

EN Installation and User Manual

A 360 Other languages



Nexa Eco R H

 **aldes**

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1. RECOMMENDATIONS AND SAFETY INSTRUCTIONS

Read this manual carefully before installing the unit, and keep this manual in a safe place near the unit throughout its service life. This manual, supplied with the NEXA ECO R H unit, is accompanied by the controller user manual and the individual technical data sheet for each unit.

1.1. Precautions for installation and maintenance

- Installing a NEXA ECO R H unit can potentially be hazardous due to the presence of live components or moving mechanical parts. This equipment must be installed, commissioned and repaired only by qualified, trained personnel, in compliance with applicable standards and best practices.
- Any servicing or maintenance operation that necessitates opening the panels or removing components from the NEXA ECO R H unit must be carried out by a qualified professional.
- Electrical connections must be made by a qualified professional in accordance with the rules of French standard NF C 15-100.
- Avoid any contact with live electrical parts. Always disconnect the power supply before connecting, servicing or repairing the product.
- Make sure that a NEXA ECO R H unit cannot start accidentally
- If one of the power supply cords is damaged, it must be replaced by the professional who installed the product or by similarly qualified persons to avoid danger.
- Panels should never be opened unless the fan is switched off and completely stopped.
- During installation and maintenance of the NEXA ECO R H unit, it is essential to ensure that any ignition sources are kept at a safe distance from the filtration sections, as the material used in the filters is flammable.
- In the event of a motor failure (signal fault in the motor's built-in circuit, phase fault, blocked motor, short circuit to earth or internal short circuit, network undervoltage or overvoltage, peak current fault), an alarm triggers shutdown of the NEXA ECO R H unit. Switch off the power supply (circuit breaker on the electrical panel) and check that there is nothing interfering with the operation of the NEXA ECO R H unit (blocking, friction, fan wheel blockage, abnormal noise, etc.).
- Only use genuine replacement parts supplied by the manufacturer.
- For NEXA ECO R H units fitted with an electrical heating coil: in the event of multiple failures of the electrical coil control, if the air supply compartment overheats, a thermostat with manual reset will activate at 120°C to stop the electrical coil.
- For NEXA ECO R H units that are installed outside buildings and subject to bad weather, it is mandatory to install suitable roof accessories.
- The equipment must not be modified in any way - any such modification will invalidate the warranty.
- The equipment must be serviced regularly to ensure that it keeps working properly.
- Before starting up the NEXA ECO R H unit, check to make sure that all the parts/equipment have been installed correctly.

1.2. Precautions for delivery, handling and storage

NEXA ECO R H units are supplied in suitable packaging, generally on a pallet, and are correctly labelled. Check that the NEXA ECO R H unit and all supplied components have not been damaged during transport. If it is not possible to install the NEXA ECO R H unit at the time of delivery and the unit then has to be stored for a while, take the following precautions to prevent any damage caused by water, dirt or foreign bodies.

- After receiving the item, remove all plastic film and adhesive tape to prevent any condensation from forming.
- Check that all access panels are properly closed.
- Store the NEXA ECO R H unit and accessories in a dry area, preferably protected from any bad weather.
- Storage conditions:
 - Storage temperature: -15°C to +60°C.
 - Relative humidity range 5% to 85% (no condensation).
- Place the NEXA ECO R H unit on a completely flat surface, free from humidity.
- Completely cover the NEXA ECO R H unit and accessories with tarpaulins. Do not use plastic film.
- Openings should be covered, preferably with cardboard.
- If a NEXA ECO R H unit has been stored for longer than 12 months, check that the rotor rotates freely to ensure that the fan bearings are in good condition.

2. INSTALLATION

2.1. General information

PLEASE NOTE: this document is intended as an installation guide for the NEXA ECO R H unit. To ensure full compliance with local regulations, refer to the applicable legislation in the country where the unit is installed.

2.2. Transport on site

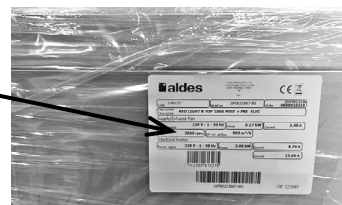
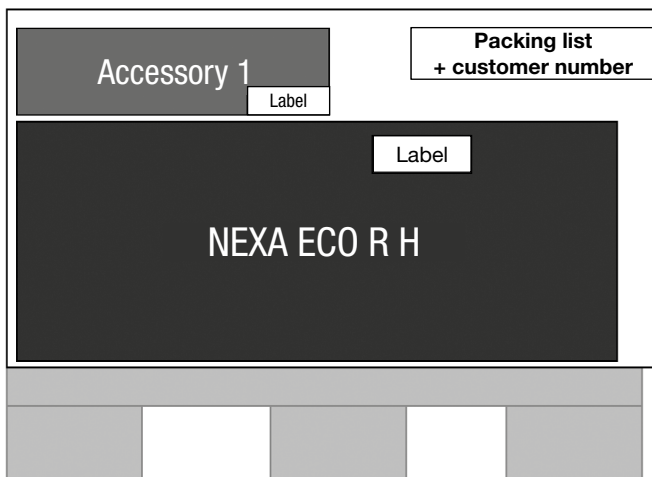
The NEXA ECO R H unit is wrapped in protective plastic film, and the top and bottom of the unit are protected by cardboard corners. All accessories ordered with a NEXA ECO R H unit are supplied unfitted. The products are loaded onto pallets and secured to them using bolts and protective film. Before handling the unit, make sure that the means of transport used has an adequate load capacity. Use a forklift truck or, for smaller NEXA ECO R H units, a pallet truck.



2.3. Parts supplied with the NEXA ECO R H unit

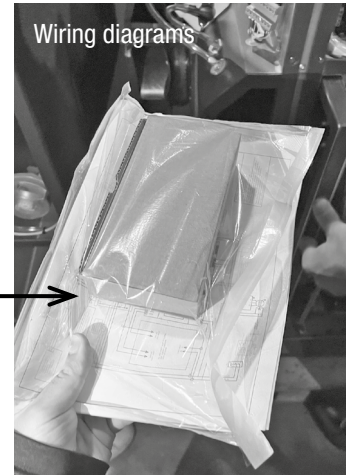
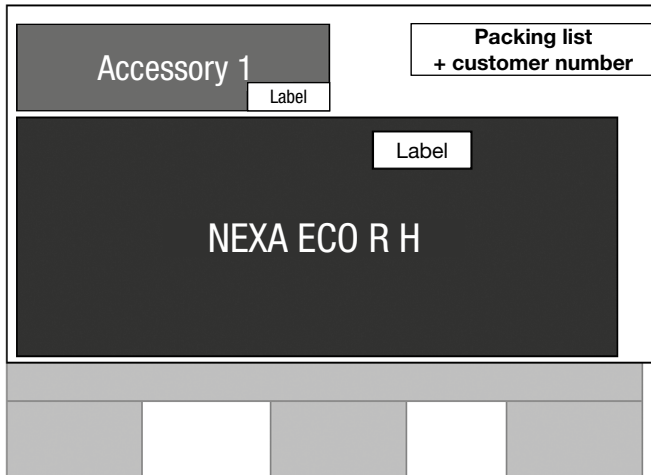
The NEXA ECO R H has 8 possible configurations:

- NEXA ECO R H with no optional items (no coil or heating)
- NEXA ECO R H for outdoor installation, with roof
- NEXA ECO R H with built-in electrical pre-heating only
- NEXA ECO R H with built-in post-heating only
- NEXA ECO R H with built-in electrical pre-heating and built-in post-heating
- NEXA ECO R H with external hot water coil only
- NEXA ECO R H with built-in electric pre-heating and with external hot water coil
- NEXA ECO R H with external changeover coil only
- NEXA ECO R H with built-in electrical pre-heating and with external changeover coil



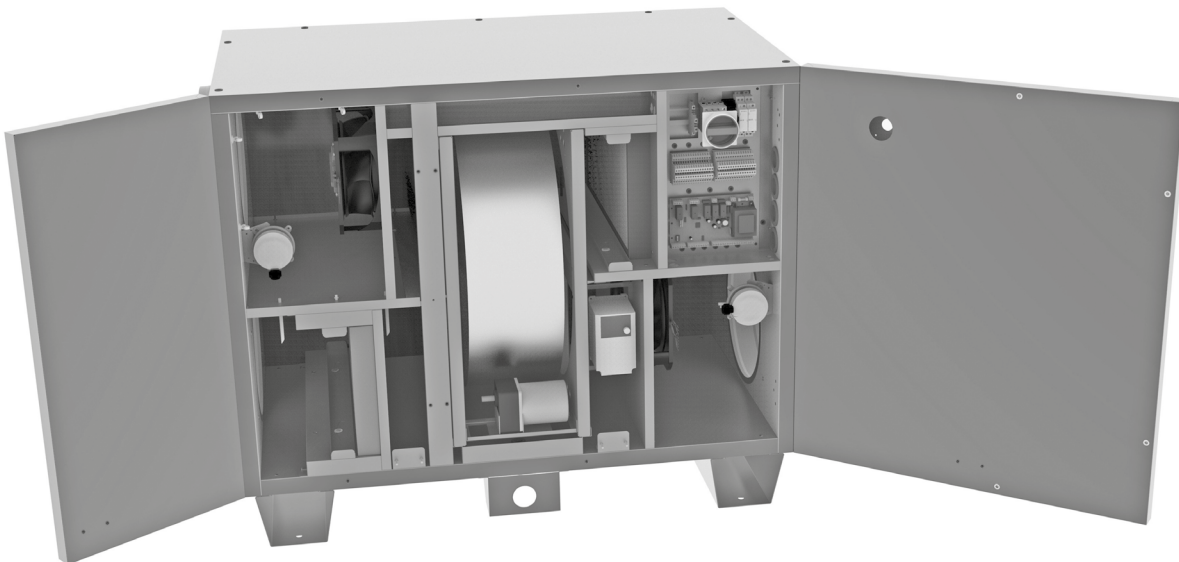
In all configurations of the NEXA ECO R H unit

Small equipment (accessories such as external coils, 3-way valve and actuator) will be delivered in a separate box, placed on the machine on the pallet or on a separate pallet (see below, e.g. accessory 1).

