

Printing and assembly: key services from an enclosure supplier

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Industrial electrical enclosures are ubiquitous but increasingly installations are taking advantage of specialised services to tailor them to specific applications. The ability to print brands or safety information directly on to the enclosures or pre-assemble parts such as control wiring, or devices like cameras, are increasingly important. Partnering with an enclosure manufacturer that can provide these services saves time and cost, and can help achieve a complete, ready-to-install product.

Chris Lloyd, Managing Director at enclosure manufacturer Spelsberg UK, explains.

In an industrial setting, if an electrical device or system needs a reset or urgent configuration, the engineer might need to see clear instructions to quickly guide them in resolving the situation. For that reason, manufacturers of various types of electrical equipment, and end users too, often choose to print or emboss instructions or safety information directly onto their devices. This means permanently etching vital details onto the enclosure that protects their sensitive device.

It's not just safety information and instructions that require printing onto an enclosure casing. Equipment manufacturers, system integrators, and contractors benefit from presenting their brand, including logos and contact details, in a professional way. This achieves brand recognition and helps to spread awareness.

Printing logos and text directly onto the enclosure optimises the aesthetic appeal compared to an adhesive label, and this approach is also far more durable, especially when equipment is used in an industrial or outdoor environment. An adhesive badge or label can be peeled or knocked off with impact, or lose adhesion over time following exposure to water, grease, or sunlight. Alternatively, direct printing means the information is there to stay. Even when exposed to grime, the surface can be simply wiped clean.

Selecting an enclosure printing service

Printing onto industrial enclosures requires specific capabilities. The types of printer involved in the process must be able to accommodate sufficient substrate depths, and crucially, they must also be capable of printing onto materials including industrial plastics and metal. Long-lasting print is essential, especially when facing industrial settings or adverse weather conditions, so it's important that the printing service can achieve a sufficiently durable and hard-wearing finish. For branding appeal, full colour printing might be required, while to ensure clarity, sufficiently high resolution is necessary.

Specialist, third-party printing services can be engaged, but there are advantages working with an enclosure manufacturer that can provide the requirement in-house.

Typically, completion time of the service will be faster, not least because it removes the need for additional administration and transportation, as well as waiting times alongside other customers. Instead, when printing forms part of the whole enclosure manufacture and supply process, it's a more efficient approach. Management is all under one roof, from assistance in the initial design through to final approval, which also means that accountability remains with just one supplier.

In-house printing

To fulfil growing demand and further reduce lead times, Spelsberg UK has recently increased its enclosure printing capacity by adding a second, flatbed inkjet printer. These specialist machines print in full colour, with up to 1,800 dots per inch resolution, and can handle structures up to 610 mm wide and 150 mm deep. From installation onto fuel trucks, factories, and farms, the print is long lasting, with various options in primers and lacquers to ensure durability, as well as UV resistance.

The printing team can handle supplied graphics files, they can also assist with design when required. An important advantage of this service is speed. A sample proof can potentially be provided on a same-day turnaround, and dependent on the scale of the project, printing can be completed within a week. Large scale orders can also be handled, involving 100-plus units.

Enclosure assembly

Over recent years, Spelsberg has seen businesses become increasingly streamlined, with greater reliance on highly trained, specialist staff. As a result, equipment manufacturers are commonly looking to outsource less technically demanding tasks, such as component assembly, to free up their highly skilled workforce.

Assembly of components within enclosures goes hand-in-hand with enclosure printing, creating a one-stop service that delivers a complete, or partially complete enclosure unit. At Spelsberg UK, assembly can include fitting parts such as electrical terminals, DIN rails, wiring looms and cable glands, keypads, as well as the complete installation of devices such as controllers. Ultimately, this service can deliver a fully printed and assembled unit, ready for final installation by the end customer.

While an assembly service frees up resources for an OEM, it can also achieve a faster turnaround. The Spelsberg team is skilled in the planning and implementation of enclosure assembly, and able to source the majority of assembly components directly, which also reduces demand on the customer's procurement team. Tasking the enclosure supplier with assembly can also reduce overall project cost, as a company like Spelsberg UK already has a team set up to efficiently manage the process.

Turnkey enclosure service

Ahead of needs in enclosure assembly and printing is the customisation of the actual enclosure. This could involve adding specific cable entry/exit points, or inserting openings for a display or controller, through to adding thread tapping. An in-house CNC machining capability enables an enclosure manufacturer to design and create a bespoke housing, specific to application needs.

Combining customisation with assembly and printing creates a turnkey service that makes a completed enclosure unit, ready to go. This not only reduces demand on the OEM, but can reduce time and cost for the end customer as well.

Image captions:



Image 1: Spelsberg UK has recently increased its enclosure printing capacity by adding a second, flatbed inkjet printer.



Image 2: - Printing logos and text directly on the Spelsberg Enclosures much more durable, especially when is used in an industrial or outdoor environment.

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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