



# Alpha

PRECISION

Engineering Precision Solutions

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## About Us.

Established in 1997 by brothers Brendan and Enda Feely, Alpha Precision have been pushing the boundaries of what's possible in precision engineering to provide toolmaking services to the Automotive, Aerospace, Electronics, Medical Device and Precision Engineering industries.

Delivering the best in class design and manufacturing solutions at a competitive price while exceeding customers expectations, we work in partnership with our customers to achieve excellence in the innovation, design, manufacturing and delivery of precision toolmaking and engineering solutions.

Our team has grown steadily over the last 20 years, and today we employ a team of highly skilled Engineers. We have invested heavily in the most technologically advanced machinery which ensures a right-first-time approach which allows us to complete projects that are of the highest quality and provide optimal performance.

*At Alpha Precision, we bring your ideas from concept, to design, to production.*

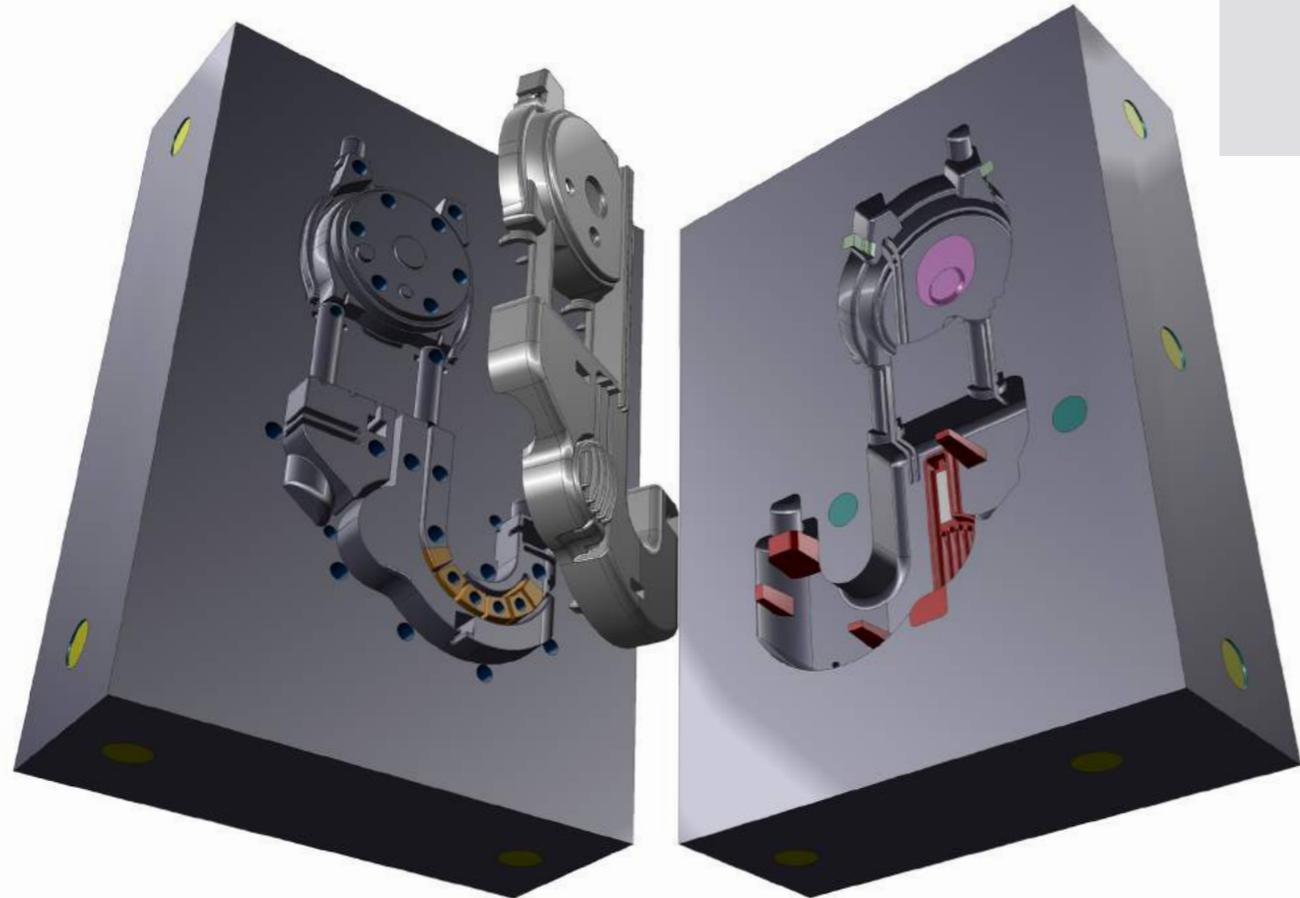
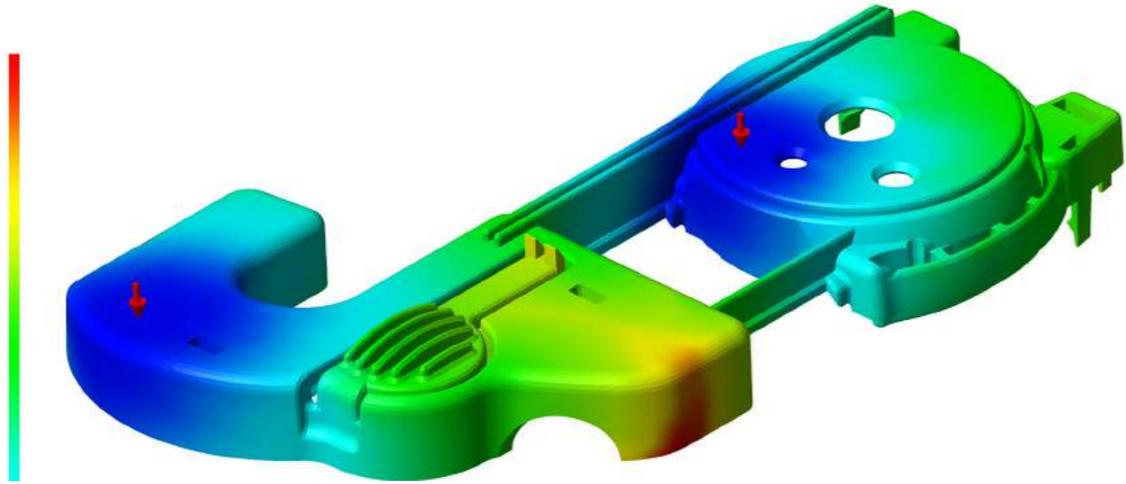


