

Spelsberg IBT enclosures speed up electrical installation for new pre-cast hospital build

Thanks in part to the use of Spelsberg IBT junction boxes, a project to build a new £89m mental health hospital in South Wales has kept to a rigorous construction programme. The IBT enclosure range provides quick and robust electrical installations for pre-cast concrete construction, a proven method of building fast-track projects.

The 20,000sq m centre replaces several separate facilities spread around Cardiff and the surrounding area. It will provide adult inpatient accommodation in 135 single-bed en-suite rooms, and also bring together all the area's general adult mental health inpatient services including low security, addiction, neuropsychiatry, intensive care and supportive recovery services. The design incorporates sitting rooms, garden areas, therapeutic spaces and consulting rooms.

Despite being a large and complex project, topping out of the main buildings was completed within a year. This was achieved through a highly sophisticated technique to prefabricate seven separate plant rooms off-site. These were then installed in a matter of days. Each plant room contains all the building services equipment required, including pumps, fans, Building Management System (BMS) panels, control equipment and complete wiring.

The use of precast concrete panels, rather than poured concrete or other construction methods also helped ensure the rigorous building programme was maintained. The panels are bespoke designs and incorporate the electrical services, which reduced the amount of installation and wiring needed on-site.

Historically, this method of electrical installation has been difficult, due to the lack of specially designed electrical products. But Spelsberg's ITB range of junction boxes and related products has been specifically designed for the precast construction industry.

The IBT system allows enclosures, junction boxes, lighting outlets and other installation components to be fixed into the formwork into which the liquid concrete will be poured. They are secured in place either by magnetic couplings for metal formwork, or by patented support spars for timber formwork. Conduit is fitted as required to accommodate the wiring and then the concrete is poured in. Once set, the formwork is removed and the panels are ready for shipment to site.

A key element of the IBT system is the integral sealing, which prevents concrete fines from getting inside the electrical components. This uses a patented diaphragm system which, after the conduit is inserted, returns to its original position and provides strain relief and sealing without the need for special grommets. Conventional housings do not have such a seal, so if used in a precast panel, a sealing arrangement would have to be fitted in-situ, a difficult and costly process.

The IBT products are made from halogen-free, high-temperature resistant material which is designed for a long, trouble-free life. The range available in a wide range of sizes. With more and more projects now requiring extra low voltage (ELV) transformers for LED lighting, loudspeakers and network communications cables, Spelsberg has also developed the complementary IBTronic range.

The IBT system has already been used in a wide range of buildings including prisons, schools, hotels, offices and residential buildings. It is now increasingly recognised for its potential to reduce installation time and save overall build costs.

“Space for you”

Spelsberg's company philosophy is based around the idea of providing flexibility and freedom to its customers. The space provided within each junction box; the large distribution and warehousing space; and the freedom to customise almost any product, irrespective of quantity, all equates to “Space for you”.

About Spelsberg

Spelsberg is one of the largest manufacturers of electrical enclosures in the world. With over 4,000 enclosures available as standard and further customisation possible, it offers solutions for almost any application.

With the largest supply of non-metallic enclosures, ex-stock in the UK, its products are often available for delivery within 24 hours; customisation is possible on any product, including bespoke entries, engraved corporate logos or fitted terminals, within 48 hours. Products can be ordered direct from Spelsberg or from most leading supply specialists including RS, Rapid, Farnell and CPC.

The image(s) distributed with this press release may only be used to accompany this copy, and are subject to copyright. Please contact DMA Europa if you wish to license the image for further use.

Editor Contact

DMA Europa Ltd. : David Bedford

Tel: +44 (0)1562 751436

Fax: +44 (0)1562 748315

Web: www.dmaeuropa.com

Email: david@dmaeuropa.com

Company Contact

Spelsberg els UK Ltd. : Chris Lloyd

Tel: +44 (0)1952 605849

Fax: +44 (0)1952 670814

Web: www.spelsberg.co.uk

Email: cll@spelsberg.co.uk