



The Unico System

The **Unico** System.®

An energy efficient system that will challenge the way we currently **heat**, **cool** and **ventilate** our homes.





HOME CLIMATE CONTROL & COMFORT
FOR A RENEWABLE FUTURE... **TODAY!**

Residential and Light Commercial

Homeowners can improve their health and well being whilst enjoying all year round superior climate control, indoor air quality and home comfort





HOME CLIMATE CONTROL & COMFORT
FOR A RENEWABLE FUTURE... TODAY!

With over 500,000 Systems Installed, Unico Systems is America's leading manufacturer for small duct heating cooling and ventilation systems.

Founded in 1985 by Joe Intagliata UNICO remains a family-owned business with a reputation for delivering high quality products and services that make a real difference to the environment and indoor air quality. The company currently manufactures all of its products in St. Louis MO, in a modern manufacturing facility occupying more than 10,000 sq.m. Respected for being experts in air conditioning, home comfort and personal well-being.

Unico Systems is represented throughout America, Canada and most recently the UK.

The organisation is serious about exploring the opportunities that exist here in Australia and New Zealand.



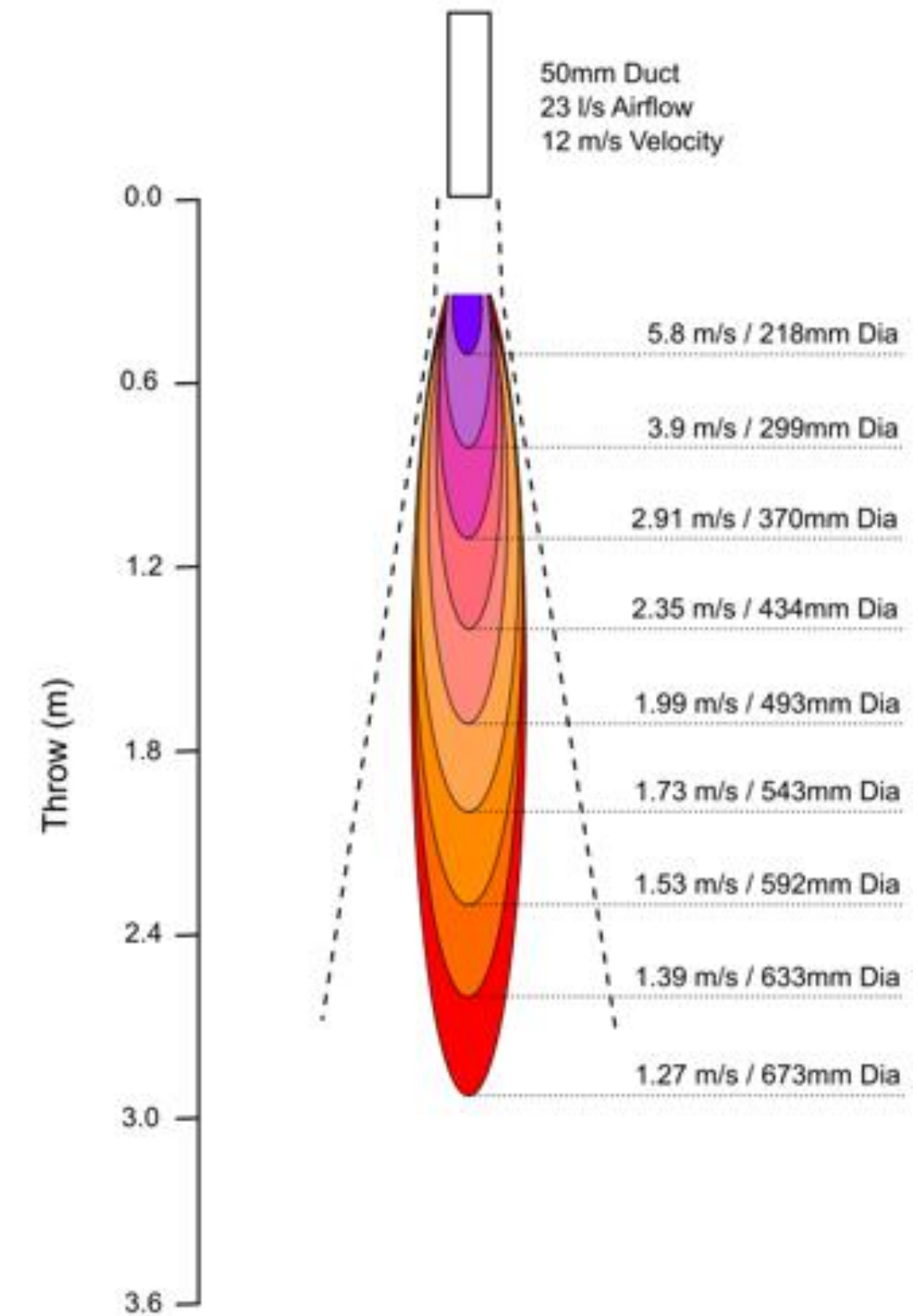
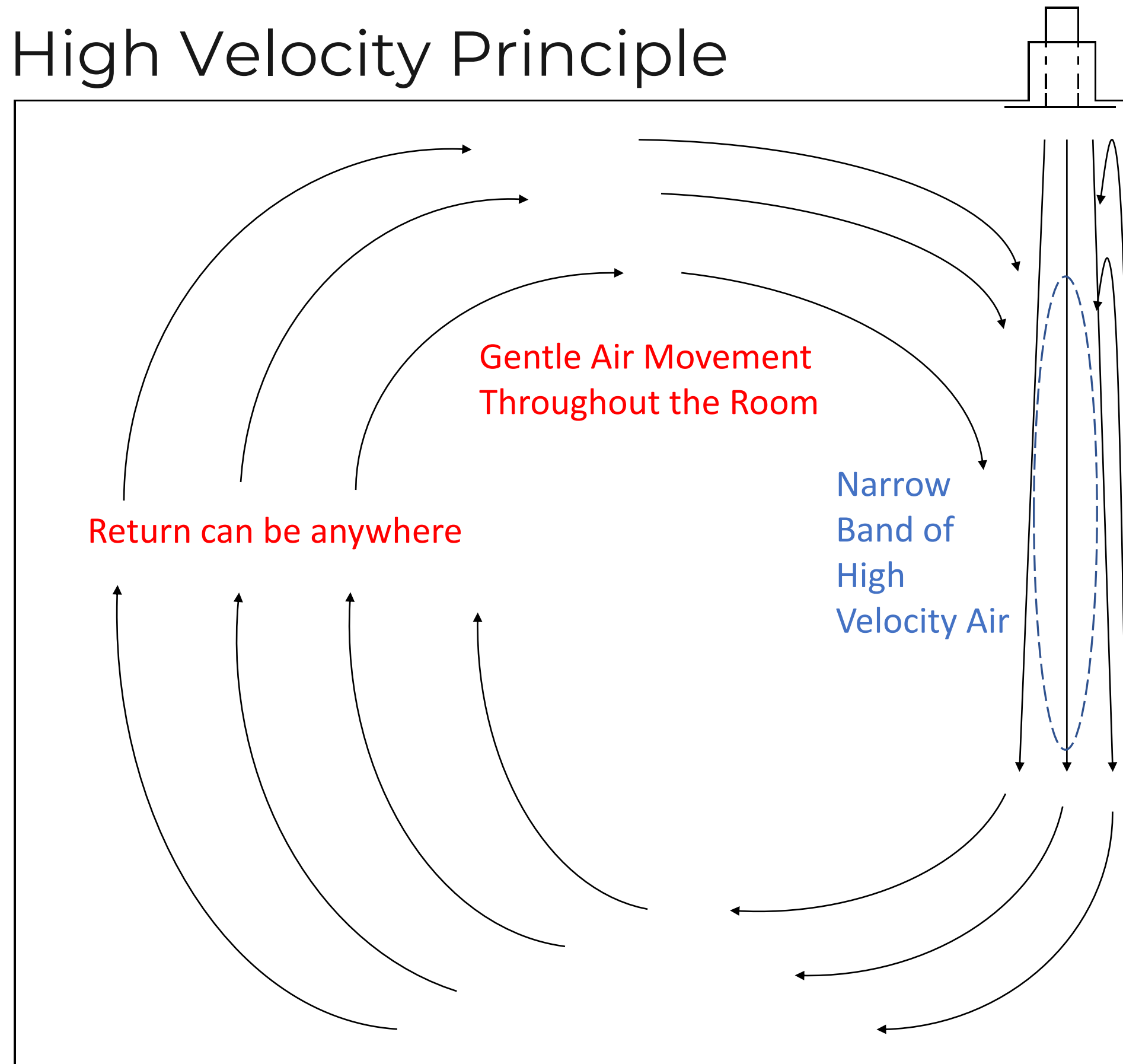
HOME CLIMATE CONTROL & COMFORT
FOR A RENEWABLE FUTURE... TODAY!

