

### CLIMATE CONTROL

Cooling and Air Quality Management Solutions for Healthcare Facilities



### WE HAVE THE EXPERTISE TO MEET YOUR TEMPERATURE CONTROL AND AIR QUALITY MANAGEMENT REQUIREMENTS

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Our highly trained team works with you to design efficient, eco-friendly and cost-effective solutions suited to your environment.

#### TURNKEY

SUNBELT

SUNBELT.

Our cooling specialists deliver, install, test and demonstrate how to use your equipment – so you have nothing to worry about.

#### EXPERTISE

We have over 40 years of experience in temporary cooling solutions.

#### SAFETY

At Sunbelt Rentals, we incorporate the highest safety standards in our products, solutions and services.

#### SUNBELT

#### QUALITY

Our experts go over and above to give you quality products and quality customer service.

#### PERSONALISED

We work with you to assess your cooling requirements, design a customised solution and deliver on time, every time.

#### EMERGENCY SERVICE

We're here when you need emergency cooling. As well as offering same day or next day delivery for all your temporary cooling requirements, we offer a 4hr delivery window for critical sites 24/7, 365 days a year.

### EFFECTIVE CLIMATE STRATEGIES TO REDUCE THE RISK OF AIRBORNE TRANSMISSION

When a person has an infection, they release viral aerosols which can linger in the air for several hours. Having the correct engineered controls in place, such as ventilation, can reduce the risk of airborne transmission and exposure time.

Although the NHS has a working standard to supply clean air within its facilities (set out in Code of Practice HTM 03), the COVID-19 pandemic requires more reinforced measures to protect the health of both staff and patients. These include, where possible, using a building's existing system to increase the fresh air supply and dilute contaminated air. However, this can cause issues in the summer months when limited cooling capacity compromises the ability to maintain a comfortable environment.

Sunbelt Rentals Climate Control can help you to create a safe and cool environment for your staff and patients.



Our experts follow the latest guidelines outlined by recognised industry bodies, such as the World Health Organisation and CIBSE, to plan and provide effective cooling and air management solutions during COVID-19. With the UK's largest fleet of temporary cooling equipment, portable ventilation and medical-grade air sanitisation units, we work closely with healthcare facilities to provide:

- Free survey and contingency planning for a quick response when you need it.
- Assistance with COVID-19 risk assessments to ensure the air dilution/ACH are achieved.
- Advice on the best use of cooling and air management solutions to clean the air, control the spread of viruses, limit exposure time, and intercept contagions closer to the source.
- Innovative and easy to install equipment from leading manufacturers.







#### What the experts say

CIBSE Journal 'Recirculation of air within a single area where this is complemented by an outside air supply is acceptable as this helps to provide more outside air to occupants and can help to maintain thermal comfort.'



## COOLING SOLUTIONS

As Climate Control experts, we can help you to achieve comfortable working conditions with cost-effective, efficient and market-leading equipment. Our specialists follow guidelines from WHO and REHVA to ensure we provide cooling solutions that limit the risk of infection transmission.

#### Portable Air Conditioning Units Can Be Used Safely

Compared to a building's existing system, portable air con units have more control over the safest placement within a room and can direct airflow away from patients.

#### Minimal Airflow Disruption

Running air conditioning units at lower speed settings reduces turbulence to the airflow. Our units are highly efficient and cool a room effectively, even at the lowest settings.

#### Negative Air Pressure

Inducing negative air pressure in communal areas reduces the potential for airborne viruses to escape the room. Our exhausted air conditioning units can be used in conjunction with standalone negative air pressure units, allowing both temperature and airflow control.

#### Complete Air Control

In conjunction with air conditioning units, IAQ monitoring equipment helps to further the control within the environment, with real-time measurements of the quality of outdoor air supply (CO2) and the rooms RH% - ensuring temperature, humidity and ventilation all meet the required 'safe points'.

#### Regular Cleaning Schedules

All of our equipment is fully disinfected, cleaned and serviced before delivery. We can advise on the best maintenance and cleaning schedule for all units.



# **COOLING EQUIPMENT**

At Sunbelt Rentals, our climate experts tailor cooling solutions to suit your environment. Each portable air conditioning unit can be positioned safely within the room and airflow can be directed away from patients and staff.



#### FRAL SC14 AC

Induces negative air pressure, used in rooms shared by inpatients , waiting rooms and single occupied areas.

- 4.1kW/14,000 Btu/hr
- Suitable cooling area: 40m<sup>2</sup>
- Hose diameter: 150mm
- Hose length: 3m



#### Fral Avalanche Split AC

Available in a 6.7kW and 15kW model. Used in areas shared by inpatients and individually occupied.

- 6.7kW -15kW/23,000 Btu/hr 51,000 Btu/hr
- Suitable cooling area: 55m<sup>2</sup>/85m<sup>2</sup>
- Line diameter: 50mm/70mm
- Line length: Up to 30m/20m



#### Fral Blizzard Spot Cooler

Induces negative air pressure, used in corridors, waiting rooms and communal areas.

