





## Two distinct HRV solutions for individual rooms

Do you have mold and moisture problems but don't have the possibility of installing a centralized HRV system?

The Ariosa DOT is the ideal solution: a controlled mechanical ventilation machine with heat recovery intended for individual rooms, perfect for residential applications, small offices, professional studios, medical clinics, etc.

The constant air exchange, high-performance filters, and ultra-efficient heat recovery provide for **maximum comfort and hygiene** in any environment.

Thanks to the built-in cooling circuit, the **Ariosa DOT HP** version allows air to be delivered at **ideal humidity levels** guaranteeing maximum comfort, **even during the hottest and humid of seasons**.

Boasting **exceptional performance**, a clean and elegant contour, a modern minimalist design and an original aesthetic finish, the Ariosa DOT is the perfect product for eliminating mold and condensation, while at the same time guaranteeing a proper exchange of air.



**MADE IN ITALY** 





## AIR IS LIFE

## The importance of clean air for healthy living

The long-term effects of exposure to hazardous substances are easily overlooked and underestimated. And since prevention is better than treatment, the time to act is now.

Breathing clean air is essential for health, especially when spending a considerable amount of time in poorly ventilated rooms. In fact, every day we take over 20,000 breaths of air, absorbing vital oxygen and expelling CO<sub>2</sub>.

Air quality without question has a major impact on our health: we need to breathe clean, oxygen-rich air free of pollutants, which are often concentrated enclosed and in poorly ventilated rooms. Without adequate ventilation, indoor air can become saturated with harmful substances to our health. In fact, accredited studies have shown that air quality in enclosed environments is up to 20 times worse than outdoors.

The main hazardous elements to our health are fine dust, combustion fumes, gases and volatile organic compounds from chemical cleaners, glues, and paints. Other toxic pollutants are of biological origin, such as allergens, molds, bacteria, and viruses, as well as naturally occurring radon gas potentially hazardous at high levels.

These pollutants impact our health, exposing us to the risk of developing potentially serious diseases.

#### Get rid of mold at last!

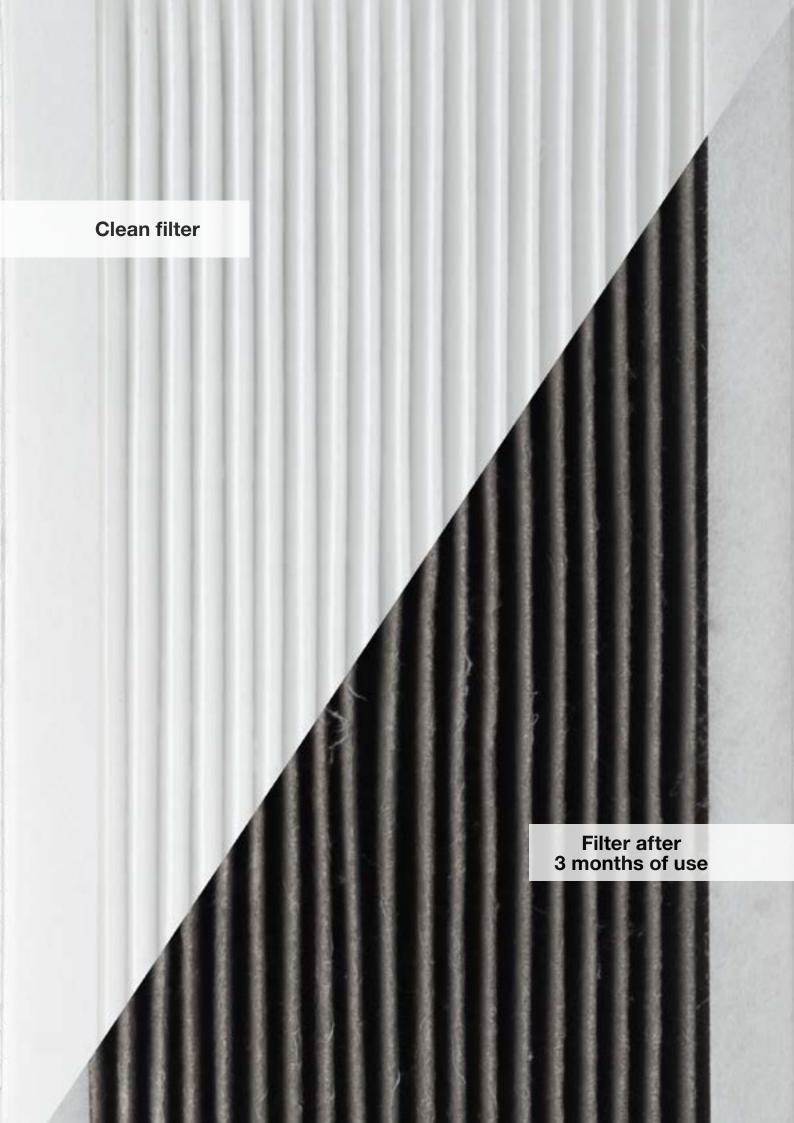
**Heat recovery ventilation** plays an important role in preventing mold and maintaining a **healthy living and working environment**.