The Unico System is a small duct high velocity (SDHV) system

A modular central air distribution system made up of small easy to install ducts that mix and deliver conditioned air into living space

One simple solution providing instant heating and cooling, along with improved air quality and well being

High Velocity Principle



Key Features

- Genuine alternative to traditional systems
- Modular construction for easy installation
- Heating, cooling and ventilation
- Superior **conditioned** IAQ (indoor air quality)
- Works well with renewable technology
- Compatible with multiple energy sources
- Optional ultraviolet light technology



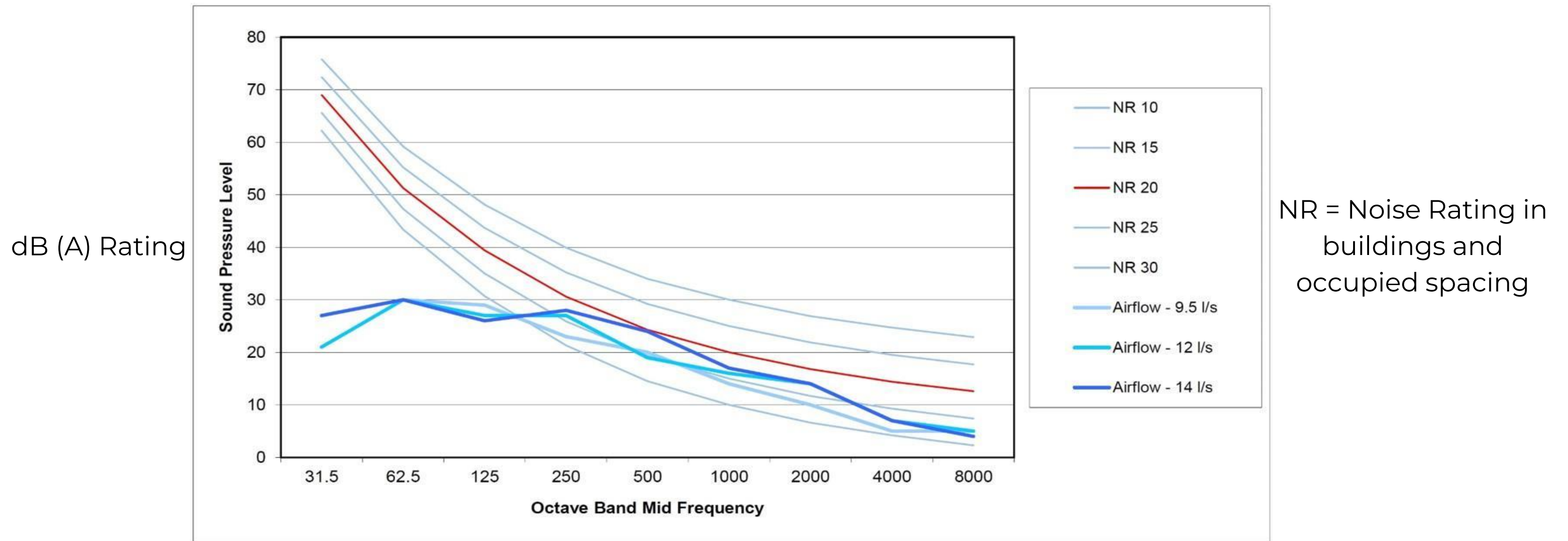
- Air source heat pumps
- Chillers
- HRV compatible
- ERV compatibility
- Ground source heat pumps
- Traditional boilers



