

Case story | VACON® AC Drives

Quintex chooses VACON® AC drives – 3,500 times!

Quintex Energy Management Systems, Europe's leading developer and supplier of demand based ventilation control systems for commercial kitchens, has now used over 6,000 VACON® AC variable speed drives (VSDs) in more than 3,500 Cheetah energy management and safety control systems.

The systems are delivering large energy savings and carbon footprint reductions for some of the most successful and best-known organisations in the catering and hospitality sectors, including Tesco, J D Wetherspoon, Whitbread, Hilton and Marriott Hotels.

VACON® 100 – even better performance and value for recent installations

When developing its innovative Cheetah system, Quintex initially chose VACON® NXL series VSDs after a detailed market analysis showed that, at the time, they offered the best combination of reliability, versatility and value for money. For recent installations, however, the company has adopted the latest VACON® 100 series VSDs, which set even higher standards for performance and value. Primarily intended for use in professional kitchens and commercial food preparation areas, Quintex Cheetah systems comprehensively

monitor the cooking environment in which they are installed. With the aid of the VACON® VSDs, they continuously regulate the speeds of the extract and air supply fans to ensure that comfortable and safe conditions are maintained at all times with a minimum of energy usage.

Big reductions in energy usage and costs

Wide experience with Cheetah systems shows that, in a typical installation, the fans will operate much of the time at around 40% of their maximum speed while there is little or no cooking activity. At this reduced speed, they consume only 6% of the energy



needed for full speed operation, which means that energy usage and costs are greatly reduced compared with conventional systems where the fans always run at full speed while the kitchen is operational. So great are the savings achieved that the majority of Cheetah systems pay for themselves in one to two years.

“We’ve been using VACON® drives for many years,” said Guy Madgwick, Sales and Marketing Director at Quintex, “and we’ve been very impressed by how easy they are to work with, their performance and their value for money. Their reliability is also exceptional and, with over 6,000 VACON® drives in daily use in our systems, reliability is a rather important issue for us as we do not want to compromise the operation of our clients’ kitchens!”

“The original VACON® NXL drives were outstanding, but the new VACON® 100 units are even better. We’re very happy with the VACON products and we’re just as happy with the excellent service and support the company always provides.”
Guy Madgwick, Sales and Marketing Director at Quintex

Quintex Cheetah systems are customised to meet the needs of each user and, depending on the application, the company uses VACON® 100 drives with power ratings from 1.1 kW to 30 kW. In some applications, IP21 drives mounted within control panels are used, while in others IP54 types, which can be mounted without the need for additional protection, provide a convenient and cost-effective solution. As standard, the drives provide many energy saving features that are useful

to Quintex. These include a real-time clock, an integrated kWh energy meter, and a sleep function that automatically puts the drive into a standby condition during downtime so that it uses almost no energy. Two integral PID loops are also provided and the drives offer support for the LonWorks networking protocol that Quintex has adopted for its larger installations. Built-in RFI filters ensure interference-free operation even in sensitive environments, and the drives comply fully with the requirements of EN 61000-3-12 for low current harmonics. Despite the wide range of functions they provide, VACON® 100 drives are straightforward to set up and use. Standard functions are readily accessed via the built-in keypad, and special requirements are easily accommodated with Vacon’s intuitive programming tools.

Quintex Cheetah systems comprehensively monitor the cooking environment and, with the help of the VACON® 100 VSDs, continuously regulate the speeds of the extract and air supply fans to ensure that comfortable and safe conditions are maintained at all times with a minimum of energy usage.

Cover photo courtesy of Quintex.

This case story was originally released before the merger of Vacon and Danfoss Power Electronics was fully completed on 15 May 2015. As a result, Vacon as a company brand no longer exists and contact persons mentioned in the story may have changed. Future case stories on VACON® products will be released on behalf of the new organization – Danfoss Drives – which is part of the Danfoss Group.