

Spelsberg: The Savile Row of enclosure specification

Sometimes a standard product exactly meets your needs. However, occasionally, only a bespoke solution will do. The middle ground is customisation of a standard product. Electrical enclosure specialist, Spelsberg UK, has developed its customisation services to an incredibly high level; so can produce solutions to exacting briefs – often with virtually no lead time and no minimum order quantity.

There may have been a time where electrical engineering was leisurely and unhurried, but nowadays there are often critical timeframes, which suggests an increasing preference for off-the-shelf enclosures. However, many modern electrical projects have some sort of unique characteristic that makes a standard enclosure less than ideal.

An enclosure manufacturer that tried to cater for every need with a standard product would have an unfeasibly large catalogue – and stockholding costs to match. At the same time, costs for tooling a bespoke enclosure mean that for this to be economic, tens of thousands of each design may have to be made and sold.

As a leading supplier of electrical enclosures, Spelsberg, for example, stocks a range of standard enclosure that covers some 4,000 variants and associated accessories. But even with such a large range, they find there are always enquiries that can't be easily met with a standard product. It has therefore ensured that rapid customisation of enclosures to users' specific requirements is viable thanks to dedicated design, customisation and assembly services.

It's true that with the variety of products available today you can always find a standard product which can work with your design, but there will always be compromises involved. For instance it may be a bit too large or too small than is ideal, or the entry solutions or internal mounting options may not fit the brief. Such compromises can result in an ugly appearance, technical issues and even added costs.

Clearly, customising an enclosure to fit a given application is an option with a lot of merit. Today customisation can be done quickly and cheaply, provided the enclosure manufacturer is set up for such operations and has the skills, experience and confidence to guarantee a successful outcome.

Typically the customisation requires the use of CNC machinery, which reduces the costs of traditional tooling and labour so significantly that customised enclosures may cost just a few pence more per unit than an off-the-shelf choice. Further, the costs of customisation are often immediately recouped because the installation time is reduced compared to working with a non-ideal enclosure.

Practicalities

The most common customisation requirement relates to the quantity, size and position of the entry points. A standard enclosure will have a number of 'knock-outs', usually all the same size and in a grid pattern. Customisation allows the designer to specify the exact quantity of entries and dictate their size and positioning. They can even specify non-round entry points if required.

The major advantage of customisation (aside from the obvious aesthetic appeal) is that there is minimal disruption to the integrity of the enclosure's strength. Also well-positioned entries will enable efficient wiring, which may save time and money during building. Another common requirement is specific positioning of the cover's hinge – left, right, top or bottom. In many situations it does not matter much where the hinges are, but in some applications it is very important. So, an enclosure that is designed for frequent customisation should include a sidewall concept that freely accommodates different hinge positions.

The covers, too, may require customisation. The most common custom requirement is probably for a transparent cover, which allows for easy inspection (although sometimes an opaque cover is specified so that unwanted attention is not drawn to internal electrical equipment). Another common requirement is for some form of printing, engraving or laser marking, and this is always going to be unique to each application.

Depending on the requirements of the application, there will often be a specific material and IP rating that is required of an enclosure. Therefore any company that claims to offer a comprehensive customisation service should have the capability to offer a wide range of materials and be conversant with the IP requirements (and those of other industrial standards). Spelsberg, for example, offers a range of non-metallic materials including Polystyrene, Polycarbonate, Aluminium, GRP and ABS as well as steel.

One-step installation

Taking customisation to the next level, it is possible with Spelsberg to specify enclosures which are pre-assembled prior to delivery. At a simple level this could mean fitting a DIN rail, terminal or PCB mount. Assembly plates, smart boards and non-standard entry glands could also be part of the brief.

Ultimately, the customisation could go as far as the complete population of the enclosure, which would eliminate on-site assembly with its associated costs and quality issues.

Spelsberg is able to work with customers prior to specification to help design an enclosure's solution from the ground up to make sure that the end product is as reliable, efficient and cost effective as possible. Spelsberg has experience designing solutions for almost every industry, from Aerospace to Railway to Marine, and beyond.

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“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.

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