



QUALITY PIPE SUPPORTS (QPS)

DEXTRA LIGHTING'S LED DESIGN ALLOWS
FELLOW UK MANUFACTURER QPS,
TO ACCESS MULTIPLE STREAMS
OF FUNDING FOR RECENT UPGRADE

Dextra
LIGHTING

ABOUT THE CLIENT

With its vast selection of high-quality, ECA compliant LED products, Dextra Lighting emerge as manufacturers of choice from a list of competitors handpicked by the Carbon Trust for QPS's latest relighting project. With estimated savings of 80% compared to the previous system, Dextra's design proposal helped QPS succeed in their application to the Trusts's Green Business Fund.

Recognised as a market leader in the manufacture of pipe support systems, QPS Ltd has built a reputation for its fast, reliable and responsive service. Since 1991, its client base has expanded globally, stretching across a wide range of sectors including: nuclear, petrochemical, utilities, pharmaceutical, power generation, construction and associated industries.

Based in Newtown, Powys, Mid Wales, the company has a 60,000 sq ft manufacturing facility to cater for the growing demands of its customers. Their state-of-the-art factory features the latest equipment and covers everything from production through to fabrication, testing and inspection.

The ISO 14001-certified company runs a tight ship when it comes to environmental management and is strongly committed to ensure that its green values and credentials are reflected in every aspect of its operations.

"The Green Business Fund" – Helping SMEs save money and contribute to a low-carbon economy

Driven by both practical necessity and a responsibility towards the environment, QPS approached Dextra Lighting to improve the lighting conditions and energy-efficiency of its manufacturing site in Powys. Company Director, Mr. Mike Herbert decided to take advantage of the Carbon Trust's "Green Business Fund" – an initiative supporting SMEs (small to medium sized businesses with up to 1000 employees) across England, Scotland and Wales looking to make energy savings by investing in lighting or HVAC (heating, ventilation and air-conditioning systems) upgrades.

The fund is run by the Carbon Trust which allows contributors such as financial service providers, government bodies and philanthropes to accelerate the path towards a sustainable low-carbon economy. It targets vulnerable market areas

such as small businesses globally by offering an integrated service providing impartial advice and funding as required. So far, the Trust has paid out £200m in interest-free loans to SMEs around the UK and provided free energy surveys to over 35,000 organisations. As a result of these efforts, a total of £1.6bn worth of energy-efficient equipment has been acquired by these businesses, amounting to a £5.5bn reduction in energy costs – a massive stride towards a more environmentally sustainable future.

With QPS's application being successful, a Carbon Trust team of energy consultants soon came out to assess the performance of the existing lighting system. The call-out service is part of the Carbon Trust's Implementation Advice which provides businesses with up to 5 days of impartial design and specification for a project, development of Invitation to Tender documents (ITT), shortlisting of reliable suppliers, independent review of proposals and quotes, advice throughout the buying process and ensuring full compliance and suitability of all new equipment. The Implementation Advice then acts a gateway for businesses to become eligible for the Green Businesses Fund, which offers up to £10,000 capital contribution or 30% of the total purchase cost of the new energy saving equipment.

