Micro injection moulding - **services**

MICROMOLDS

MOLD WITH MICROMOLD

Plastic moulding company – from a different perspective

01

RAPID INJECTION MOULDING SERVICES

We disrupt traditional manufacturing time frames with reduced time to market down to 1-2 weeks, by designing small moulding dies with few multi-cavities, which allows smart and quick-turn injection moulding.

02

LOW COST TOOLING - MOULD DESIGN COMPANY

Cheap injection moulding with small moulds and less cavities, drives tooling costs down by 70%. Micro-injection moulding breaks even at ~200k units with conventional thermoplastic injection moulding. This makes us ideal contract mould manufacturer company when quick prototyping and small volume production is needed.

03

TRUSTED PLASTIC INJECTION FACTORY

We are not sub-contractors of China injection moulding companies. Mould design and mouldability analysis, CNC mould milling and "Babyplast 6/12" injection machines - all found under one roof, enable us to be experts in plastic products manufacturing.

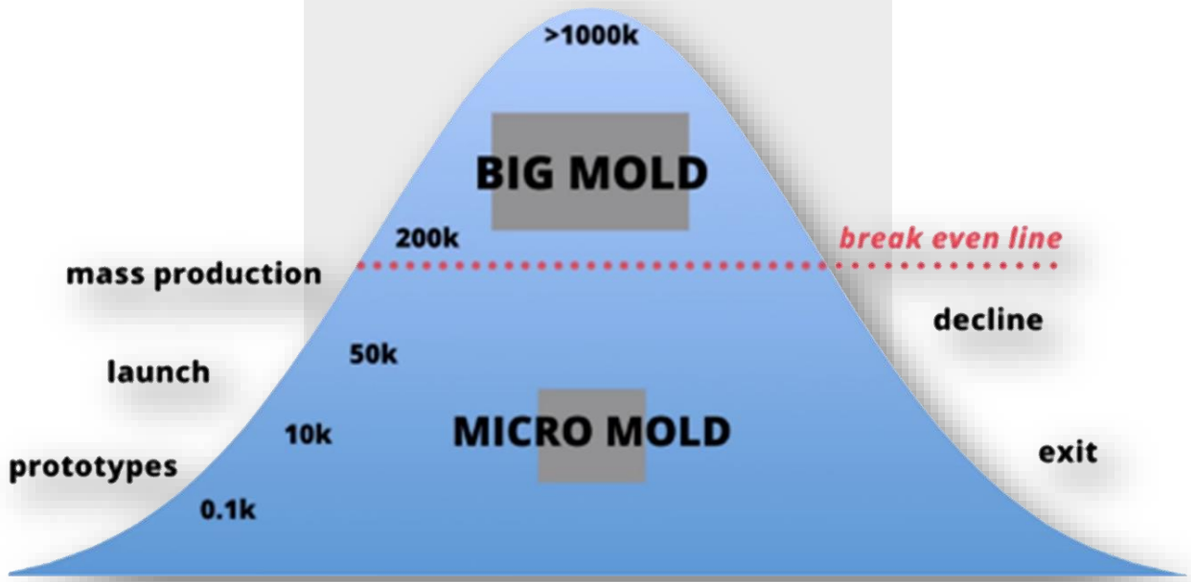
Save in early stages of product life cycle:

2-4x

Shorter time to market

70%

cheaper tooling (molds)



Moulding manufacturing services




What kind of parts?

We have been working in a variety of industries and our plastic moulded components scatter across automotive, electronics, healthcare, furniture and defense industries. Products range from plastic gears to caps and closures, plastic housing for electronics with undercut moulding and reverse engineered injection moulded parts.

What are the specs?

Size and dimensions
Part volume should not exceed 15cm³ and should fit within a projected mould area of ⌀80mm circle perimeter. Maximum depth from parting line can reach up to 40mm (2-3° draft).

