

Providing comfort in the Learning Environment



School heating poses several problems. The differing uses the rooms in schools are put to means a one-size-fits-all approach is not suitable. When thinking about schools the first type of room that comes to mind is that of the classroom – a room that is typically used from when the school day starts until it finishes. One might also think of a school hall which is likely have a multitude of uses throughout the day from school assembly, to indoor sports activity and maybe group activities. A school hall may also be used after school late into the evening for community activities.

Other than the school rooms mentioned above there are corridors which often have an outside door at one end of them so can result in a large amount of cold air chilling the space, changing rooms, laboratories, storerooms and offices and staff rooms. Each room has a different level of occupancy and heating requirement.

School heating requirements

Creating the right environment for learning and teaching is crucial so having the correct classroom temperature is imperative. Classrooms that are too cold, or even too hot will distract the pupils and make life difficult for teachers and pupils alike.

School heating requirements (Source: Building Bulletin 101)

Room	Normal maintained operative temperature during the heating season
Classroom	20°C
School Hall for sports activity	17°C
School Hall for a school assembly or group activity in the hall	20°C
School offices	20°C
Changing rooms	21°C
Toilet and circulation spaces	17°C

Flexibility, control and energy saving

A real benefit of Caspian fan convectors is the ability to heat a large space rapidly so that energy is not wasted heating a room over a long period of time beforehand for limited use. This is often the case when a school hall is used in the evenings for community activity. Without the need to have a heating system running for several hours prior to use, a room can be heated a few minutes before use with Caspian fan convectors. When used in conjunction with room thermostats a Caspian can be programmed to heat rooms only when required.

This is also the case for other school rooms such as classrooms. The heating would need to be programmed to come on a few minutes before the start of teaching. Similarly, at the end of school, or when a space is no longer required to be heated Caspian can be programmed to turn off so that the room doesn't continue to be heated, thereby reducing energy costs.



Why fan convectors are ideal for school heating

Fan convectors provide a versatile, energy efficient alternative to radiators and underfloor heating; and are just as easy to install.

They are compatible with every type of heat generator; they can be paired with everything from condensing gas and oil powered boilers to renewable technology like ground or air source heat pumps. In fact, fan convectors are especially compatible with ground source and air source heat pumps because they can work with flow temperatures as low as 40°C.

Using forced convection, fan convectors ensure that rooms heat up more quickly, delivering a more even temperature spread, than heat emitters using natural convection. They can be installed and positioned to suit each room's size and shape, rather than having to obey the installation rules that govern radiators.

This ability to deliver heat effectively and efficiently makes them attractive when renovating buildings or specifying heating for new build projects. Unlike radiators, which can be bulky and hot to touch, fan convectors are compact, lightweight, and have very low surface temperatures. They are completely safe; ideal for rooms or buildings regularly used by children.

Finally, fan convectors only use 5% of the water content of an equivalent output radiator, ensuring they are far more responsive to people's personal temperature preferences, as well as ever-changing daily weather patterns. In short, as part of a school heating system, fan convectors play an important role in providing versatility, more-instant heat, better use of space and greater control for end-users in the commercial market.



Caspian Features

Caspian fan convectors are available in several different styles each designed to provide a solution for the demanding installations found in schools. All Caspian fan convectors are made with robust zinc-coated steel and with damage resistant grilles.

With quiet operation Caspian efficiently heats the room without causing disturbing noise in the classroom environment.

Caspian is available in a polyester powder-coated: white RAL 9010 but is available to special order in any colour and with anti-microbial or anti-bacterial paint.

The Caspian range

Caspian UV

A universal heat emitter being suitable for high, low or ceiling mounted applications.

Caspian SL

Warm air is discharged at an upward 45° angle to avoid causing discomfort to people sitting adjacent to appliance and with chamfered profile to avoid sharp corners.

Caspian FF

Can be installed mounted low or high on the wall. It can also be installed in an adjacent room, or storage cupboard, with the warm air outlets positioned at the rear of the appliance and ducted into the adjacent room such as a sports hall or even a narrow corridor, permitting an obstruction free wall space.

Caspian TT

Has been designed to ensure that the comfort of the occupants sitting adjacent to the emitter where the warm air is discharged from the upper surface.

Caspian EXT

Warm air is delivered at 1.7m from the base/floor level and the heater can be installed as a freestanding appliance.

Caspian LST (Low Surface Temperature)

The ideal choice for schools and nurseries where the risk of children coming into contact with higher surface temperature heat emitters can be avoided. The maximum surface temperature of the fan convector does not exceed 43°C. Warm air is discharged at an upward 45° angle to avoid causing discomfort to people sitting adjacent to appliance and with chamfered profile to avoid sharp corners

Caspian Skyline

It fits into a 600mm x 600mm ceiling tile, providing easy access for both installation and maintenance. It's suitable for projects in schools. It is available as hydronic version as well as an electric version.

Caspian UVC

For recessed or concealed heating projects and is suitable for high, low or ceiling concealed installations, can even be turned upside down.

Maintenance and warranty

As Caspian fan convectors are designed to be used in schools, hospitals, offices and many other commercial environments they are designed to require minimum maintenance and come with a 5-year warranty. In fact, the only maintenance required is to clean the air intakes to remove any debris and dust and replace the filters usually on an annual basis.



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