

# ToolcraftPlastics

*Moulding Your Ideas...*



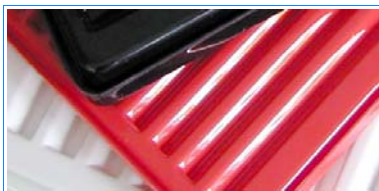
Product Design



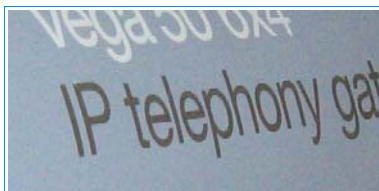
Mould Tools



Injection Moulding



Vacuum Forming



Printing & Finishing

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scan QR barcode with smartphone to come straight to our website





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## Toolcraft Customer Testimonials

It's very important to us that our customers are pleased with the products and services that we provide - here are some testimonials from just a few of our happy customers.

*"We worked extensively with James Caldwell, the designer and projects manager at Toolcraft, on the waterproof case and docking station for our revolutionary new paging system. Throughout the design, modelling, mould tool manufacturing and injection moulding process, Toolcraft provided excellent service. The injection mould tools were made by Toolcraft's Chinese partner, but were project managed, guaranteed and imported into the UK by Toolcraft. The product changes we required during the process were made quickly and reliably. The end result is excellent."*

Chris Booker, Bluebell Communications LLP

*"We've worked with Toolcraft for some years now, on a range of products. Their design, toolmaking and injection moulding service is fast & reliable and they deliver excellent quality products."*

David Kinghorn, Inverness Medical

*"When fire at our supplier badly damaged our injection moulding tools, we needed to get back into production fast. Toolcraft did a great job, cleaning and restoring the tools in a few days. This was 30 years ago ! Toolcraft Plastics have supplied very many of our mouldings ever since. We're very satisfied with their standards of quality and service."*

Ted Hicks, Electropatent International Ltd

*"I am a farmer and inventor. I came to Toolcraft a few years back with an idea for a horse feeder, the Hayball. They helped me design my idea for manufacturing and injection moulded the parts. A few years later, they did the same for one of my other inventions, the Autow Boot Pull. Both products are successful and I am grateful to Toolcraft for their excellent plastic product design and manufacturing service."*

James Keyser, James Keyser Products

*"Toolcraft have supplied us with a range of custom and standard trays for several years now. They always deliver promptly and the trays are of excellent quality, allowing us to protect our sensitive electronic devices."*

Emma Jones, Silver Telecom

*"Thank you for the fast delivery of the trays just before your holiday. We have received them all in time and could start working with them smoothly. Thank you for this great service."*

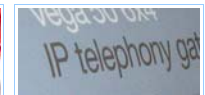
Michael, CEO, brinell gmbh

*"David and I would like to thank you for the service you have provided so far, we are very happy with everything and will certainly be using Toolcraft again."*

Shirley Wright, Director, InvisiTech

*"We ordered 450 vacuum formed trays in 3 different styles, with 250 matching lids. They were made to order and delivered within 5 days, to excellent quality. Thank you for a great service and very fast delivery."*

Sarah Yeaman, Contract Solutions



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## Toolcraft Plastics Company Profile

Toolcraft Plastics is an established plastic product design, mould toolmaking, injection moulding and vacuum forming firm. Set up over 35 years ago, the company started out as a toolmaking service, but soon branched out into product design and injection moulding. We now offer a complete design to production service, including printing & product assembly.

By developing unique techniques, we can help you meet requirements for bespoke plastic products, shorter lead times & excellent quality, as well as justify short life products & low to medium runs including 2 part overmoulding - all using ISO9001:2008 quality procedures.

Toolcraft remains a family business. Our personal involvement enables us to adapt our services to meet your specific needs and to provide you with a high level of service.

## Who do we work with?

We work with a wide array of high-profile companies, such as a famous whiskey brand; a number of telecommunications companies; a Formula 1 racing team; a large car manufacturer based in Swindon. We frequently deal with sensitive & confidential projects, for which we have confidentiality agreements in place.

We work with small and large players in the following industries: automotive, electrical, electronic, medical, pharmaceutical, food and recreational.