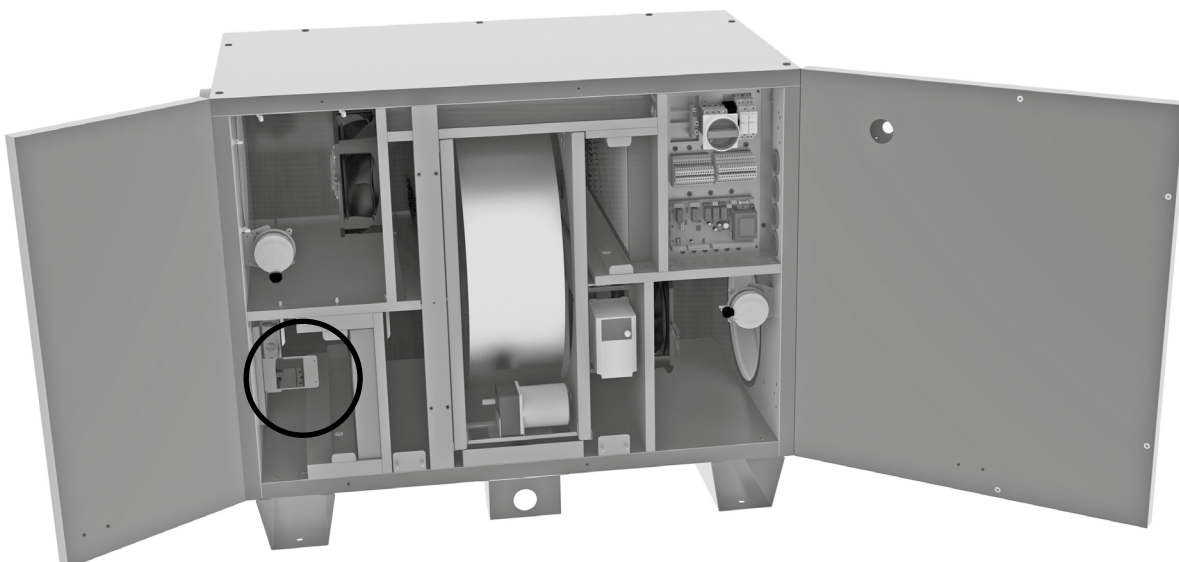


2.4. Internal components according to configuration type

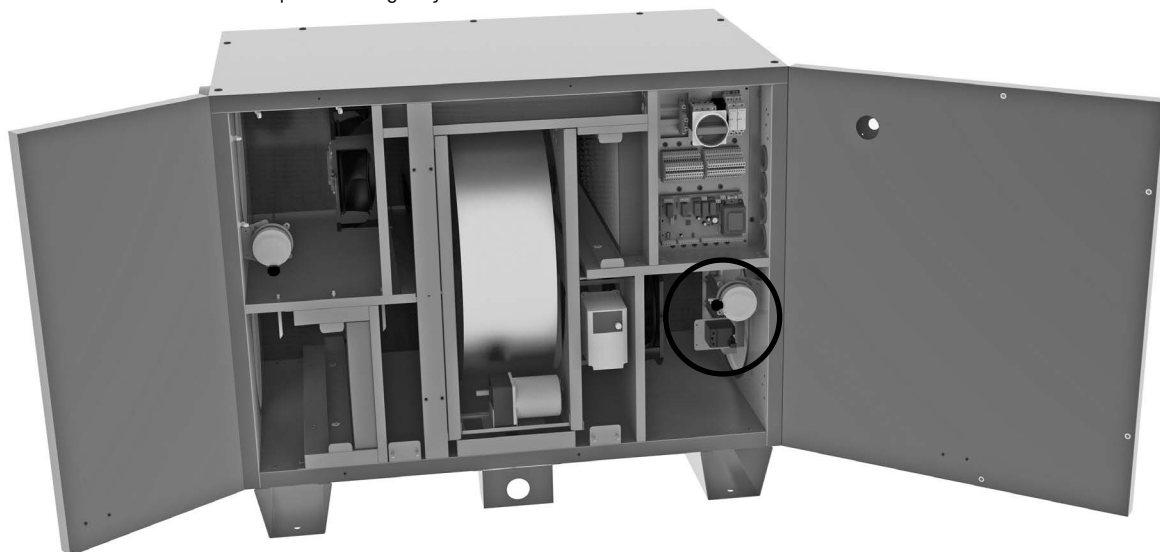
- NEXA ECO R H with no optional items (no coil or heating)



- NEXA ECO R H with built-in electrical pre-heating only



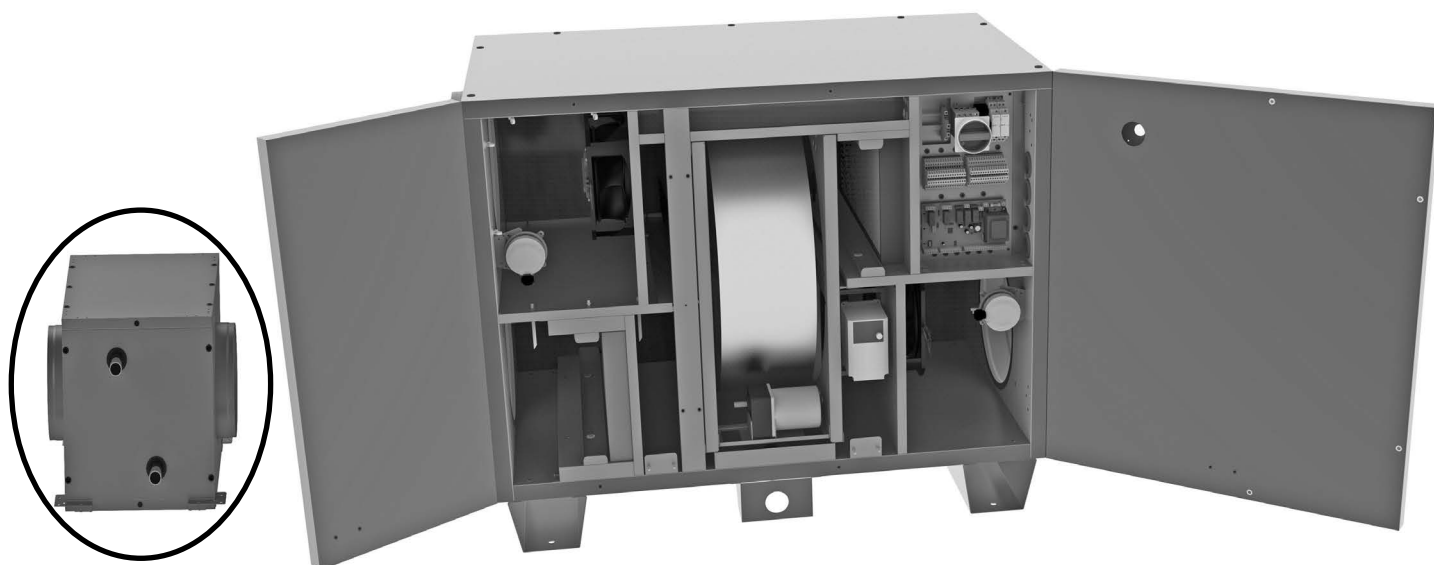
- NEXA ECO R H with built-in post-heating only



- NEXA ECO R H with built-in electrical pre-heating and built-in post-heating



- NEXA ECO R H with external hot water coil only

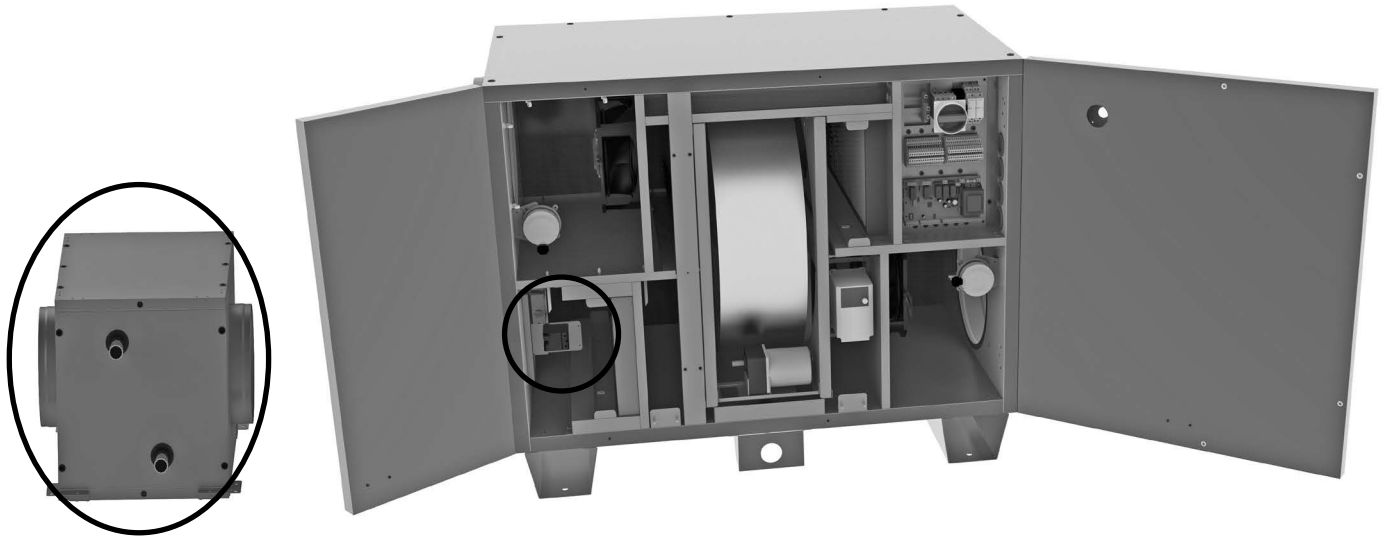


For the external water coil (hot water and changeover version), the unit is supplied with:

