GUIDE TO TEMPORARY AIR CONDITIONING

TECHNOLOGY & TELECOMS

As the telecommunications industry continues on a path of sustained growth, so too does the need to support data centres, IT suites and related applications with cooling equipment befitting of these temperature-sensitive environments. Even if a fixed permanent system is installed, this equipment can be old, overworked and at risk of resulting in a breakdown - particularly during heatwaves. The ideal solution is to consider renting portable air conditioners as a cost-effective way of dealing with climate control when you need it.

Air conditioning is widely used in the information technology & telecoms sectors. Cooling for server rooms is vitally important in maintaining facilities and ensuring your sensitive equipment continues to operate at its optimum performance. Maintaining a stable temperature and humidity is critical to IT system reliability. Temperatures should be maintained to prevent unscheduled system downtime and air conditioning should be viewed as a crucial component for any server room to maintain cooling and airflow in critical areas. Prolonged heat in a server room can create system faults and even cause permanent damage to hard drives and servers, causing significant downtime and serious issues with data loss. This can result in process failures and has severe financial implications.

Once you've identified a requirement to have additional air conditioning, it is imperative you choose the correct supplier – particularly one that has equipment designed specifically for cooling IT & telecoms facilities. Consider a supplier that has an up-to-date and well-maintained hire fleet, a range of units available for the different spaces requiring cooling, adaptable and quick response times, and a robust aftercare process to deal with any equipment issues once on hire.

The use of portable air conditioner units is not strictly for temporary or emergency applications. Many IT & telecoms businesses use portable air conditioners on a long-term or permanent basis to supplement the existing HVAC system or to deliver additional cooling to areas where the heat loads have increased. They are also ideal when you have mobile editing or outside broadcast requirements.

Portable air conditioners can also be used to provide cooling to supplement existing fixed systems when temperatures increase. These air conditioners provide faster, easier and more cost-effective solutions than the installation of an expensive central air conditioning system. In addition, these systems offer a more flexible option for customers who rent space, move or own buildings that are under repair or renovation.

How does a Temporary Air Conditioner work and what are their benefits?

Portable air conditioners work similarly to other air conditioning systems, by drawing warm air into the unit before passing it over an evaporator to cool the air. This cooled air is then blown back into the room and the warm air is expelled via a duct or heat exchange unit.

One of the main benefits of portable air conditioners, and what differentiates them from permanent cooling systems, is their mobility. Regardless of the cooling requirement, a portable air conditioner will be able to satisfy it without necessitating the implementation of a costly permanent installation. Other benefits include:

- More affordable than installing a conventional air conditioning system
- Minimal installation
- Much more energy efficient than a central air conditioner
- Dual-purpose of not only cooling air, but dehumidifying air

It is critical to assess the size of the area being cooled by the portable cooling equipment. If you need assistance in sizing your space, a portable air conditioning expert would be a great resource. Make sure your provider offers a free no obligation site survey.

Portable air conditioners are available in many sizes and configurations, generally from a 2kW 230V unit for small spaces right up to a 17kW 415V unit for larger spaces.

Here are a few factors to consider when sizing a portable air conditioner:

- Size of space being cooled
- Level of insulation
- Available power supply
- Internal heat loads such as electrical equipment, people and lighting
- Whether the portable cooling unit(s) will be installed inside or outside the space

Types of Temporary Air Conditioners

AIR-COOLED portable air conditioners pump in cool air and exhaust warm air from the condenser coil. The condenser is exhausted/ducted out of the space using flexible duct. The warm condenser air is most typically exhausted out of a window or ducted into a ventilated ceiling void.

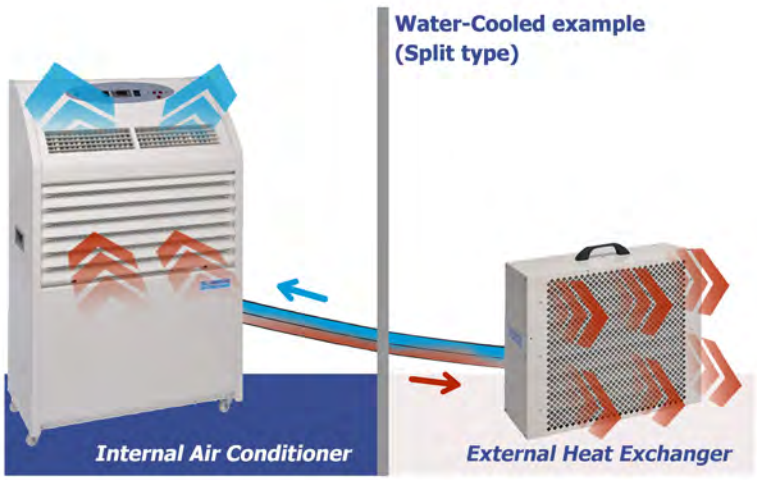
Because of the ease of installation, air-cooled portable units are most often the system of choice for server rooms, data centres and a host of other applications.

