GUIDE TO TEMPORARY AIR CONDITIONING

EDUCATION SECTOR

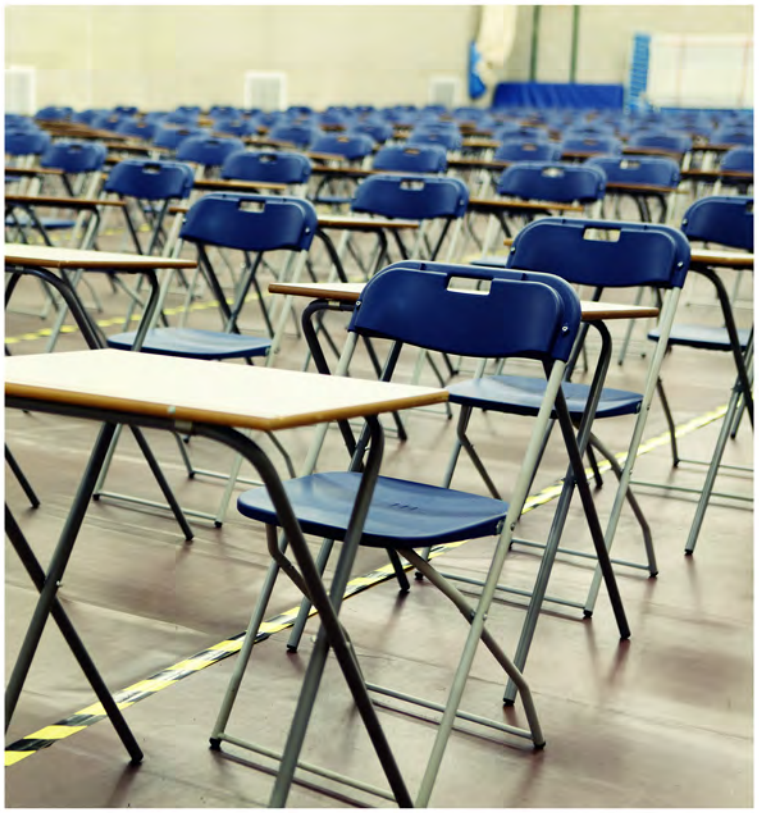
As the temperature rises, air conditioning is a must for the majority of environments given the negative impact high temperatures can have on work performance. Even if a fixed permanent system is installed, this equipment can be old, overworked and at risk of resulting in a breakdown - particularly during 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 various forms across the education sector. Comfort cooling for students is vitally important in classrooms, exam halls, graduation ceremonies and other education facilities, whether it be a supplementary solution or complete replacement in the event of equipment failure. Guidelines stipulate that temperatures should be maintained below 23°C to ensure concentration levels remain at their optimum. If it's too hot, the body focusses on cooling itself down which causes concentration levels to suffer. As such, excessively warm conditions can cause distress to students and their tutors. If the temperature remains too hot there is the additional risk of dehydration, heat stroke and other heat-related illnesses.

A comfortable classroom environment is essential for learning, but it's not just people who endure the consequences of hot weather. IT equipment can also fail or shut down in order to protect its critical components when temperatures get too hot.

The use of portable air conditioner units is not strictly for temporary or emergency applications. Many building owners and managers 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.

Portable air conditioners can also be used to provide cooling for temporary classrooms and other impermanent buildings that may have to be utilised in crisis situations. 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.

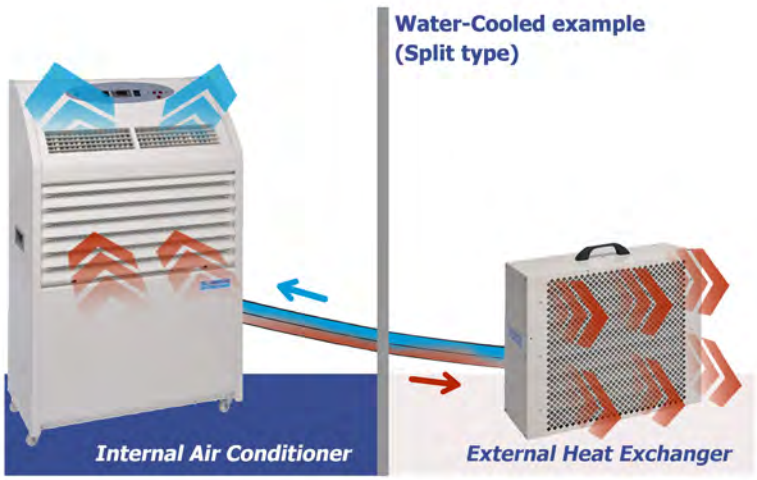
Because of the ease of installation, air-cooled portable units are most often the system of choice for server rooms, class rooms and a host of other applications.

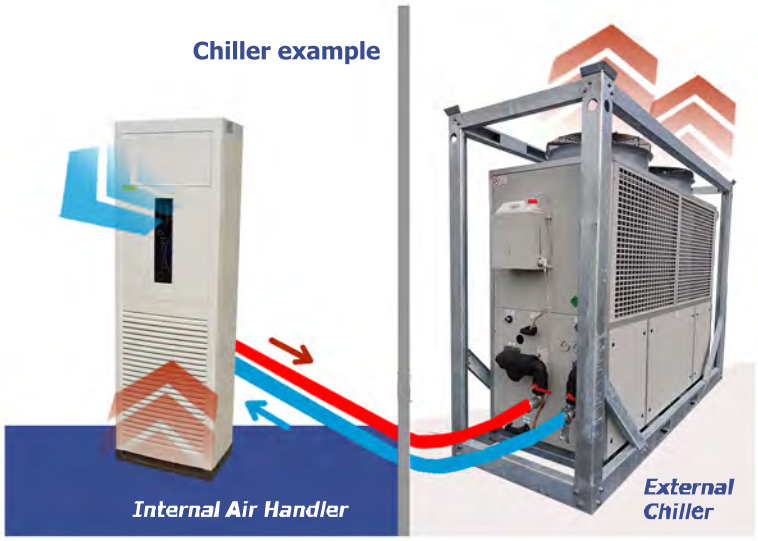
WATER-COOLED (split units) portable air conditioners operate similarly to air-cooled models, except, instead of air, water is circulated through the condenser coil of the unit by connecting to a heat exchange unit which normally sits outside. These units have a wide variety of applications and are ideal 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 laboratories 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 education sector, particularly for larger lecture theatres and IT suites.

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 gymnasiums and large cafeteria spaces.





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.