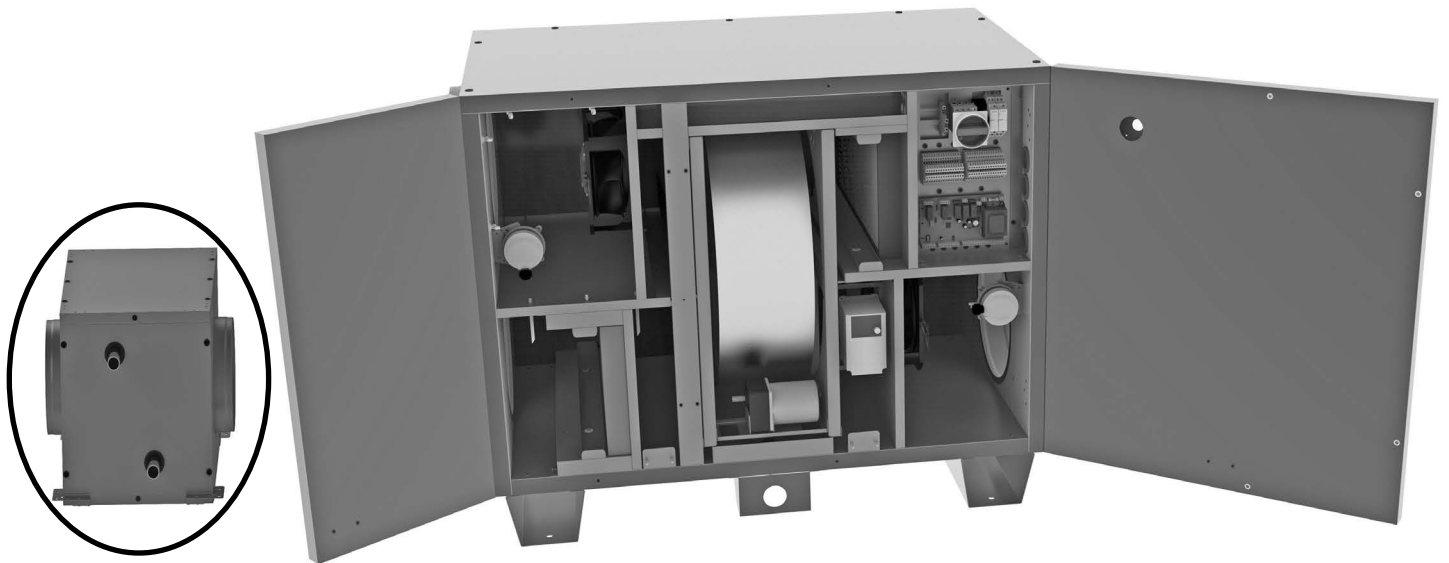
- an additional air supply temperature sensor (cable length 3 m) to be placed after the coil and connected to the main electrical panel
- an additional return water temperature sensor to be connected to the main electrical panel

For more information on the terminals to be connected, see the electrical diagram at the end of this document

- NEXA ECO R H with built-in electric pre-heating and with external hot water coil



- NEXA ECO R H with external changeover coil only

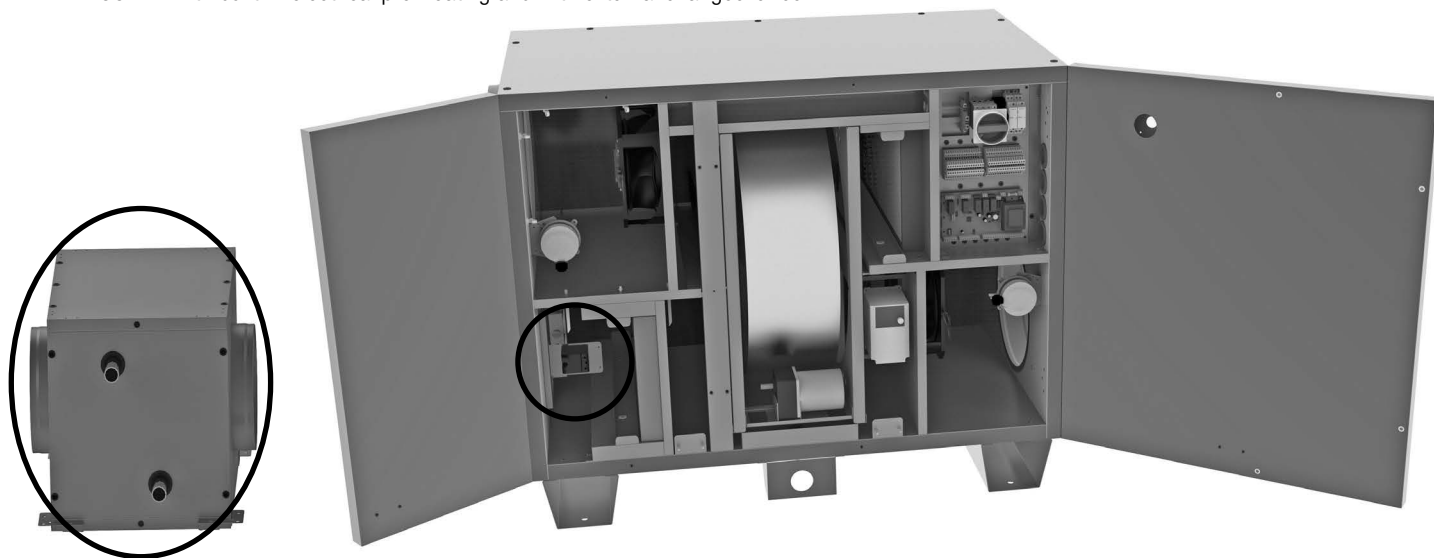


For the external water coil (hot water and changeover version), the unit is supplied with:

- an additional air supply temperature sensor (cable length 3 m) to be placed after the coil and connected to the main electrical panel
- an additional return water temperature sensor to be connected to the main electrical panel

For more information on the terminals to be connected, see the electrical diagram at the end of this document

- NEXA ECO R H with built-in electrical pre-heating and with external changeover coil



If a NEXA ECO R H unit is ordered with a hot water coil, it must be equipped on site by the customer with a 3-way valve and an electric actuator (control type 0-10 V, 24 V power supply) sold separately as accessories.

The actuator must be connected on site by the installer.

2.5. Installation of the NEXA ECO R H unit

2.5.1. General information

The NEXA ECO R H range is available with utility connections (electrical and hydraulic) and service access on the right-hand side only.

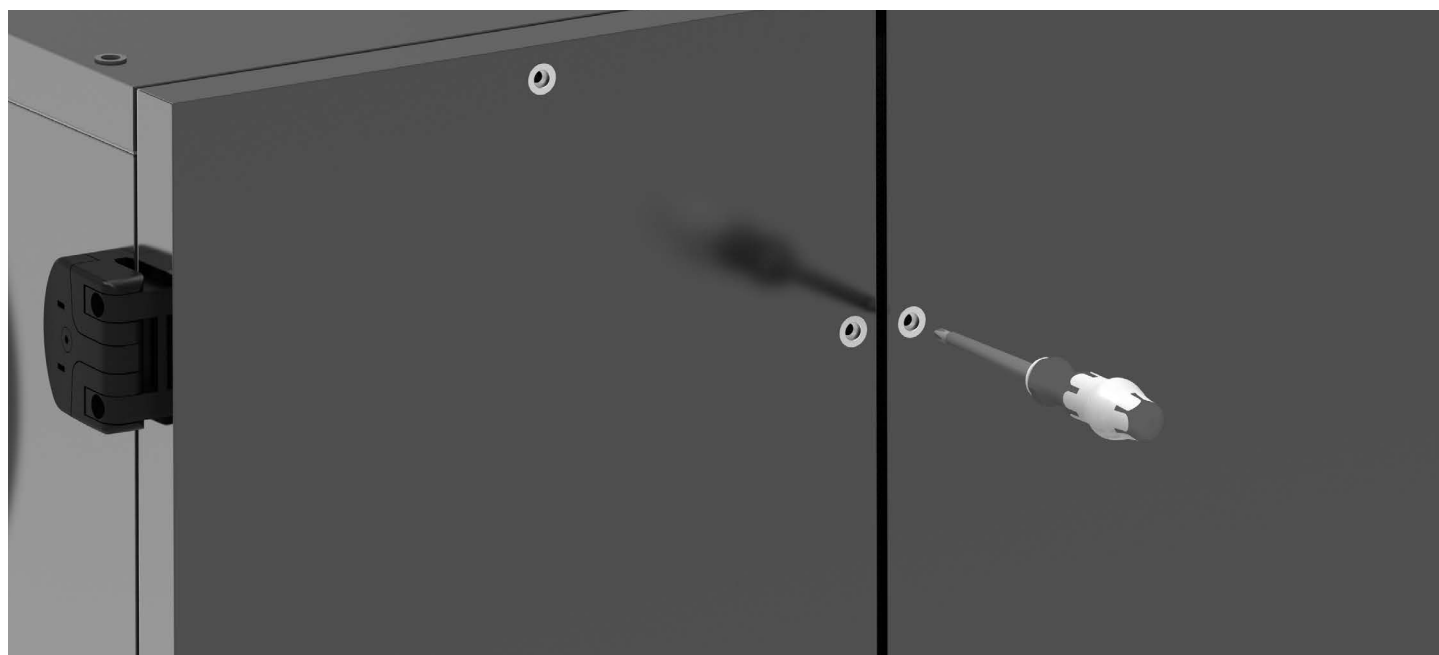
After positioning the NEXA ECO R H unit in the correct location on the ground (pay attention to the direction of air circulation):

- connect the ductwork,
- connect the unit to the mains power supply via the terminal boxes,
- for units equipped with external water coils, you will need a connection to the water system and an electrical connection for the servomotors of the 3-way valves.