## Quality.

Alpha Precision is an ISO 9001:2015 accredited company and we are committed to maintaining high-quality standards across all areas of the company. We are continually up-skilling our employees through internal and external training. Our highly skilled team of toolmakers and designers are trained to the highest standards and we aim to provide services which meet and exceed our customers' expectations.

- ▶ Fully trained and skilled designers and toolmakers
- ▶ Complete thermally controlled toolroom environment
- ▶ Full integrated ERP management system, ensuring full traceability
- ▶ Certified as ISO 9001:2015 registered firm
- ▶ In-house Vision/CMM capability to produce detailed dimensional reports
- ▶ In-house tool trialling with production run capability

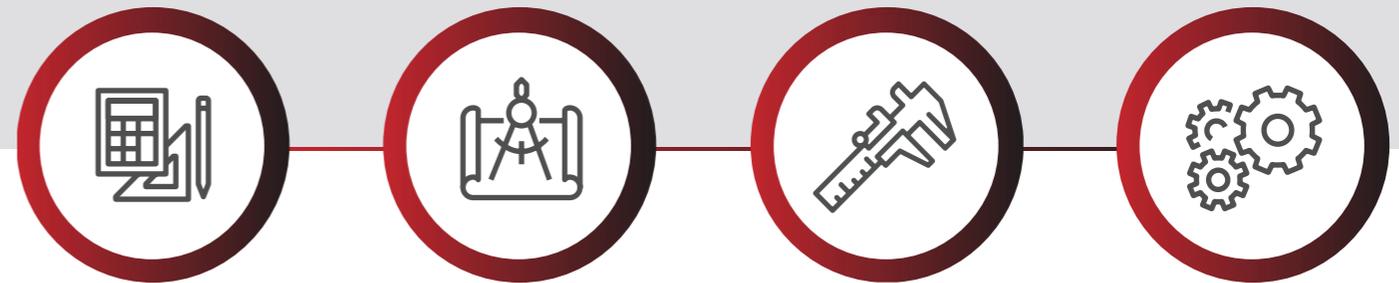




# Analysis & Design.

Alpha precision has over twenty years' experience designing moulds and precision parts for clients in the Medical Device, Automotive and Aerospace industries. Our experienced design team utilise leading 2D and 3D CAD design software to design complex moulds.

*Alpha Precision provides technical leadership and expertise at each stage of the design process:*



## 1. Analysis

1. The first step in our design process is to conduct an in-depth analysis to identify your requirements and how Alpha Precision can add value to your process.

## 2. Design

2. Our designers work closely with your engineers to ensure the design is optimised for manufacturing. We provide expert advice on Design for Manufacturing (DFM), materials, processes and tolerances.

## 3. Prototyping

3. Once we have completed the designs, we quickly move into prototyping. We have the facilities in house to test prototypes as required.

## 4. Production

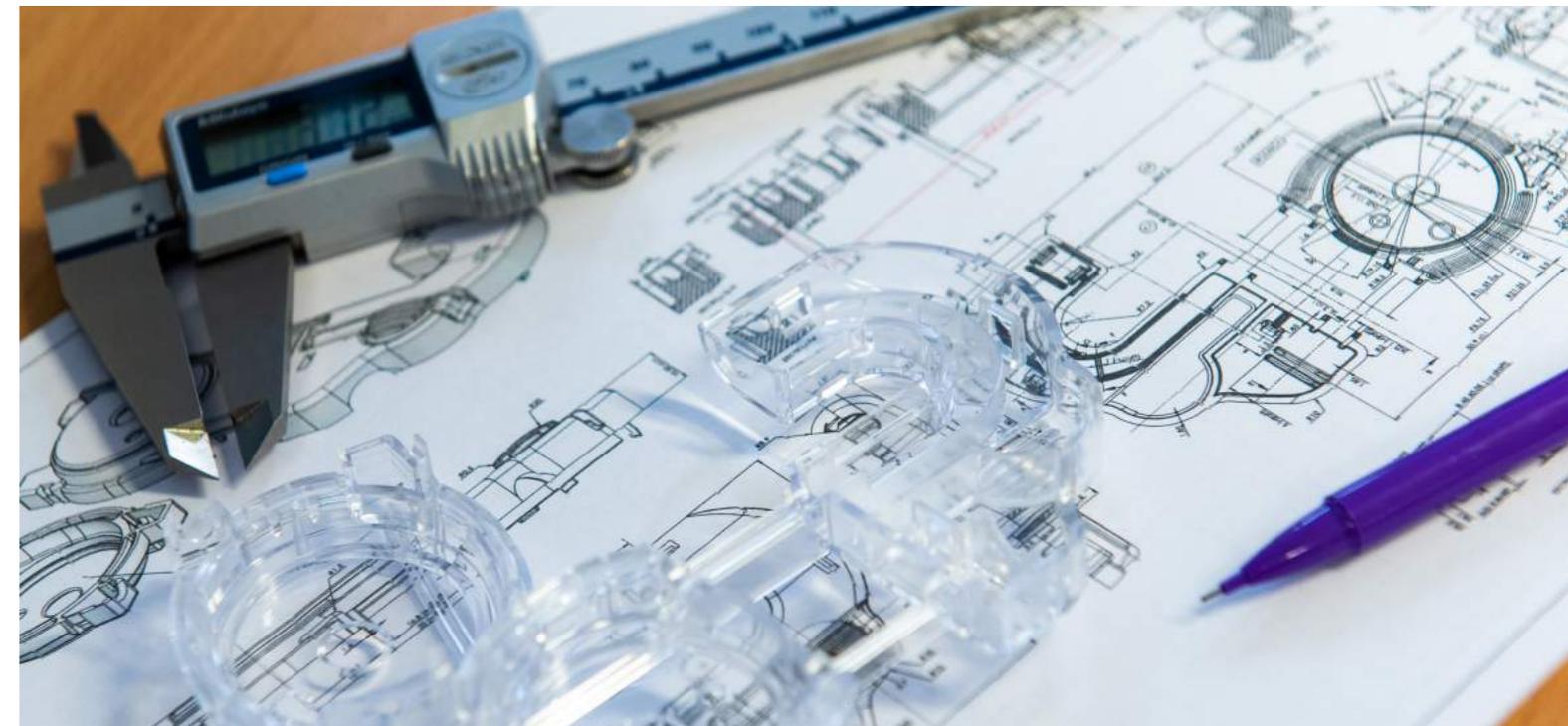
4. Once you are happy with the prototype, we can quickly move the process to the manufacture of the serial production tool.

