Case study 445

Hospital kitchen seeks cooling arrangement

Maintaining an acceptable temperature in a working kitchen can be extremely challenging, particularly when ovens, dishwashers and other electrical appliances are constantly in use. In a busy environment, where hundreds of meals are being prepared at any one time, it is imperative that conditions are closely monitored to ensure large quantities of food can be safely stored and then cooked.

During the height of summer, Andrews Air Conditioning Hire was contacted by a prominent Edinburgh hospital due to a holding area in the kitchen becoming too warm. Our client had become concerned about the heat leading to foods becoming inedible and so contacted us to ensure a practical solution was put in place.

The area requiring cooling has opening doors leading directly to the kitchen and this has been identified as the main reason hot air was gathering inside. Once an Andrews technician had surveyed the application, they were able to recommend the use of two PAC22 split-type air conditioners which, once installed, would significantly reduce the overall temperature.

It was decided following this assessment that the best option would be to locate the exterior Heat Exchanger units on the building’s roof due to access issues at ground level.

Despite our customer being on an extremely limited budget, a regional expert was able to recommend a cost-effective hire package that would have the desired effect on its surroundings. As such, they were extremely complimentary of our service and units which have helped keep food preparation quarters cool since their deployment in July.

Nominal cooling duty \( 6.47 \text{kW} \)
Air flow (max) \( 990 \text{m}^3/\text{h} \)
Typical cooled area \( 156 \text{m}^2 \)
Power supply \( 230 \text{V} \) 1ph 50Hz Run 7.3A
Noise level (max) \( 52 \text{dba} @ 3\text{m} \)
Indoor weight \( 122 \text{kg} \)
Outdoor weight \( 20 \text{kg} \)
Indoor dimensions (mm) \( 850 \times 380 \times 1,240 \)
Outdoor dimensions (mm) \( 565 \times 285 \times 520 \)
PAC line length 5 metres (max 30 metres)
Control Automatic thermostat
Average power consumption \( 2.0 \text{kw/h} \)
Optional cold air duct \( 2 \times 200 \text{mm} \times 5\text{m} \)