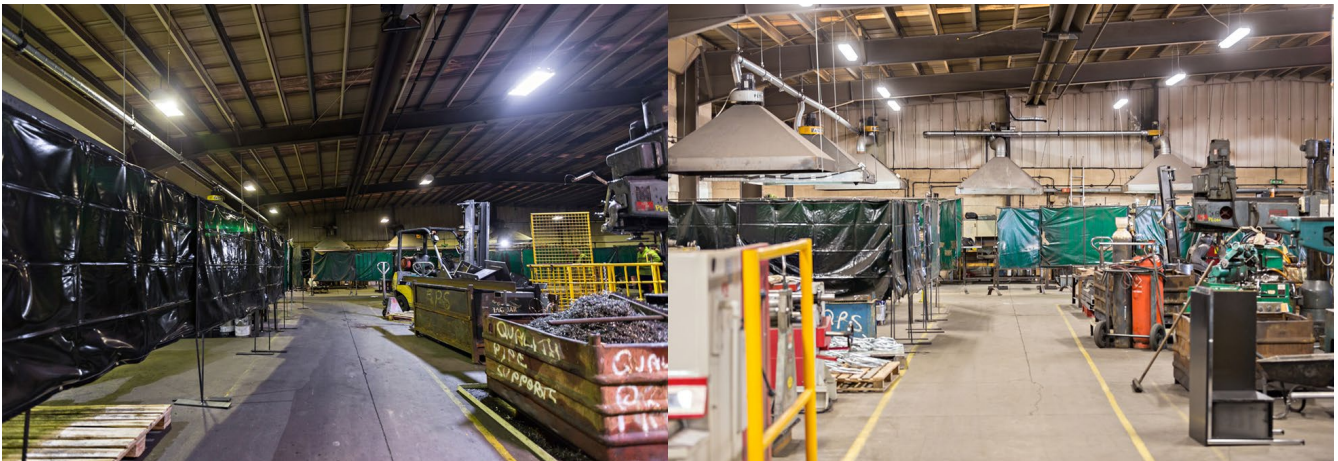
Once the survey and relevant calculations were completed, the Trust proposed three quotations from different lighting manufacturers, out of which QPS, the eligible party, reserved the right to choose what suited them best. Despite not being the cheapest option available, Dextra Lighting was picked as the manufacturer of choice due to its reputation for total service, unrivalled delivery times in the UK and ability to balance quality with affordability with its comprehensive range of precision-engineered LED products.

THE BRIEF

The existing 400w sodium lights needed to be replaced in the main workshop and production area. The design objective was to raise the general lux levels significantly and improve both light quality and uniformity. The new installation had to demonstrate substantial reductions in energy consumption to meet the Carbon Trust's performance criteria and provide QPS with as short a payback period as possible. Lower energy usage would also improve the company's performance in the government's Carbon Reduction Commitment league table, unlocking further financial benefits in years to come.

ECA compliant products were also to be selected to lower the total cost of ownership for QPS. The majority of LED products from Dextra Lighting's range are listed on the Energy Technology List which makes them eligible for the Enhanced Capital Allowance scheme offering 100% tax reduction over the first year of purchase.

A sturdy and durable solution was required to withstand the rigours of an industrial setting, with luminaires minimising the costs and disruptions to production of regular maintenance. Dextra Lighting manufactures luminaires with the highest quality LM80-verified Lumileds LED sources offering 90% lumen maintenance for the first 60,000 operating hours, eliminating the need for frequent replacements of failed or rapidly depreciating lamps – for a hassle-free and cost-effective solution. Finally, installation was to be kept as quick and cost-effective as possible for an improved return on investment.



“you guys made it all hassle free in upgrading our lighting and I will definitely be telling other companies that it's worth spending the extra money as the service has been top class”

THE SOLUTION

Dextra Lighting's design and specification team proposed a scheme using the robust and highly efficient Hydra LED luminaire for a one-for-one replacement of the existing sodium fittings.

The IP65-rated luminaire is designed for more demanding environments with its tough glass reinforced polyester body, polycarbonate diffuser and steel gear tray offering protection to water, dust, and dirt ingress and light impact. Tamper-resistant stainless steel diffuser clips are included as standard with this range, to provide tooled access as per regulations.

The Hydra LED is available in output packages ranging from 2046lm to as high as 18,630lm across three different lengths in either a single or twin body. By combining the latest Lumileds LEDs and efficient optic design, the high-performance luminaire offers a light output ratio of 90% and operates at an average of 140 luminaire-lumens per circuit Watt.