When installing a NEXA ECO R H unit and connecting the ducts and electrical cables, make sure that nothing will prevent the doors opening properly, so internal components can be removed easily, if necessary.

How to open the doors

Each NEXA ECO door is held in place by a number of metal screws to ensure the best possible seal.



2.5.2. Installation conditions

Protection required for outdoor installation

For NEXA ECO R H units that are installed outside buildings and subject to bad weather, it is mandatory to install suitable roof accessories.

The roof is an accessory that has to be ordered in addition to the NEXA ECO unit; it is only compatible with NEXA ECO H models (horizontal flows) designed for outdoor installation and is not compatible with NEXA ECO TOP models.

Each NEXA ECO R H size has a dedicated roof designed for its dimensions, so make sure that the right roof item code is selected.

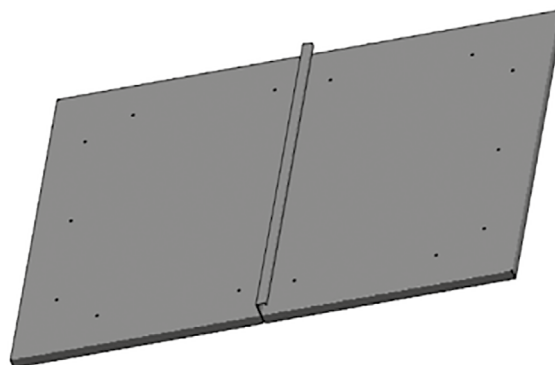
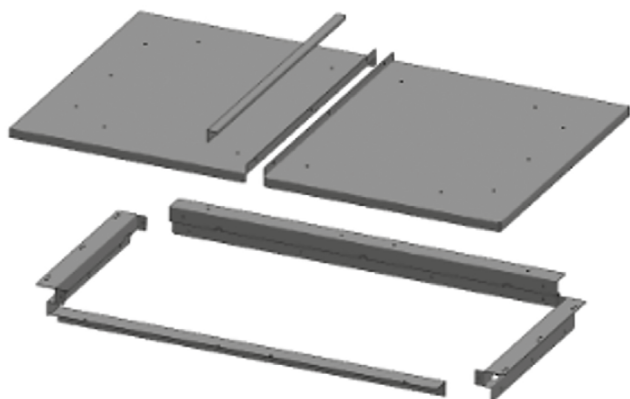
If the air handling unit is ordered at the same time as the roof, both items of equipment will be packaged together. The roof is packaged as a kit placed directly on the unit. If the unit and the roof (kit) are not ordered at the same time, the roof (kit) will be packaged and delivered on its own pallet.

In all cases the roof (kit) is packaged to ensure that it is protected against the weather.

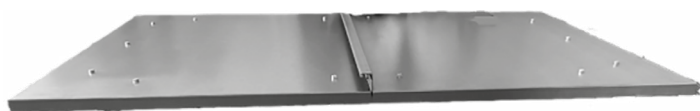
Before installation, make sure to check the integrity of the packaging, to ensure that all items needed for installation are present.

For all sizes, assembly is quick and straightforward:

- The roof kit is placed on top of the unit and consists of the following items:
- 26 screws, type M6x20 4.8
- 54 self drilling screws, type 4.8x22
- 2 panels
- 2 short spacers, 2 long spacers
- 1 metal sealing strip



- Attach the 2 large spacers (unit length) to the 2 sheet metal panels that form the roof, using the M6 screws provided in the kit
- Then attach the 2 small spacers (unit width)
- Add the metal strip necessary for sealing between the 2 metal sheets, using the M6 screws provided in the kit
- Once the roof has been assembled, place it on top of the unit and use the self-drilling screws provided, type 4.8x22, to secure it.



Temperature conditions

Ambient temperature range: -15°C to 50°C.

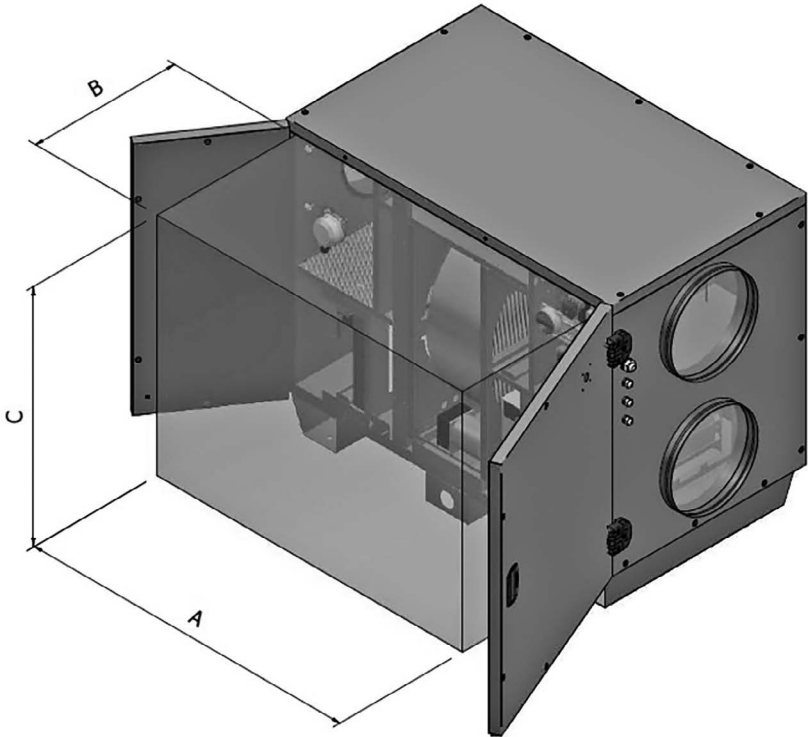
Operating temperature range: -10°C to 50°C.

The ingress protection rating of the electrical box is IP20.

- Do not install near any of the following: sources of heat, steam, flammable or explosive liquids, etc.
- Do not touch any of the equipment with wet or damp hands or feet.

Important:

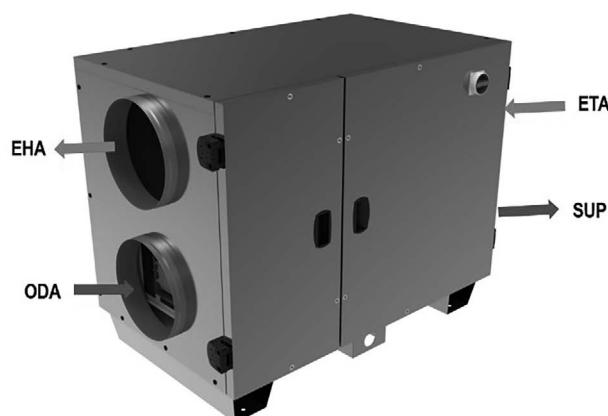
- This unit must only be used for its intended purpose. The manufacturer cannot be held responsible for any damage caused by improper or incorrect use.
- The NEXA ECO R H unit should be installed in a location where occupants or nearby residents will not be disturbed by the airflow and the noise produced by the unit.
- There is a minimum space requirement for maintenance (as defined below).
- The unit should be positioned so as not to block passageways or entrances.
- The NEXA ECO R H must be installed horizontally.
- Maintain the required height to allow water to be drained properly via the water trap.
- Condensate can also be drained using a condensate pump (not supplied).



Minimum space required for maintenance (mm)			
Model	A	B	C
NEXA ECO R H size 400	1070	752	863
NEXA ECO R H size 700	1070	752	938
NEXA ECO R H size 1000	1170	755	970
NEXA ECO R H size 1500	1380	857	1098
NEXA ECO R H size 2000	1480	907	1138

2.6. Airflow connections

Supply airflow to the right and electrical panel located next to the supply air fan (on all versions and sizes) as shown in the diagram below.



