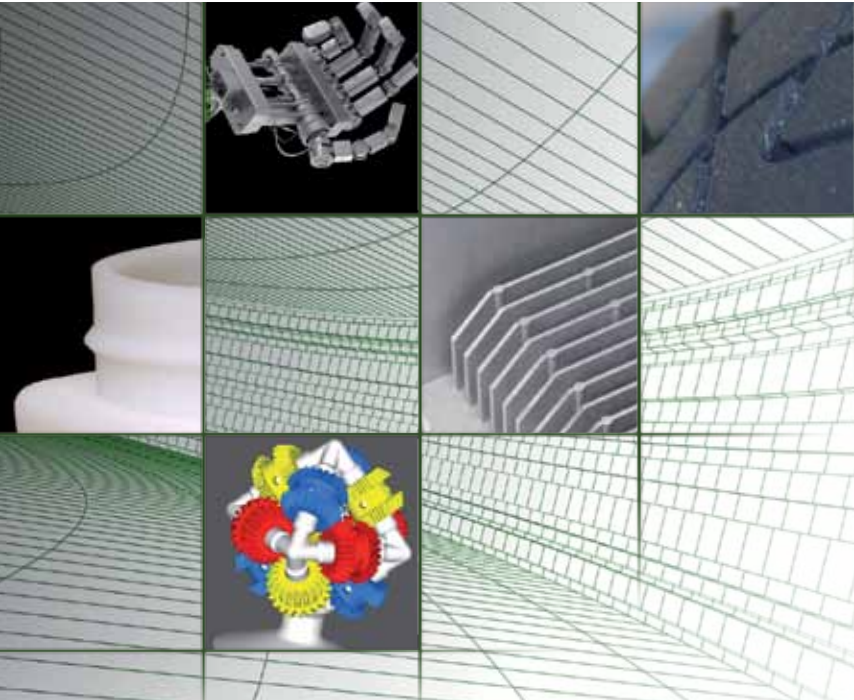




THE FAST TRACK TO
RAPID
PROTOTYPING

WITH US YOU GET ACCESS TO YOUR OWN FREE
FORM FACTORY – WITH THE CAPACITY AND QUALITY
YOU DECIDE.



Time is often a limited resource in development projects!

To keep the project moving according to plan, it is of highest priority to quickly produce prototypes or details on short notice.

RAPID PROTOTYPING

Immediate production of prototypes in plastic materials, through Free Form Fabrication, is the foundation of our service offer and this is usually where you as a customer start your relationship with us.

We work with the FDM, PolyJet and Z-Corp Free Form Fabrication technologies and can offer a lead time as short as 2-3 working days for single details in plastic. Simplicity is guaranteed as we have fixed prices per volume (cubic centimeter) and as we can advise you on selection of manufacturing technology for each detail.

We offer free-formed details with extremely high touch on the finish and high level of detail. We also have the possibility to manufacture with two materials in same prototype as well as free-formed details in thermoplastics for function testing purposes. In total we can offer more than 30 different combinations of materials – from soft to hard.

All prototypes can be delivered complete with the post treatment needed – polished, lacquered, threaded or with thread inserts mounted. Whatever you need, we do all we can to deliver a complete solution.

DDM – Direct Digital manufacturing

Time is money and sometimes you need to go to the market as quick as possible, without having to wait for molds to produce. With the help of DDM, we use FDM technology for serial manufacturing of plastic details to be used as ready-made products.

For shorter series you may even be able to skip the mold all together and use DDM to produce instead. This method practically enables you to change your product from one day to the other.

DDM is profitable for relatively small and complex details in production series of up to 500 units. With a simple cost calculation, you can easily compare the cost for DDM manufacturing with the investment in mold and injection molding needed for the detail in question.

RAPID TOOLING

A quick way to produce details! First we use Polyjet to make a free-formed master with high surface finish, which we trim to specification. Then we use the master to cast a tool in silicone, from which PUR Polyurethane is casted to different mechanical properties.

Rapid tooling with silicone tools, or vacuum casting as it also is called, is a cost efficient manufacturing method for details in series up to 25 units. In two weeks time, we can produce colored details in production similar materials, with mechanical properties and finish comparable with serial manufactured details. The material in the details is polyurethane that can be given the same properties as for example ABS, PC/ABS and PC.

The process is built around a master – usually free formed. The master is trimmed and surface treated to the finish needed for the final detail. The master is then casted into a silicone block. As the silicone is hardened, the block is split and the master removed. The mold is now ready to be used for casting, which is done under vacuum. From the silicone tool, 15 to 20 details can be casted.

RAPID CASTING

With rapid casting, we cast prototypes in alloys from Al, Mg, Zn and Stainless steel. The technology is based on a free-formed master in wax and styrene, baked into and then melted from plaster. The plaster mold is used for casting and then destroyed when the detail is made.

This is a very efficient method to quality assure castings before, for example, ordering a mold for die-casting. A big advantage with this process is that we can cast details, without cores, with basically any complexity.

Standard lead-time for rapid casting is 7 to 9 working days for single or a few details.

Digital Mechanics gives your development project more time through delivery of rapid prototypes in the materials needed.

Efficiency and value

To succeed with a product you need short development lead times, flawless products and quick decisions. With quick and innovative free form technology, we make our customers product development more efficient.