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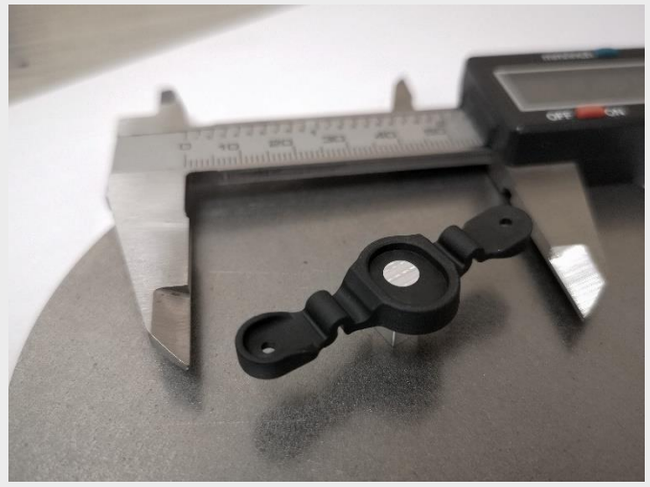


SERVICES

Thin wall injection capabilities
In order to avoid cosmetic defects like flash, sink, warp, knit lines and maintain uniform part structure in plastic injection moulding it is recommended to evaluate wall thickness for various part cross-sections. Here is the list of recommended ranges from min. to max. of wall thicknesses for most often used polymer materials in injection moulding*:

OVERMOULDING SERVICES

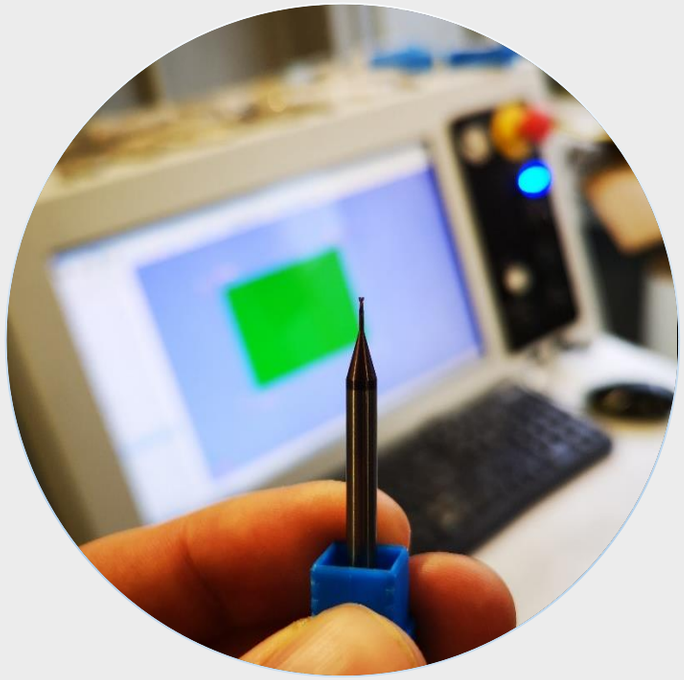
Yes, we can do it

In overmoulding process usually two moulds are used. One is for primary part layer - substrate part and the second one is for latter one to overlay the substrate. Overmoulding allows different color or physical properties resin to meld. For example, clear acrylic lens can be located with overmoulding in PCB plastic housing. Overmoulding is, thus, very similar to 2 shot but requires more work force and two moulds, however is cheaper at lower production levels.

This is our way

Pilot runs, design and functional prototyping, on demand manufacturing to reduce supply chain risks - all possible because of the digitalization and rapid tooling. We position ourselves as non traditional manufacturers who can deliver your custom orders in less than 2 weeks. Our auto-quotation systemized process saves most of the time spent on no value creating quoting process both for our contractors and ourselves.

CUSTOM PLASTIC PARTS



MOULD MAKING

It's more 'small' than 'micro'

The nieche of micro molding is getting more and more demanded by not only medical parts manufacturers' but also by other industries, which sub-contract micro moulders for the so called 'small injection molding'. Small moulds with few cavities can win against traditional big moulds with many cavities in cost and speed sprint race. Not a marathon though - micromoulding can break even at lower levels of production and serve as a great supply chain risk buffer in sudden market changes, pilot launches or at initial product development phases like prototyping.

What is micromoulding?

When we speak about moulded plastic parts weighing a fraction of a gram we probably enter medical injection moulding boundaries. To define micro moulding it is good to have in mind that tolerances for microfeatures vary from 50µm to 5µm. There is no surprise that such precision parts are widely used in medical and dental industries - a lot of surgical instruments in these fields are invasive. To mould such micro components complex mould machining tools and methods are required, as well as custom configurations of precision plastic injection machines because for micro parts, shrinkage management is even more sophisticated.

MICRO COMPONENTS

State of the art materials

Any grade, any quantity – we have it

What thermoplastic?

