



# Engineering The Future

**Elevate your project from concept to fully scheduled production with the expertise of one of the UK's most advanced precision engineering companies.**







# Contents

- 3** Introduction
- 4** Capabilities
- 7** Accreditations
- 9** Awards
- 11** Mission Statement
- 12** Plant List





# Introduction to CP

Cambridge Precision Limited established (CP) in 1991 is a global leader in the field of precision manufacturing engineering.

We specialise in the production of high-grade prismatic and turned components, enclosures and electro-mechanical assemblies, for world-renowned brands and innovators.

We have an absolute commitment to quality, seeking continuous improvement in every aspect of the business, investing in the latest technology in manufacturing engineering, and in our people to keep CP at the forefront of digital manufacture.

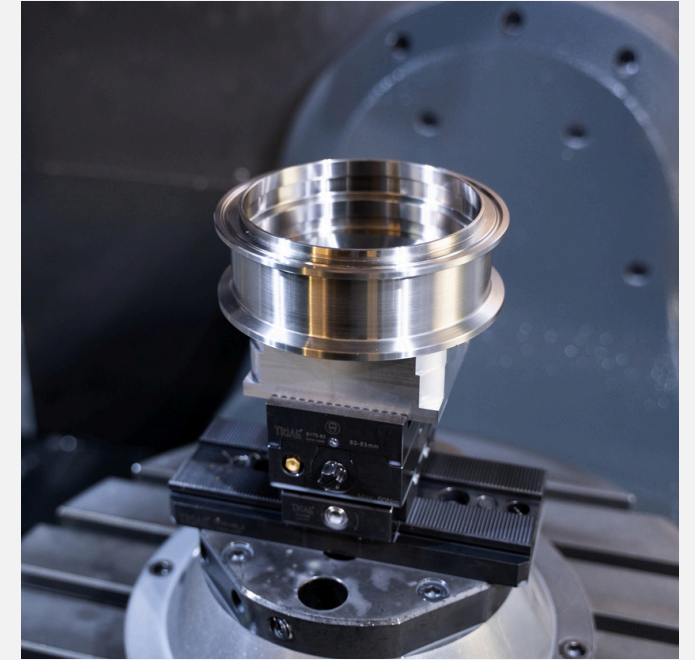
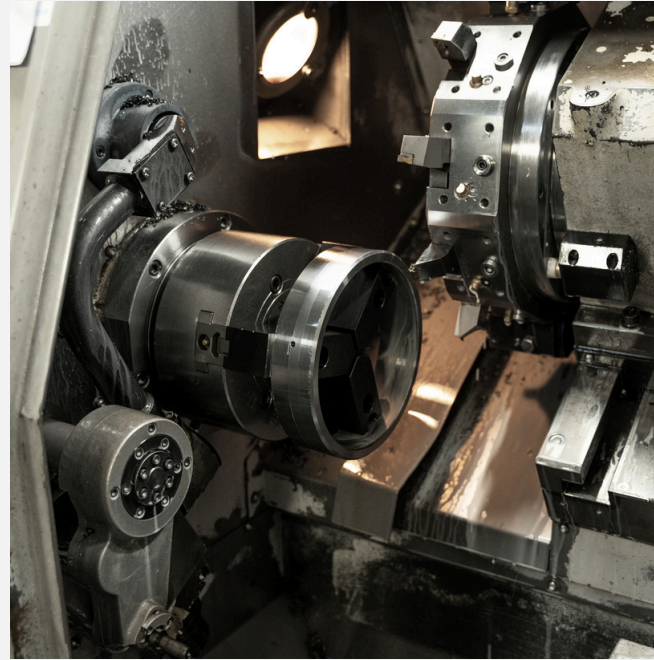
We are inspired by our clients in the critical technology sectors, from such diverse fields as med-tech, imaging, laboratory equipment, scientific instrumentation, particle measurement, aerospace, space, forensics, robotics, and consequential emerging technologies, our customers expect the best without compromise.

We are proud to be considered the smart & trusted production partner, the partner of choice, who can be relied on and trusted to deliver a seamless, high-quality service in all respects.

**The trusted production partner of choice for consequential precision engineered components.**



# Quality Through Technology



CP has invested heavily increasing our capabilities and now has over 40 CNC milling machines, 15 of these have 5-axis capability. We also have 17 CNC lathes which include sliding head and multi-spindle with mill-turn capability to enable us to finish complex components complete from bar or billet.

In addition, we have the ability to laser part mark, this is now becoming a required standard in the many sectors that we operate within. With unrivalled CAD and offline programming competency, we can offer a fully computerised design service, job set up and manufacturing quality control from first off to full order delivery.





