PATHFINDER HOUSE

LEADING CAR MANUFACTURER REQUESTS HIGH-PERFORMANCE LED FOR INSPECTION WAREHOUSE.

Dextra LIGHTING

ABOUT THE CLIENT

After the success at Southampton's Mayflower Terminal and a major distribution unit at its Cardiff Bay site, Associated British Ports (ABP) crosses paths with Dextra Lighting once again, to deliver a high-specification LED lighting design for one of its top European clients.

Over the years, the Port of Southampton has gained an outstanding reputation for providing the highest standards of service to clients in the automotive sector. ABP proudly states that the port has now become "the UK's number one vehicle handling port with around 840,000 vehicles passing over the quayside every year", offering a range of specialised warehouses and services. Amongst these, are its Pathfinder House facilities, designed to provide services such as pre-delivery inspections and vehicle-enhancement work to car manufacturers from around the world.

THE BRIEF

In preparation for the new client, the car inspection warehouse was being thoroughly refurbished and was fitted with brand-new specialist equipment such as: jet washers, separator tanks, fuel pumps and new concrete bays. The car manufacturer had specifically requested that LED lighting was to be installed at the premises to minimise energy costs and maintenance. It was imperative that the new installation would feature high-intensity lighting with exceptional uniformity of light, to ensure maximum visibility for technicians to check the cars for scratches and perform mechanical and cosmetic alterations.

Having worked with ABP on other projects, Dextra Lighting were familiar with the group's expected standards and working environment at the docks. This background knowledge allowed the team to complete the upgrade quickly, efficiently and cost-effectively so that the client could resume business as soon as possible.

High-level workshop – Tracer LED Lowbay.

A total of sixty-four Tracer LED Lowbays were suspended from the warehouse's high ceilings, to provide complete coverage of the main workshop area. Designed for such high-level industrial applications, the luminaire is offered in a higher band of lumen outputs of between 18,000lm and 30,000lm, so that installations can maintain the required light levels and uniformity from considerable heights. This range of lumen outputs also allows effective replacement for a range of HID luminaires of up to 400w without the need to modify existing wiring; making retrofitting a quick, hassle-free and therefore cost-effective process. The Tracer's slimline and low weight construction also ensures the luminaire is both easy to handle and aesthetically appealing.

Servicing luminaires in high-level warehouses can be especially time-consuming and costly, causing delays and interruptions to the customer's operations. The Tracer LED Lowbay is engineered to minimise these issues. By using high-quality Lumileds LEDs, offering a significantly longer lifespan and reduced lumen depreciation compared to traditional sources, luminaire maintenance will be kept to minimum as frequent lamp replacements will not be required.

The fixture's polycarbonate cover will also make routine cleaning simpler, thereby keeping the product performing at its best for longer. Alongside low maintenance, premium performance was also a primary requirement for this project. By combining the latest Lumileds LEDs with high-efficiency optics, a typical installation will guarantee energy savings of approximately 45% compared to HID alternatives. This technology allows the luminaire to operate at an impressive 129 luminaire lumens per circuit watt in all lumen outputs, making it a highly efficient solution for high-level industrial applications.

The versatile luminaire also offers a wide range of options including: compatibility with a range of sensors and dimming functions (DALI and HFR), integral emergency control gear and is suitable for two point suspension, trunking and surface mounting.

Overall, the Tracer LED Lowbay combines low cost of ownership at no detriment to performance, aesthetic appeal and quality. Its cost-effective installation, low maintenance and energy-efficiency features guarantee clients with rapid returns on investment, which is why this product has remained an extremely popular choice for manufacturing and production areas, warehouses and distribution centres nationwide.

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Secure Storage – Hydra LED.

The robust, IP65 rated Hydra LED was selected for the warehouse's secure storage areas. Ideal for industrial applications, this luminaire offers protection from dirt and dust ingress as well as light impact, and can withstand temperatures from -20°C to +25°C. Its highly resistant sealed polycarbonate cover combines with the longevity of the latest Lumileds LEDs, to provide a durable, efficient and low-maintenance solution. These high-quality sources also allow the Hydra LED to achieve LORs of over 90% for a wide range of lumen outputs (from 2,200lm to as high as 12,600lm), whilst considerably reducing running costs compared to HID or fluorescent sources.

The Hydra LED can also be offered in a wide range of dimming variants (HFR, DSI, DALI, Switch Dimming and a Corridor function) and with integral three hour emergency to increase energy savings and safety. The Hydra LED is also supplied with stainless steel clips and screws as standard to ensure tooled access in compliance with regulations.

All products from Dextra's LED range are offered with a comprehensive five year warranty for additional peace of mind.

Low-level workshop, Inspection bay – Ecopak.

High-quality fluorescent lighting also featured in this project. A continuous run of fourteen Ecopak twin batten T5 luminaries were mounted upon a steel gantry system to provide high-intensity, close-up lighting. The lighting system would allow individual cars to be inspected more closely for scratches and other defects, leaving little room for error.

The versatile EPK batten is available in single or twin lamp format and offers a wide range of customisable options including a selection of covers, reflectors and luminaire guards to suit different environments. For the inspection bay, both High-Rack and Trough high-efficiency reflectors were supplied to ensure an optimal light distribution. An angled Trough reflector is designed to conceal the lamp from view, providing high illuminance with minimal glare. This asymmetrical light distribution was supplied to significantly improve visibility during inspections, allowing technicians to work more comfortably and with precision.

The EPK's robust steel body makes it ideal for workshops and other industrial applications. Reflectors and lamps however, can be exposed and vulnerable to impact. To prevent damage to these components, the EPK can be reinforced with protective wire guards which hinge down to enable rapid maintenance.

The luminaire features high-quality European control gear and operates with Dexsor's R21 integral sensor, to provide increased flexibility and maximise energy savings. Three hour integral emergency is also available for this product.

Finally, the EPK offers quick and simple installation as it is delivered fully assembled, ready to install and can also be pre-wired to reduce installation time further.

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Emergency Lighting.

A series of reliable, IP65 rated emergency luminaires were installed in various locations, to ensure complete compliance to the strict safety regulations of industrial workplaces. The emergency lighting was designed ensure maximum visibility to all exits in the event of a power failure. The durable Twinspot emergency projector (LED version also available for enhanced efficiency) was fitted at a lower level across the workshop's walls, featuring twin 1x20w tungsten halogen adjustable heads for increased light coverage. The versatile and efficient 8w OEH bulkhead on the other hand, was supplied with an Emergency Legend Kit and was installed in both high level and low level workshop areas to clearly direct staff to the nearest exits. Using high-quality Tridonic emergency drivers, both luminaires provided non-maintained (lights switch on when power is cut) three hour emergency lighting and self-test functions.

The popular EXI LED provided maintained emergency exit signage at the warehouse with self-test function. This exit sign luminaire benefits from the long life and low maintenance properties of LED sources, making it a reliable, efficient and hassle-free solution.

FEATURED PRODUCTS

TRACER LED LOWBAY

HYDRA LED

ECOPAK

TWINSPOT LED

EXI LED

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