ODA	Fresh outdoor air
SUP	Supply air
ETA	Extract air
EHA	Exhaust air

2.7. Filter maintenance



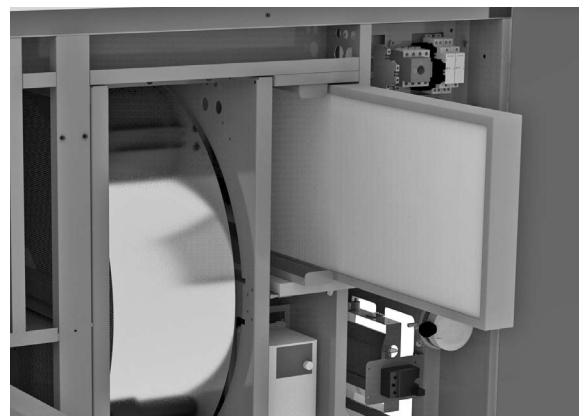
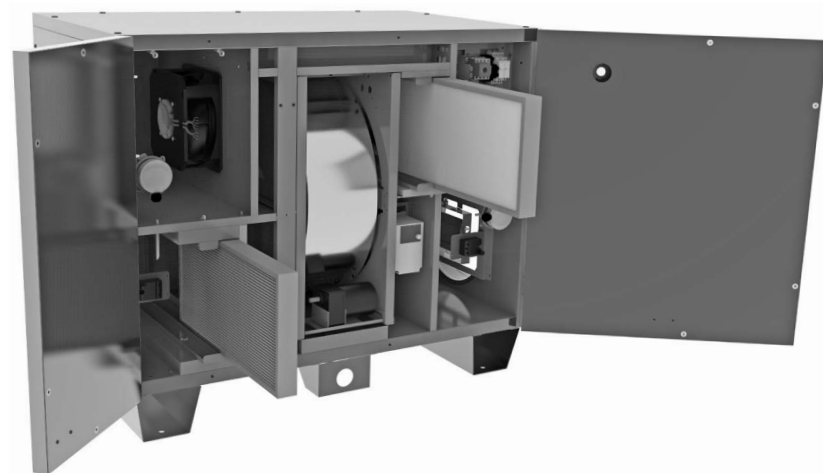
PLEASE NOTE: filters must be replaced by a skilled technician with the unit switched off. A message and a filter alarm are displayed on the HMI when the clogging threshold is reached.

This alarm is triggered by means of 2 pressure switches each positioned on the fresh airflow and extract airflow. Below are the factory set alarm trigger threshold values.

Model	F7 [Pa]	G4 [Pa]	M5 [Pa]
NEXA ECO R H size 400	19	18	18
NEXA ECO R H size 700	15	13	13
NEXA ECO R H size 1000	26	24	23
NEXA ECO R H size 1500	27	24	24
NEXA ECO R H size 2000	28	26	25

2.7.1. Filter maintenance and cleaning

Filter maintenance is recommended at least once a year depending on the pollution level of the outdoor and indoor environment.



Note: can be fitted a G4 type pre-filter as an accessory ordered separately. In this case, it is necessary to disassemble the standard fresh air filter holding rail and to reposition it by the 2 screw inserts provided for this purpose in the unit. The operation is very simple and should be carried out on site.

Model	Length (mm)	Frame height (mm)	Thickness (mm)	Number of filters per airflow
NEXA ECO R H size 400	480	265	48	1
NEXA ECO R H size 700	592	287	48	1
NEXA ECO R H size 1000	592	287	48	1
NEXA ECO R H size 1500	625	400	48	1
NEXA ECO R H size 2000	400	400	48	2

2.8. Control principles

The integrated regulation in Aldes NEXA ECO R H air handling units can be adjusted using different airflow and temperature control modes, in order to best adapt to the constraints of the installation and user strategies.

Airflow control modes

1-Fixed speed

Fixed speed, the fan speed is set as a percentage. In this case, it is possible to adjust setpoints independently for the fresh airflow and the extract airflow.

This mode is used for very simple operation of the unit, without taking account of any specific airflow requirement (useful for first site start-up) but in this case there is no compensation for the increase in the pressure drop of the filters.

2-Constant Pressure – VAV Mode

In constant pressure mode, the airflow is variable from min. to max. and the pressure is set in Pa. On NEXA 1000 to 2000 sizes, the pressure can be adjusted independently for the fresh air flow rate or the extract air flow rate (requires 2 accessories such as external pressure sensors, sold separately and to be installed on the ducts. On the 400 and 700 sizes, only the supply air setpoint can be adjusted, the extract airflow is slaved to the supply airflow (only a pressure sensor type accessory to be installed on the air supply duct is necessary).

With the VAV constant pressure option, the NEXA ECO R H will maintain a constant pressure in the network (fresh air duct and extract air duct), by making the airflow fluctuate between a min. and max. value that can be defined with the HMI. This is an effective way to regulate airflow, particularly suitable for multi-zone installations using variable flow dampers (Aldes xVA type or equivalent). In VAV mode, it is possible to significantly reduce the energy consumption of the installation related to airflow management.

3-Constant airflow – CAV Mode

In constant airflow mode, the air flowrate setpoint is set as m³/h. On NEXA 1000 to 2000 sizes it is possible to adjust this setpoint independently for the fresh air flowrate or the extract air flowrate. On the 400 and 700 sizes, only the supply air flowrate setpoint can be adjusted, the extraction will be slaved to the supply air blowing.

In constant flow CAV mode, the NEXA ECO R H will maintain the specified air flowrate regardless of the pressure drop in the air ductwork systems (within the limits of fan capacity related to the correct design of the unit).

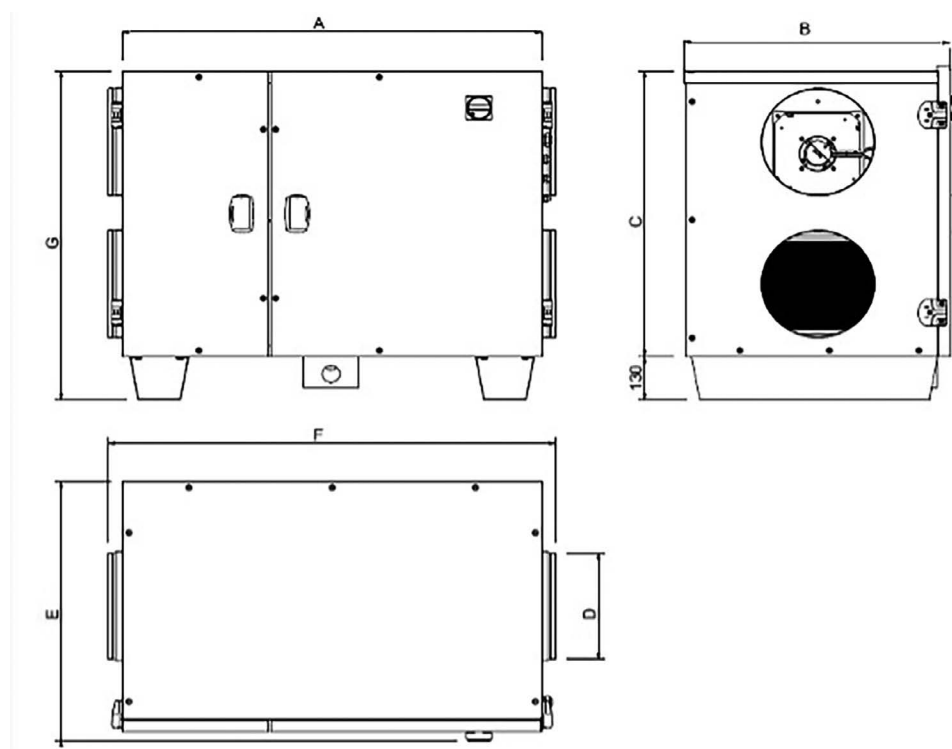
This mode, which is the factory setting for all sizes of NEXA ECO R H, compensates for filter clogging.

4-Variable speed on external signal (CO₂)

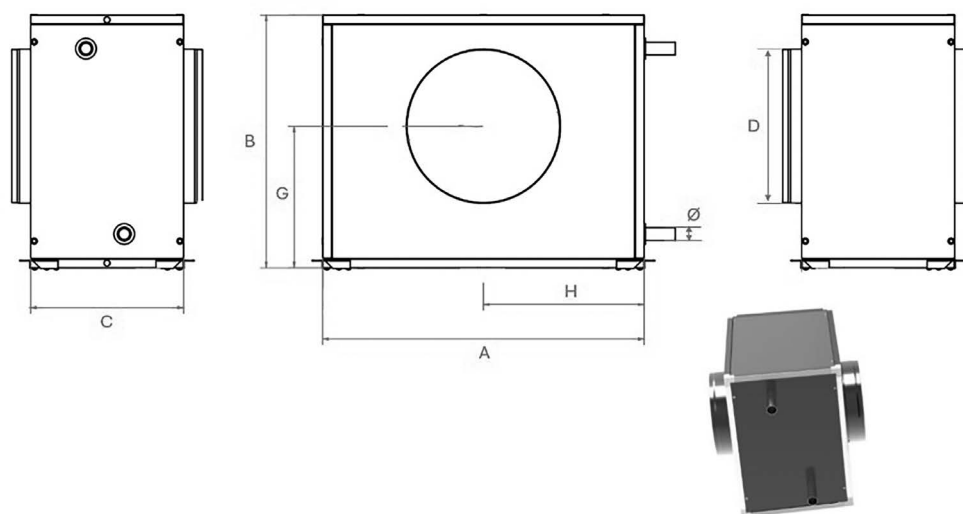
Variable speed depending on the signal from an external sensor (AN6 terminals on PLC board) such as a CO₂ sensor (accessory provided separately).

For more information, consult the NEXA ECO R H configuration manual.