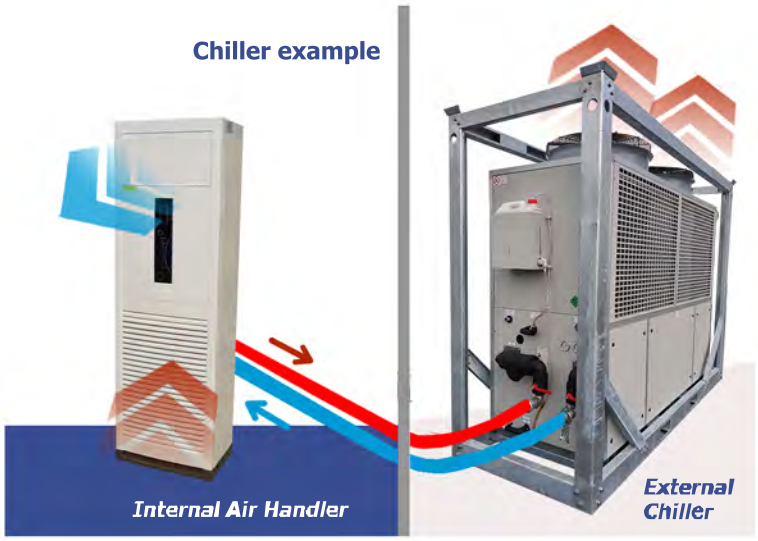
WATER-COOLED (split units) portable air conditioners operate similarly to air-cooled models, except, instead of air, water is circulated through the condenser coil of the unit by connecting to a heat exchange unit which normally sits outside. These units have a wide variety of applications and are ideal for IT & server rooms. The PAC 22 unit was specifically designed with IT facilities in mind. Water-cooled systems do not require exhaust ducts, so they are often specified when there is not a convenient way to exhaust hot air out of the room. Typical applications include larger server rooms or inner spaces with no opening windows.

CHILLERS produce chilled water that is used to cool the air that ventilates a building via the use of fan coil units or air handlers. These units have a larger footprint than portable air conditioners and are typically deployed outside the target application.

With cooling capacities of up to 750kW from a single unit, our chillers are designed to high specifications, use the very latest refrigerant gases and are frequently tested to guarantee best practice. Ideal for high volume cooling in larger applications, our chiller units are commonly deployed within the telecoms sector, particularly for very large data centres.

AIR HANDLING UNITS allow the distribution of cool air throughout an intended area and feature integrated condensate pumps and variable speed fans for complete control. Easily connected to either a chiller or boiler unit, our air handlers are also simple to manoeuvre into position and offer cooling capacities of up to 300kW from a single unit. Economical, safe and reliable, our air handling units offer an alternative to portable air conditioning systems and are ideal for larger applications within the telecoms sector.





Selecting a Temporary Air Conditioning supplier

With countless portable cooling equipment suppliers out there, how do you select the right one? Here are a few questions to ask when evaluating your options:

- Will the provider assist in determining your cooling needs and size the right equipment for your specific application?
- Does the provider offer delivery and installation as well as a set-up service?
- Does the provider offer both hire and purchase options?
- Does the provider have ample stock of equipment to meet your needs at a moment's notice?
- Does the provider offer a 24/7 emergency response service?
- Is your supplier accredited to ISO 9001:, ISO 14001: and OHSAS?
- Does your supplier have a national coverage?
- Can your supplier deliver same day?
- Will your supplier respond to breakdowns within 4 hours?

Your temporary cooling equipment supplier should be an integral partner for all facility, maintenance and estate managers in the healthcare sector. The supplier should provide you with the knowledge, expertise and confidence to successfully cool your next project.