## A summary of our services

### 3d plastic product design

- work remotely or one to one with our experienced engineers
- production ready designs and SLA/SLS models at fixed prices & lead times
- mould flow analysis
- problem solving & troubleshooting

### injection mould tools

- rapid production aluminium alloy, hardened steel, insert only or far eastern mould tools
- 3d CAD/CAM which can machine directly from 3D model data

### plastic injection moulding

- range of plastic materials: antistatic & technical grades, thermoplastic rubbers & elastomers
- insert, outsert, encapsulation, overmoulding & more
- 40+ machines, 20-180 ton lock, parts to 300mm<sup>2</sup> (12"²)
- made in a range of colours, colour compounding & masterbatch for low runs

### custom, adaptive & standard vacuum forming

- have custom parts made, choose our hybrid adaptive option or from 120+ standard trays
- parts to 610mm<sup>2</sup> (24"²) in 0.2-6mm thick materials
- various colours, finishes & types, inc. antistatic & conductive

### printing & finishing

- transform the appearance, add value or improve the usability of your products
- pad & hot foil printing
- ultrasonic welding & product assembly



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## 3d plastic product design service from experienced UK engineers

Do you have a plastic product design which needs **optimising** for production or need **assistance** with 3d plastic product design concept or working models ? Toolcraft is the right place for you.

- We use 35 years of toolmaking & plastic moulding and vacuum forming experience to create designs that are **practical and cost-effective**, ready to make economical, excellent quality products. We ensure that the designed product is designed with the appropriate draft angles, split lines and tolerances and is **ready for production** - saving you time & money.
- We agree on a **fixed price** and lead time. You won't be faced with suddenly mounting design house costs.
- We **safeguard** the security of your product design idea. We are UK-based, so you won't be beaten to market by a cheap China-made reproduction of YOUR idea. Complete our confidentiality agreement and rest assured that your product idea is in **safe hands**.
- Your product will have the same project manager from design to finished product, ensuring **personal and smooth communication**.

## Complete modelling service

Toolcraft recommend that concept or working models are made before going into production, to convince potential customers or investors of your ideas, or to save money by testing fit and function of your product design before tool manufacture.

Depending on your needs, we offer 3 modelling types:

- SLA models - for concept models to convince customers & investors
- SLS models - for production-ready working models with snap fits, living hinges etc.
- machined models - for models in specific materials or with moulding-type properties

For an explanation of these processes, go to [www.toolcraft.co.uk/models\\_machined\\_cnc\\_machining\\_plastic\\_parts.htm](http://www.toolcraft.co.uk/models_machined_cnc_machining_plastic_parts.htm)

## Can't wait to get started? It's as easy as 1-2-3...here's an example!



1. customer's initial design ideas



2. 3d product design CAD model



3. finished moulding in kit form

For tips & help with product design & production models view [www.toolcraft.co.uk/helpdesign.htm](http://www.toolcraft.co.uk/helpdesign.htm)



## Toolcraft mould tools - excellent quality, competitive prices & fast delivery

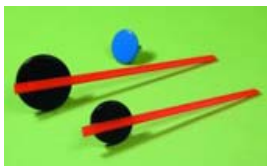
How do we achieve superb quality mould tools at a competitive price and faster than the competition?

- If you have drawings or model files ready, we can easily import them into our CAD/CAM seats from a wide range of formats including DXF, DWG, IGES, Pro-Engineer, SolidWorks & STL and more - saving you design & production time, as well as money.
- To suit your needs and save you time & money, we can use steel or aluminium alloy. Hardened steel mould tools are very durable & capable of millions of parts. Alloy tools have a range of benefits - see the box.
- We offer many [types of tooling](#) - e.g. family tools or separate rapid production injection mould tools - so that we can make mould tools to match your project needs.
- Our machining software optimises toolpaths needed to make tools & prevents cutters from machining areas twice - this enables your tools to be made in less time than other systems.
- We also offer UK guaranteed Chinese injection mould tools. We manage their production from the UK and modify, service and guarantee them here in the UK. This offers you cost savings by production in the far east, combined with Toolcraft quality and product guarantees. As the mouldings are produced in the UK you'll get them quickly at low shipping cost.

### Why order a Toolcraft aluminium alloy tool?

- Lower cost + faster to make than a steel tool
- Much tougher than standard aluminium
- Capable of 10+ to 100,000+ parts
- Very competitive for lower runs
- Makes mouldings with less stress, distortion and post mould shrinkage
- We guarantee how many mouldings your tool will make
- We can increase the life of your tool by locally Nickel Cobalt plating to Rockwell hardness 55

## How we helped our customers save money and maintain quality



Toolcraft designed & manufactured a 16 impression tool with removable inserts in 8 weeks to enable its client to keep ahead of foreign competitors.

