

# Case study 475

## Andrews provide cooling equipment to global defence contractor

A global defence contractor with a factory in the South of England was in search of an effective cooling solution after experiencing dangerously high temperatures in one of their machining workshops.

The client in question are well-known for designing and manufacturing aircraft parts for military forces. The manufacturing process for these specialist parts involves machining composite material in state-of-the-art jigs.

Due to recent extreme temperatures, the jigs were expanding beyond their very precise tolerances which could have impacted on the accuracy with which the mechanical engineering was carried out. This meant that production had to be stopped immediately – despite the fact it is normally ongoing 24 hours a day – causing thousands of pounds' worth of lost revenue.

After inspecting the building that houses the machinery and jigs, one of our regional specialists proposed a short-term cooling solution befitting of the application. It was decided that a 400kW chiller along with three 150kW air handlers would be most effective in reducing temperatures on site and distributing cold air throughout the premises.

The temporary chiller was situated outside the factory, with the cold air ducted in through the shutter doors to maximise air flows within the building.

Once commissioned, the chiller hire unit was able to instantly reduce temperatures on site – restoring suitable working conditions and keeping the factory operational which in turn saved the client tens of thousands of pounds.



Nominal cooling duty 400 kW +E  
Power supply 415 V 3 ph 50 Hz Run 320 A  
Plug type Hard wire (4 x 95 mm<sup>2</sup>)  
Noise level (max) 77 dBA @ 10 metres  
Weight 4,200 kg  
Control Automatic programmer  
Average power consumption 99 kW/h  
Generator size 400 kVA  
Low temperature Down to -12oC  
Dimensions (L x W x H) 3,500 x 2,438 x 2,590 mm  
Water Connection 100 mm (4") bauer / DN100 PN16 Flange  
Nominal water flow 20 l/s



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