Our free formed details are used in a number of applications, such as medical equipment, electromechanical systems, industrial design, automotive and vehicle applications, design concepts, research, development, architectural display, production support etc.

We have the largest capacity of polycarbonate production in Northern Europe, with a state-of-the-art machinery range, which handles the latest free form technology where we produce details in two materials simultaneously.

What makes us unique?

We want to give our customers access to the best expertise and quickest deliveries in the market. We do this through our expert knowledge in free form fabrication combined with a broad knowledge and experience from selecting and combining materials and free form technologies.

Through our subscription concept F³, we can immediately submit offers as well as produce and deliver to fixed prices per cm³. With a F³-subscription, the customer always access their own free form factory, with guaranteed capacity and competency, to shorten the lead time in their projects.

F³ suits both smaller and larger companies and provides the customers with

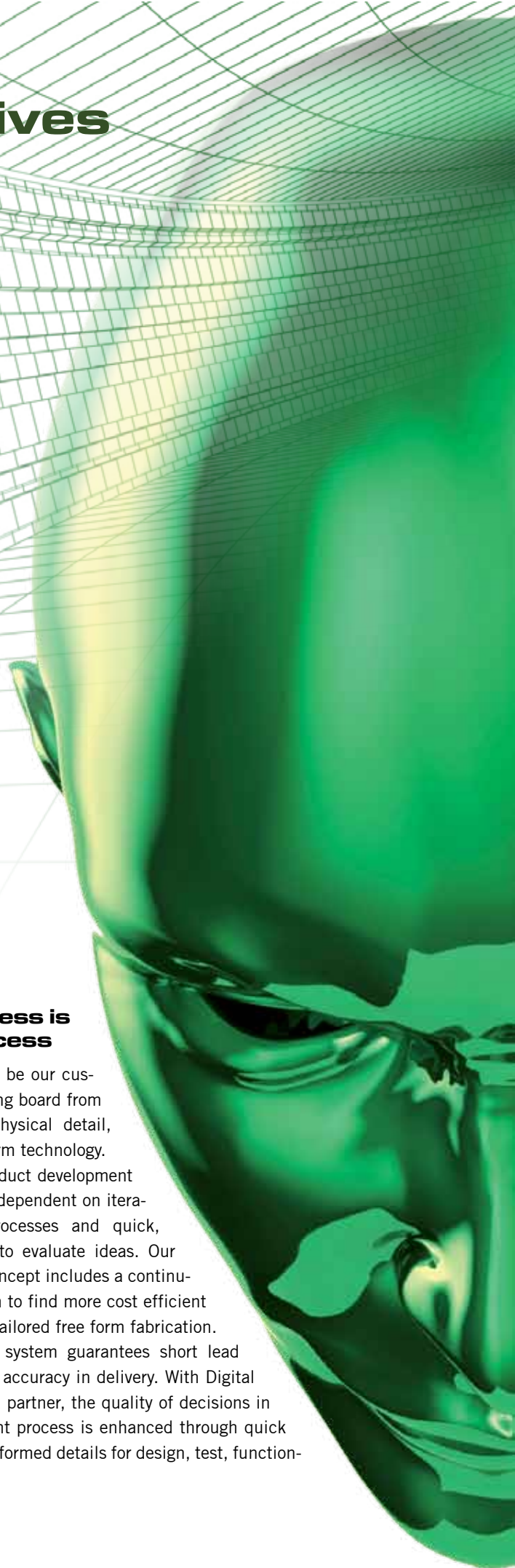
- Fixed prices/cm³ for more than 30 different plastic free form materials throughout subscription period
- Simple cost calculation based directly on volume in 3D CAD model
- Minimum lead times – production is started as soon as files have been submitted
- No lead time costs and no unexpected costs
- Priority and delivery guarantee
- Production 24/7/365

Our success is your success

Our vision is to be our customers' sounding board from first idea to physical detail, through free form technology.

Efficient product development is increasingly dependent on iterative design processes and quick, efficient ways to evaluate ideas. Our subscription concept includes a continuous cooperation to find more cost efficient solutions with tailored free form fabrication.

Our logistic system guarantees short lead times and high accuracy in delivery. With Digital Mechanics as a partner, the quality of decisions in the development process is enhanced through quick delivery of free-formed details for design, test, functionality and fit.



Digital Mechanics is a global supplier of Free Form Fabrication services for development of prototypes and manufacturing of details in limited series.

Our operation is built on a unique business concept to efficiently produce details in plastic and metals directly from a 3D CAD-model.

The business model provides simplicity, speed and fixed prices on more than 30 different soft and hard plastic materials used with free form technologies FDM, Polyjet and Z-Corporation.

Our other free form services, such as rapid casting, free formed details in metal, PUR details from silicone tools and rapid tooling for injection molding, makes us a complete supplier covering the needs of the product development of the future.

Our target is to become leaders in free form technology and to be the natural choice for companies looking for the latest technology with highest possible quality.

We are based in Västerås, Sweden.

Digital Mechanics AB

Lysgränd 1
SE-721 30 Västerås
Sweden

Tel +46 (0)21 41 40 60
Fax +46 (0)21 41 40 65

info@digitalmechanics.com

TRY US:

tryus@digitalmechanics.com

WWW.DIGITALMECHANICS.COM

 **DIGITAL
MECHANICS**
RAPID PROTOTYPING SERVICES