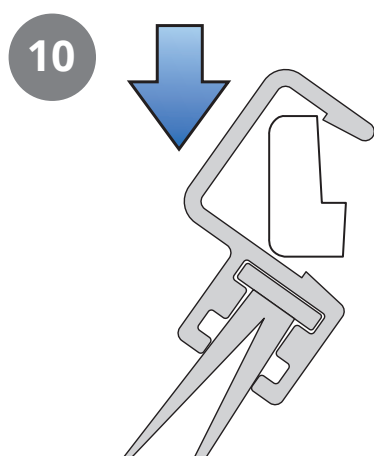
7. Flip off the brush strip profiles with a screwdriver, for example. There are total of four brush strips on the rotor, two on each side. Use a broad screwdriver so you can get good purchase without bending the profile. Start at one end and continue to the other. Lift it carefully, bit by bit.



8. Pull the brush strips out of the groove.
9. Move the brush strips down to level 2, or replace them with new ones if they are completely worn out.



10. Press the brush strip profile back into place.



4.5. CLEANING THE ROTOR

A high-impermeability filter is installed in the unit. It is not therefore usually necessary to clean the rotor. If, for any reason, it should still be necessary, dust can be removed with a soft brush.

Further cleaning is possible by removing the rotor, spraying it with a grease solvent and then blowing it clean from the opposite side. Distance approximately 60 mm and max. pressure 8 bar.

Ensure that the motor is not exposed to water during cleaning. Ensure that all seals around the rotor are intact and tight. Ensure that there is no damage to the rotor belt, and that the rotor rotates freely.

5. Maintenance table

Component	Action	Interval
Filter	Filters must be changed at least once a year. It is best to do this twice a year, before and after the pollen season. Check that the filter seal is completely tight. As standard, a maintenance reminder to change the filter will appear every 6 months.	6-12 months
Fans	The fan in a unit connected to a kitchen hood should be inspected once a year. For a fan in a unit that is not connected to a kitchen hood, inspection every three years is sufficient. The fans should be cleaned as needed.	12 months 3 years
Recovery system	Check that the surfaces are clean. Check that the sealing strips face in towards the rotary wheel-type heat exchanger. Check that the rotor belt is intact and not too slack.	3 years
Kitchen fan	For a unit with exhaust from a kitchen fan connected: Wash the grease filter. Check that the damper is clean and closes fully.	2 weeks
Seals	Check that the seals on the door, under the filters, on the fan modules and on the rotor module are intact.	12 months
Valves	The supply air and extract air valves (for the bathroom, bedroom, laundry room, etc.) must be cleaned at least once a year.	12 months
Air intake	Check that no leaves or other items have caught in the grille. The air intake can freeze up in winter and should be checked regularly (daily if necessary). If necessary, it must be scraped clean so that the air can pass through.	12 months
Roof cowl	If the unit has a roof cowl, this must be checked for leaves and the like. Also check that the drain slots are open.	12 months
Ducts	Check that the ducts are clean. Clean if necessary.	6 years
Brush strips	Check that the brush strips are intact and sit tightly against the rotor. If they are worn, they can be moved to the next groove in the profile so that they are closer to the rotor.	3 years
Inside unit	A combination of a very low outside temperature and damp extract air can lead to the formation of ice. Normally this will not be a problem – when normal operating conditions return the ice crystals will be converted to steam and removed from the unit via the exhaust air. In the case of extreme cold over extended periods the unit should be checked for ice.	

6. Troubleshooting



INFO! In the case of a power cut, the unit will automatically return to normal operation (user's settings) when starting up again.

Type of fault	Remedial action
Cold draughts	Check which supply temperature has been selected. See operating panel. Check that the rotor is rotating. Check that heating comes on. Needs new extract filter.
Fans not working	Check that the power to the unit is connected. Check that the overheating thermostat has not cut out. Reset by pressing the button. Also needs correcting on the automatic control panel. Check that the unit has not been set in stop position.
Low air volume	Check the speed the unit is set to. Check that the filters fit tightly. Check the intake grille.

When connecting a kitchen hood

The kitchen hood is not working	Check that the cable between the kitchen hood and the unit is connected.
Poor extraction above the kitchen hood	Check that the grease filter is not blocked. Check that the filter to the extract air fan is not blocked



INFO! If none of this helps, please contact your supplier for service. Please state the model designation and serial number (on the rating plate inside the unit/open door).

7. Complaints



Warranty claims will only be valid if the instructions in the manuals have been followed.

This product is covered by warranty in accordance with the current terms of sale, **provided that the product is used correctly and properly maintained.**

The warranty may be rendered invalid if the system is used incorrectly or maintenance is grossly neglected.

Complaints resulting from incorrect or defective installation must be submitted to the installation company responsible.

Filters are consumables.

Our products are subject to continuous development and we therefore reserve the right to make changes.

We also disclaim liability for any printing errors that may occur.

8. Disposal



The symbol on the product shows that this product must not be treated as household waste. It must be taken to a collection point for recycling electrical and electronic equipment.

By ensuring correct disposal of the equipment, you will help to prevent negative consequences for the environment and health that incorrect handling may entail.

For further information on recycling this product, please contact your local authority, your refuse collection company or the company from which you purchased it.



Flexit participates in the ECP programme for RAHU.
Check ongoing validity of certificate:
www.eurovent-certification.com

The product is listed in the
database for building products
that can be used in **Nordic
Swan Ecolabelled buildings.**



Flexit AS, Moseveien 8, 1870 Ørje, Norway
www.flexit.com