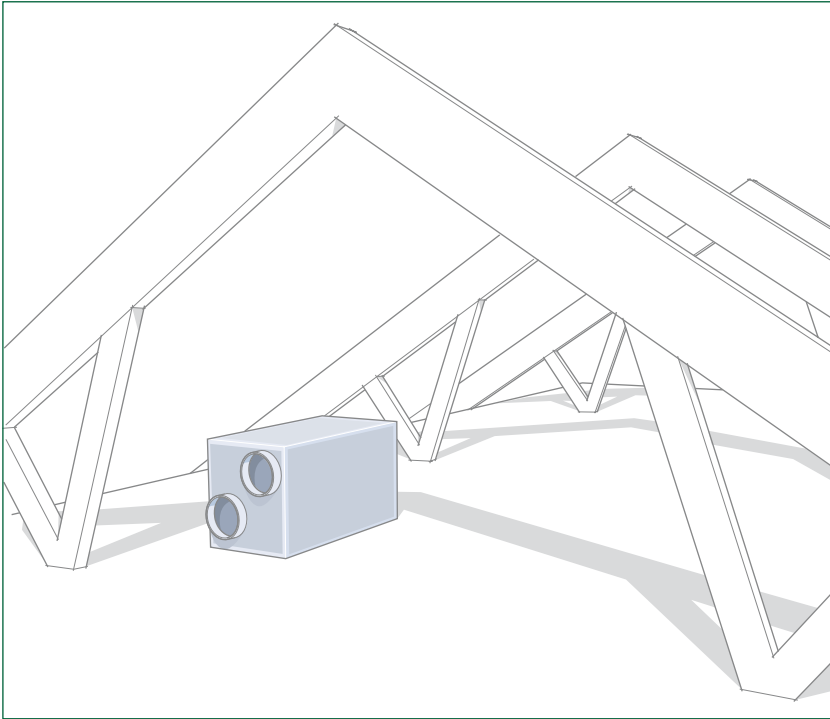


Heat recovery unit RDAB

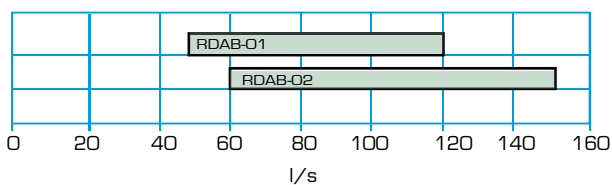


The RDAB heat recovery unit is a component in the Rexovent system. This unit has been developed from our RDAA unit and has cross flow heat exchanger with high temperature efficiency. The unit has a built-in control equipment and can be supplied with an external control panel. RDAB is primarily intended for homes and small commercial premises. It has the connectors on the gables and get installed in cold spaces, for example attics.

Energy consumption

RDAB is an energy efficient heat recovery unit that in comparison with a mechanical exhaust air ventilation system reduces energy consumption remarkably. The reduction is made through recycling of the energy of the exhaust air in the heat exchanger. The fans have AC-motors that are easily adjusted to the right speed.

Air flow chart



Product data

- Up to 66% temperature efficiency
- Supply and exhaust air flows between 50-150 l/s
- Can serve living areas up to 380 m²
- Filter, class F5/G4
- Individually adjustable fans
- Easy to install
- Service friendly

Product code example

RDAB-01-1-0-1

Description, materials, technical data

Casing

The outer casing is made of white painted sheet metal and the inner casing of galvanized sheet metal with an intermediate layer of 25 mm mineral wool insulation. The unit door is locked with screws and has flush handles.

Fans

The fans have AC-motors. They are easy to remove for servicing and maintenance. The speed of the fans can be independently adjusted in nine steps.

Heat exchanger

The cross flow heat exchanger is made of aluminium with completely separate supply and exhaust air ducts. It has a temperature efficiency up to 66%. The unit is fitted with an automatic defrost function controlled by outside temperature. The heat exchanger is easily removed for cleaning.

Preheater and afterheater

The unit has an electrical preheater for defrosting. Some unit models also have an afterheater for additional heat.

Filter

The unit is fitted with filters in F5/G4 classes.

Sound data

The fan curves in the diagrams relate to the supply air fan on the outlet side of the unit. Sound power level per octave band dB, is calculated from $L_{w\text{tot}}$ in the diagram + octave band correction (with sign) according to the table below.

