



# Residential Ventilation with **Heat Recovery**



### THE INDOOR AIR POLLUTION

When talking about pollution, we use to think exclusively to the atmospheric pollution... ...but the air we breathe at home, in the office or at school – where we spend around 90% of our time – is much more polluted than the outdoor one!

#### FACTS & FIGURES

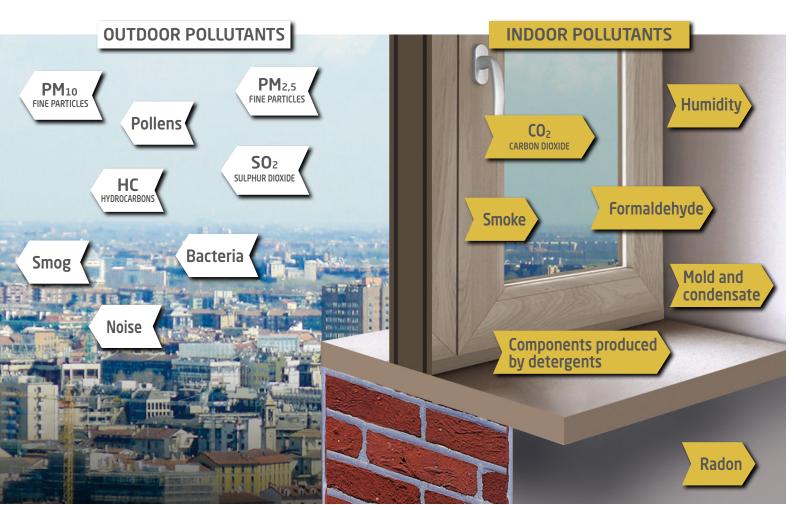
- The problem known and recognized by the scientific community is called the **Sick Building Syndrome** (SBS) *Definition given by the WHO in 1986*
- 20% of the buildings suffer from problems of humidity which are the cause of many allergic and respiratory pathologies WHO - Guidelines for indoor air quality 2009
- The indoor air pollutants cause the death of 4 million persons each year WHO
- The exposure to the indoor radon gas is the second cause of lung cancer WHO - Hanbook of indoor radon 2009

### HOW TO KEEP YOURSELF SAFE

In its Indoor Air Quality Guidelines of 2009, The World Health Organization recommends that a **correct air exchange** is made in order to maintain a minimum comfort and to prevent pathologies caused by an excessive exposure to indoor air pollutants.

## WHICH SOLUTION

Opening the windows to change the indoor air is a natural and spontaneous behaviour which is anyway very onerous in terms of thermal energy loss (heated or cooled air). Besides, it even worsens the indoor air quality. Today, ventilating means to renew the indoor air in a controlled and measurable way with optimized energy costs.







## Centralized Heat

## Integrated solutions for indoo

### **RESIDENTIAL VENTILATION UNITS** HORIZONTAL INSTALLATION \$\hfrac{1}{2} - 8 rooms





Thermal efficiency 91% **EC Brushless Motor** Free cooling / Integrated By-pass Energy Class A

- Ideal up to 4 rooms
- Airflow up to 140 m³/h
- Low consumption (min. 10W)



## **REC** in linea 180

Thermal efficiency 91% **AC or EC Brushless Motors** Free cooling / Integrated By-pass Energy Class A (EC)

- Ideal up to 6 rooms
- Airflow up to 180 m³/h
- Low consumption (min. 15W EC - min. 60W AC)



### **REC** in linea 220

Thermal efficiency 91% **AC or EC Brushless Motors** Free cooling / Integrated By-pass Energy Class A (EC)

- Ideal up to 8 rooms
- Airflow up to 220 m³/h
- Low consumption (min. 35W EC - min. 60W AC)

EC models are available with Touch Panel included (TC versions)

### VERTICAL INSTALLATION up to 10 rooms





REC 280

Thermal efficiency 93% **AC** motor

Free cooling / Integrated By-pass

- Ideal up to 10 rooms
- Airflow up to 280 m³/h
- Low consumption (min. 80W)



Thermal efficiency 93%

**EC** brushless motor Free cooling / Integrated By-pass Energy class A

- Ideal up to 10 rooms
- Airflow up to 320 m³/h
- Low consumption (min. 40W)
- Available with Touch Panel included (TC version)

## t Recovery Units or comfort and energy saving

#### CONTROLLERS



#### RLS 3V

- Remote 3 speed control and On/Off switch
- New design with cover
- Suitable for surface or built-in installation
- Ease of connection by the means of removable terminals
- Protection IP42
- Weight 0,40 Kg
- Supply voltage 230V 50/60 Hz
- Dimensions 110 x 80 x 42 mm

#### Suitable and available as accessory with:

- REC in Linea 180 AC
- REC in Linea 220 AC
- REC 280 AC



#### **RLS 1 WR**

- Remote control
- Manual selection of three modality of continuous running:
  - I Low ventilation modality
  - II Intermediate ventilation modality III - Intensive ventilation modality
- Supply voltage 230V 50/60 Hz
- Weight 0,50 Kg
- Dimensions 75 x 75 x 30 mm