Key Benefits

- High Energy Efficiency – 97% of energy delivered to the conditioned space
- Air is delivered seamlessly and quietly at <30dB(A)
- Removes up to 30% more humidity than some traditional HVAC systems, improving air quality and optimising comfort levels
- Easy installation – small insulated ducting with twist fit connections
- Discrete and modern outlets

Low Noise Levels

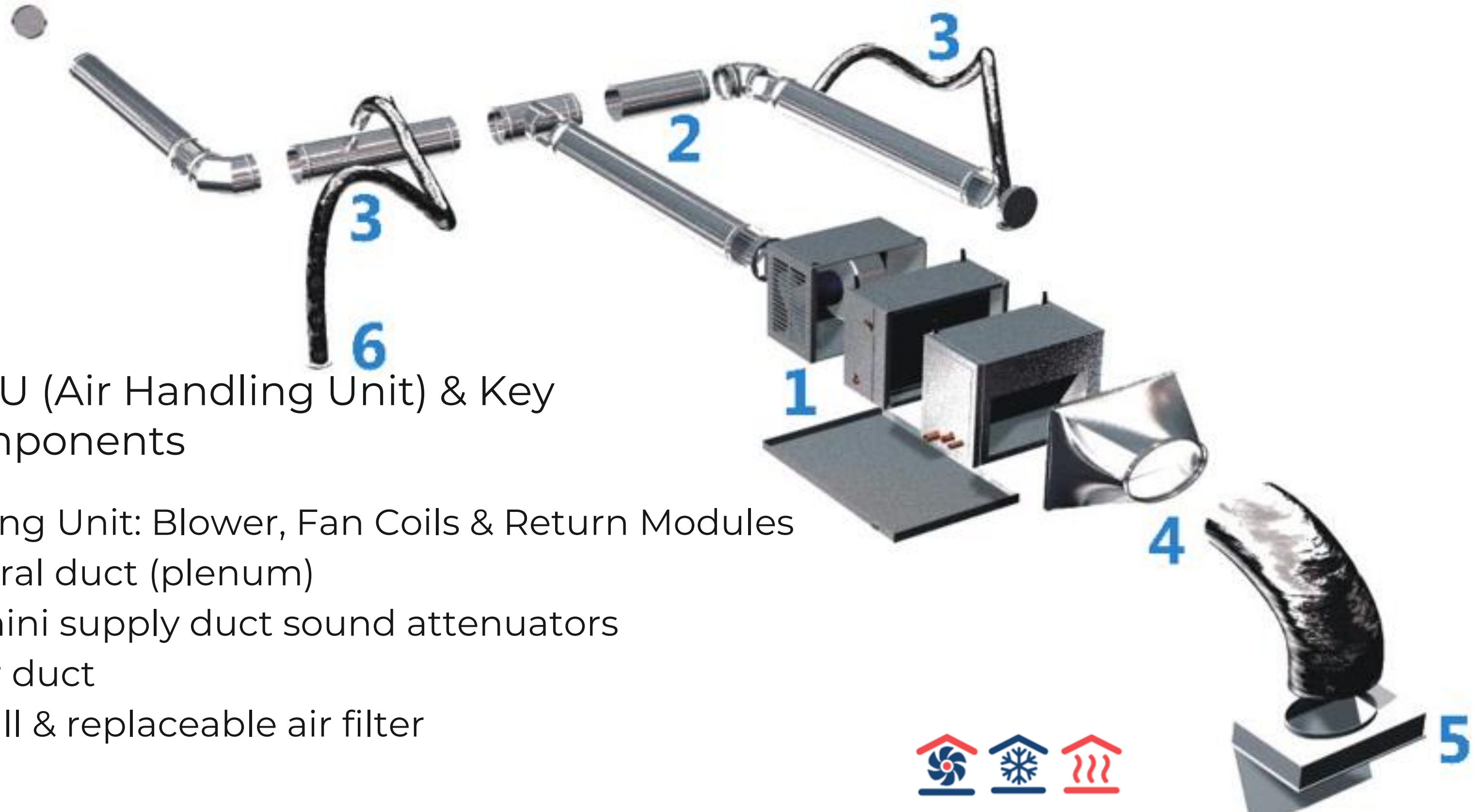


Typical NR (noise rating) in residential buildings and occupied spaces. When properly designed and installed with a typical sound power level of less than <30dB(A) whisper level.

The Unico System[®]

