### **Create and prototype with** micro injection molding





We disrupt traditional injection molding with micromolding technology. We mold small parts 2x faster and 2x cheaper.

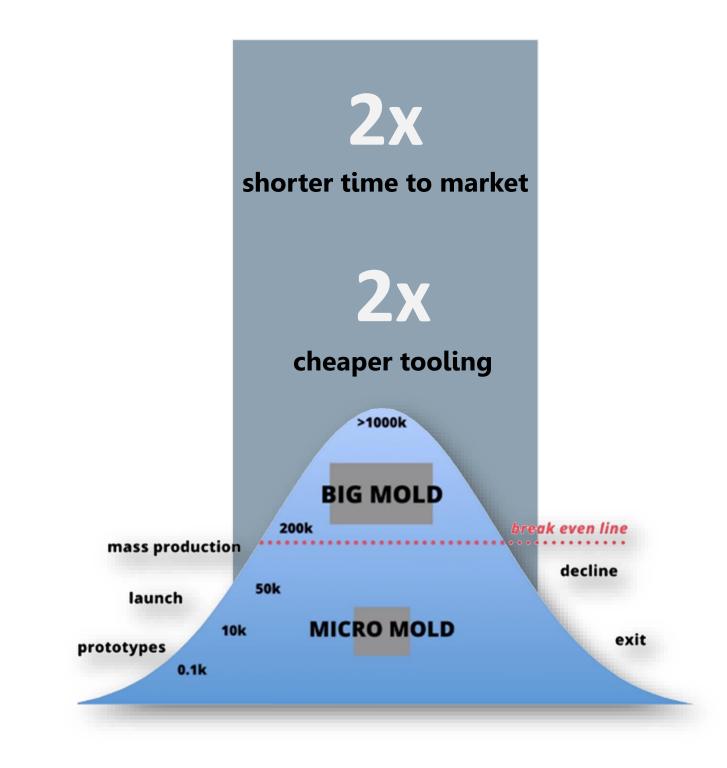
Micromolds

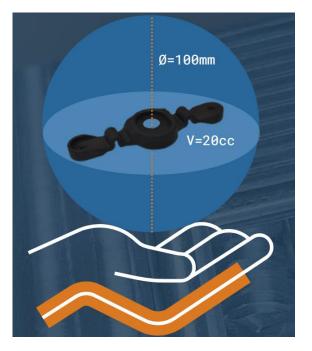
### does your part fit in your hand?

...we specialize in small parts only

### are you starting up?

...planning to produce <200k pcs?





If you want to work with us, your part must not exceed size of a Ø=100mm sphere and part volume=20cc. We specialize in micromolding technology and we are extremely focused on small parts only.

### how is this possible?

just add it up

+0.3x small part = small machine
+0.3X small molds = fewer mold cavities
+0.2x shorter runner system = less waste
+0.6X aluminum molds = cheap and fast machining
+0.6X aluminum molds = easy and flexible modification

**2x** Faster and cheaper injection molding service



### what kind of parts do we mold?

what are the specs?

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

Micromolds CNC machining can maintain +/-0.03mm tolerance and depending on plastic material specifications injected polymer tolerance can be +/- 0.04mm.

We can use EDM (Electrical Discharge Machining) with multiple passes and in combination with other tools to reach mirror-like surface or almost any other customer requires.

We are not some Chinese mold makers - we make high quality aluminum micro molds locally from product idea to CNC milling and surface finishing. Aluminum injection molds are faster and cheaper to machine than steel molds and can sufficiently pass ~200 000 cycles. Our highly skilled mechanical engineers design parts, their molds and writes CNC code for machining every day. At our local facilities freshly milled aluminum molds go straightly to molding machines. This is why automated quoting is even possible.

### innovation and development

There is no better alternative than aluminum micro molds when it comes to prototyping. This wall of aluminum micro molds is just a glimpse of our humble experience in this field.

#### assurance through experience

10 years of experience in product design speaks for itself when Micromolds<sup>™</sup> R&D team takes new projects. It is our job to take clients' ideas and transform them in problem-free, DFM optimized, CAD drawings. Our experienced PMs ensures projects fitting in strict time frames and interdisciplinary know-how sharing with 0-fault communication.

# engineering grade plastic choice

• HRAF guidance • Consulting • Sterilization compliance • Mechanical functionality

#### any grade, any quantity

We stock vast variety of resins. Many of them are medical grade and HRAF approved. We closely work with official resin distributors across the Europe and guide our clients towards correct choice of material for the project. Resin properties takes very important part in production. It impacts devices mechanical functionality and compatible sterilization method.

### prototyping the molds

• Aluminum micro-molds • <70% cheaper • 2x faster • Warranty of 200k cycles • SLA 3D printed molds

#### tailor made solutions

We use aluminum micro-molds which can be up to 70% cheaper and 2x faster machined than traditional steel molds. These aluminum micro-molds are perfect substitute for steel as they can withstand 200k cycles with no problem. We are also capable of using 3D printed molds for intensive prototyping need. SLA (Stereolithography) 3D printed moulds works together with aluminum fixtures. Aluminum cases adapt and enable SLA printed moulds to work with our injection machines.