RDAB-01 with fan effect 2 x 130W octave band correction

Sound path, HZ	63	125	250	500	1k	2k	4k	8k
Supply air duct, dB	8	7	2	-6	-6	-10	-13	-15
Exhaust air duct, dB	7	12	4	-4	-15	-21	-23	-35
Through unit casing, dB	6	-11	-9	-1	-6	-10	-8	-11

- Supply air duct = L_{wA} in the diagram
- Exhaust air duct = L_{wA} in the diagram minus (-15dB)
- Noise to room = L_{wA} in the diagram minus (-31dB) gives sound pressure level, dB(A) vid 10 m² room absorption

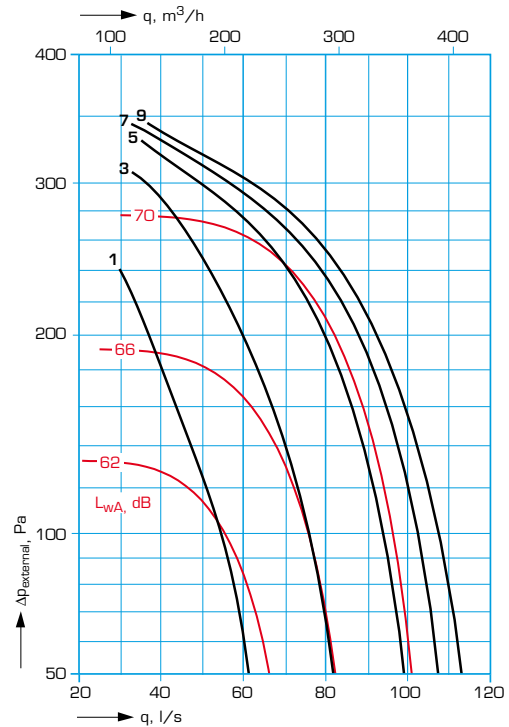
RDAB-02 octave band correction

Sound path, HZ	63	125	250	500	1k	2k	4k	8k
Supply air duct, dB	7	6	0	-5	-4	-11	-13	-15
Exhaust air duct, dB	7	11	5	-4	-14	-22	-25	-37
Through unit casing, dB	6	11	10	0	-6	-12	-12	-10

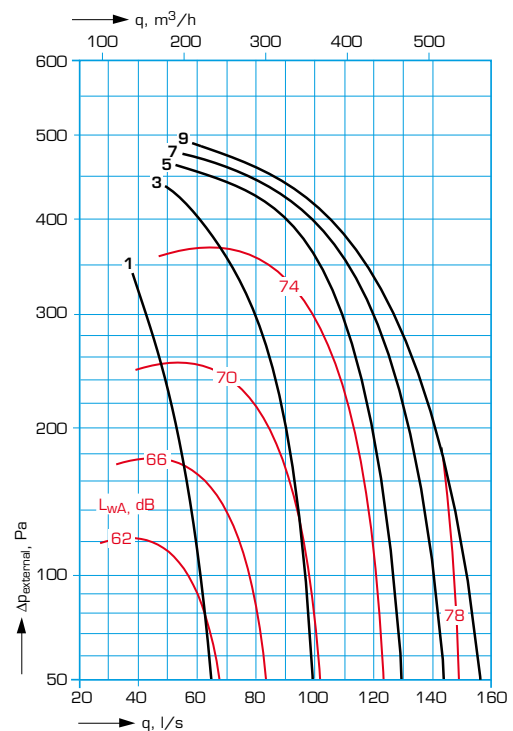
- Supply air duct = L_{wA} in the diagram
- Exhaust air duct = L_{wA} in the diagram minus (-15dB)
- Noise to room = L_{wA} in the diagram minus (-28dB) gives sound pressure level, dB(A) vid 10 m² room absorption