System Components

HOME CLIMATE CONTROL & COMFORT
FOR A RENEWABLE FUTURE... **TODAY!**



Modular AHU (Air Handling Unit) & Key System Components

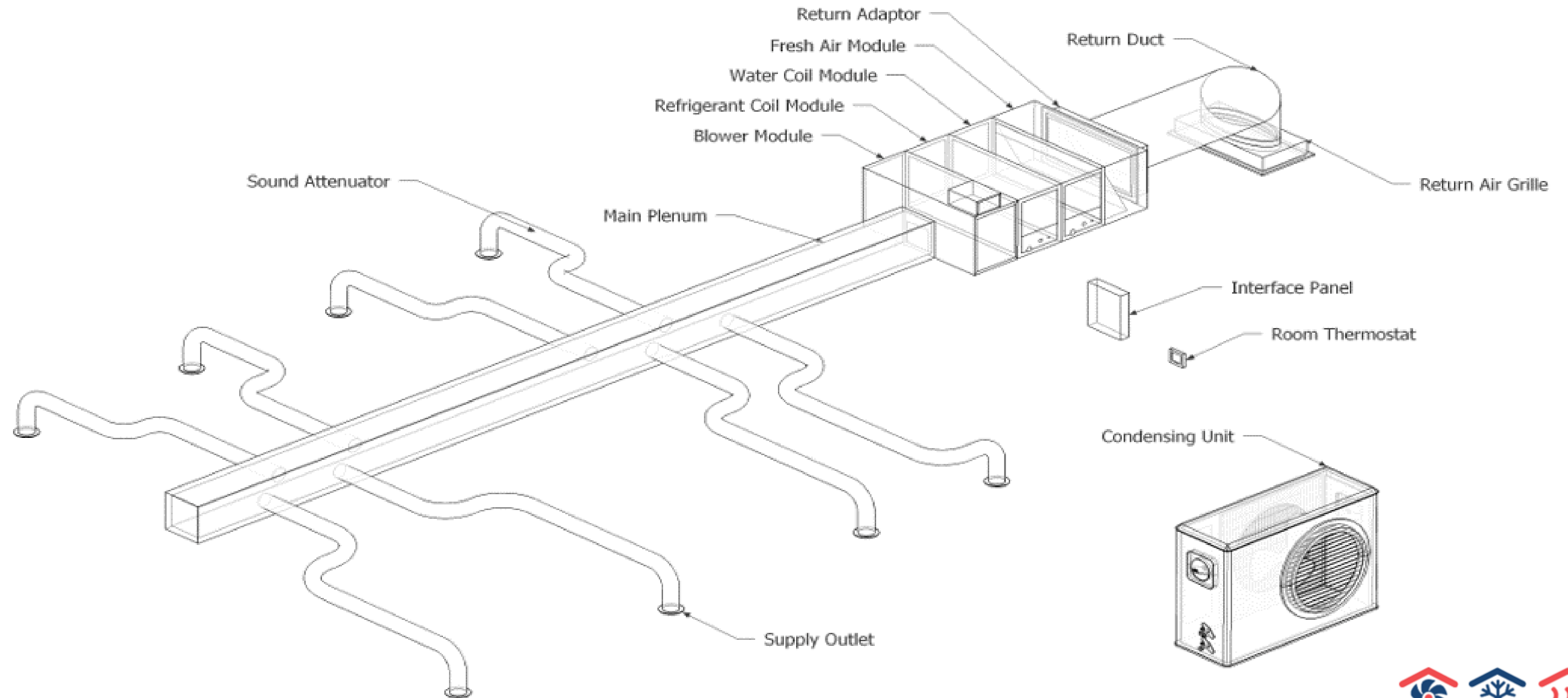
1. Air Handling Unit: Blower, Fan Coils & Return Modules
2. Main central duct (plenum)
3. Flexible mini supply duct sound attenuators
4. Return/air duct
5. Return grill & replaceable air filter
6. Outlets



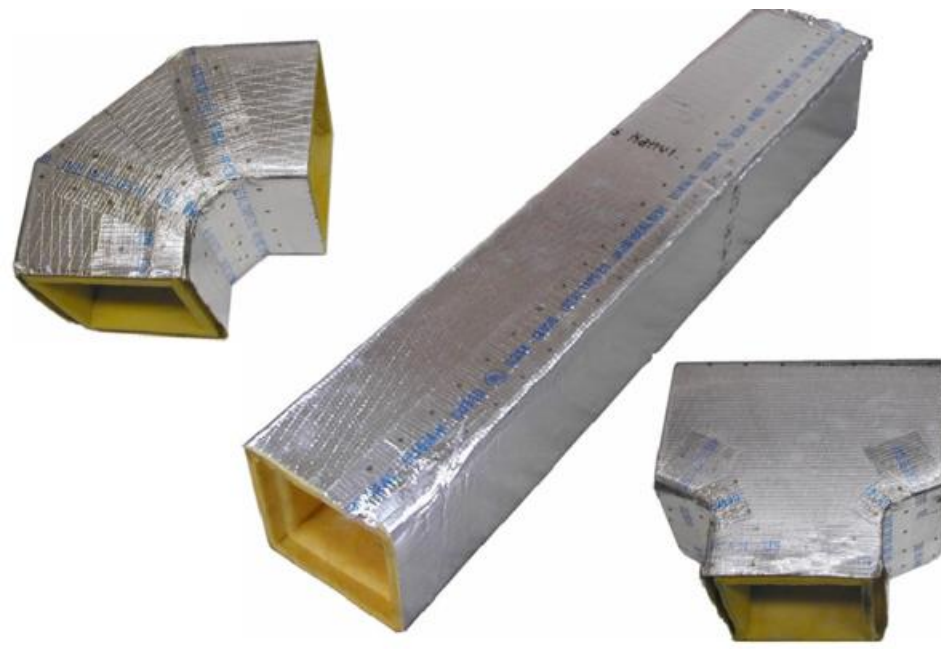
The Unico System[®]

System Components

HOME CLIMATE CONTROL & COMFORT
FOR A RENEWABLE FUTURE... TODAY!



