

Ticking all the boxes for control systems

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While the enclosure might seem a humble component of a control system, for designers correct selection is vital to ensure suitability for the intended application. Nobody knows this more than Lawtronic, a renowned electrical control solutions provider for the past 36 years. It has a long-term relationship with Spelsberg, a market leader in enclosure technology that has supplied a wide range of boxes for Lawtronic projects.

Chris Lloyd | Spelsberg

I spoke with Dave Tester, Managing Director at Lawtronic Ltd., to discover how it has collaborated with Spelsberg to help overcome modern challenges in control system design and supply.

Variety is the spice of life

“We offer a complete service for control systems in applications across many industries, encompassing design, manufacture, testing and installation. Typically, we use Spelsberg enclosures for our marine, refrigeration, and baggage handling systems amongst others. There are obviously big application differences, so having a wide variety of boxes to choose from is important to us,” says Dave.

As control systems have diversified, a one-size-fits-all enclosure solution simply doesn't exist anymore. Consequently, designers need a wide range of sizes, models, materials and characteristics to choose from to ensure suitability. While a high ingress protection rating might be an important feature for a marine application, for a baggage handling machine it's less so. If a Lawtronic customer requires a compact enclosure that can fit within a small footprint, having a multitude of sizes to choose from is beneficial. Having quick access to all the options simplifies procurement and expedites a control system design project.

Dave expands on the importance of options: "We had one customer who required an enclosure with a transparent lid so that engineers could easily view the electronics within. In the end, Spelsberg recommended an IP66 AKL 4-t, as it features a clear lid. This meant we could easily meet the customer request with an off-the-shelf item."

Handling customisations

Even with varied options, an off-the-shelf solution can't always solve everything for a control system designer, and one Lawtronic project illustrates this.

"We developed a custom control system concept for a tray return conveyor installed on X-ray security machines destined for an airport in Dubai. A standard enclosure solution wouldn't fit within the constrained footprint of the machine, so we worked with Spelsberg during the design phase to produce one that would, and at the same time would dramatically reduce our labour during build," Dave explains.

Having an in-house engineering capability ensures that enclosure manufacturers can support control system designers early in development with bespoke solutions. CNC machining allows new enclosures to be prototyped quickly, so that the design team can carry out testing and meet a specific brief. Ultimately, an enclosure that exactly matches the unique requirements of the control system is achieved.

“Repeatability is a big thing for us too,” Dave expands. “We typically design control systems for volume production machine builders. For example, the system for the airport was required for over 100 individual machines. Not only do we need custom enclosures, but we sometimes need lots of them.”

Therefore, it’s important that enclosure manufacturers can not only produce custom items on reduced lead times for the development process, but also offer the manufacturing capacity and flexibility required to deliver short production runs of unique designs.

Controlling supply chains

Modern trends don’t just apply to the engineering of control systems, but to supply as well. Across industry, suppliers and manufacturers are looking to localise their logistics operations to improve availability and minimise the effects of delays and increased costs.

“Everyone is working to make supply chains more robust through reshoring, and Spelsberg offering us local availability in the UK is beneficial. Our approach, like many, has been to hold more stock, and Spelsberg has supported this by providing us with increased enclosure inventory capacity. This gives us a more responsive and resilient supply chain.”

Local availability ensures that control system manufacturers can insulate supply chains from external shocks. The advantages of increased stockholding and reliable delivery also benefit their customers, helping to streamline projects and adding value.

An efficient approach that adds value

“Ultimately, what we need from an enclosure supplier is efficiency and value. Efficient supply of custom products ensures that we can produce unique control systems faster. Having a UK enclosure supplier with off-the-shelf solutions reduces costs, savings which we can pass onto our customers. These are the two key reasons why we have a long-term relationship with Spelsberg,” concludes Dave.

Clare McCusker, National Sales Manager at Spelsberg els UK Ltd., adds: “We are proud to work with Lawtronic, providing enclosures from our TG, TK, AK and Abox range. Our versatile products, rapid customisation service, engineering support, UK-based manufacturing and availability allows us to support the complex enclosure requirements of control system designers. Due to this we can assist in meeting the unique industry challenges they face.”

Image captions:

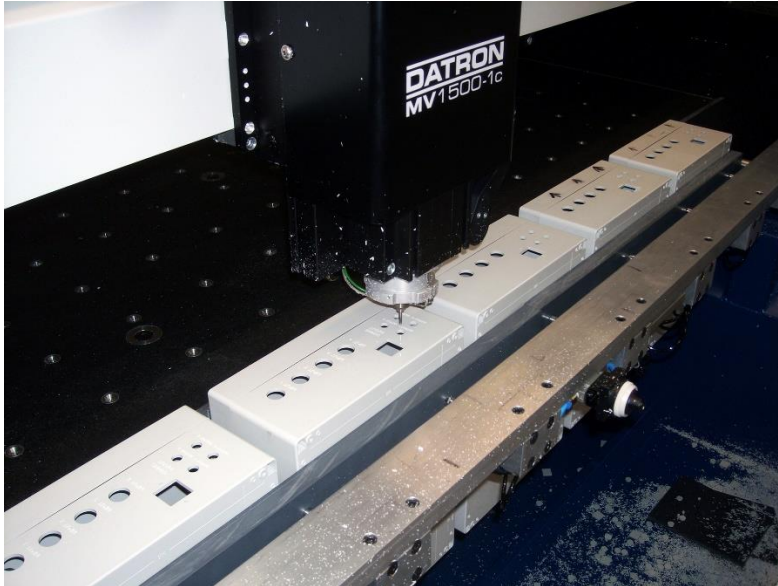


Image 1: CNC-controlled machines and systems at Spelsberg.



Image 2: CNC-controlled machines and systems at Spelsberg.



Image 3: Lawtronic Control Systems Logo

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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.

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