# MOULD & INSERT EXCELLENCE

1. Decimate lead times.
2. Significantly reduce costs.
3. Facilitate complex designs.

Additive manufacturing holds the potential to revolutionize the injection moulding industry in terms of speed, complexity and cost-effectiveness. Printing high-quality moulds and inserts in robust materials that can handle thousands of shots defeats the purpose of ordering moulds overseas. It's now possible to create complex moulds in a matter of hours, at cost levels that allow the flexibility of multiple iterations towards the final design. Our partnerships, open resin platform and expertise allow us to meet your specific material and process requirements.

atum 3D

3D Manufacturing Excellence

## MOULD & INSERT EXCELLENCE

*Ordering moulds and inserts used to be both time and cost consuming. With Mould & Insert Excellence, atum3D combines the exceptional benefits of its DLP printing platform with high-performance material properties. Our DLP Station offers consistent dimensional accuracy, durability and surface quality with application-tested and approved resins. This results in the ability to produce previously unimaginable complex designs at lower costs, while reducing lead times from weeks to hours and adding the flexibility to keep optimizing parts - all for a mid-range investment.*

## WE CUSTOMISE YOUR EXCELLENCE PACK

atum3D bundles the hardware, software, resins, consumables and services to comprise a tailored integral solution that fits your requirements. A selection of products commonly combined for injection moulding applications is listed below.

### HARDWARE

- **DLP Station 5-405 EXZ**
  - » Industrial grade, open platform 3D printer with a purpose-built 405 nm light source and a 70 micron resolution. This printer offers the build speed, accuracy and stability to create moulds and inserts of up to 45 centimetres in height.

- **Optional Post-Processing Automation**
  - » Several post-processing automation options are available, such as the atum3D Cleaning Station and Curing Station. Depending on the current infrastructure, these can help facilitating and speeding up the process even more.

### SOFTWARE

- **Operator Station Professional**
  - » Our intuitive software prepares your mould or insert for print in just a few clicks. Our MAGS AI algorithms automatically rotate, support, distribute and slice the moulds and inserts on the DLP Station Build Platform.

### APPLICATION-TESTED RESINS

- **BASF Ultracur3D® RG-1100**
  - » Ultracur3D® RG 1100 by Forward AM is a high-strength, unfilled polyurethane-based engineering grade resin. Its high mechanical strength, heat deflection temperature (HDT 116°C) and good chemical resistance make it an excellent choice for 3D printed mould applications for less demanding applications.

- **Covestro Somos® PerFORM HW**
  - » Somos PerFORM HW by Covestro is a DLP-optimized version of its industry-leading Somos® PerFORM, which offers superior stiffness and temperature performance (HDT 292°C) that is required for applications such as tools for injection moulding and moulding with high temperature polymers.

### TRAINING & SUPPORT

- **Installation & Operator Training**
  - » Our team builds on years of injection moulding experience and is ready to set up your atum3D hardware and software on-site. Our specialists train operators in using Operator Station software and DLP Station 5-405 EXZ in a hands-on training session.

- **DLP Support Basic**
  - » Our support doesn't end with installation and training. The Basic support package includes personal support, both by phone and online.

## YOUR BENEFITS

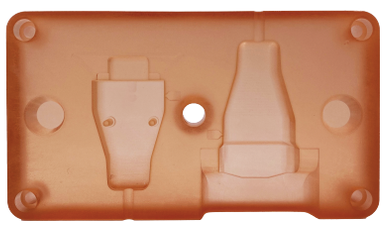
Mould & Insert Excellence is based on the DLP Station 5-405 EXZ, which features a powerful light source that delivers speed in accurate and consistent repetition for moulds and inserts up to 45 centimetres in height. It allows using high-quality materials, thanks to its open resin platform. Print jobs can be prepared with ease using Operator Station Professional software.

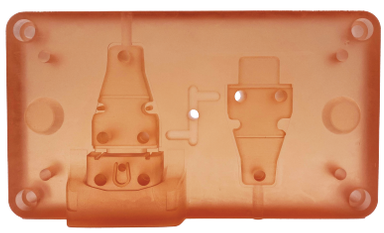
Summarised, benefits of our Mould & Insert Excellence solution include:

- Create robust moulds and inserts quickly, accurately and at a fraction of the cost and lead time of traditional solutions;
- Enables printing complex moulds at identical costs of simple moulds, while retaining the flexibility to create additional moulds for optimized product versions in a matter of hours;
- DLP technology allows combining several mould and insert parts in a single run, without impacting build speed;
- Specialty Covestro and BASF resins offer exceptional functional material properties for injection moulding applications, which can withstand the injection process for up to thousands of cycles;
- This state-of-the-art solution also supports 3D printing moulds for various other moulding techniques, such as vacuum forming, blow moulding and compression moulding.

## WE'RE HERE FOR YOU!

We understand that incorporating additive manufacturing technology in your current injection moulding process calls for a solution that offers a good fit with the existing infrastructure. That is why our team is ready to discuss your specific wishes and customise your product bundle to order.








atum3D strives for 3-fold excellence. With proprietary **software**, **hardware** and an **open resin platform**, we offer exceptional **accuracy**, **speed** and **cost effectiveness**. We aim to make your life easy with comprehensive **training**, **services** and **support**. Team up with atum3D and become a part of the next industrial revolution!

For more information and specifications, please call +31 (0)85 488 26 60 or visit **atum3D.com**.

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