



**PLASTICPARTS**DIRECT

# CREATIVE PLASTIC INJECTION MOULDERS TO INDUSTRY



Injection moulding | toolmaking | 3D Printing & rapid prototyping | design

Contact us to see what we can do for you. Be it injection moulding, toolmaking, 3D modelling, prototyping or finishing.

## Introduction

Plastic Parts Direct Ltd is a privately owned company, whose team of enthusiastic professionals share over 30 years of experience in plastic injection moulding and tool making. A modern friendly, feet on the ground facility where service is paramount and technical ability and efficiency combine to promote long term relationships with an increasing list of national and international clients.

Our state of the art UK manufacturing facility and qualified valued personnel guarantee the highest possible product quality consistently. There is full in-house design, tooling, moulding and finishing, from 3D computer generated modelling to rapid prototyping, through to finished plastic components..

A considerable investment has been made in the latest microprocessor controlled machinery giving consistent repeatability. All our mouldings are produced in a quality 'white room' facility. This, together with an emphasis on detailed quality control procedures throughout the production process, ensures a high level of customer satisfaction.





- Custom moulded plastic parts
- 30 years of experience
- Full design service available
- Manufactured in the UK
- Delivery date guaranteed

We also offer a full contract moulding service, producing parts from your existing moulds.



## Injection Moulding

By involving Plastic Parts Direct at an early stage in your injection moulding product development we can offer you the best advice on how to save time and money whilst not compromising on standards or functionality. We are always on hand to work with you to obtain the most efficient and economical solution to your injection moulding requirements.

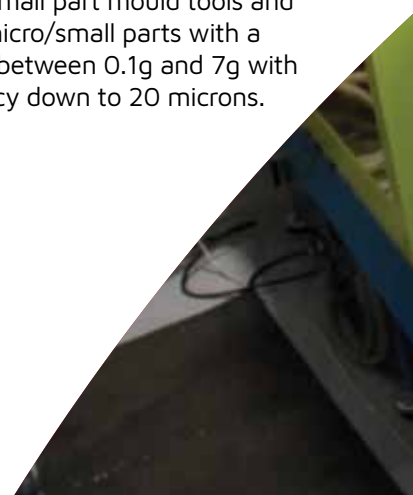
We offer a blend of traditional and high tech mould making skills on site which enables us to produce every type of tool from prototype tools through to fully specified production tools.

Our use of computer generated solid modelling allows us to 'proof' customers designs before any metal is cut and thus keep us at the forefront of the UK injection moulding industry.

Machine capability from 10 to 200 tonnes. We process all types of thermoplastics from sophisticated engineering polymers to basic commodity polymers in a full range of colours. Our components are supplied to a variety of industries including the medical, automotive, engineering, furniture, packaging, closures, building, electrical and promotional products.

### Micro/Small Part Moulding

With investment being a large part of the Plastic Parts Direct philosophy we now have the capability to both machine small part mould tools and produce micro/small parts with a weight of between 0.1g and 7g with an accuracy down to 20 microns.



# Toolmaking

Plastic Parts Direct run a fully equipped toolroom on site with capabilities and capacity for most projects.

We take your design or idea and convert it into 3D in our design studio where our skilled team then progress this through the necessary steps to create the injection mould tools. This computerised information gets used to machine the tooling to the required specification and again our skilled staff finish off and assemble the tools ready for trialling and production.

We use all conventional methods of machining and have full CNC capability with high speed cutting up to spindle speeds of 50,000 rpm backed up by spark erosion and grinding facilities. This enables us to cover most needs and also allows us to machine very intricate and small features effectively.

Continuous investment in new technology and equipment keeps Plastic Parts Direct at the forefront of the UK tool making industry and enables us to serve our customers with the great service that has become standard working practice, all backed up by our commitment to quality through our ISO9001 systems.

## Modular Tooling

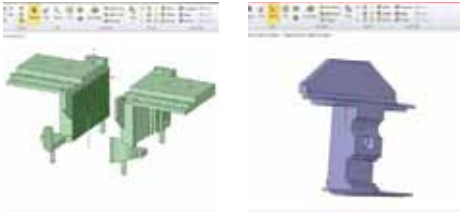
We also offer a low-cost tooling service for appropriate components using our own modular tooling system without any sacrifice in quality or longevity. Most moulds can be produced within 3/4 weeks with a saving of up to 50% on conventional full tooling costs.

Mouldings up to 200mm x 150mm in size can be catered for dependent on design or alternatively multiple cavity smaller mouldings can be accommodated.



# 3D Printing & Rapid Prototyping

We can turn your ideas into reality or your existing drawings and computer aided designs into actual components.



All other prototyping processes are available including SLS (Selective Laser Sintering) and SLA (Stereolithography).

## Design

Firstly if you don't have a computer generated 3D solid model of your component we can produce this for you, this is the first step on your way to producing your prototype.

## Rendering

From here we can render your computer model to show how the component will look when it has been produced so you can establish if you need to change anything or show the concept to prospective clients or work colleagues.

