## Tunstall case study





A showcase for the best in heating and cooling technologies



Air Conditioning

Evaporative Cooling

Heating

Ventilation

Maintenance



After a visit to the website, Tunstall invited Clean Air to design and quote for a new system to replace their seven aged Hamworthy LPG boilers which provided heating to offices and a part of the production area. The solution comprised four of the latest energy efficient Hamworthy fully modulating condensing pre-mix boilers, stacked in pairs to save space. Featuring low water content, rapid response, and ultra low standing losses, the units delivered European Class 5 performance for NOx emissions. A new 'low loss' flue header system specifically optimised for condensing and high efficiency boiler applications was matched to the boiler modules. To complete the install a new shunt pump and system integrated control panel were fitted. The result is an easily controlled heating system with outstanding performance efficiency.

Pleased with the work that had been done, Tunstall asked Clean Air to replace the packaged airhandling units on the rooftop that provided cooling and heating to some of the production area. Also to rationalise the design to include additional cooling to the remaining production areas which had nothing installed. The recommended solution - ten Mitsubishi twin split air conditioning systems - proved a great success. They use inverter

technology to match output to the exact requirement of the premises. By preventing overheating or over-cooling, the units save energy leading to a great reduction in running costs.

Clean Air was then asked to design a heating and cooling system for additional offices being refurbished. The solution this time was a Mitsubishi Electric City Multi Heat Recovery VRF system, comprising numerous indoor fan coils connected to high efficiency outdoor condensing units. The solution offered a simple, efficient and flexible answer to the need to change between heating and cooling in order to maintain a constant and comfortable working environment.

Finally Clean Air was asked to turn their hand to Tunstall's canteen, a very large space that reached extreme temperatures in the summer. High power cooling was a necessity but another priority was for fresh air. The solution comprised two Cool Breeze QAD230 evaporative cooling units complete with ducting and grilles strategically placed to deliver cooling exactly as required. Cool filtered fresh air is drawn through the canteen constantly replacing stale heated air which is expelled through roof vents. The result is a comfortable place to eat or work however hot the sun is shining.

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