



## 10 MOST COMMON QUESTIONS

### Q1: Where is the Unico System best suited and what are its benefits?

**A:** The Unico System adapts perfectly to most residential & light commercial applications. Its unique design and flexible tubing mean we can now consider warm air and cooling where previously large HVAC systems would not fit.

The Unico System operates like any other central air system, but with the following important differences and benefits:

1. Air is distributed through small flexible ducts that fit almost anywhere. They simply connect to main duct in the loft or between floors.
2. Aspirating the stagnant air with small jets of air that eliminates drafts and hot/cold spots in your living space.
3. The ductwork is optimised for low noise and maximum efficiency.
4. Increased moisture removal during cooling. Our coils are designed specifically to remove significantly more humidity for a drier home during cooling.
5. Unico is a truly warm air system – no more “cold blow”. We deliver the air at substantially higher temperatures than a conventional system.
6. Minimal duct loss. The small ducts are factory insulated and easily sealed. With approximately 1/3 the surface area of a conventional system, duct losses are kept to a minimum when installation in an unconditioned space is unavoidable. All the connections include gaskets which reduces air leakage to 2 percent or less when properly installed.
7. Options. Unico has a large number of accessories and options to suit your design and lifestyle.

### Q2: With high velocity air, will the system be noisy?

**A:** Unico System is extremely quiet because of its special sound-absorbing insulation. We insulate our air handler and use vibration pads on the system to reduce vibration and add extra sound absorption.

### Q3: How many sizes of units do you have?

**A:** Currently, there are 5 basic system sizes available; a 1218 model with a nominal cooling capacity of 3.5 to 5.3 kW, a 2430 model with a nominal capacity of 7 to 9 kW, 3036 model with a nominal capacity of 9 kW to 10 kW a 3642 model with a nominal capacity of 10 to 14 kW, and a 4860 model with a nominal capacity of 14 to 17 kW.

### Q4: What condensing unit must be used with the Unico System?

**A:** One of the best-selling features of the Unico System is that it can be used with almost any condensing unit or **ASHP of proper capacity**. For heating only, The UNICO System can also work with a traditional gas or oil boiler.

### Q5: What types and sizes of ductwork are there?

**A:** The system requires only three types of duct – the main central duct and the aluminium supply tubing, and sound attenuator. The supply tubing is a 51 mm or 62-mm inside diameter flexible duct, wrapped with fiberglass insulation and an outer reinforced aluminised Mylar® 1 vapor-seal jacket. The main central duct is either a 160mm, 200 mm or 250 mm inside diameter, depending on the design and capacity of the system. Your install can opt for either round or rectangular duct of equivalent size.

### Q6: How long can my main central duct / plenum and supply runs be?

**A:** The main duct run should be designed to keep the supply runs as close as possible to the minimum length requirements. The supply runs may be virtually as long as you need them to be. However, there will be reduced cooling & heating capacity in longer runs. We provide a detailed chart in our application guide to explain this.

### Q7: How many BTUs are there per outlet?

**A:** The following table shows the average capacity of an outlet for an air-conditioning system with heating. We recommend that a minimum of 6 outlets per 3.5 Kw to be installed. However, this will vary depending on the design of your system, your load requirements and sound expectations.

Outlet Size ID	Nominal Airflow	Cooling Capacity	Heating Capacity
51 mm (2")	17 L/s	1400 Btu/hr (0.4 kW)	3000 Btu/hr (0.9 kW)
63 mm (2.5")	21 L/s	1800 Btu/hr (0.5 kW)	4000 Btu/hr (1.2 kW)

\* 63mm available to order - extended delivery

### Q8: What are the types of outlets, and where should they be placed?

**A:** There are two types of outlets – a round supply outlet or a slotted outlet. Ideally the outlets should be located in the ceiling close to the wall or corner. If conditions prohibit this, they can be placed in the floor or highsidewall.

### Q9: How do I balance the system?

**A:** When possible, balance the system at the take-off. Placing the orifice at the take-off allows the sound attenuator duct to remove any noise caused by its restriction. When the take-off is in a hard to reach area, add a balancing orifice at the outlet. Use balancing orifices sparingly to maximise the airflow.