Here at "Micromolds" warehouses we keep wide variety of plastic materials including recycled plastic and elastomers (TPEs). When choosing polymer for your part one should evaluate some of crucial design constraints:

- Mechanical properties of a polymer (e.g. UV resistant material);
- Compatibility with injection moulding (even almost every polymer is suitable for injection moulding, compatibility is still important when part has high resolution features and is used for micro moulding or when overmoulding processes take part;
- Cosmetic appearance like color and surface finish are things to consider of no less importance;
- Final but not the least design constraint is the cost of material..

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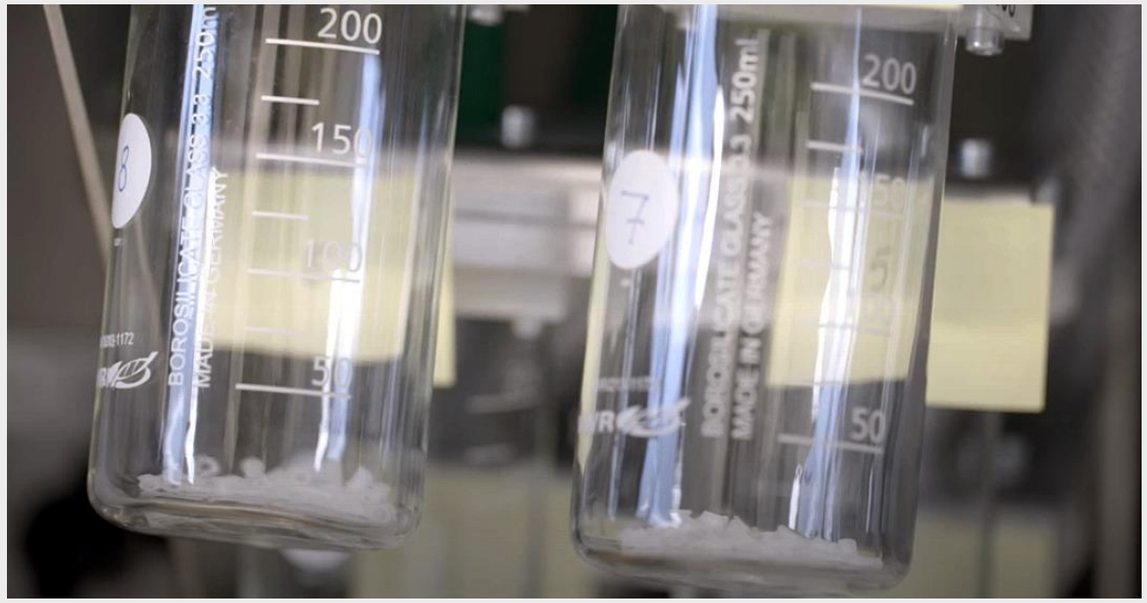
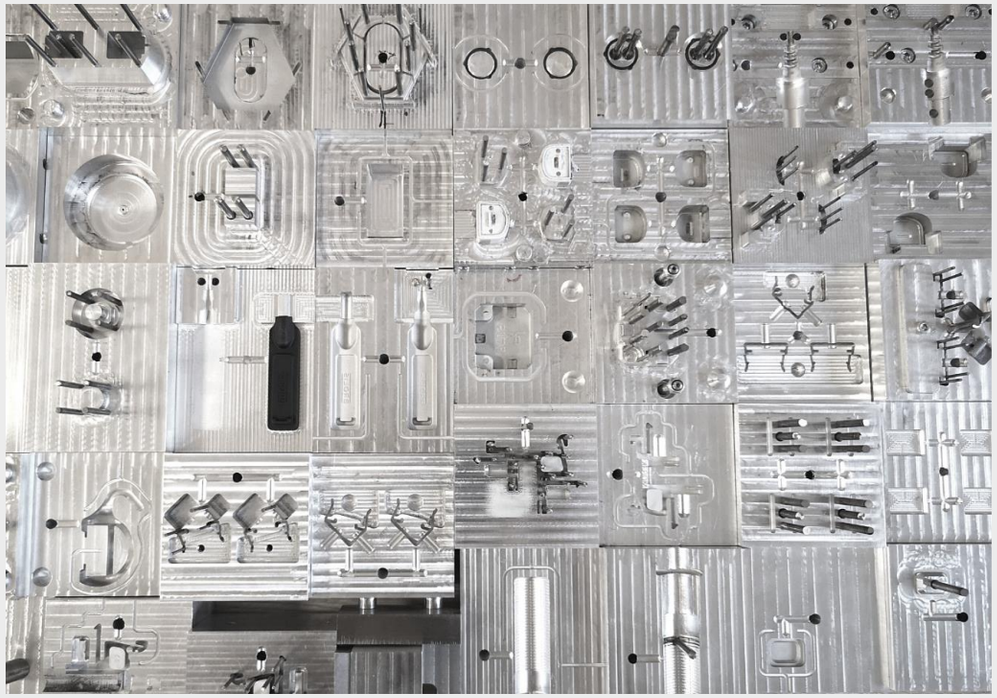