Forced by instrumentation technology changes, production economies were made on associated [injection mouldings](#) (bosses etc) by making this versatile [mould tool](#). Having more than 1 insert for each part, Toolcraft enabled production quantities to be matched to requirements, whilst retaining volume economy & tight tolerances. (EPPM magazine editorial)

Toolcraft recently came up with novel way to reduce the complexity of injection mould tools and thus save money for its client, Golf-Tech.

The original design of the injection mouldings for the golf ball server would've needed withdrawing parts in the tool, adding cost to the injection moulding tool. Instead, Toolcraft split the mouldings into two half cylinders, made them as tool inserts which fitted into one of their standard bolsters and also allowed for the potential to double throughput. The final mouldings were joined by ultrasonic welding. (dpa magazine editorial)







## Custom precision plastic injection moulding

With over 30 moulding machines ranging from 20 - 180 ton and clients from industries like automotive, aerospace, electronics & medical, precision injection moulding is our largest inhouse service. There are many reasons to come to us for your moulding needs:

- We have **over 30 years** experience in designing, tooling and moulding intricate plastic components. There are few moulding problems we haven't come across before - and solved.
- We offer **UK expertise** - that means easy communication, low shipping costs, fast shipment and guaranteed quality standards (ISO9001:2008).
- We have a complete **tool repair service** on-site, so we can get your mouldings back on track fast.
- We can **print on and assemble** your components for you - no need to send them elsewhere, so you **save time**.
- We can make your annual plastic quantity and hold them stock for you up to six months - this saves you money by reducing the setup costs incurred by ordering small quantities. Downtime is also minimised, as your plastic mouldings are **available** for you **on demand**.
- 20 of our plastic moulding machines can be repositioned to make precision injection mouldings for you **more cost effectively** than with standard injection moulding machines.



### Austin Allen, Boy, Manumould & Prototype Tool Adaptation

Toolcraft have long expertise of adapting these tool types to run automatically in our machines, saving time & money and providing better quality mouldings.

## Toolcraft capacities & experience

### Moulding types

We have experience of a wide range of intricate moulding types:

- Insert, outsert & 2 part injection moulding (e.g. moulded plugs)
- Intricate & very small precision mouldings (e.g. instrument gears)
- Threaded precision mouldings (e.g. plug cable adaptors)
- Tinted, coloured & clear mouldings (e.g. backlit instrument dials)
- Parts as small as 1mm<sup>2</sup> to 300mm<sup>2</sup> (12"²)

### Materials

We've a wealth of experience of materials from ABS, Polypropylene & Nylon to more unusual ones - PES, EVA, PPS, thermoplastic rubbers, antistatic, infrared, biodegradable & biocompostable grades. This also extends to additives from glass fills & fire retardants to specialist PTFE & molybdenum fills.

### Colours

We offer 3 colour solutions. To make coloured mouldings viable for your short run products, we offer a range of **120 standard colours** using masterbatch. If you need colour matching to e.g. your company colours or an existing product, we also offer **matched masterbatch**. For long run products we offer colour matched materials with **colour compounding**.





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## Complete vacuum forming service

Toolcraft offer 3 vacuum forming options to provide you with the greatest flexibility:

### ■ fully custom vacuum formed products

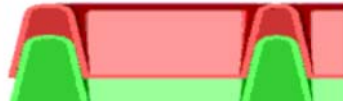
For a custom made product, we can design & make the tool for you & produce the vacuum formings. This way, you can benefit from a range of design features. For example, you can have trays with fingerholes, numbered pockets and trays that nest inside each other...



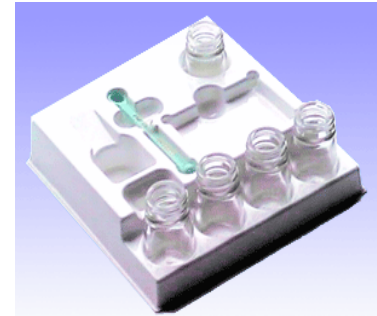
*Resin Cast tool of Sea Horse Shape for Cement Casting. 400 x 600 x 50 mm*



*Vacuum formed text for identification of pcb slots*



*Section view of one tray (red) nested within another (green)*



*Dental Instrument Holder in 1mm White HIPS material. 180 x 180 x 50 mm*

### ■ a range of 140+ standard trays

We've pre-made the tools for a over 140 types of pocketed storage, work and display trays, with or without lids. This means you can choose the type of tray you need, made in the type of plastic you need - without having to pay for a tool !