## clean room injection molding

• ISO 8 clean room • Bioburden control • GMP • Sterilization service • ETO • Gamma • Packaging and assembly

#### performance meets cleanliness

We continuously improve our team by training and keeping up with up to date clean room manufacturing knowledge. The manufacturing environments are strictly monitored and re-audited consistently to keep up with ISO 8 class. We can always provide verification documents of air purity, pressure, temperature if asked. We closely work with microbiologists to evaluate our conditions and perform bioburden tests, as well as with sterilization service providers to reach higher needs of our customers by means of ETO or gamma sterilization.

# micromolding precision parts

• CNC precision machining • microfeatures  $<5\mu$ m • quality • assembly • packaging • thin walls  $\sim150\mu$ m • edges  $\sim25\mu$ m • holes  $\sim50\mu$ m • radii  $\sim5\mu$ m • micro materials

#### when every micron matters

Extraordinary EDM and CNC precision machining is used to manufacture molds that posses micro features. We are able to reach the precision of <5µm. We use Sarix MACHline micro EDM machining. Making good tool means molding precise and quality parts and this is what we strive for. Micro part does not have to be microscopic to qualify for micromolding. Controversially, larger parts with micro features are even more complex to mold. We are capable of designing and molding micro features as small as: Thin walls ~150µm Edges ~25µm Holes ~50µm Radii ~5µm

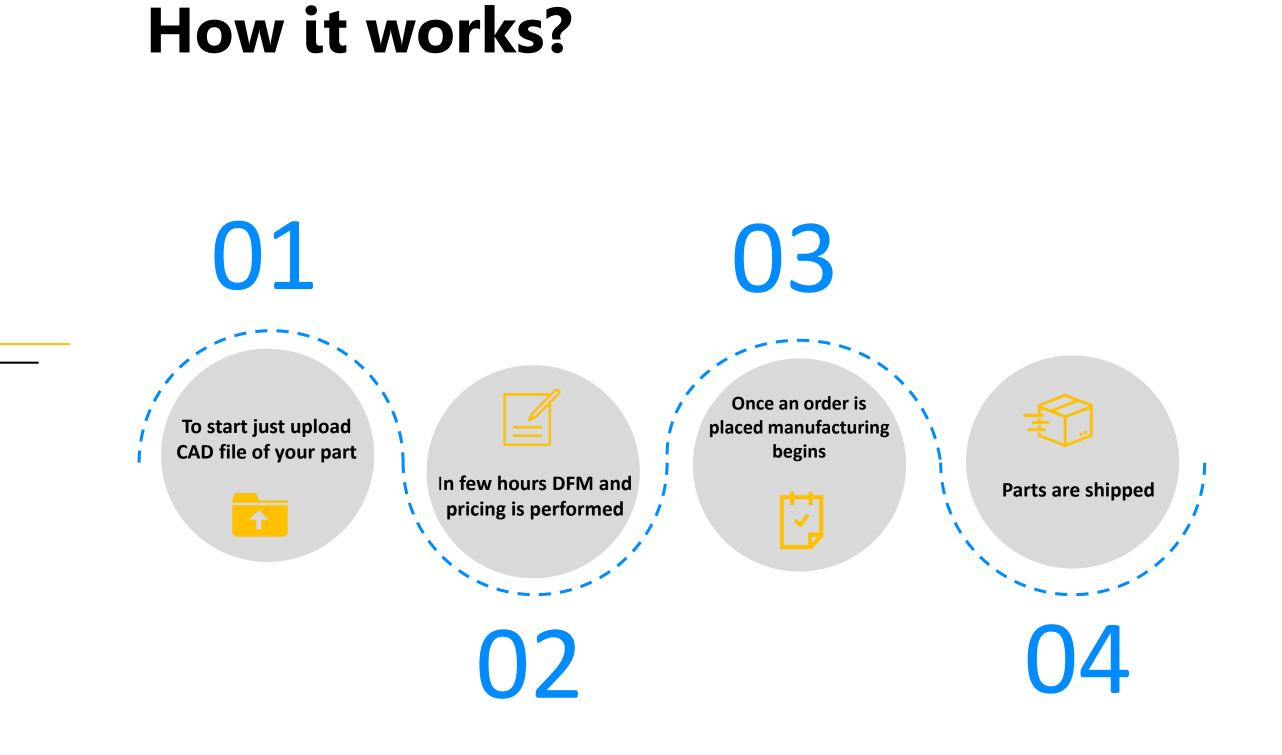
# overmolding/insert molding

low pressure elastomer and thermoplastic overmolding across variety of industries in record fast lead times

#### encapsulating your gear

In overmolding process usually two molds are used. One is for primary part layer - substrate part and the second one is for latter one to overlay the substrate. Overmolding allows different color or physical properties resin to meld. There is no doubt that the most frequent project we work on with insert molding is from electronics industry.

# ready to start? Launching your product was never so easy





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