It does so by eliminating moisture and ensuring a continuous exchange of fresh air, thus preventing the growth of, causing respiratory problems and allergies, which can even compromise the conditions of the building.

In this manner, the Ariosa DOT ensures that the building's conditions are maintained, thus avoiding potential devaluation.







#### Air filtration and purification

The Ariosa DOT offers high-performance filters and eliminates fine dust, pollen, and smog from the incoming air, thus significantly improving the quality of the air.

The presence of an **ISO Coarse 65%** filter and ISO **ePM**<sub>1</sub> **50% filter** (F7 according to the EN 779/2012 classification) **eliminates a large percentage of bacteria and viruses**, further improving the hygienic conditions in any environment. In addition, they also prevent the entry of harmful PM<sub>10</sub>, PM<sub>2.5</sub> and especially PM<sub>1</sub> particulates, further protecting our health.

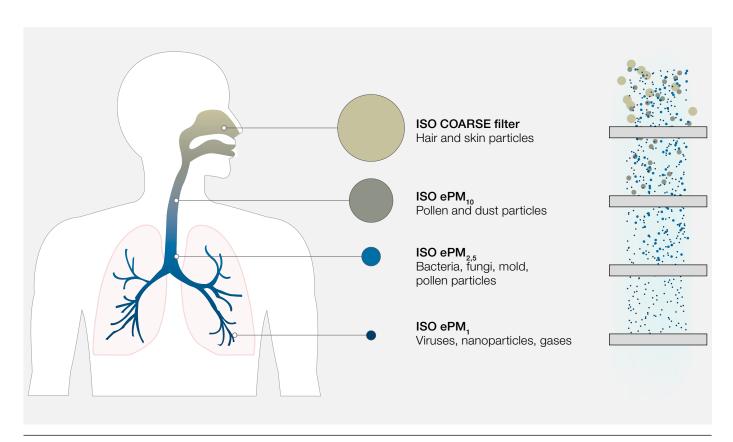
The filters also drastically reduce major allergens, eliminating pollen and dust to ensure that the air is always clean and rich in oxygen.



ePM<sub>1</sub> filter for air emitted into the home, prevents smog and fine dust from entering the homes located in urban settings. Blockage of pollens to limit allergic reactions, ensuring a healthier and more comfortable environment.



ISO Coarse filter maintains the cleanliness and efficiency of the Ariosa DOT unit.





## MAXIMUM ENERGY EFFICIENCY...

#### Energy savings

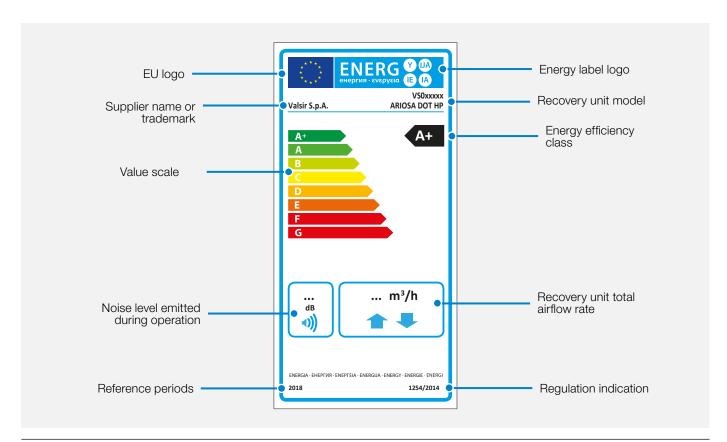
Ariosa DOT units are equipped with either a sensible or enthalpy type counter flow heat exchanger, depending on the model selected. The internal warm air extracted from the room is loaded with moisture, CO<sub>2</sub> and other pollutants, and passes through the heat exchanger, where it encounters the airflow intake drawn from outside and transfers its heat to the incoming intake airflow.

This process results in extremely high heat recovery performance, with values that can exceed 90% efficiency.