# Design Capabilities.

Our design team will work closely with you to gain a deep understanding of your product concept and technical requirements. We are committed to ensuring your concept is optimised to ensure efficient manufacturing.

The key to a successful project is the involvement of the Alpha Precision team in the early stages of product design. This allows for the early identification of problems using FEA software, preventing costly issues later on in the project.

- ▶ Leading 2D and 3D CAD design software
- ▶ 3D solid models used right through the manufacturing process in a total 3D environment
- ▶ Finite element plastic part analysis
- ▶ Part and mould optimisation
- ▶ Industry recognised project management software
- ▶ Integrated CAD and CAM used throughout the process
- ▶ Full ERP management system
- ▶ Collaborative project management software



# High Precision Tool & Mould Making.

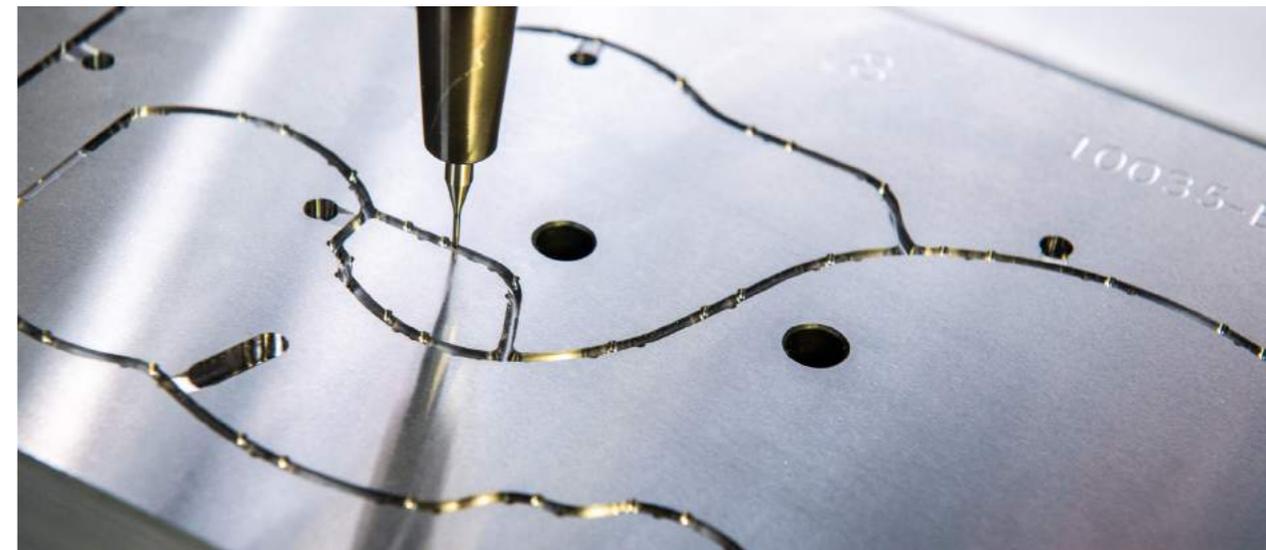
We are constantly pushing the boundaries when it comes to toolmaking and have built a reputation as technical toolmakers. We love a challenge, and we pride ourselves on delivering innovative solutions to complex problems. Our team are highly experienced in designing and manufacturing tools for technically challenging, tight tolerance parts that perform in highly regulated production environments. We have experience with a wide variety of metals, plastics and rubbers.