Central Duct (Plenum) Modular Air Handlers and Supply Tubing



Smaller Plenum (Main Duct)



Modular Air Handlers



Flexible Supply Tubing



Unobtrusive Outlets

- Fiberboard or insulated spiral ductwork
- Quick installation & assembly
- Needs early consideration & commitment
- Up to 3 zones per system for individual room control

- Pre-insulated flexible duct
- Reduces noise levels
- 50mm internal diameter
- 90mm external diameter
- Easy twist fit connections

Modular Air Handling Unit - (AHU)



Vertical
options available

Horizontal Configuration



Multiple Options:

- Chilled Water Coil
- Hot Water Coil
- Refrigerant Coil
- Direct fired heating

Key info on the AHU

- Simple lightweight modular design
- SMART control board
- Variable speed EC fan
- Soft start
- 30% less humidity
- Flexible outlet positioning
- Less intrusive

Smart Control Board (SCB)



Key info of the SCB

- Manages the airflow and the motor speed
- Multiple pre-set options
- Soft start
- Compatible with laptops and tablets for programming & commissioning
- Addition of low heat setting
- Coil freeze protection
- Multiple terminals
 - ASHP, Boiler, Condenser or Chiller
 - Programable Thermostat & Controls
 - Outside air / ventilation



Control Options



**Unico Basic
Thermostat**



**Nest Pro Learning
Thermostat**



**Up to 3
Zones Per System**

Discrete outlets with designer options



...Which look
like a typical
LED light
when
installed

The **Unico** System[®]

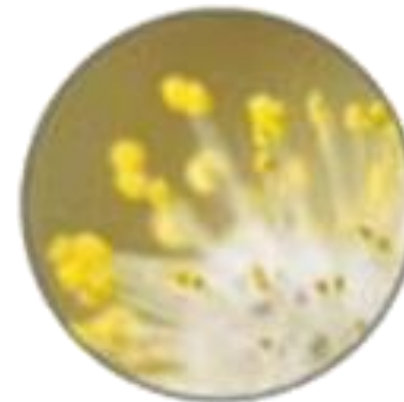
Outlet Visuals

HOME CLIMATE CONTROL & COMFORT
FOR A RENEWABLE FUTURE... **TODAY!**



Enhanced Indoor Air Quality

The recent pandemic has reinforced the importance about washing hands and disinfecting surfaces. But homeowners are becoming aware that a well-designed air-conditioning system can also play a vital part in disease prevention and improved IAQ.



