

# Case study 450

## High capacity air conditioner keeps refinery online

Andrews Air Conditioning was recently contacted by a refinery in search of a high capacity air conditioning solution. Their need was to maintain a temperature of 25°C within a high voltage substation, which provided electricity to a part of the plant. The substation also performs a number of other important functions including transmission and distribution, so the consequences of failure would have been catastrophic.

Being a sensitive area with limited access, the project was assessed by one of our regional technicians – who carried out a free site survey. Once the viability of an air conditioning hire package was scrutinised, we proceeded with the installation of an HPAC 45 high capacity unit, which offers fantastic specifications for applications of up to 1,000m<sup>3</sup>.

Our product was stationed outside the substation itself, while lengths of ducting were attached to deliver large volumes of cool air. We deliberately selected the HPAC 45 for this assignment as its low power consumption – just 16.6kW per hour – meant that energy costs would be kept reasonable despite the fact air conditioning was needed continuously.

The immediate response of our specialists enabled the refinery to keep all the electrical processes online, which was the original aim. We delivered the air conditioner and all the accessories, organised the access to the site, and provided a customised, practical cooling solution. As such, the customer was extremely happy with our proposition as we helped avert a potentially devastating operational failure.



Nominal cooling duty 42.8kW  
Nominal heating duty 44.3kW  
Air flow (max) 7,500m<sup>3</sup>/h  
Typical cooled area 1,000m<sup>2</sup>  
Power supply 415V 3ph Run 40A  
Plug type BS4343 53 A 5 Pin  
Noise level (max) 65.4 dBA @ 3m  
Weight 710kg  
Dimensions (mm) 1,937 x 1,340 x 2,170  
Duct length (max) 16 metres  
Control Automatic thermostat  
Average power consumption 16.6 kW/h  
Duct diameter 600mm  
\*Capable of operating down to 10°C



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