

Tecni-Form Helps to Create UK's Favourite Baby Changing Station



A Tecni-Form Case Study
in Partnership with Baby Point

www.tecni-form.com

Evolving Baby Changing Facilities

Baby Point Ltd is the main provider of baby changing facilities for mainstream retailers, shopping centres, airports and leading attractions in the UK. Over the last 15 years, the company has developed its range of baby changing products with Tecni-Form as its manufacturing partner. When Baby Point decided to launch a brand new product to meet new market trends, it was no surprise that they reached out to the Tecni-Form team as their products required technical expertise from design stage to manufacturing.

Commercial baby changing tables were invented in 1929 in New York and since then the market has evolved and expanded rapidly. With over 700,000 babies born every year in the UK, baby changing units are now an essential part of public washrooms. There is evidence that over the decades there has been an increase in the average weight of babies, so the changing stations have needed to adapt as safety is the number one priority.

Outstanding Strength and Hygiene by Design

The first wall mounted baby changing tables developed by Baby Point and Tecni-Form, optimised the available space even in small washrooms and are an extremely well engineered products complying with both safety and hygiene regulations.

To achieve sufficient strength it is essential that the right resin was selected. The Tecni-Form team suggested a high rigidity polypropylene for the rotational moulding process, the first time this polymer has been used for this application.

Furthermore, to both guarantee strength under load and provide a hinge system for wall mounting, an assembly of reinforcing steel is moulded into the cantilever style structure with the durable rotomoulded hollow moulding filled with a rigid PU foam.

The product demonstrates how Tecni-Form's versatile engineering capabilities can add value to a product where safety and rugged construction are an absolute must. In fact they achieved double the weight bearing requirements for baby changing tables, because being capable of taking loads up to 120kgs takes into consideration that parents may lean on the station.

Hygiene is another important factor that needs to be taken into account at the design stage. Polypropylene offers higher hygiene standards than the medium or high density polyethylene used for other makes of baby changing tables. With its polished surface it is easy to maintain and by adding anti-microbial additive to the polypropylene compound it provides outstanding hygiene and guards against bacterial spread.

Wall Mounted Baby Changing Table



The Next Generation Baby Changing Table

While the wall mounted changing table with highly durable design has been successfully sold for use in washrooms in various countries over many years, the owner of Baby Point has identified the need to offer a new concept for public places “ the unit is free standing to facilitate easy, low cost, installation, combined with the ability for rapid, damage free, removal, where, for example, the installation is short term, as well as providing an opportunity for resellers to lease these stand-alone units “ explained Eric Hesnard, director of Baby Point Limited.

Mr Hesnard recognised that many modern buildings using lighter construction walls were not suitable for wall mounted structures and often there is insufficient space for a bench facility in toilets. The new concept of a portable nappy changing station was a response to the market trend for a dedicated bay or parent room instead of using washrooms for this purpose. There is also an increasing demand for short term baby changing facilities for events where a renting option could be the solution.

The Challenge

The new mobile all-in-one commercial baby changing table (called The Baby Point) provides more room for babies compared to similar products in the market and its ergonomic design comes with built in bag hooks, integrated liner dispenser and nappy bins. For Eric, the new product had to meet the following requirements:

- Aesthetically pleasing design
- Meeting health and safety standards
- Easily assembled moulded parts
- Easily installed on-site & serviceable without tools
- Changeable parts to address different customer applications
- Avoiding any risk involving babies and children moving around the table
- Comfortable and soft for babies
- Cost effectiveness



“The new baby changing table has met all of the technical & market expectations thanks to very strong support from the Tecni-Form team at design and prototyping stages” said Mr Hesnard.

Tecni-Form Delivering Engineering Excellence

The new portable baby changing table is assembled from six polyethylene and one polypropylene rotomoulded parts with high dimensional accuracy. The design incorporates optional components, such as bins and lockable castors, with all assembly carried out by Baby Point to customers' individual specifications.

The Solution

The stylishly formed baby changing cradle is manufactured from a new grade of high impact polypropylene, the weight being supported by the base structure without the need for the steel reinforcement required in the wall-mounted model.

To achieve the necessary rigidity without metal reinforcement, the new CAD design was modelled using Finite Element Analysis (FEA) and incorporates a number of invisible moulded features to enhance the necessary support to the structure.

The design with its polished surfaces and rounded edges, ensures a safe and comfortable environment for babies, and this is enhanced by the cradle incorporating an anti-microbial additive to increase hygiene standards further. The flexibility of Tecni-Form's rotomoulding process enables rapid colour changes giving the option to supply even single batches in any colour, say to match corporate or authority identity.



DURABLE



ERGONOMIC



COMFORTABLE



COMPLIANT

Finite Element Analysis (FEA) is a method of simulating the way a physical object will behave as a result of the conditions it's subjected to. Typically, this is carried out on a 3D cad model using specialist software which can calculate deflection, stress or strain levels, fatigue (and potential failure) etc. when the object is loaded. Designs can therefore be optimised for the intended application before tooling is commenced, potentially saving considerable cost

The Perfect Rotational Moulded Product

Tecni-Form's CAD facility, the technical expertise of the team, and the manufacturing capabilities all handled in-house offered a significant advantage to Baby Point. "We were able to offer low tooling costs and competitive pricing for this high quality, and technically challenging product. We were delighted to assist this long standing and prestigious customer develop their new baby changing product" added Jon Ross, Development Director at Tecni-Form.

Point facility is now ready to be rolled out throughout Europe and to be tested by babies and their mothers at various airports, supermarkets, restaurants and public places.

"The success of these projects lie in our long lasting business relationship with Tecni-Form, with continuous support and strong responsiveness whatever the subject is: manufacturing, design, prototyping or new product ideas." said Eric Hesnard, Director of Baby Point.



About Tecni-Form

With over 50 years experience, Tecni-Form is the recognised industry specialist in rotational moulding and reaction injection moulding (RIM). Tecni-Form utilise the latest design technologies, materials and manufacturing processes to create its clients next generation products. When it comes to special industry requirements, ergonomic designs, cost-effective moulded parts and rapid timescales, Tecni-Form is the preferred partner in a variety of sectors. The core of the company's success is the product development in collaboration with our customers including JCB, Caterpillar, Veolia and Calor Gas.



+44 (0)1273 723591



sales@tecni-form.com

www.tecni-form.com



About Baby Point

Baby Point products were first developed and marketed through former Managing Director's Industrial Design consultancy, JEG Design in 1993. Since then, They have been providing baby changing facilities to "best of the breed" retailers, airports, shopping centres, attractions parks, zoos, local authorities, such as Tesco, Asda, M&S, Debenhams, Mac Donalds, Heathrow, Gatwick, Center Parcs in United Kingdom or such as Auchan, Disneyland Paris, Grand Parc Puy du Fou, Futuroscope, Beaugrenelle, Parc Zoologique de Paris, Thoiry, ADP (Paris airports) in France through Beresford, our French speaking countries distributor.



+44 (0)1449 770607



sales@babypoint.co.uk

www.babypoint.co.uk