#### Included with:

- REC in Linea 140 EC
- REC in Linea 180 EC
- REC in Linea 220 EC
- REC 320 EC



#### **TOUCH PANEL**

The remote Touch Panel with coloured screen allows to manually or automatically manage (through the weekly programming) the following functions:

- The speed/ventilation level regulation
- The ventilation modality (by-pass function, free-cooling, only extraction, only immission)
- The post-ventilation function (Timer function, adjustable from 0 to 30 minutes) to delay the switching of the unit at the minimum speed)
- The Sleep modality that allow to have the unit running silently at low speed during the night

#### Suitable and available Included with: as accessory with:

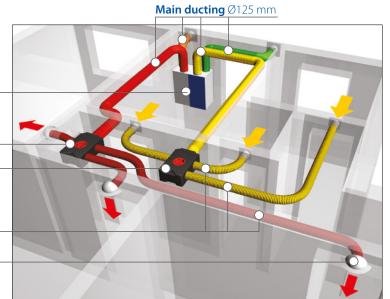
- REC in Linea 140 EC
- REC in Linea 180 EC
- REC in Linea 220 EC
- REC 320 EC
- REC in Linea 140 ECTC PLUS
- REC in Linea 180 EC TC PLUS
- REC in Linea 220 ECTC PLUS
- REC 320 ECTC PLUS
- REC Smart + TC

### **EXAMPLE OF INSTALLATION** OF A HEAT RECOVERY SYSTEM WITH MAICO FLEX ACCESSORIES

Maico Flex is a system of accessoriers for air distribution



adaptors and exhaust/intake grilles



## **Decentralized hea**

## Breathe a health

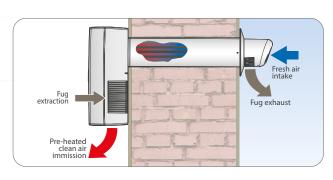


- Thermal efficiency 75%
- Filtering system in intake and exhaust, washable
- 3 models for wall thickness 400/500/600 mm
- Easy installation: it is sufficient a hole of **Ø100mm**
- Silent running and energy saving (min 8 W)
- Airflow up to 53 m³/h
- Provided with smart functions: Free cooling, Humidity control and Antifreeze



#### TUBULAR HEAT EXCHANGER













Version with **REMOTE CONTROL** 



- Thermal efficiency 90%
- HRU with alternate flow (push-pull type)
- High efficiency filtering system placed on
- Telescopic pipe placed adaptable to the w
- Airflow up to 70 m³/h
- Easy installation
- Free cooling function to prevent heat exch
- Smart functions: speed boost mode throu timer, sleep mode, flow direction control.

#### IDEAL IN BEDROOMS

#### Install 2 units to obtain an optimized efficient



CERAMIC HEAT EXCHANGER



## at recovery units

## nier air at home





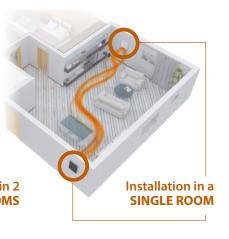


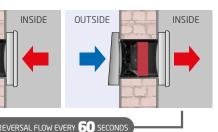
the heat exchanger rall thickness (220 ÷ 1000 mm)

nange if not needed gh humidity control or sensors, delay

#### AND LIVING ROOMS

ciency and a better airflow balancing.





## RECSanAir

- Thermal efficiency 82%
- High efficiency filtering system HEPA + G2 in intake that allows the retention of 100% of pollens and fine particles

#### (98% of PM2,5 and 99,5% of PM10)

- 2 models for installation on wall (built-in or surface installation, horizontal or vertical)
- Silent running and very low consumption (min 4 W)
- Airflow up to 41 m³/h
- Integrated functions: Free cooling, Energy saving and Antifreeze.











**WALL** model

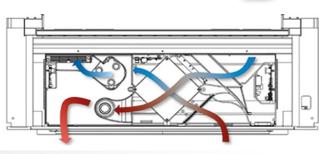




IN WALL model







### HEAT RECOVERY VENTILATION

Ventilation with heat recovery is a clean and simple technology which provides great comfort and savings: it enables to create an hygienic microclimate throughout the home, combining comfortable living, protection of the building and energy efficiency.

## It is particularly recommended for:



Lower heating and air conditioning bills.

Low energy consumption.

Optimising insulation investments (window frames, wall and loft insulation, roof) which would be wiped out with a natural ventilation system: on average, in fact, open windows lead to a loss of 50% of heat from the home.



Fresh, clean air at a comfortable temperature improves your quality of life and sleep.

A clean and filtered air prevents allergens from multiplying and promotes the removal of pollutants.

Low noise level: quiet equipment operation and protection from external noises.



Preventing damage caused by dampness and condensation.

Preventing mould.

Protecting the value of your property.



Practical, versatile and customisable modular operation.

A reliable system which ensures the correct ventilation in every season.

The ideal solution for energy requalification of buildings.



The headquarter of Maico Italia Spa, Lonato del Garda (Brescia)



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