- 7.3kW/25,000 Btu/hr
- Suitable cooling area: 60m<sup>2</sup>
- Hose diameter: 305mm
- Hose length: 2m (Optional 6m)



#### Chillers, Heat Pumps and AHUs

Suitable for temporary structures or permanent installation when combined with air handling units.

- 14KW 2MW in cooling capacity
- Air Handling Units 20-200KW (Internal/External)
- Subject to site survey to provide the best solution.

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### AIR QUALITY MANAGEMENT SOLUTIONS

Each time an infected person breathes, speaks, coughs or sneezes, viral aerosols are released into the room. In poorly ventilated spaces, the risk of spreading viruses like COVID-19 is increased for people breathing the same air.

Ensuring there's an adequate supply of fresh air in enclosed spaces is not only required by law, but it also greatly reduces the risk of virus transmission and makes environments more COVID-secure. It does this by diluting the concentration of potentially infectious aerosols, limits exposure time and prevents the air from becoming stagnant.

This is crucial in Healthcare facilities, where the WHO recommends the below Air Changes per Hour (ACH) are achieved:

- 160 L/s/patient or 12 ACH where Aerosol-Generating Procedures are performed
- 60 L/s/patient or 6 ACH for other areas

#### How we can help

Our specialists work with you to design a unique solution that suits the size, occupancy and existing structure of your environment. We provide temporary ventilation and air cleaning systems for all areas of your facility, including portable fans, air scrubbers and negative air pressure units.

All of our units are fitted with HEPA grade filters systems, with DOP calibration. These can be fitted in-line, as a wall box or within the unit to meet the standards of filtration required. This ensures that the air supplied to the rooms is clean and also that any exhausted air from contaminated areas is delivered clean to a safe, dedicated area externally.



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### AIR QUALITY MANAGEMENT EQUIPMENT

Air quality management equipment, such as ventilation systems, carry out a number of roles in hospitals, including maintaining air quality, diluting contaminated air and protecting vulnerable patients from infection.



#### Axial Air Mover

This ventilation unit has an industrial grade, high volume fan and is used with ducting and filtration for the supply of outside air.

Airflow: Up to 7500m3/hr Noise level: 67dB(A) @ 1m Duct size: 400mm Duct length: Up to 30m Power: 110V 1Ph 50Hz, Run 8.8A 16 A 3Pin



#### DE500 Air Scrubber

An advanced efficiency air filtration unit, with H14 Filtration and variable air speed control. These units are ideal for creating negative air pressure in rooms.

Airflow: 562m3/hr to 713m3/hr Noise level: 54dB (A) @ 1m Duct size: 350mm Inlet/210mm Outlet Duct length: Up to 10m Power: 230V 1Ph 50Hz, Run 1.5A 13 A 3Pin

#### How clean is your air?

We supply Air Monitoring Systems, which give you a real-time indication of the quality of air in the room. These offer level reporting for each area in place and show the outdoor air supply in the rooms. They can also be used effectively in combination with localised AC Units.



#### AC2000

Versatile and delivers clean air to an exhausted location. It features variable speed transmission, a 0.7m2 pre-filter and a HEPA H13 micro filter of 10m2.

Airflow: 1060m3/hr to 1850m3/hr Noise level: 62 - 74 dB(A) @ 1m Duct size: 350mm Inlet/Outlet Power: 230V 1Ph 50Hz, 505W 13 A 3Pin



#### **Centrifugal Fans**

These fans can be linked in series to achieve larger distances and used in conjunction with air handling units.

Airflow: 5120m3/hr Noise level: 86.6dB(A) @ 1m

- Duct size: 305mm Inlet/Outlet
- Duct length: Up to 40m
- Power: 110V 1Ph 50Hz, Run 17A 32 A 3Pin

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INDOOR AIR QUALITY 800.602-8077



# **DISINFECT THE AIR AND KILL** 99.9995% OF VIRUSES IN MINUTES

The S400 Air Disinfectant Device is a compact, cost-effective and efficient solution for the sterilisation of air within enclosed spaces. Its compact size, yet high air sterilising capacity and quiet operation makes it perfectly suited to medical environments, including operating theatres and areas where Aerosol-Generating Procedures are performed.

#### Lab Tested Germicidal UV-C Technology

Tested in well-known laboratories, the S400's UV-C 'kill chamber' incorporates both the correct light (254nm) and exposure time to destroy viral and bacteria DNA structure, killing up to 99.9995% of airborne pathogens.

#### No Airflow Disruption

The 360-degree airflow system produces uniform, low-pressure air movement. This creates continuous, largescale air-scrubbing throughout the room, without interfering with the room's airflow.