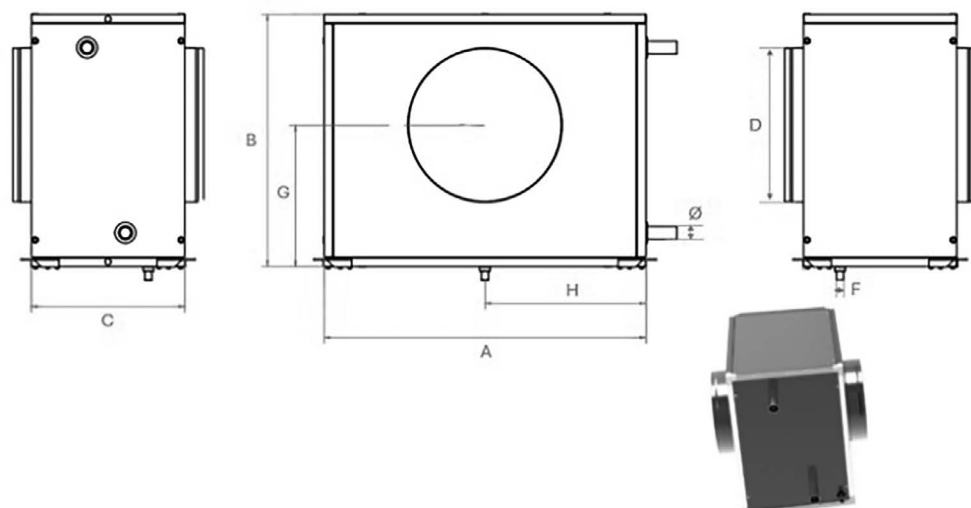
3. DIMENSIONS



Model	A (mm) width	B (mm) length	C (mm) height	D (mm) Height of legs	E (mm) Branch connection diameter	F (mm) Hinge offset	G (mm) Proximity switch offset	Weight (kg) for unit without coil
NEXA ECO R H size 400	1070	574	735	200	602	1149	863	81
NEXA ECO R H size 700	1070	724	810	250	752	1149	938	107
NEXA ECO R H size 1000	1170	740	850	315	770	1250	970	121
NEXA ECO R H size 1500	1380	873	970	355	901	1459	1098	171
NEXA ECO R H size 2000	1480	913	1010	400	941	1559	1138	189



Model	A (mm)	B (mm)	C (mm)	D (mm)	G (mm)	H (mm)	Ø	Weight (kg)
Hot water coil for NEXA ECO R H 400	480	370	400	200	185	240	1/2"	15
Hot water coil for NEXA ECO R H 700	580	430	400	250	215	290	1/2"	21
Hot water coil for NEXA ECO R H 1000	700	555	400	315	277.5	350	3/4"	29
Hot water coil for NEXA ECO R H 1500	840	660	400	355	370	420	3/4"	38
Hot water coil for NEXA ECO R H 2000	840	660	400	400	370	420	3/4"	38



Model	A (mm)	B (mm)	C (mm)	D (mm)	G (mm)	H (mm)	Ø	F	Weight (kg)
Changeover water coil for NEXA ECO R H 400	480	370	400	200	185	240	1/2"	3/8"	20
Changeover water coil for NEXA ECO R H 700	580	430	400	250	215	290	1"	3/8"	25
Changeover water coil for NEXA ECO R H 1000	700	555	400	315	277.5	350	1"	3/8"	36
Changeover water coil for NEXA ECO R H 1500	840	660	400	355	370	420	1"	3/8"	45
Changeover water coil for NEXA ECO R H 2000	840	660	400	400	370	420	1"	3/8"	45

4. CONTROL OPTIONS



PLEASE NOTE: electrical connections must be carried out by a qualified electrician, wearing appropriate personal protective equipment. Never work on the NEXA ECO R H while it is powered. The electrical installation must comply with NF C 15-100. It is essential to ensure that the NEXA ECO R H remains watertight and dust is prevented from accumulating.

The NEXA ECO R H unit is provided with a complete control system, ready for configuration and commissioning.

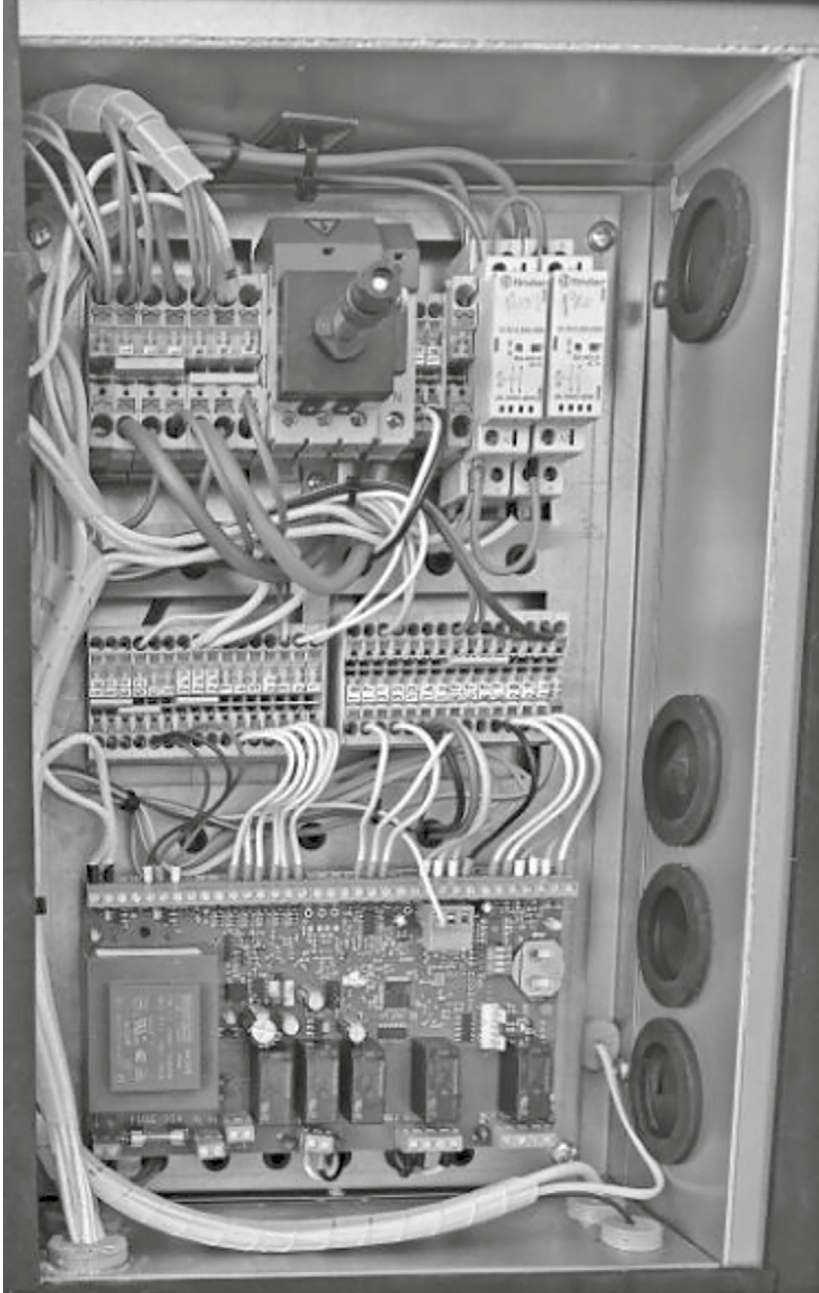
Electrical panel and control cabinet

- This is located inside the unit, and can only be accessed when the doors are open and the unit is in shutdown, with the same configuration for all NEXA ECO R H unit sizes.



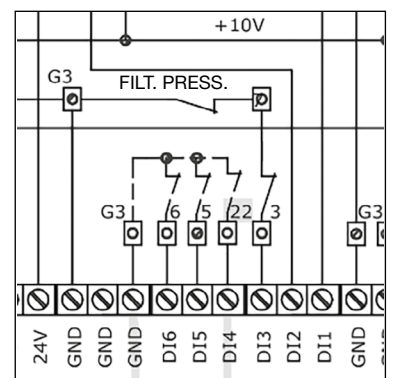
All electrical connections to the main control board are managed from the top of the unit.

