

RIXONWAY KITCHENS GO GREENER WITH ECOGATE

Kitchen manufacturer Rixonway Kitchens, one of the industry's real success stories, has further boosted its already impressive environmental credentials by investing in the latest energy saving 'green technology' from dust extraction specialists, Dust Control Systems Ltd.



Rixonway Kitchens – the only UK kitchen manufacturer working solely in the affordable and social housing sector – employs more than 400 people and makes more than 12,000 rigid kitchen units a week at its 170,000sq ft manufacturing facility in Dewsbury, West Yorkshire. The company is a long-standing customer of DCS and was quick to explore the energy-saving potential of ECOGATE® after DCS secured exclusive UK distributorship for the proven computerised extraction optimisation system.

The existing dust extraction plant at Rixonway Kitchens, also supplied by DCS, comprises a high efficiency modular chain filter, with an air volume of 180,000m³/hr, and is designed to deal with dust and chips from all production lines. Like most extraction systems, it uses fans that run at a constant speed, irrespective of the number of machines operating or the amount of dust to be extracted. The ECOGATE System has been developed around the concept that every



A section of the large machine shop at Rixonway Kitchens.

woodworking machine is a potential source of energy savings if properly monitored and controlled. The intelligent ECOGATE System monitors when machines are not in use and adjusts fan speeds accordingly. This is achieved via a variable speed drive and means that power is only used when needed.

The first task for DCS engineers was to carry out a thorough energy appraisal of all extraction on the site before putting forward a scheme to reduce energy consumption. The proposal presented by DCS confidently demonstrated that energy savings of 56% were achievable, with a full return on the investment in approximately two years. A further benefit for Rixonway was that the energy-saving installation would also qualify for an interest-free loan from the Carbon Trust.

Rixonway Kitchens contracted DCS to retrofit an Ecogate system to control extraction throughout their manufacturing facility. The system comprises: two ECOGATE greenBOX® Master SRL controllers, nine variable speed drives and 28 motorised gates and machine volt sensors. When a machine is turned on, the sensor signals the controller to open the motorised gate of that particular machine to provide extraction.

The Master SRL controller displays 'real time' statistics including motorised gate status, negative pressure readings, electricity savings (current & average) and kW levels for each fan. The system can be



ECOGATE greenBOX Master SRL controllers are specifically tailored to suit the needs of Rixonway Kitchens.

monitored and managed via remote internet access, and also includes functions to modify individual fan speeds and variable speed drive programming.

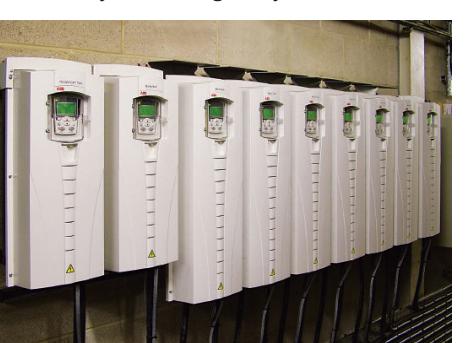
Project Manager at Rixonway Kitchens, David Beanland, said of the new installation: "The extraction system is by far the biggest power user on site and with ECOGATE we expect to save a massive 23% of our overall electricity usage. Work to install the system did not affect our

production at all. In fact, the DCS engineers were brilliant – they worked around us and, although we had agreed in advance the number of hours available, when we had an unexpected peak production demand they willingly worked at the weekend to complete the installation. It's a big facility which required a lot of wiring and they did an impressive job throughout – all tray work being very neat and unobtrusive.

We are thrilled with the ECOGATE System, which is performing better than predicted", added Mr Beanland, "it sits perfectly with the company's 'green' ethos, and we are also enjoying something of an unexpected bonus in that noise levels in the factory are now greatly reduced."



Motorised gates open or close as machines come on line or shut down.



Nine variable speed drives interact with the two ECOGATE greenBOX Master SRL controllers to provide the precise amount of power to each fan.

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