

# REZNOR air handling cabinets type PREEVA

Heating of the treated air is by means of gas-fired air handling cabinets with a built-in gasburner. Dependent on the installed options, the unit can function as a ventilation<sup>1</sup>, "free cooling"<sup>2</sup> or cooling<sup>3</sup> unit. Every air handling cabinet meets the European conventions and guidelines valid in the country of destination.

The unit consists of an "indoor" and an "outdoor" version.

The units are modular. Because of the application of basic modules such as filter and cooling modules, a unit can be constructed gradually.

The cabinet consists of aluminised steel panels finished off by an ivory powder coating.

## Heating module (A)

The gas-fired heating coil is a closed type. The supply of combustion air and extraction of flue gasses can be of type C12, C32, C42, C52 or C82. The concentric roof terminal (or wall terminal) is connected to the junctions provided at the back of the unit.

The heat exchanger consists of aluminised steel plates. The heat exchanger with the single injector burner constitutes a patented entity. The heat exchange between flue gasses and the air to be heated occurs in counterstream by means of a vertical placed plate heat exchanger. This punched heat exchanger is not welded, thus avoiding thermal tensions.

The heat exchanger constitutes the basis for a large air volume and a low noise level of the units.

The tested thermal efficiency is 91% minimum.

The flue gas extractor puts the heat exchanger in underpressure to prevent combustion gasses from entering the ambient air in case of leakage. A built-in isolation transformer is provided.

## Combined Blower-Filter-Mixing module (G)

The air is distributed by means of centrifugal blower(s) with louvers bended towards the front, which can establish a static pressure of 400Pa.

The axis is provided with a V-belt pulley and a strict regulation of the blower speed is possible by means of an adjustable motor belt pulley. The motor is mounted on an adjustable motor bracket which allows setting of the correct belt tension. Therefore, the static pressure and air volume can be set.

The blower is mounted on the rear plate of the heating section.

The motor is protected by an external thermal security.

The fresh air and recirculation air is aspirated through the connections on the rear and bottom (or top) side of the cabinet with servomotor controlled contrarotating dampers.

These dampers allow a very accurate control of the proportion air / recirculation air very accurate. The filtration with removable panel filters, grade G4, occurs after the air mixing, resulting in a constant mixing proportion independent of the filter pollution.

The impurities are divided homogeneously over the whole filter surface.

1. If a mixing module for fresh air is present on the unit
2. Mixing module and adapted controls needed
3. Module with DX or chilled water coil needed

### **Blower module (B)**

*Module B can not be combined with module G, strike through when needed*

The air is distributed by means of centrifugal blower(s) with louvres bended towards the front, which can establish a static pressure of 400Pa.

The axis is provided with a V-belt pulley and a strict regulation of the blower speed is possible with the use of an adjustable motor belt pulley. The motor is mounted on an adjustable motor bracket which allows setting of the correct belt tension. Therefore, the static pressure and air volume can be set.

The blower is attached on the rear plate of the heating section.

The motor is protected by an external thermal security.

### **Filter – Mixing module (C)**

*Module C can not be combined with module G, strike through when needed*

The fresh air and recirculation air is aspirated through the rear and bottom (or top) side of the cabinet with servomotor controlled dampers.

These allow the accurate regulation of the proportion fresh air / recirculation air.

The filtration with removable and replaceable bag filters, grade G4 till G7 occurs after the mixing of the air, resulting in a constant mixing proportion independent of the filter pollution.

The impurities are divided homogeneously over the whole filter surface.

### **Cooling module (D)**

*Module D can not be combined with module G, strike through when needed*

The unit is provided with an extra cabinet with cooling coil.

This cooling coil is a coil :

- o That operates with cold water
- o With R407C 1 circuit refrigerant
- o With R407C 2 circuit refrigerant (1/3 en 2/3)

A water separator is placed after the coil to absorb possible condensate

### **Intake hood and water separator (E)**

*Only for the 'outdoor' unit*

An intake hood for fresh inlet air provided with a large water separator

### **Downturn cabinet outlet air (F)**

*Only for the 'outdoor' unit*

The unit is completed with downturn cabinet for outlet air.

### **Outlet possibilities <sup>1</sup>**

- o Horizontal louvres / vertical louvres / 30° curb (only 'indoor' unit)
- o Duct system
- o The unit is completed with downturn cabinet for outlet air

1. Strike through when needed

### Assembly and installation:

The unit is assembled in the factory and completely tested. The unit is delivered as one whole. The units are factory provided with a galvanised frame.

Next to the unit along the main door, a room with sufficient space is provided to execute the gas and electrical connections in a easy and safe way and to remove the burner and filters for maintenance.

### Models:

Indoor version

SDH

Outdoor version

RDH

Model	[ . ]	025	030	035	043	055	073	100
Power	kW	24,0	29,0	34,8	41,9	54,5	72,6	96,7
Air flow (min - max)	m <sup>3</sup> /h	1700-3500	2100-4200	2500-5100	3000-6100	3900-8000	5300-10600	7000-14100
DX cooling	kW	17,6	20,9	29,0	36,0	36,0	50,7	65,4
KW cooling	kW	20,9	24,3	27,6	31,2	31,2	52,5	63,7
Weight <sup>1</sup>	Kg	212	244	246	287	289	360	430

Technical brochures can be obtained on the internet.

<http://www.reznor.eu>

1. Basic unit + panel filters + contra-rotating shutters