Image of main control board with terminals

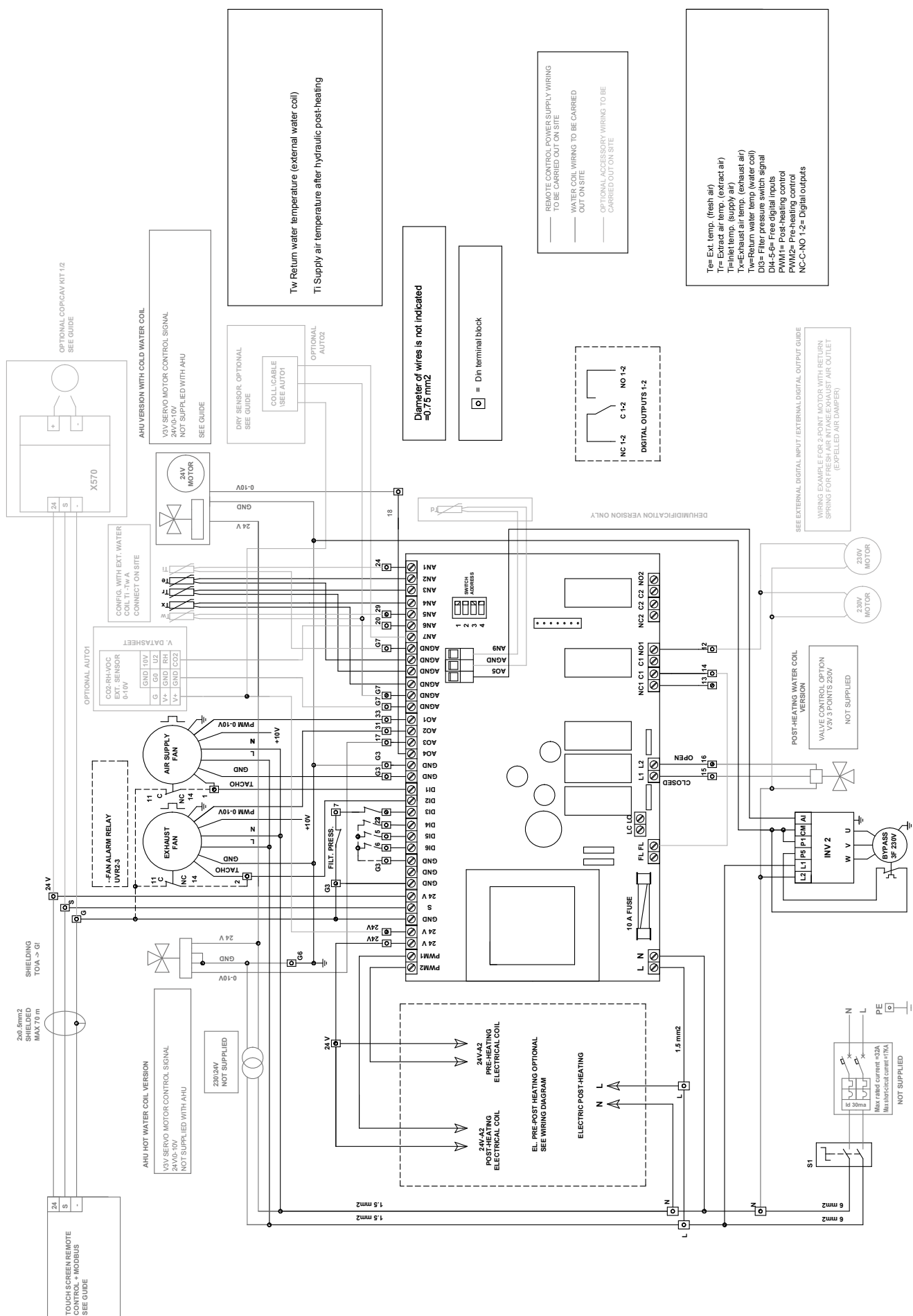
**Factory setting - pre-wiring**

Aldes offers plug and play air handling units. For the NEXA ECO R H range, this corresponds to a factory configuration with the following presets:

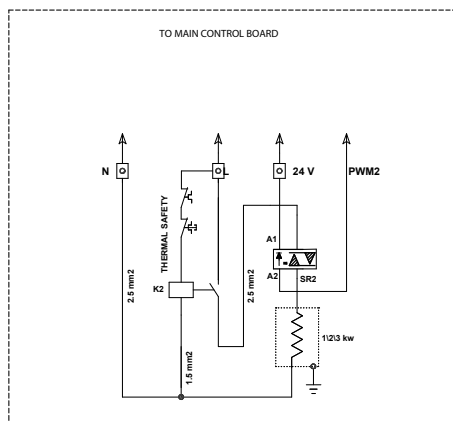
- French selected as the default language
- Default constant supply air temperature control
- Constant Air Volume (CAV) control enabled by default
- DI4/GND configured as a digital input to stop the air handling unit via an accessory supplied separately such as a relay smoke probe or DAD + smoke probe in the case of a class 1 to 4 ERP installation.



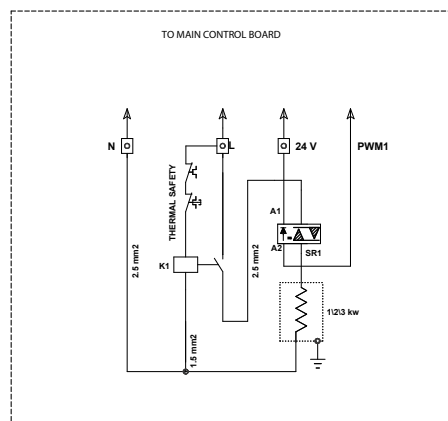
Wiring diagram for NEXA ECO R H 400 / 700 / 1000



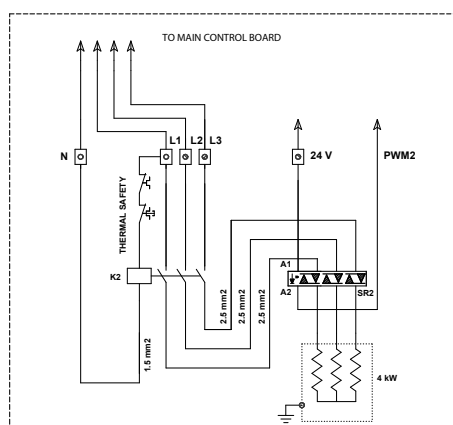
Pre-heating of NEXA ECO R H 400-700-1000-1500 (1-2-3-4)



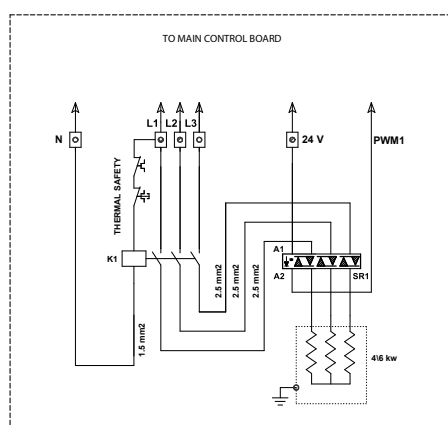
Post-heating NEXA ECO R H 400-700-1000 (1-2-3)



Pre-heating of NEXA ECO R H 2000 (5)



Post-heating NEXA ECO R H 1500-2000 (4-5)



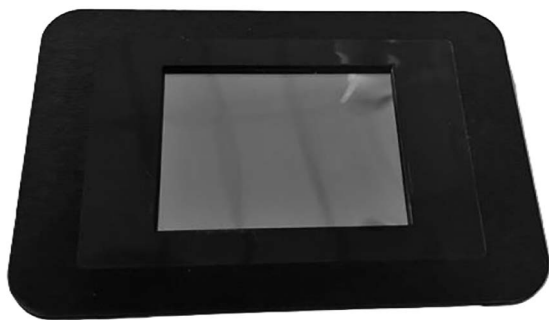
Printed versions of this wiring diagram are also supplied with every NEXA ECO R H unit. The wiring diagram can be found inside the unit, near the heat exchanger, in a plastic bag (see Chapter 2.3.).

All temperature and pressure sensors required for operation of the unit are supplied as standard with the unit (except for VAV configurations for which 1 or 2 external duct pressure sensors are required, to be ordered separately as accessories).

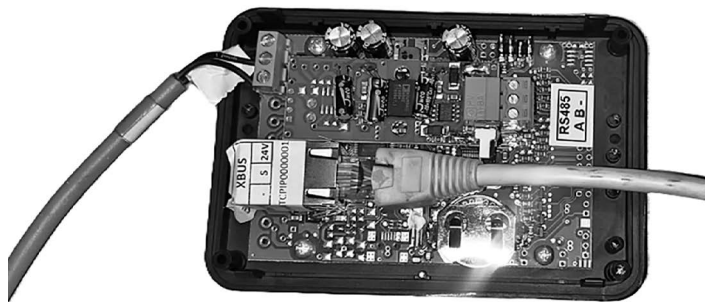
A wired HMI touchscreen (provided without cable) is also supplied as standard.

The NEXA ECO R H unit control system is equipped with a web server accessible using a laptop and a simple Ethernet cable, used to control and monitor a unit locally or remotely from an external site.

HMI touchscreen with black housing



Rear panel with power supply connection (left) and web server Ethernet cable (right)



This can be found inside the unit, near the heat exchanger, in the same plastic bag as the wiring diagram, packaged in a small box (see Chapter 2.3.).

Type of cable for HMI: shielded cable 3x0.5 mm²

Electrical power supply

Note: Only one power supply is required to connect each unit configuration (with or without electrical heating), applicable to each unit size.

Unit without electrical pre-heating or post-heating

Model	Main unit electrical power supply	Max_power_consumption_kW	Max_current_draw_A	Rated_current_A	Fuse rating_A
NEXA ECO R H 400	230 V single phase / 50 Hz + earth + neutral	0.21	0.93	0.93	16
NEXA ECO R H 700	230 V single phase / 50 Hz + earth + neutral	0.39	1.63	1.63	16
NEXA ECO R H 1000	230 V single phase / 50 Hz + earth + neutral	0.39	1.54	1.54	16
NEXA ECO R H 1500	230 V single phase / 50 Hz + earth + neutral	0.89	3.44	3.44	16
NEXA ECO R H 2000	230 V single phase / 50 Hz + earth + neutral	1.05	4.12	4.12	16

Unit with electrical pre-heating

Model	Main unit electrical power supply	Max_power_consumption_kW	Max_current_draw_A	Rated_current_A	Fuse rating_A
NEXA ECO R H 400	230 V single phase / 50 Hz + earth + neutral	1.21	5.23	5.23	16
NEXA ECO R H 700	230 V single phase / 50 Hz + earth + neutral	2.39	10.33	10.33	16
NEXA ECO R H 1000	230 V single phase / 50 Hz + earth + neutral	2.39	10.24	10.24	16
NEXA ECO R H 1500	230 V single phase / 50 Hz + earth + neutral	3.89	16.44	16.44	16
NEXA ECO R H 2000	400 V 3-phase / 50 Hz + earth + neutral	5.05	9.92	9.92	16