- **Medical grade plastics**
- **ETO & Gamma sterilization compliant**
- **RNAse DNAse free products**
- **Clean Room 8 competence**

Rapid tooling and part design

We understand that on demand manufacturing requires as much resilience as speed in todays fast moving industries. Thus we offer trouble-free injection mould modifications. Also, if you are looking moulds for sale we offer export injection mould and can ship worldwide.



Micro molds

We are not some Chinese mold makers - we make high quality aluminum micro moulds locally from product idea to CNC milling and surface finishing. Aluminum injection moulds are faster and cheaper to machine 20-40% than steel moulds respectively and can sufficiently pass ~100 000 cycles. As a molding supplier we also take into account your branding opportunities and offer in-mould labeling and wide range of surface finish options.

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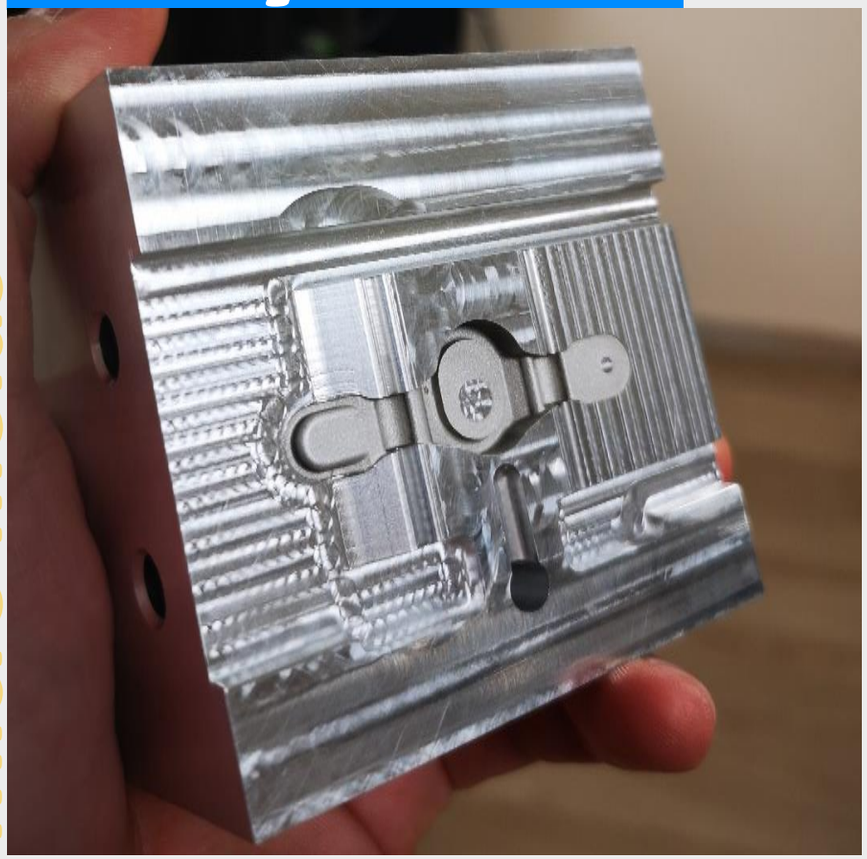
These molds could be yours!



Micro molds

Ready to start?

Digital manufacturing is here. Prototyping and low volume production never were so simple. Follow the simple steps to make your project a reality.

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How it works?

01

To start just upload CAD file of your part

02

In few hours DFM and pricing is performed

03

Once an order is placed manufacturing begins

04

Parts are shipped in 1-2 weeks

We are

Transparent
we offer quotes with open pricing model

Straightforward
we love engineering-like straight to the point communication

Socially Responsible
we work with non-profit projects and firmly plan to continue doing so in the future

Seeking for Growth
we continuously invest time and capital to our team's expertise and personal development

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