## Toolmaking Capabilities.

- ▶ Injection Moulds: - Prototype - Pre-Serial
- ▶ Injection Moulds: - Multi Shot Tools - Multi Cavity Tools
- ▶ Press Tooling: - Single Stage - Strip Progression
- ▶ LSR/Rubber:- Cold Runner Moulds
- ▶ Thermo Forming Tools – Blow Moulds
- ▶ Fixtures: - Special Purpose Fixtures - Inspection Fixtures – EOAT's
- ▶ Precision Machined Parts: - Small/Medium Batch – Turning - Milling

At Alpha Precision, we believe mould maintenance is an essential step in the moulding process to ensure a mould is running at optimal performance. That's why we offer maintenance, repair, and refurbishment on all of our moulds.

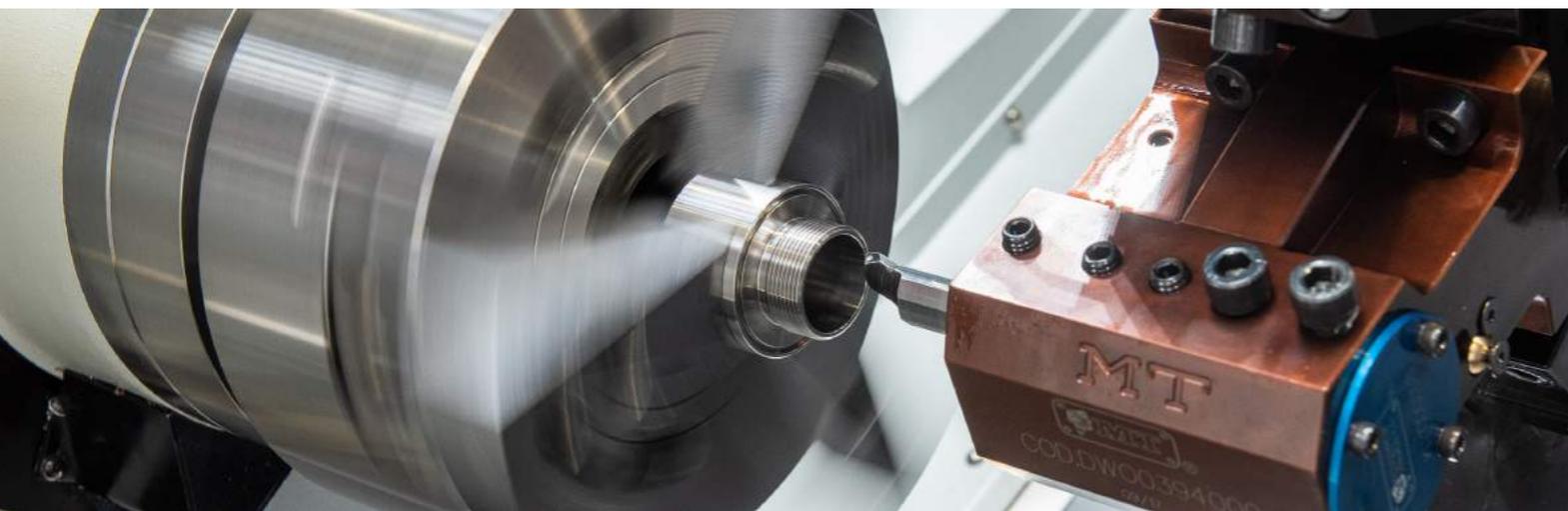




# Manufacturing.

Alpha Precision are experts in the manufacture of low to medium volume precision engineering components for the Medical Device, Automotive and Aerospace Industries. Our highly skilled team is committed to delivering a manufacturing process that is fully controlled and managed to meet the quality standards and tolerances expected by our customers.