Unit with electrical post-heating

Model	Main unit electrical power supply	Max_power_consumption_kW	Max_current_draw_A	Rated_current_A	Fuse rating_A
NEXA ECO R H 400	230 V single phase / 50 Hz + earth + neutral	1.21	5.23	5.23	16
NEXA ECO R H 700	230 V single phase / 50 Hz + earth + neutral	2.39	10.33	10.33	16
NEXA ECO R H 1000	230 V single phase / 50 Hz + earth + neutral	3.39	14.54	14.54	16
NEXA ECO R H 1500	400 V 3-phase / 50 Hz + earth + neutral	4.89	9.24	9.24	16
NEXA ECO R H 2000	400 V 3-phase / 50 Hz + earth + neutral	7.05	12.82	12.82	16

Unit with electrical pre-heating and post-heating

Model	Main unit electrical power supply	Max_power_consumption_kW	Max_current_draw_A	Rated_current_A	Fuse rating_A
NEXA ECO R H 400	230 V single phase / 50 Hz + earth + neutral	2.21	9.53	9.53	16
NEXA ECO R H 700	230 V single phase / 50 Hz + earth + neutral	4.39	19.03	19.03	32
NEXA ECO R H 1000	230 V single phase / 50 Hz + earth + neutral	5.39	23.24	23.24	32
NEXA ECO R H 1500	400 V 3-phase / 50 Hz + earth + neutral	7.89	22.24	22.24	32
NEXA ECO R H 2000	400 V 3-phase / 50 Hz + earth + neutral	11.05	18.62	18.62	32

5. CHECKS PRIOR TO START-UP

NEXA ECO R H units are factory tested. Nevertheless, the installer or the designated organisation is responsible for checking and recording the following points before starting up the equipment:

- Check that there are no foreign bodies or dirt on the moving parts.
- Check that the connections of ducts to the NEXA ECO R H air handling system have been implemented correctly.
- Check that there are no obstructions in the way of condensate drain.
- Make sure that no installation accessories have been left inside the NEXA ECO R H unit.
- Check that the filters are completely clean.
- Check that all electrical connections have been made in accordance with the standards and specifications.
- Check that all the terminals of the electric motors are properly tightened.
- Check that all cable routing holes are correctly blanked.
- Check if all components are securely attached.
- Check that the hydraulic circuit is filled.
- Check that the hydraulic connections to the coils and the condensate drain pan have been implemented correctly.
- Check the water connections and coils for leaks.
- Check that the water trap (not supplied) has been correctly installed in the condensate tray outlet pipe.
- Check that the fan can rotate freely and that there are no foreign bodies inside.
- Check that the NEXA ECO R H unit is attached securely to the ceiling.
- Check that the duct network is connected correctly (no air leakage).

6. START-UP

We recommend checking the NEXA ECO R H unit after 48 hours of operation to ensure that it is running in accordance with the required settings.

Other checks:

1. Check all connections: electrical, water.
2. Check that the condensate trap is correctly connected.
3. Look for any air leaks near the removable panel joints. Reseal any leaking joints if necessary.
4. Check that the fan and motor mountings are securely mounted (use the master switch to systematically cut power supply to the NEXA ECO R H beforehand).
5. Check the wiring of the small LCD HMI.
6. Once all these checks have been completed, the unit can be started using the smartphone application.

7. EXTENDED DOWNTIME

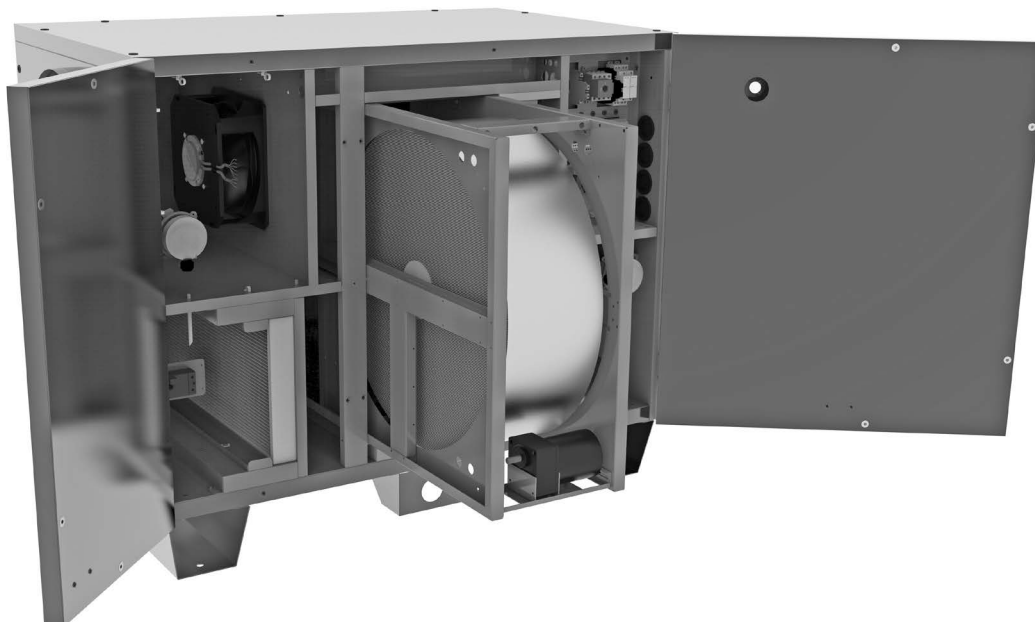
In the event of any extended downtime of the NEXA ECO R H unit connected to the ventilation system, close the air intake/injection and check regularly to ensure that there is no humidity inside the unit. In case of condensation, dry it immediately.

8. MAINTENANCE

Component	Operations	Frequency per year
Inside the NEXA ECO R H unit	Check general condition in terms of contamination, deterioration and corrosion.	1
	Check that there is no condensation.	2
	Check that the control components are working correctly,	1
Filters	Check for contamination, odours and deterioration (leaks).	4
	Check the pressure switch.	2
	Maximum filter replacement interval.	1
Fan	Check that the fan is operating correctly.	2
	Check general condition in terms of contamination, deterioration and corrosion.	2
Condensate drain pan	Check the condition of the condensate drip tray and clean it if necessary	2
	Check the condition and operation of the water trap.	4
	Check that the pipe is in good condition - water must be able to flow freely.	2
Outdoor air inlet and exhaust air outlet	Check that they are in good condition and allow air to circulate freely.	1
	Check general condition in terms of contamination, deterioration and corrosion.	1
Electrical coil	Check that the heating coil operates correctly.	1
	Check that the manual reset thermostat is working correctly.	1
Water coil	Check that the actuator and the 3-way valve are working correctly.	1
Electrical box	Check that there are no signs of moisture.	1

9. REMOVING THE HEAT EXCHANGER FOR CLEANING

In accordance with the maintenance table, it is necessary to regularly remove the rail-mounted heat exchanger in order to clean it. Proceed with great care to avoid damaging the aluminium cells.



10. TROUBLESHOOTING

Fault	Causes	Remedies
Difficult start	a) Low supply voltage b) Insufficient motor static torque	a) Check motor plate data b) Close the dampers to reach full speed. If necessary, replace the motor
Insufficient airflow	a) Blocked air intake ducts or air inlets b) Clogged fan c) Clogged filter d) Insufficient rotation e) Clogged heat exchanger	a) Clean the air intake lines and points b) Clean the fan impeller c) Clean or replace the filter d) Check supply voltage and if necessary, correct it e) Clean the heat exchanger
Excessive airflow	a) Filters missing or incorrectly installed b) Excessive available static pressure	a) Install or adjust the filters b) Adjust the 0–10 V control signal
Airflow performance decreases after a period of acceptable operation	a) Air leak upstream and/or downstream of the fan b) Damaged impeller	a) Check the circuit and restore to its original condition b) Check the impeller. If necessary, replace with a genuine spare part
Heat exchanger outlet air temperature too low	a) Bypass is open b) Flow unbalanced	a) Use post-heating devices
Reduced heat recovery	a) Leaks in the aluminium plates of the heat exchanger b) Faulty bypass actuator	a) Check the heat exchanger for leaks b) Replace the actuator
Air supply	The fan is operating at an excessively low airflow. Air duct connections are blocked or incorrectly installed.	Increase minimum speed on the electronic speed regulator (insufficient voltage) Modify the ductwork and/or replace the fan. Clean or replace the air intake ductwork
Filter alert	Clogged filters	Replace the filters.
Condensate leakage	a) Excessive condensation b) Obstruction of the condensate tray outlet c) Missing water trap / insufficient slope	a) Measure the water flow and adjust the installation to the recommended water flow rate through the coil b) Clean the condensate tray c) Set up / correct the slope

11. RECYCLING



Directive 2024/884/EU of the European Parliament and of the Council of 13 March 2024 on waste electrical and electronic equipment (WEEE).

The WEEE symbol on the product or its packaging indicates that the product must not be disposed of with normal household waste. Instead, such marked waste equipment must be taken to a designated collection point to a designated collection point for the recycling of waste electrical and electronic equipment. Separate collection and recycling of this equipment at the time of disposal will help to conserve natural resources and ensure that the equipment is recycled in a way that protects human health and the environment.

The end user is responsible for transferring the product at the end of its life to a municipal electrical and electronic waste collection centre, or returning it to the retailer as follows:

- distributors shall provide for the collection, at retail shops with dedicated EEE-related sales areas of at least 400 m², or in their immediate proximity, of very small WEEE items (no external dimension greater than 25 cm), free of charge to end-users and with no obligation to buy EEE of an equivalent type;
- for products with an external dimension greater than 25 cm, distributors are responsible for ensuring that such waste can be returned to the distributor at least free of charge on a one-to-one basis as long as the equipment is of equivalent type and has fulfilled the same functions as the equipment provided.

The Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive.

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