Pollen



Pet dander



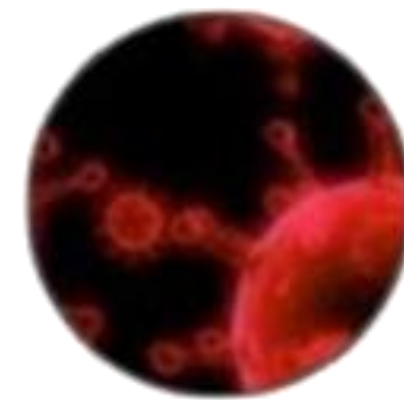
Viruses



Cleaning chemicals



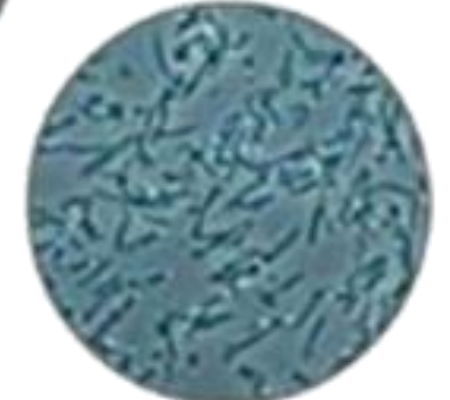
Environmental pollutants



Germs

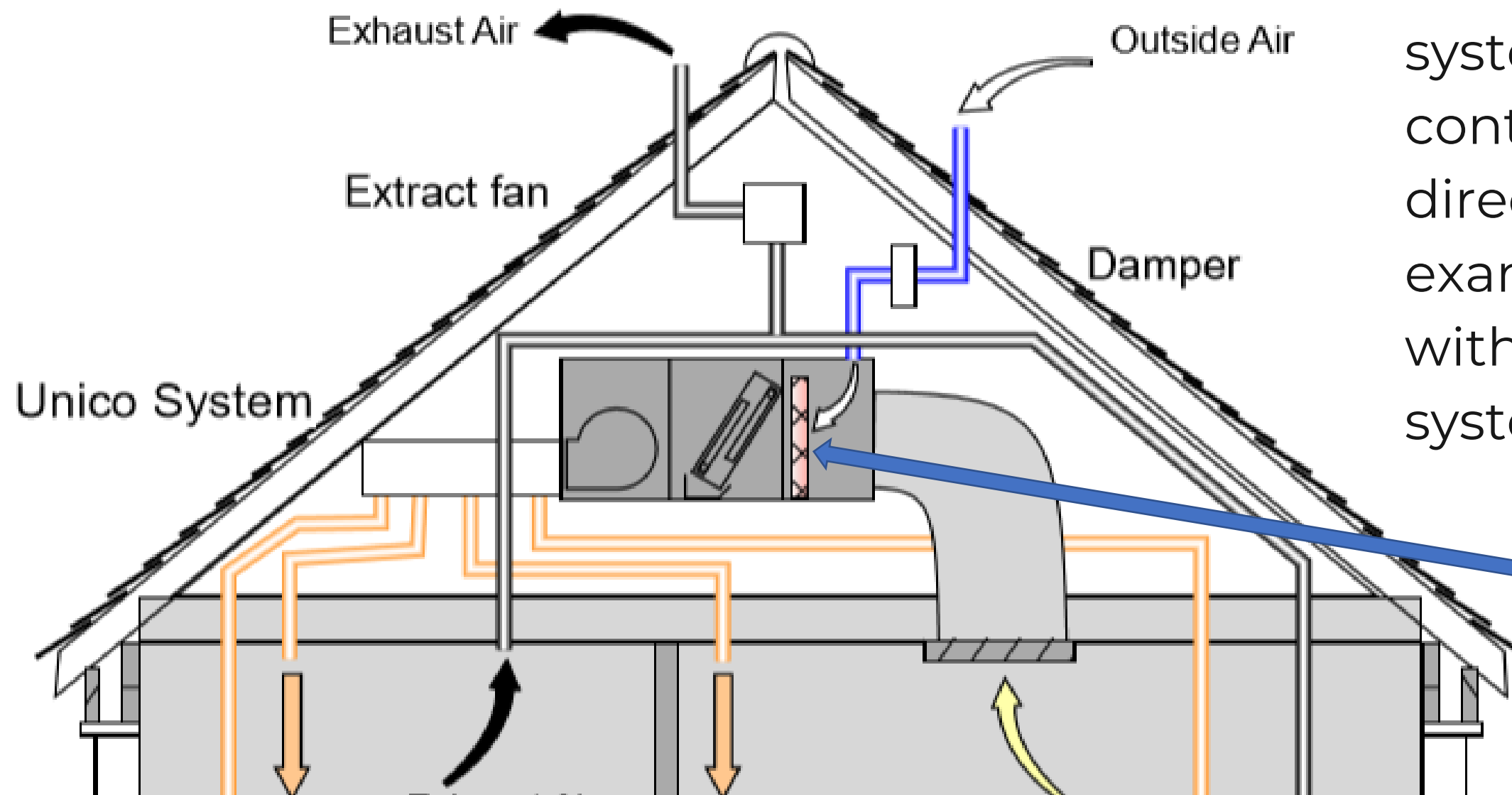


Tobacco smoke



Bacteria

Provide fresh air from the outside



The modular design means you can easily introduce fresh air directly into the Unico system via the multiple return air module, controlled via a single damper and wired directly into the Unico smart board. This example shows the Unico System operating with a standard MEV (mechanical extract) system

Filters are used to capture airborne particles and these must be replaced regularly



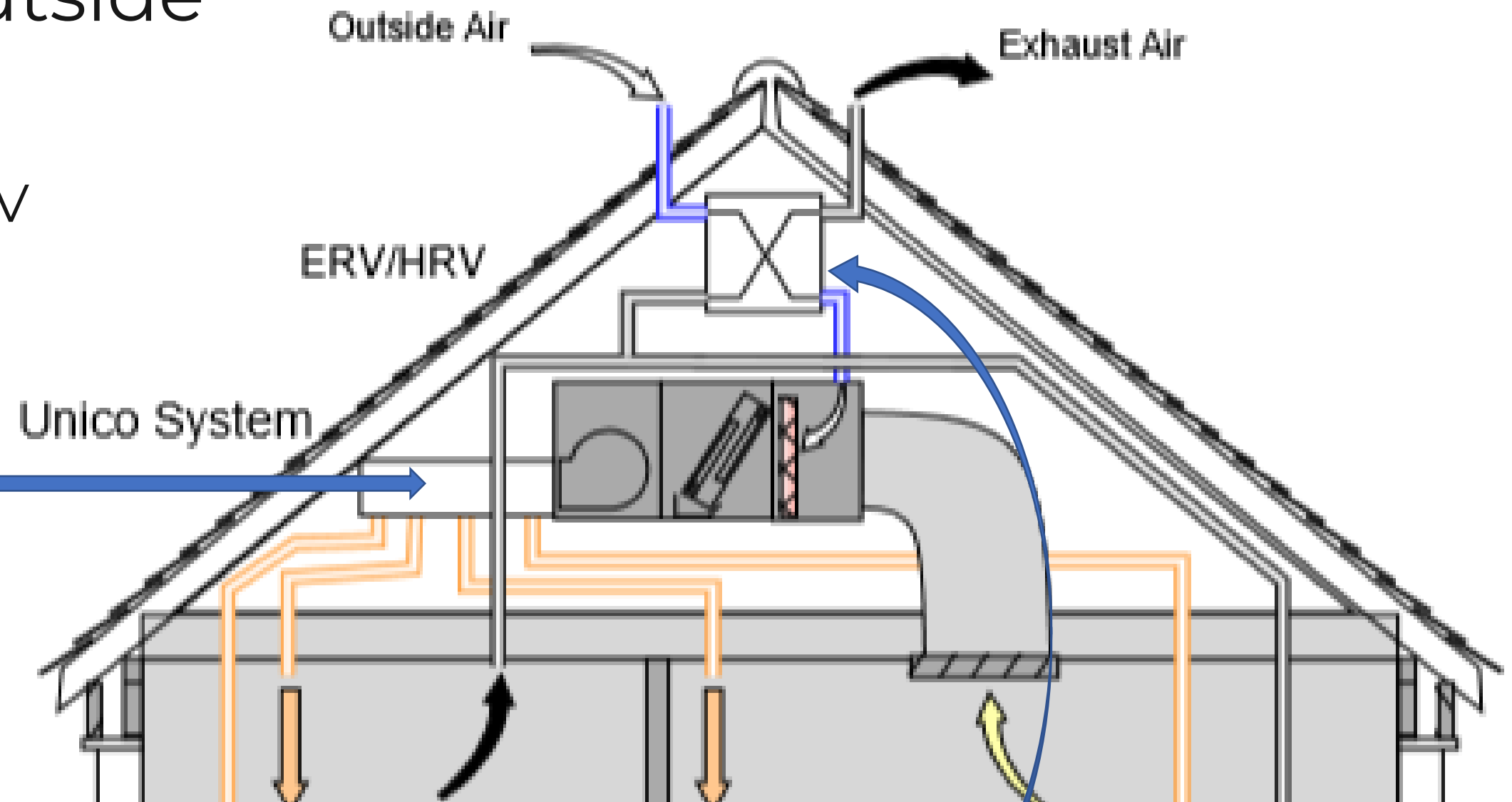
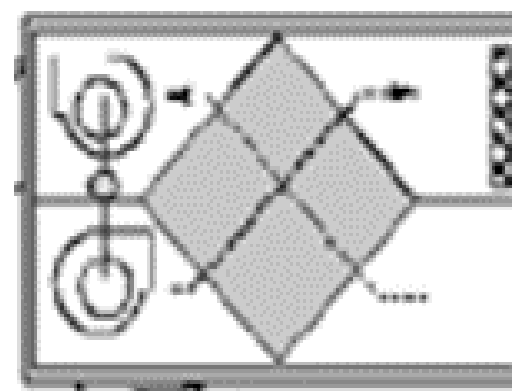
Provide fresh air from the outside

Example showing the Unico System operating with an intergrade ERV or HRV system.



Ultra-violet technology can also be added via our UV module which fits directly into central duct.






