

Customer Case Study

GSK Uninterruptible Air Supply Maintains Sterile Environment

When a production down time slot opened up for GlaxoSmithKline at their Barnard Castle production site they grabbed the opportunity to install an uninterruptible power supply. The UPS would protect the air handling plant, essential to maintaining the sterile, positive air environment required for their on-site manufacturing processes.

The air handling plant uses HEPA (High Efficiency Particulate Air) filtration - a process commonly found on nuclear, electronic, aerospace medical and pharmaceutical processing sites to achieve up to 99.99% filtration of particles from the atmosphere. At Barnard Castle the air supply systems were particularly susceptible to mains power breaks. A typical short duration failure could lose up to three days production time as the area was made sterile again.

HEPA filtration materials were invented by the US government during WWII to prevent radioactive particles from escaping from labs. Their filters are made up of boron silicate (a glass-like substance) microfibres that are formed into flat sheets in a process similar to paper making. The flat sheets are then pleated to increase surface area and the pleats are separated by baffles to direct airflow into the filter.

The installation problems faced by Astley Fenwick, Site Electrical Engineer were two fold. Firstly a supplier had to be found who could respond to the tight deadlines, and achieve the complete installation and commissioning of a 30kVA system within the time period. Secondly the installation in a first floor plant room required specialist delivery skills.

The company called upon their existing drives and motor suppliers - Slater Drives. To meet the specifications a single Riello Master Dialog UPS was chosen together with a 1hour battery pack. Delivery of the combined 1300kg system was achieved using stair climbing equipment to take the system components from the ground floor to the plant room.

There a total of forty-eight 65Ah batteries each weighing 23kg were placed and connected into a matching battery cabinet beside the Master Dialog UPS. The complete system was connected to the site electrics provided by the on-site electrical engineering team and commissioned. The installation was completed to time and budget.

Jayne Probart, Sales Consultant at Slater Drives, commented:

"We have a long standing relationship with GlaxoSmithKline and when they asked us to meet their deadline for the supply and installation of a UPS we were not going to let them down. Fortunately using suppliers like Riello Galatrek gives us the flexibility to respond to even the tightest deadline. Working with their Technical Energy Consultants on projects like the one at Barnard Castle really does help to take the worry and strain out of installing UPS into complex environments."



The 30kVA MasterDialog UPS for the air filtration plant

Since completion the site has had power interruptions but both the UPS and air handling systems have sailed through them.

About GlaxoSmithKline

GlaxoSmithKline (GSK) is a world leading research-based pharmaceutical company with a powerful combination of skills and resources that provides a platform for delivering strong growth in today's rapidly changing healthcare environment. GSK's mission is to improve the quality of human life by enabling people to do more, feel better and live longer. Headquartered in the UK and with operations based in the US, the new company is one of the industry leaders, with an estimated seven per cent of the world's pharmaceutical market.

About Slater Drives

Slater Drive Systems are the largest stockist of ABB Automation equipment in Europe. They specialise in the supply of ABB Variable Speed Drives, ABB Motors & ABB Instrumentation, Safronic Soft Starts and in-house manufactured electrical panels built to customer specification.



For more information on the Master Dialog UPS featured here:

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