The Ariosa DOT is the ideal solution for all highenergy performance buildings, considerably reducing energy bills due to the constant air exchange. To limit energy consumption, the European Union has implemented the Delegated Regulation 1254/2014, which regulates the labeling of energy consumption in residential ventilation units.

The energy classes indicated are determined by a specific parameter: the specific energy consumption, or SEC. This value makes it possible to compare the energy performance of different units in kWh per m<sup>2</sup> per year.

SEC class	SEC [kWh/a·m²]		
A+ (high efficiency)	SEC < -42		
A	-42 ≤ SEC < -34		
В	-34 ≤ SEC < -26		
С	-26 ≤ SEC < -23		
D	-23 ≤ SEC < -20		
E	-20 ≤ SEC < -10		
F	-10 ≤ SEC < 0		
G (low efficiency)	0 ≤ SEC		





## ...FOR YOUR WELLBEING

#### Silent operation and acoustic comfort

**Ariosa DOT** units are designed to guarantee the highest level of acoustic comfort, reducing turbulence and optimizing the airflow at any speed.

From the unit's innovative design to highperformance materials and state-of-the-art components; the Ariosa DOT offers extremely low acoustic impact, improving the quality of daily household living. During the product development phase, the Ariosa DOT was tested in **Valsir's brand new state-of-the-art R&D laboratories**, achieving prestigious performance results validated by Europe's most prestigious and accredited international laboratories.

The **Ariosa DOT** represents the market's inaudible solution for quality living thanks to its **special "night" mode setting**.







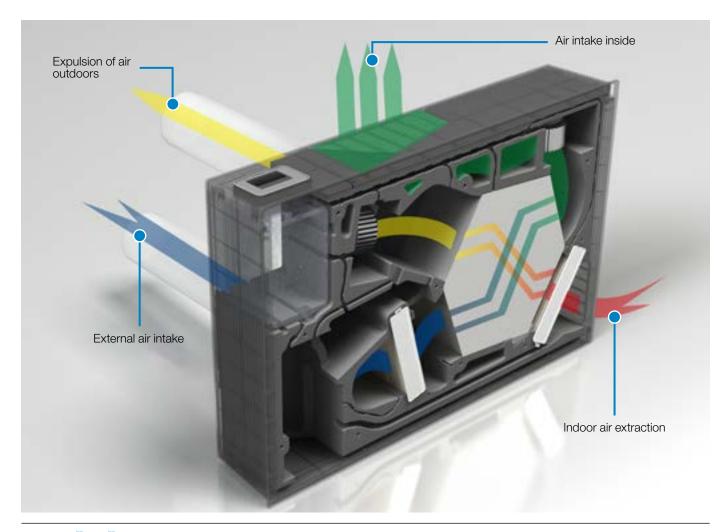
# HOW THE ARIOSA DOT WORKS

#### The Ariosa DOT in operation

The dual-flow unit has a connection duct external air intake. The air then passes through the high-capacity filter, blocking smog, dust, pollen, and other unwanted substances.

As it passes through the recovery unit, the heat from the internal higher-temperature air flow is transferred to the external lower-temperature air flow, thus improving the **efficiency and sustainability** of the room's air renewal system. The second fan draws the internal room air, saturated with pollutants, moisture, CO<sub>2</sub>, volatile organic components, etc. After being filtered, this air flow encounters the external airflow, and, after the heat exchange, is then expelled to the outside environment.

The Ariosa DOT HP model also dehumidifies the incoming air, an essential factor for keeping humidity levels under control even during the hottest and most humid times of year, thus improving comfort all year round.





## **COMPONENTS**



### The Ariosa DOT HP cooling circuit

The Ariosa DOT HP cooling circuit allows incoming air to be dehumidified, ensuring ideal humidity conditions, even during the hottest and most humid seasons of the year.

Activated automatically by the system's numerous temperature and humidity control probes, the circuit is designed in accordance with the **highest safety standards** and is equipped with natural refrigerant gas with zero environmental impact.

The Ariosa DOT does not pollute.







#### Fans

The electronic fans make it possible to **regulate** the intake and exhaust airflows with maximum precision to ensure effective air exchange in any situation, while at the same time guaranteeing the highest levels of silence and acoustic comfort.



#### Bypass

The bypass is electronically sensor activated, constantly monitoring the internal and external air temperature and humidity conditions; it helps maintain a high level of thermal comfort by directly delivering air whenever the temperature and humidity conditions required it.