- ▶ **CNC Milling**  
We have a range of CNC milling machines which allow us to machine low to medium volume parts.
- ▶ **CNC Turning**  
We have the capabilities to machine parts from a wide variety of materials, including plastics, metal and rubber.
- ▶ **Precision Grinding Features**  
Our precision grinding capabilities allow us to maximise surface quality, high rates of throughput, fast cycle times and precision finishes.
- ▶ **CNC EDM Spark Eroding**  
Our spark eroding capabilities allow us to machine complex details to tight tolerances in a range of materials.
- ▶ **CNC EDM Wire Erosion**  
We offer a comprehensive wire erosion service for complex components.
- ▶ **Integrated CAM Process**  
Our integrated CAM process allows us to provide greater accuracy and consistency, leading to a smarter connection between applications.



# Support.

## Precision Engineering Support

Alpha Precision is much more than a supplier – we provide an unrivalled level of support to our clients at all stages of a project, from design analysis all the way through to mould validation and mould maintenance. We work closely with our clients to streamline their processes and systems and to improve efficiency.

## Design Support

At Alpha Precision, we are constantly pushing the boundaries when it comes to design and have built a reputation as designers of technical challenging parts. We have a unique knowledge of techniques, processes and materials, which allow us to provide innovative solutions to complex problems.

As a result, many of our clients involve us on a design consultancy basis at the early stages of product design and we often become a central pillar in the design process. Our designers collaborate with your design team, to create a component and mould design that is cost effective, commercially viable and enables our clients win business.

## Trouble Shooting

Over time moulds can defect, leading to quality issues and low performance. Alpha Precision offers a troubleshooting service to our clients in order to pinpoint any defects and with our vast experience allows us to quickly evaluate and provide effective solutions. Common outcomes of our trouble shooting service, include:

- ▶ Improvements in quality
- ▶ Improvements in efficiency
- ▶ Cost savings



# Benefits in Partnering with Alpha Precision.

- ▶ Dedicated, highly skilled and innovative team with the knowledge and experience to deliver on time every time
- ▶ Guaranteed high quality toolmaking
- ▶ Technology and processes that produce better quality tooling
- ▶ Tooling built to very tight tolerances and specifications
- ▶ Reduced maintenance costs
- ▶ Fast cycling moulds

Our comprehensive range of CNC machines enables us to provide innovative solutions to complex machining challenges. We have invested heavily in the most technologically advanced machinery which ensures a right first-time approach to all our manufacturing methods. Our latest CNC machinery includes:

- ▶ **Roeders Hsm 42k Spindle**
- ▶ **Makino F3 Hsm 25K Spindle**
- ▶ **Makino F5 Hsm 25K Spindle**
- ▶ **Hardinge Conquest H51**
- ▶ **CNC CMM Vision System**

All of our machinery is regularly maintained by our in-house engineers.

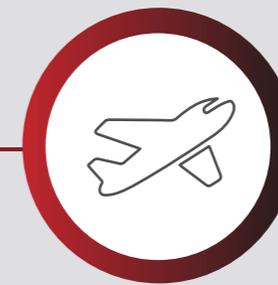


## Who We Work With.



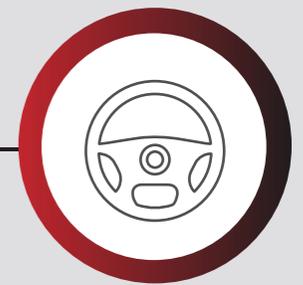
### Medical Device

We specialise in high performance and commercially viable moulds for the Medical Device industry.



### Aerospace

We have the ability to design, develop and manufacture complex tooling for the Aerospace industry.



### Automotive

We manufacture high-precision components to the highest standards for the Automotive industry.



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