Optional UV Module
Ultra-violet technology



Fresh Air – Our modular design makes it easy to integrate outdoor air & MEV

Unico Sizing Guide

The Unico System is available in **5** models (sizes) and can be configured to match the property and application.

UNICO Model	Cooling kW/BTUs	Heating kW/BTUs	Typical Duct Size MM	Typical UK Property	Bedrooms
1218	3.5 to 5.2 12 to 18,000	2.9 to 8.8 10 to 30,000	160	 Small Bungalow	1-2
2430	7 to 8.8 24 to 30,000	5.5 to 11.72 19 to 40,000	200	 Semi Detached	2-3
3036	8.8 to 10.5 30 to 36,000	6.4 to 14 22 to 48,000	200	 Small Detached	3-4
3642	10.5 to 12.3 36 to 42,000	8.5 to 22.3 29 to 76,000	200-250	 Medium Detached	4-5
4860	14 to 17.5 48 to 60,000	8.5 to 22.3 29 to 76,000	250	 Large Detached	6

Options & Variations:

- Horizontal
- Vertical
- Heating coil
- Chilled water coil (cooling)
- Combined chilled & heating coil
- Refrigerant Coil
- Whole house or single floor
- Multi-zones
- Design help available

*The above table is a guide only:

USP's (Unico Specialist Partners - UK)



Quality Contractors:

- Individually selected
- Professionally trained
- Positive solution approach
- Strong local reputation
- Reliable & trustworthy
- Up to 10 years warranty

Committed Partners
Strong industry brands





UK Case Studies



Recent bungalow installation – Social Housing Project

The Unico System has been installed in this, one bedroom, bungalow as part of a project to upgrade the properties energy efficiency.

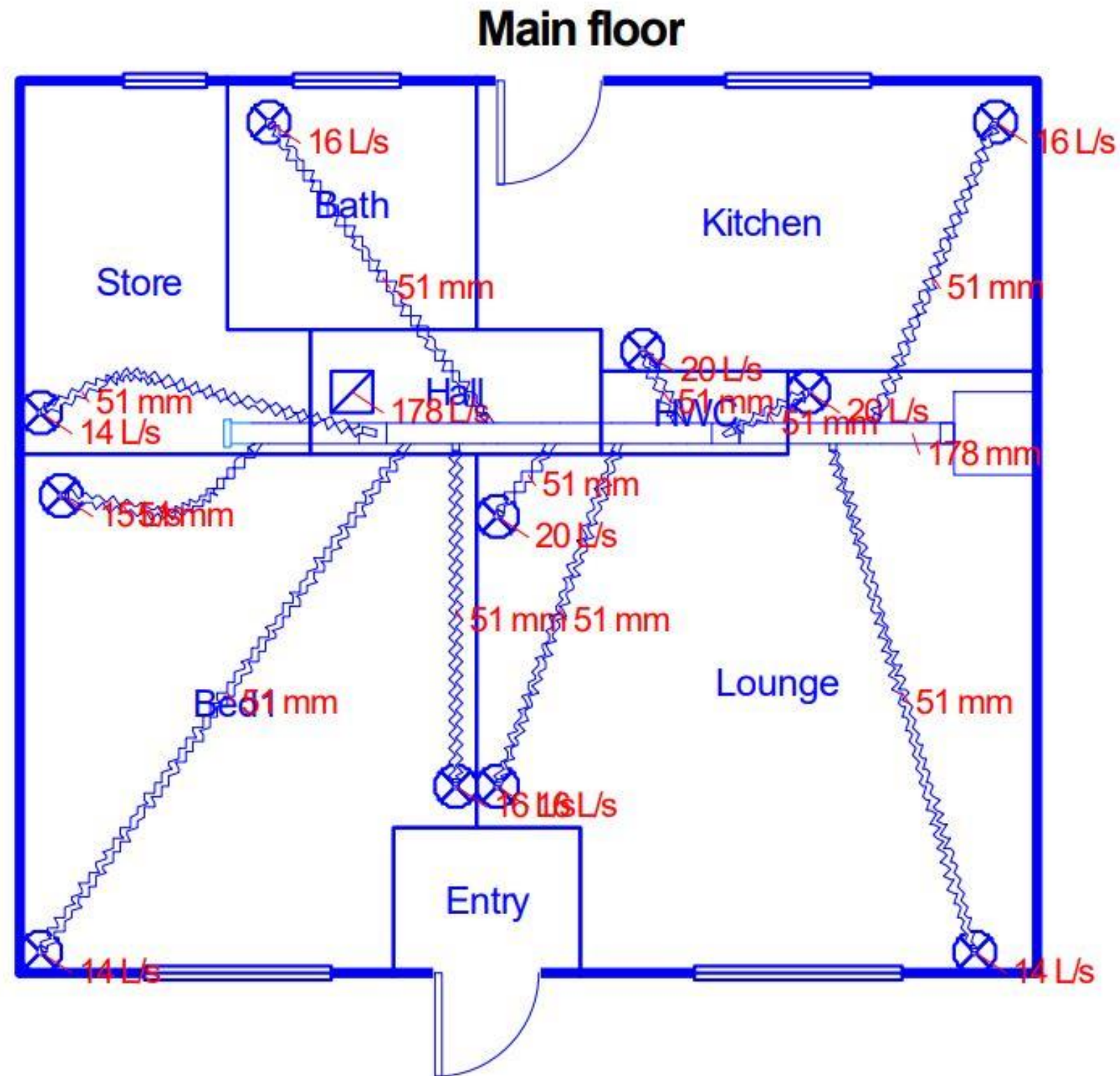
Previously the heating and hot water was provided from storage heaters, a coal fire and an immersion heater.

This has been replaced with a Unico ducted SDHV system connected to an air source heat pump to provide heating and cooling.