#### Recovery unit

Available in either a **sensible** or **enthalpy version**, depending on the model selected, the crossflow heat recovery unit ensures **excellent energy efficiency** performance in both summer and winter, proving a considerable reduction in energy consumption.



#### **Filters**

The two standard Iso Coarse and Iso ePM1 filters guarantee **maximum indoor hygiene** by filtering dust, pollen, smog, and other potential hazardous substances, such as viruses, bacteria, allergens, spores, and harmful PM<sub>10</sub>, PM<sub>2.5</sub> and PM<sub>1</sub> particulates.





## **EASE OF INSTALLATION...**



The unit is installed along a perimeter wall and can even be installed under a window thanks to its compact size and excellent versatility.

Two 125 mm diameter holes must be drilled to allow for intake and exhaust airflow.

The condensation drain can be externally connected by making a small hole to the wall leading to the outside environment, conversely it can be connected to the drainage system situated close to the Ariosa Dot HRV unit.



Using the template and brackets provided with the unit, Ariosa DOT can be **safely** affixed to the wall in **just a few simple steps**.

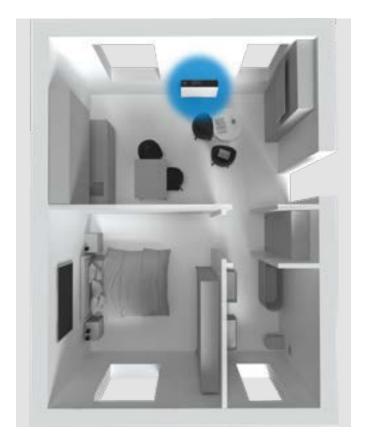
Once positioned, it must be connected to the main electrical network in order to be powered and fully functional.



Once the unit is turned on, the initial start-up menu will guide the user through the process of setting the machine's functions: in just a few minutes, the Ariosa DOT will be ready to **guarantee optimal comfort** while at the same time optimizing energy consumption.



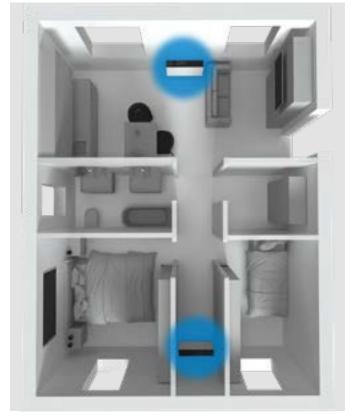
## ... IN EVERY ROOM!



#### Single unit

A single unit installation is suitable for a one- or two-room apartment. The air flow of the Ariosa DOT allows for residential applications covering areas of approximately 70 m<sup>2</sup>.

The single unit installation is also suitable for providing air exchange in small offices.



#### Multiple units

For larger areas, it is recommended to install multiple units to guarantee an effective exchange of the ambient air.

It is recommended to install multiple units in residential units consisting of multiple rooms, such as that shown in the image, or in any context that, due to size or number of occupants, requires more frequent air exchange.

Each Ariosa DOT unit can also be fitted with an additional air extraction duct using Valsir's AriaSilent distribution system from an adjacent room, for example, a small bathroom.



## FEATURES OF THE ARIOSA DOT



#### **DIMENSIONS**

95x64x19 cm

#### **AIR FLOW**

100 m<sup>3</sup>/h

#### **4 SPEEDS**

Night, minimum, medium and maximum

	Air flow	Room surface	Heat exchanger	Dehumidification	Power consumption
ARIOSA DOT	100 m³/h	70 m²	Sensible	-	25 W
ARIOSA DOT E	100 m³/h	70 m²	Enthalpic	-	25 W
ARIOSA DOT HP	100 m³/h	70 m²	Sensible	12 l/d	27 W





### CONTROL PANEL

The unit's configuration and functions can be managed via the **state-of-the-art control panel** with LCD display.

The control panel can be installed in a separate remote location and mounted on the wall inside the room.



**Speed optimization.** The amount of recycled air can be adjusted by selecting from among the 4 options (minimum, medium, maximum, or night), in meeting any requirements.



Advanced menu. An advanced menu allows the user to monitor and manage all of the unit's operating parameters. By setting the desired comfort conditions, in terms of temperature and humidity, the Ariosa DOT's functionality can be customized.



**Smart management.** The Ariosa DOT, based on the pollutant monitoring, offers both a manual and automatic function. The client may select between an hourly or daily program setup.



**WI-FI.** Available standard on all Ariosa DOT units, the WI-FI option allows the unit to be connected via internet for real time updates and management by way of the Ariosa mobile App.



