

Case Study



Lion Steel

Lion Steel has been manufacturing high quality storage solutions for over 50 years. Its products - which include everything from cupboards and workstations to shelving and cabinets - can be found in every industrial and commercial setting.

Challenge

When Lion Steel wanted to introduce an innovative new plastic locker solution to its range, it needed a roto moulding partner with the expertise and ingenuity to bring this exciting new product to life.

Alastair McKay, Sales Director at Lion Steel said:

"Our vision was to produce lockers in a single piece, reducing the assemble time of current plastic lockers on the market. The new locker would be 1800mm high which was challenging for the roto moulding process."

Lion Steel also wanted its product to be practical, robust, rot resistant, hygienic, completely weather proof and vandal resistant. They knew their visionary idea would present some considerable technical and design challenges.

Solution

Lion Steel chose Excelsior to work on the project because of its experience in contract moulding, its reputation for innovation and willingness to work with customers from conceptual design right through to manufacture.

From the outset the Excelsior and Lion Steel design teams worked together mapping out key objectives and Excelsior utilised its PTC Creo 2 CAD software to develop the design from initial concept through to final product 3D models.

There were a number of design challenges along the way which Excelsior helped overcome including the development of a friction weld plug to ensure the shelves segregating the locker compartments were not only 'shrunk' into place but also had a mechanical physical fixing which was made in the same material as the locker body – thus achieving Lion Steel's all plastic brief and vandal resistant requirement.

Extensive concepts and full-scale prototypes were produced to ensure the product could do what was required of it and would fit within Lion Steel's existing brand and product range.

Alastair McKay says:

"Excelsior was the perfect choice. We had no experience in the moulding process so we were relying on them completely. They were very knowledgeable and patient with us even when we wanted to amend the designs and they even produced 3D models for us as well as 3D drawings so we could visualize the end product."

To bring the project in without exceeding Lion Steel's budget and without compromising on aesthetic **and tolerance** requirements, a combination of cast aluminium, CNC aluminium and Teflon mould coatings were applied to the final product.

The lockers ultimately produced for Lion Steel are the only all plastic lockers on the market that are manufactured in a single piece.



Benefits

The new lockers have numerous benefits including:

- Fast installation
- No on site assembly required
- Water-proof
- Graffiti proof
- Corrosion proof
- Vandal resistant
- 15 yr UV protection
- Anti bacterial
- Meet EU standards
- Recyclable

Most importantly, Alistair McKay, Sales Director at Lion Steel reports that the product has been well received in the marketplace:

"The reception the new lockers have received has been overwhelmingly positive. All of our trade customers who have seen the product agree it's a significantly better product than any already in the marketplace and appreciate the considerable shift in design features. End users are also impressed, particularly with the reduction in time and expense associated with their installation."



"Excelsior achieved every objective we set and contributed a wealth of technical and practical input at every stage in the process."

