Protech Model

PREMIUM VACUUM FORMED COMPONENTRY

ABOUT PROTECH MODEL

Founded in 1990, Protech Model has always had one specific goal:

MAKE THE BEST TOOLING AND PATTERNS POSSIBLE

Our journey began as Pattern Makers, where we supplied high quality patterns to the following industries:

- Automotive
- Plastic Injection
- Polyurethane Injection
- Precision-focused manufacturing companies

Over the past 29 years, Protech Model has transformed into one of the best vacuum forming companies in the Plastics industry and is a renowned and go-to-supplier in the Automotive, Corporate, Banking, and Petroleum Signage industries.

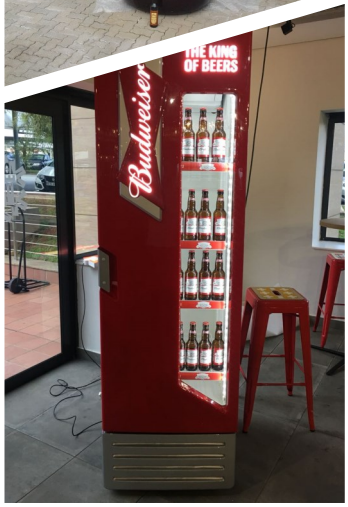
We are also one of the only vacuum formed componentry suppliers for the Banking industry. A leader in high quality, innovative POP (Point Of Purchase) formed componentry and an extremely precise and accurate manufacturer of engineering componentry for the Defence, Mining, Antenna, and General precision assembly componentry markets.

Our turnkey "Start to Finish" expertise and facilities ensure complete control in the manufacturing process and responsibility for the final products.

MARKET LEADERS

APPLICATIONS AND MARKETS

- Retail and Marketing Displays
- Medical and Healthcare
- Agricultural Components
- Aerospace and Aviation
- Construction Machinery
- Automotive and Transport Components
- Signage
- Packaging
- ATMs



ADVANTAGES TO VACUUM FORMING

TOOL COSTS

Tooling can be made quickly and cost effectively. The cost of tooling is significantly less than with other processes. This enables the customer to rapidly prototype a first of sample at low costs, allowing for fast product development. Once the tooling is approved, full scale production can start almost immediately.

MATERIALS

Different materials can be used on the same tool. Colours, textures, and prints can be added and changed without any modification to any other components. Colours and textures can even be mixed in the same production run.

QUANTITIES

Vacuum forming allows for the customer to start with low volumes, and even stay at low volumes, without any exponential cost implications. This allows customers to keep a low stock holding and order componentry as needed. If large volumes are needed, however, the production can simply be scaled to meet the customer's needs.

LEAD TIMES

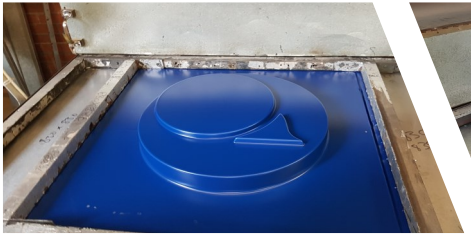
With no major machine modifications needed. Vacuum forming allows for very fast turn around times, as the production can actively be changed to process different orders in a short period of time.

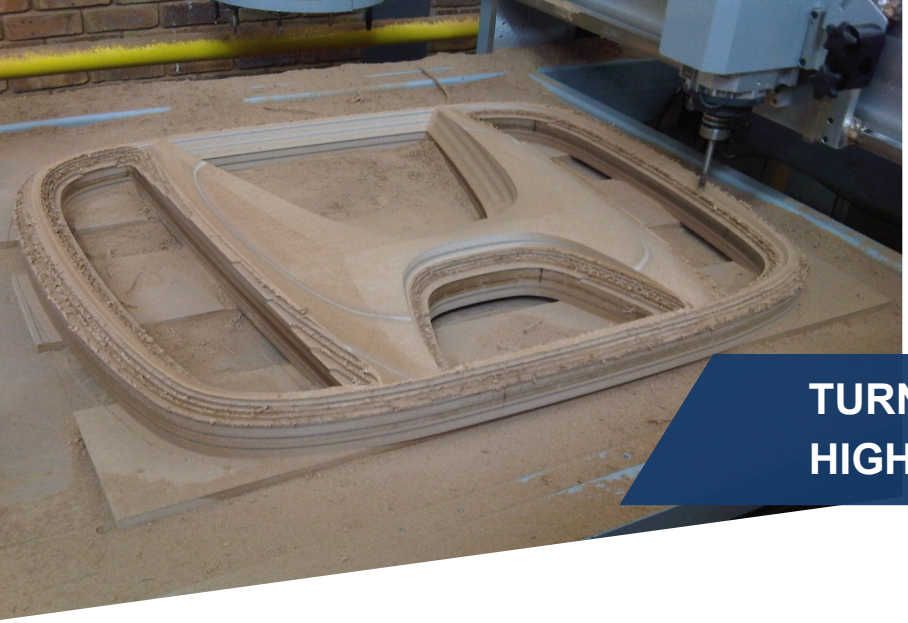
FAST, EFFICIENT, COST EFFECTIVE

SERVICES

VACUUM FORMING

A large variety of materials sizes and thicknesses. With a maximum frame size of 3050 x 2050 and a maximum formed height of 450mm, we can meet almost any request.