Absolute control. Numerous on board temperature and humidity sensors constantly monitor the air quality, providing a detailed and real-time display report of the environmental conditions via the LCD display panel.

#### The Valsir HRV App

The App for smartphone and tablets is 100% designed and developed by Valsir and is available on both the Apple Store and Google Play Store.

It allows all unit functions to be managed remotely via a simple internet connection.

Among other things, this feature allows the fan speeds, the seasonal adjustments, and the desired comfort levels to be managed in a simple and intuitive manner.

The App also provides the user with notifications regarding the unit's status and the cleanliness of the filters.







## **CUSTOMER SERVICE**

#### Technical support

Valsir provides complete customer support during onsite systems design and installation, thanks to an experienced high-level technical department consisting of a team of engineers with international experience capable of providing solutions for any installation requirement.



#### Valsir Academy

Valsir has an important training facility - Valsir Academy - dedicated to clients, distributors, plumbers and planners requiring in-depth specialized product training courses. The courses are both theoretical and practical, offering essential information on the use and design of plumbing and heating systems. Courses can be done either at Valsir Academy or directly at the clients place of business.

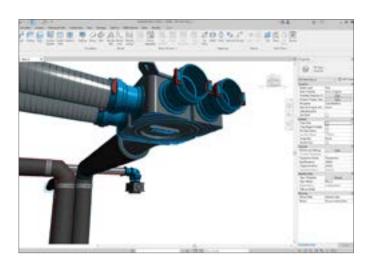


## **VALSIR IS BIM-READY**

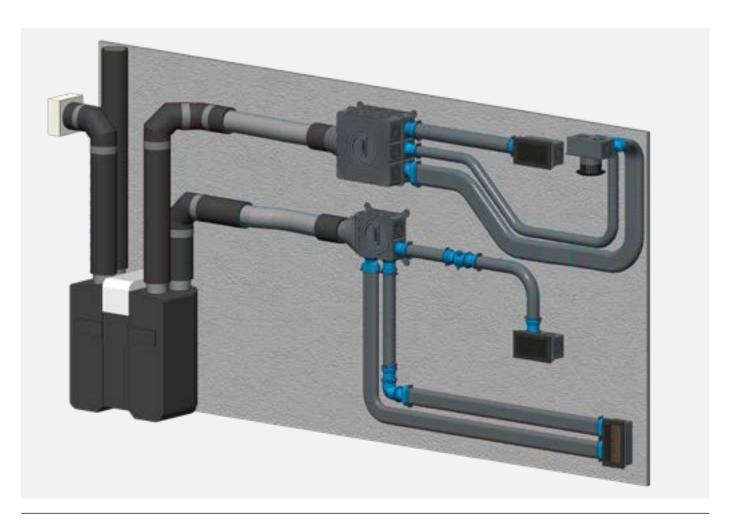
Valsir has adopted the BIM philosophy, the modeling process which improves planning, design, construction, and building management and is in alignment with the industry's digital build modeling.

A "BIM-oriented" design offers significant competitive advantages: more efficiency and productivity, fewer errors, less downtime, fewer costs, greater interoperability, maximum information sharing, and more timely and consistent project control.

Valsir captures the essence of this system with a set of Revit models and applications designed for quick and easy use









## QUALITY AND ENVIRONMENT

#### Quality

The constant commitment of Valsir in the production of quality products is attested by over **350 product approvals** obtained throughout the world by the most stringent certification bodies (data updated to 01/09/2024), by a Management System of the Quality (QMS) certified in compliance with the **UNI EN ISO 9001:2015** standard and the Energy Management System (SGE) certified according to the international standard **UNI EN ISO 50001:2018**.

Valsir S.p.A. has further demonstrated its commitment to the environment by obtaining certification **ISO 14001:2015** on the Vestone production site.

Since 2019 an innovative and modern plant has also been built that, integrated with the already installed photovoltaic park, will be able to produce over 30% of the electricity needed for all Valsir plants. This is a Trigenerator powered by methane gas capable of producing electricity, steam, and cooling energy.



#### Sustainability

Efficient processes and reliable products are no longer the only parameters used to perform an assessment of the quality of a company's conduct: the capacity of the company and its management to design and implement production process that are sustainable from an environmental point of view is of equal importance.

Valsir has started a project of Corporate Social Responsibility and has published its Sustainability Report that gathers facts and figures relating to the daily commitment of Valsir in terms of social, economic and environmental responsibility.



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WATER TREATMENT





L02-1003/0 - Settembre 2024

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