This is the cheapest and quickest option and as we have a variety of tools ready for you, there's likely to be a suitable tray for your purpose - look at [www.toolcraft.co.uk/vfall-standard-pcb-trays-by-size.htm](http://www.toolcraft.co.uk/vfall-standard-pcb-trays-by-size.htm)



*Memory chip storage tray made of conductive material*



*Standard work tray - pockets can be used to place small parts in order for faster assembly*



*Standard display tray - can be made in a variety of colours to look smart on a counter*

### ■ customisable standard trays

Our customisable standard trays are a combination of custom & standard trays and are intended for when you need something more specific than standard trays but in low quantities & at lower cost. We offer two tray sizes for which you can choose the number and sizes of pockets you need.

You save money as it costs less to modify the existing tool than making a new one & we use the existing roller cutter to cut your formings from the plastic sheet. For more information, see [www.toolcraft.co.uk/vacuum\\_forming\\_adaptable\\_low\\_cost\\_standard\\_trays.htm](http://www.toolcraft.co.uk/vacuum_forming_adaptable_low_cost_standard_trays.htm)



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## Toolcraft's pad printing and hot foil printing services

### Hot foil printing

Toolcraft's hot foil printing service is a very cost-effective method which makes it justifiable for short run products. The advantages are:

- it's very **long-lasting** and hard wearing
- there's a great range of **colours** available, with metallic, gloss, matt and holographic finishes

However, the printing colours can't be matched to specific colours and the surface you want to print must be flat(ish).

### Why print on your products ?

Brand recognition is the key to success. Printing on your products allows you to:

- encourage logo & brand **recognition**
- provide contact details or website
- advertise your **complete range of services** beyond the product itself
- provide essential information on your product.



Hot foil printed fuel checkers



Hot foil printed counting wheel



Pad printed TENS machine



Pad printed switch assembly

### Pad printing

Toolcraft's pad printing service is extremely versatile because:

- we can print on **curved, convex, concave & recessed** surfaces
- edges are sharply defined and the printing is very **high resolution**
- pad printing inks are available with extremely high resistance against **mechanical abrasion or chemicals**; they can etch into the plastic material which makes them very long lasting; and they can be **colour-matched** to your company colours.

However, as the inks are more expensive and it takes longer to set up and clean up than hot foil printing, it's most likely to be suitable for long run or high spec products.

## Toolcraft's other finishing services

### Ultrasonic welding

Toolcraft offers a range of different ultrasonic welding methods which can be used to join plastic to plastic and plastic to metal parts, thus replacing or **eliminating** the need for **solvents, adhesives or mechanical fasteners**.

### Assembly

We offer a complete assembly & packing service for your products, so that there is no need to send them elsewhere to get finished, saving you **transport costs and time**.





Product Design	Mould Tools	Plastic Moulding	Vacuum Forming	Printing & finishing
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## 48 HOUR\* EXPRESS QUOTE REQUEST FORM - page . . of . .

To make the quoting process as smooth as possible, please complete this form with care, providing as much information as possible. Please circle or delete as appropriate. If you need any help or advice, please contact us.  
\* 48 hour quote subject to provision of CAD files

<b>Part No :</b>	<b>ITEM 1:</b>	<b>ITEM 2:</b>	<b>ITEM 3:</b>	
<b>Description :</b>				
<b>Material :</b>				
<b>Tool Type:</b>	Injection Moulding/ Vacuum Forming/Other	Injection Moulding/ Vacuum Forming/Other	Injection Moulding/ Vacuum Forming/Other	
<b>Moulding/ Forming</b>	New Tool/ Existing Tool	New Tool/ Existing Tool	New Tool/ Existing Tool	
	No.Of Cavities:	No.Of Cavities:	No.Of Cavities:	
<b>Quantities:</b>	Per Annum: Batches:	Per Annum: Batches:	Per Annum: Batches:	
<b>Drawings Or Samples:</b>	DXF/DWG/IGES/ProE/SolidWorks files by Post / e-mailed to <a href="mailto:help@toolcraft.co.uk">help@toolcraft.co.uk</a>	Drawings faxed to (01793)-230690	Drawings by Post	Samples by Post

If drawings or samples don't exist, use the area below to: 1. Sketch your design and/or 2. Ask about our product design and development service including supply of SLA and SLS test models.

<b>From:</b> Name:	Position:	e-mail:
<b>Tel:</b>	Fax:	Date:     /     /

**PLEASE FAX/SEND THE COMPLETED FORM TO US WITH YOUR DRAWINGS/SAMPLES**  
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