TURNING DESIGNS INTO HIGH QUALITY TOOLING

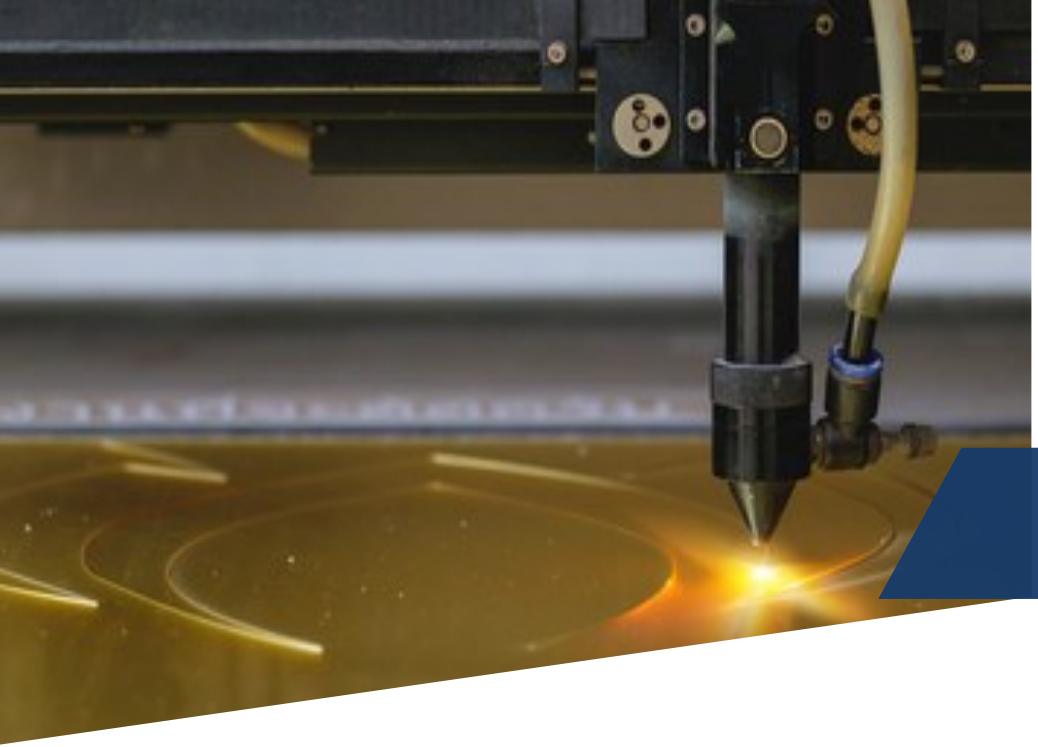
TOOLING AND DESIGN

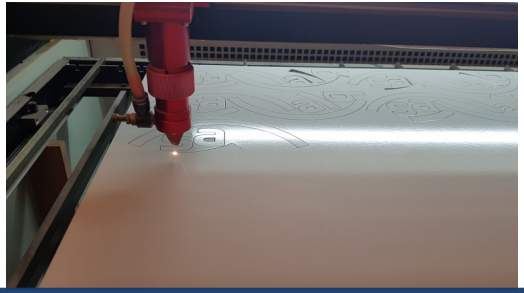
At Protech Model, we pride ourselves on being able to take an idea and turn it into a product, entirely in house. With modern design software and multiple CNCs, we can turn that design into high quality tooling. We offer tooling in many different mediums, usually determined by production quantity and complexity.

Tooling options offered are Wood, Fibreglass, Synthetic Resins and Polymers, and Aluminium. The tooling is made with extreme precision and care and can withstand large production orders. Our cheapest tooling option, wood, has a production lifespan of about 5,000 products.

6 AXIS ROBOT TRIMMING

Robot trimming has been a part of Protech Model for many years. Our first Robot, installed in 1997, was a 5-Axis ABB Robot with limited size and reach. Since then, we have upgraded to a much larger 6-Axis Robot. The Robot has one main use and that is trimming of formed components. A fully automated system allows components to be trimmed with extreme accuracy and intricacy. Used mainly for high volume production, we can trim components very rapidly without utilising manual labour.





PRECISION LASER CUTTING MACHINES

LASER CUTTING

Protech Model has multiple laser cutting machines, manufactured and designed for plastic and can easily cut materials up to 15mm in thickness. Large bed sizes allow us to cut full sheets quickly and efficiently. Although laser cut components are not a stand-alone product at Protech Model, the use of the laser cutters allows us to incorporate the parts into and onto the vacuum formed components.

TECHNICAL SPECIFICATIONS OF PRODUCTION

Maximum height:	450mm
Thickness range:	0.5mm to 6mm thickness
Maximum forming size:	3050 x 2050
Textures options:	Smooth/Gloss, Matte, Fine Grain, Leather Grain
Most commonly used materials:	Acrylic, ABS, PET, PETg, PST, Kydex (PMMA/PVC blend)
Colour options:	Impregnated (material is pre-coloured in production), Painted, Printed (on surface and reverse), Pre-Vinyl Applied, Screen Printed, Chrome, Illuminated/Transparent Chrome, Sandblasted

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CONTACT US

220 Sarel Baard Crescent
Gateway Industrial Park
Pretoria, Centurion, Gauteng

Telephone: (012) 655 0274
E-mail: info@protechmodel.co.za
Website: www.protechmodel.co.za

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