## Prototyping

When the design has been inspected and approved for prototyping we can produce your parts on our own Stratasys FDM machines in an ABS polymer which gives a very close representation of an actual injection moulded product of your design giving

you an item that you can test for form fit and function. These can also, in most cases, be utilised as end use mouldings if you only require a few parts.

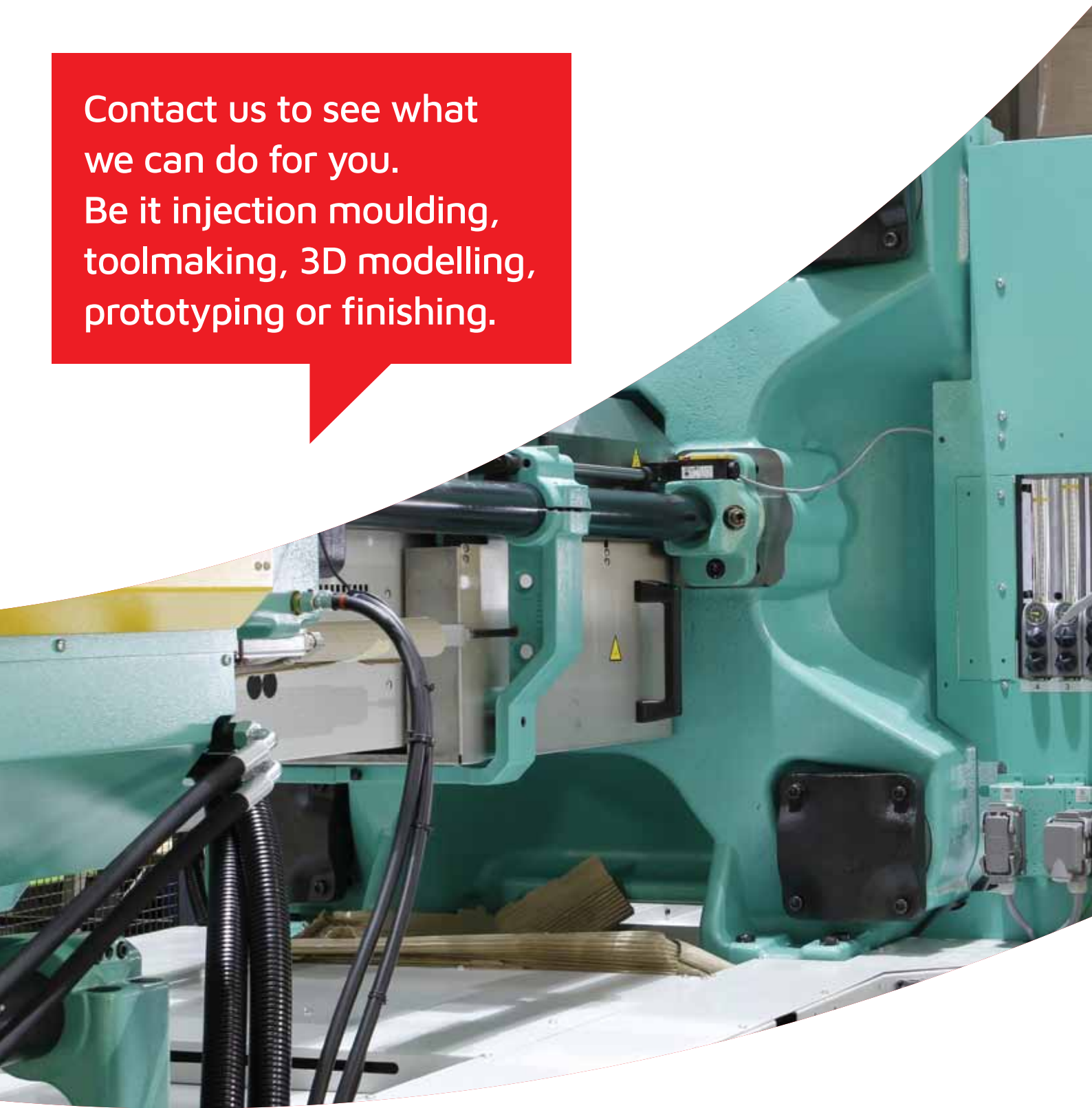
Or you can have your part Polyjet processed, again on a Stratasys machine that jets layers of liquid photopolymer onto a build tray and cures them with UV light. This process can give a highly accurate component due to the laying down of 16-micron layers with each pass giving a very high level of accuracy.

All other prototyping processes are available including SLS (Selective Laser Sintering) and SLA (Stereolithography).

When your prototypes have been tested and all issues ironed out you are now in a position to go ahead with production tooling with a view to injection moulding your components. This is straight forward from here as we use the computer generated 3D model file that was used for your prototype to directly produce the tooling for our injection moulding machines.



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**PLASTICPARTSDIRECT**

Plastic Parts Direct Ltd  
Unit 6 | Thorpe Drive | Banbury | Oxfordshire | OX16 4UZ  
**T** 01295 269333 **F** 01295 273276  
**E** sales@plasticpartsdirect.co.uk  
[www.plasticpartsdirect.co.uk](http://www.plasticpartsdirect.co.uk)

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