Supply air and exhaust air fan

RDAB-01

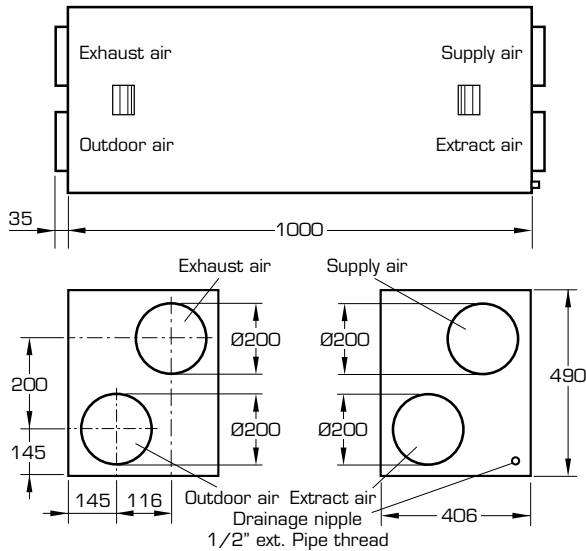


RDAB-02



Dimensions, electrical data, control equipment

Dimensions and weight



Weight: 55kg.

Electrical data

Voltage: 230V, single phase 50Hz or 400V, 3 phase 50Hz

Code	Fan motors ¹⁾		Preheater		Afterheater		Total kW
	Output kW	Current A	Output kW	Current A ²⁾	Output kW	Current A ²⁾	
RDAB-01	0.26	1.14	2	9.1	2	9.1	4.26
RDAB-02	0.50	2.34	2	9.1	2	9.1	4.50

¹⁾ Refers to two fan motors

²⁾ Voltage 230V, single phase, 50 Hz

Preheater is always included. Afterheater can be ordered extra.

Packaging

Corrugated cardboard box. All instructional documentation are enclosed.

Control equipment

The unit is supplied with a built-in electronic control unit. It regulates the fan and electric heater.

Fan control

There is three different modes that can be chosen through the control panel (accessory):

- "AWAY" is used when nobody will be at home for a longer period to save energy.
- "HOME" is used for normal ventilation.
- "FORCED" is used when there is a greater need of ventilation (it will automatically return to the "HOME" mode after 120 minutes).

The control panel (accessory), that can be installed at desired location, has a button with an arrow on it that is used to choose mode.

The speed of the fans can be adjusted independently of one another in nine steps through the control panel (accessory).

Temperature control

For the most part of the year the heat exchanger recycles enough heat to obtain an acceptable supply air temperature. It can be supplemented with an electric afterheater that controls the supply air temperature to set value.

The unit has an electrical preheating coil that handles defrosting during very cold periods when frost may develop on the heat exchanger. The preheater and afterheater are not both connected at delivery to reduce the connection load.

Alarm

The control panel (accessory) has an alarm to indicate when it is time to change the filter.

Accessories, product code

Accessories

Control panel RDKZ-41

External control panel for installation on wall. There is three different settings for choosing the fan speed; "AWAY", "HOME" and "FORCED" air flow. The control panel also has a filter replacement indicator lamp.

Summer insert RDAZ-08

For use in the summer when no heat recovery is normally required. Cool outdoor air can be drawn in to lower the indoor temperature, at night for example.

Combined air terminal device ABRZ-01

For mounting on an outside wall. Outdoor air is taken in at the bottom and extract air is blown straight out of the unit to prevent the two from mixing. It is made of black plastic coated sheet metal and consist of a wall piece, wall hood and front cover.

Silencer BDER-30

Circular silencer for 200 mm diameter pipes.
L x Dy = 900xØ300.

Product code

Heat recovery unit **RDAB-aa-b-c-d**
with preheater 2000 W and plate heat exchanger

Size (aa) _____
01 = Motor 130 W
02 = Motor 250 W

Connection (b) _____
1 = Outdoor air left, supply air right
2 = Outdoor air right, supply air left

Supplementary heater (c) _____
0 = Without
2 = Afterheater, electric 2000 W

Generation (d) _____
1

Accessories

Installation cable for control panel **RDKZ-43-b-cc-d**

Model (b) _____
1 = 6-pole flat cabel

Length (cc) _____
10 = 10 meters
25 = 25 meters

Generation (d) _____
1

Control panel **RDKZ-41-1**

Summer insert **RDAZ-08-001**

Connection cable **RDAZ-11**
For 3-phase connection , length 4 m

Replacement filters **RDAZ-09**
Set of 2+2, supply air and exhaust air

Combined air terminal device **ARBZ-01-1**

Silencer **BDER-30-020-120**