### Q10: Can I heat as well as cool with the Unico System?

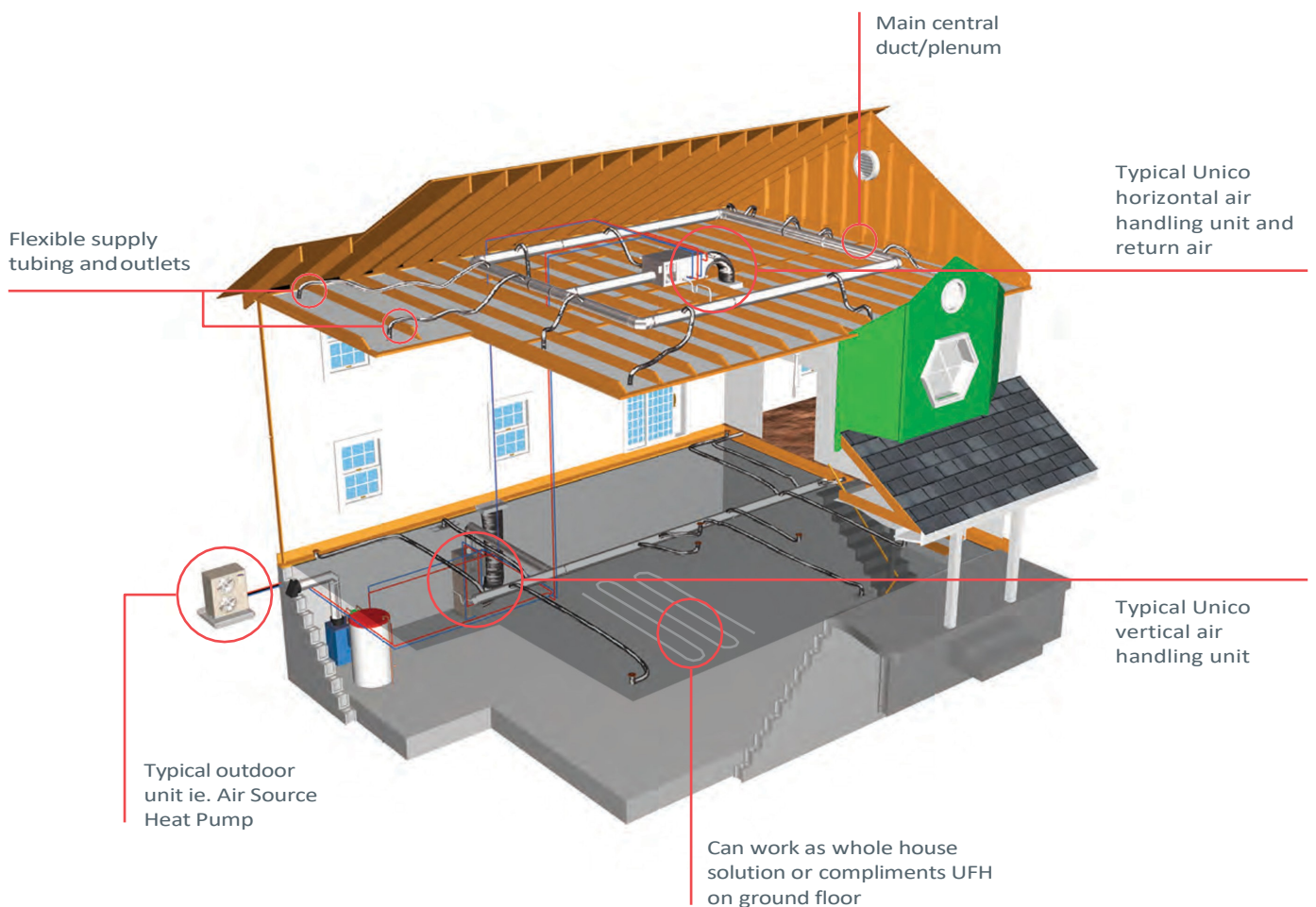
**A:** Yes, the UNICO system is extremely flexible using a range of coils (heat exchangers) so depending on your heat source we will have a number of options for you to consider.

## WHAT IS THE UNICO SYSTEM

The UNICO System is a small-duct, small air handler system for central heating, air conditioning (cooling) and ventilation applications. The system's modular air handlers can be easily installed in lofts, utility rooms, voids and crawlspaces. Careful consideration is required for the location of the Air Handler Units (AHU) and the central duct system. From the central duct the sound attenuated 89mm OD flexible supply ducting easily runs through and around the construction of new building and existing buildings where voids of more likely the loft space can be utilised.

**APPLICATIONS:** The system can be installed as a full heating and cooling solution, heating only or cooling only depending on the specification and design criteria. The system can also be used in tandem with more conventional and traditional systems such as radiators, underfloor heating, gas boilers and aircon units allowing you to mix and match depending on the design criteria, available space and budget. The UNICO System is generally used with either air to water heat pumps or direct expansion condensing units. The UNICO System is often used on the first floor where under floor heating used on the ground floor.

**LIGHT COMMERCIAL & RESIDENTIAL SOLUTIONS:** The UNICO System is designed for both light commercial and residential applications. With both direct expansion refrigeration and water coil solutions available we have highly efficient products that will provide superior heating, cooling and air quality so is an ideal solution for general well-being and improved productivity. Clear and careful consideration as to the siting of the UNICO air handling unit and main central duct is required at the earliest possible stage of planning to ensure the duct design and layout can be planned accordingly.



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