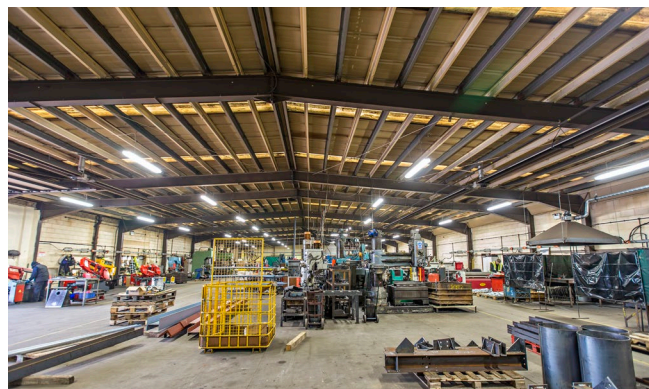
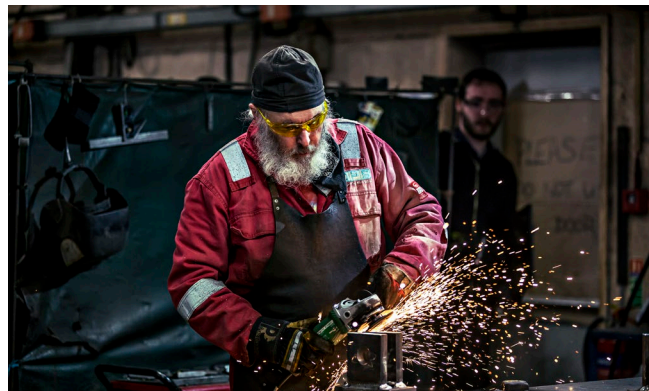
At QPS, a 1500mm long, 11,970lm version with a twin body, was selected to replace the 400w sodium lights, raising light levels to an average of 300lux across the entire production area with a uniformity of 0.70 as recommended by CIBSE guidelines. At this output, each luminaire's electrical load was reduced from 434w to 88.5w. Using the same amount of luminaires as the previous installation, the total power load was cut by a notable 80%.

The versatile luminaire offers multiple installation formats, and was chain-suspended from the curved metal ceiling in certain parts of the workshops and mounted in areas where trunking was already in place.

The Hydra LED is compatible with a selection of standalone sensors from Dextra's Reacta range, and is available with Switch, DALI, Digital and HFR 1-10v Analogue dimming to allow installations to offer further savings through presence detection

and daylight regulation. By adding intelligent controls to the equation ROIs can be significantly improved, as well-designed lighting systems can generate up to 30% reductions in energy usage throughout the day.

Integral 3-hour Self-test and Auto-test emergency lighting functions are also available with this product to suit the application.



THE RESULTS

The LED upgrade generated revenue for QPS in multiple ways. Once the lights were purchased through local wholesaler, Links Electrical, a copy of the invoice of £14,995 was submitted to the Carbon Trust alongside photo evidence of the new LED installation. Having being shortlisted by the Carbon Trust's independent advisors, Dextra Lighting's LED luminaires ensured that the application to the Green Business Fund ran smoothly, slashing 30% of the total cost (£4,498) of the new system which was sent as a direct payment BACS payment back to QPS. ECA compliance cut an additional 28% from the final bill, amounting to £4,198. On top of these initial savings, the new lighting will reduce the company's electricity bill by 80% compared to the previous fittings, which is the equivalent of £5,928 per annum. The remaining £6,299 has been estimated to be fully paid back within only 13 months. The calculated savings do not include the long-term cuts in maintenance costs compared to the sodium lighting.

The project demonstrates how LED upgrades can present many financial opportunities for SMEs in the UK, not only due to the well-known energy-efficiency and low-maintenance benefits involved, but through a combination environmental initiatives geared towards minimising the UK's carbon footprint. Eligible businesses are urged to register to these energy-efficiency schemes quickly while funds permit, as a highly effective strategy to future-proof their facilities and reduce their overheads at time when energy prices are constantly on the rise.

"Just a quick mail to say how happy I was with yourself, Harry and Dextra in general. Been really good dealing with you guys and made it all hassle free in upgrading our lighting and I will definitely be telling other companies that it's worth spending the extra money as the service has been top class. Look forward to seeing the photos. Hopefully deal with you in the future regarding the office lighting. Also please pass on my thanks to the rest of your team.

Once again appreciate your help with the project."

Mike Herbert, Director – Quality Pipe Supports (QPS) Ltd.



FEATURED PRODUCTS



HYDRA LED