A trial by an independent body found evidence that proves SARS-CoV-2, when suspended in air, is reasonably easy to inactivate using UV-C light at 254nm. Conducted at Basingstoke and North Hampshire NHS Trust, researchers found this technology improved air cleanliness significantly, with a **33% reduction in infections** compared to positively pressurised HTM 03 compliant systems, and 67% compared to naturally vented wards.

#### Rapid and Safe Whole Room Clean

Whole-room air exchange within minutes, without harmful ozone production UV -C exposure.

#### Safe and Fast Acting

At rates of 400 cubic feet per minute, the S400 cleans air faster than any other air disinfection system in its class. These units offer Germicidal UV-C technology, H14 filtration and equalised air flow, making them a key standalone unit in the importance of removing airborne contagions.

## **WEARE MORE THAN EQUIPMENT PROVIDERS**

We offer a four-stage hire solution that benefits our customers all over the UK.

### STEP 1 CONTINGENCY PLANNING

We operate 24/7 from depots nationwide and are supported by a sales Centres located across the UK, team that carry out free site surveys. We'll visit your site and assess your requirements – this helps us to deliver a a national service at a local level, solution uniquely tailored to your space. ensuring the equipment arrives in

### **STEP 2** DELIVERY

With strategically placed Service including the Republic of Ireland and Northern Ireland, you will benefit from perfect condition, on time, every time.

Equipment installation carried out by experienced engineers benefits you in more ways than one. Not only does it take away the hassle of manoeuvring the equipment into the required area, it ensures that equipment is positioned in the most effective location to deliver optimal performance.

**INSTALLATION** 

**STEP 3** 

Secondly, a professional installation ensures complete health and safety during installation and equipment operation.

# STEP 4 DEMONSTRATION

Face-to-face demonstration provides an opportunity for you to better understand the functions of the equipment and have your queries addressed in real time. This reduces any system downtime to ensure your hire product is cost-efficient.

BOLTON GEORGIAN HOUSE

HOTE

Demonstration also provides you with complete peace of mind, and eliminates the need to guess on how to operate unfamiliar equipment.

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## HELPFUL **CONVERSIONS**

#### **COOLING** (MEASUREMENT IN FEET)

Width x height x length = volume of area x 5 = Btu/hr

This allows for up to 4 people and 1 piece of electrical equipment. For additional people or electrical units, add 400 Btu/hr.

#### **HEATING** (MEASUREMENT IN FEET)

Width x height x length = volume of area volume of room x difference between required and external temperature x 0.133 = Btu/hr

Establish the required interior temperature (f) and the current external temperature (f).

COMMON CONVERSIONS			
<b>Btu/hr to kW</b> Btu/hr 3.412	<b>kW to Btu/hr</b> kW x 3.412	Cubic Ft to Litres Ft3 x 28.317	Litres to Cubic Ft L / 28.317
<b>Celsius to</b>	Fahrenheit	Pints to	Litres to
Fahrenheit	to Celsius	Litres	Pints
c x 1.8 + 3.2	f - 32 / 1.8	P x 0.568	L / 0.568
Feet to	Metres to	US Pints to	Litres to
Metres	Feet	Litres	US Pints
F x 0.3048	M / 0.3048	P x 0.568	L / 0.473
<b>5q Ft to</b>	<b>Sq M to</b>	Gallons to	Litres to
5 <b>q M</b>	<b>Sq Ft</b>	Litres	Gallons
5t2 x 0.0929	M2 / 0.0929	G x 4.546	L / 4.546
Cubic M to	Cubic Ft to	Grains to	Grams to
Cubic Ft	Cubic M	Grams	Grains
M3 x 35.3	Ft3 / 35.3	G x 0.0648	Gr / 0.0648

## NATIONAL COVERAGE **AT A LOCAL LEVEL**

Find your nearest depot.

#### BIRMINGHAM

Unit 8 Portway Industrial Estate, Alston Road, Oldbury, B69 2PP

#### CHESSINGTON

Unit 6 Chessington Industrial Estate, Lion Park Avenue, Chessington, KT9 1ST

#### **EDINBURGH**

Block 3 Unit 4, Factory Road, Whiteside Ind. Est., Bathgate, EH48 2RX

#### MANCHESTER

Unit B Alpha 3, Fourth Avenue, Trafford Park, Manchester, M17 1DB

#### NEWPORT

101-102 Queensway Meadows Industrial Estate, Clearwater Road, Newport, NP19 4ST



#### SOUTHAMPTON

Unit 18 Apex Centre, Speedfields Park, Fareham, P014 1TP

#### THURROCK

Unit A Neptune Business Estate, Dolphin Way, Purfleet, RM19 1NZ

#### BELFAST

16 Michelin Road, Newtonabbey, Belfast, BT36 4PT

#### DUBLIN

5 Besser Drive. Clondalkin Industrial Estate. Dublin, D22 K6Y4



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