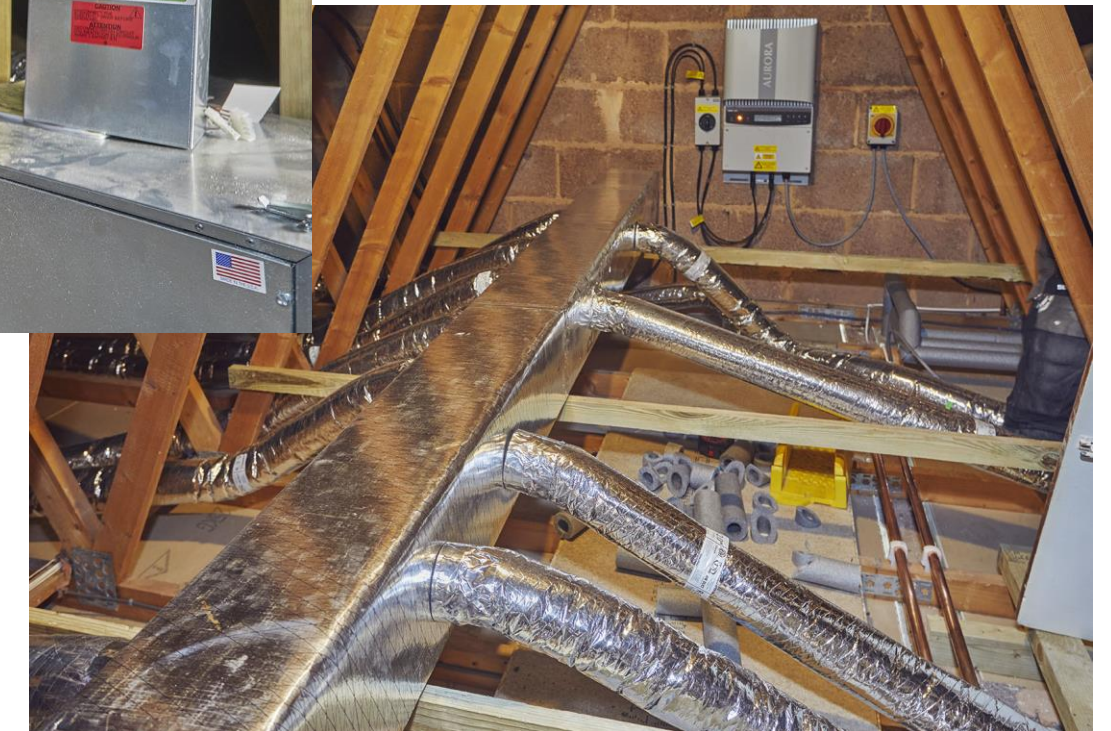


The Unico System®

HOME CLIMATE CONTROL & COMFORT
FOR A RENEWABLE FUTURE... **TODAY!**



The Unico System has been installed in the loft with the ducting reaching each room in the property.



The Unico System®

HOME CLIMATE CONTROL & COMFORT
FOR A RENEWABLE FUTURE... TODAY!

The previous heating would cause cold spots, resulting in areas of damp and mould



The Unico System will prevent this with an even temperature being provided in each room



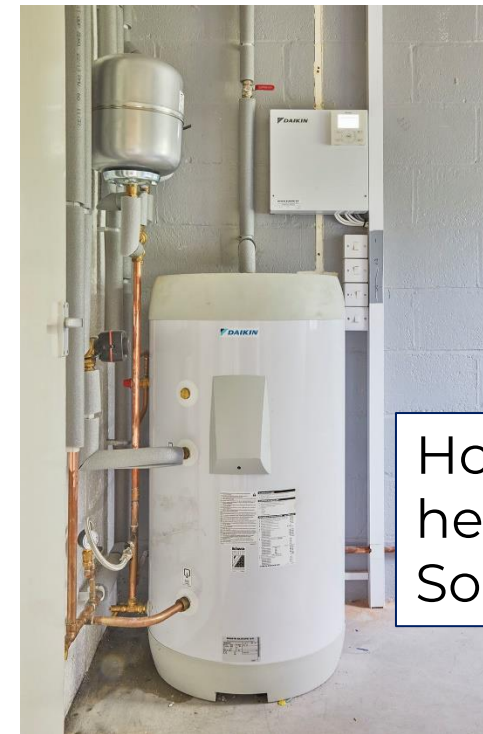
The Unico System fresh air inlet



5kW Monoblock Heat Pump



Hot Water storage tank heated by the Air Source Heat Pump



Tithe Barn - Historic and Residential

Requirement:

Heating only solution that would not compromise the architectural integrity of this historic building



Solution:

14kW ducted SDHV system connected to an air source heat pump. Installed throughout the loft area, providing zoned heating to three bedrooms, hallway gallery and small annex.



Tithe Barn - Historic and Residential

“We are extremely impressed with how quickly the system heats the rooms on a cold day. The outlets are discreet and provide a very even room temperature, they have also allowed us to maximise our wall space for furniture...”

Ed Cyster, Owner



Ambulance Control Centre, Lewes

Requirement:

Controlled comfort and indoor air quality for space with 60 staff and 100 computer screens.

Solution:

Three SDHV systems integrated with heat pumps and heat recovery units, providing a complete demand-controlled HVAC solution. Climate control and ventilation are delivered through the same acoustically lined ductwork system.



Ambulance Control Centre, Lewes

"I am very happy with how comfortable the staff are in this high-pressure environment of Emergency Services. The air supply outlets have been cleverly positioned in-between desks to avoid causing drafts."

Andrew Hanney, Head of Estates



High-end Residential, Belgravia

Requirement:

A discreet heating and cooling system that would not compromise the new interior design.

Solution:

After 3D modelling, two SDHV systems served by heat pumps and linked to a BMS were installed in the loft space with main ducts running to each of the four floors. Only 50mm supply apertures are visible.



High-end Residential, Belgravia

“To see a design on paper is one thing, to actually fit it in and not see it is another. The supply outlets fit seamlessly into the space and the response of the system is extremely quick and impressive.”

Rod Pyke, Blue Interiors