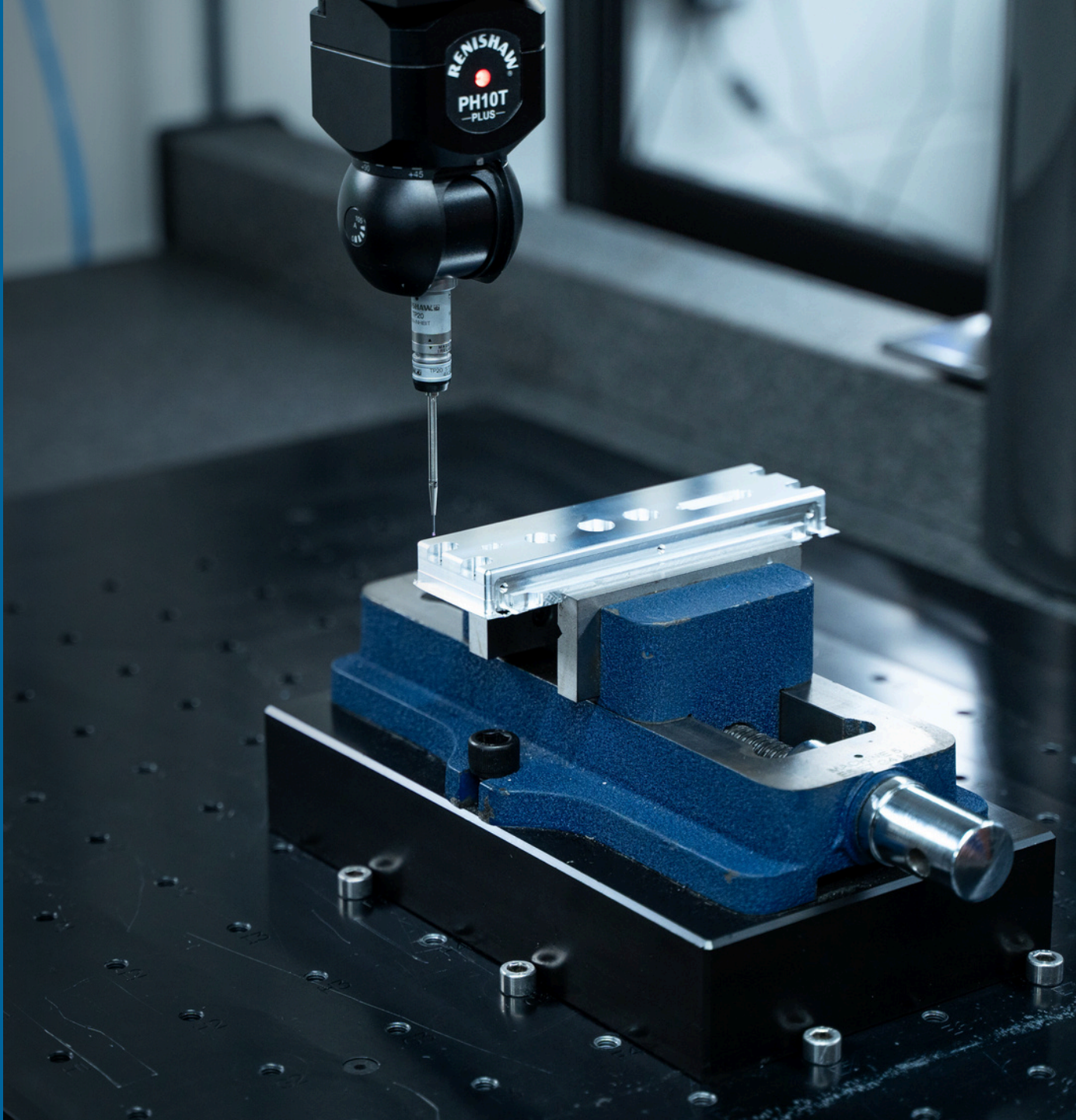
# Quality Through Automation

We have invested in future proofing our operations via automation and can offer 'lights out' machining by optimising our Cobot manufacturing cell systems.



Our market-leading multi-axis production hub provides the ability to machine complex shapes in a single set-up, giving greater accuracy, consistency and quality throughout a large batch size.





# Quality Through Inspection

Our commitment to producing parts and components **right first time** is fundamental to our business operations and sustainability objectives.

We have invested heavily in our Quality Assurance departments and have over 8 CNC/CMM's in use, with each facility and engineering discipline having their own dedicated inspection department, alleviating the common bottle necks that plague our industry.



# Accreditations

CP are certified to the very highest industry standard. This includes AS9100 where we supply safety critical parts to several OEM and Tier 1 organisations.



AS/EN 9100 Certified  
ISO 9001 Certified  
ISO 14001 Certified  
ISO 45001 Certified





# Sustainability

## The Foundation of our Future

At Cambridge Precision Ltd. we know and are proud that the work we do has a positive global benefit. Working with our partners in Technology, Medical/Pharma, Security, Aerospace, Life Sciences and Energy and we are honoured to play our part in creating technologies that **'change lives and save lives'**.

Our commitment to ethical practice permeates all levels of our activity: purchasing, manufacturing, distribution, employee development and welfare, outreach and networking, supplier and client relationships and protecting global resources.

As our business has grown, so has our responsibility to seek out opportunities to turn ethics into practical demonstrable outcomes and we are learning how to identify environmental, and sustainability wins and setting goals that challenge us. Our business targets are no longer purely commercial but also focus on environmental, social and sustainability successes. We believe this is a critical mind-shift and an important change of culture that brings local and wide-reaching benefits.

Sustainability has not traditionally been a characteristic that is synonymous with the manufacturing sector, however, Cambridge Precision Ltd are developing our corporate behaviours and expanding our brand values to demonstrate the value and genuine commitment to building a better world. This is the commitment that Cambridge Precision Ltd has made.

The move to 100% recycling in 2012 and stringent adherence to CIPS corporate ethical procurement and supply chain standards spearhead our responsible manufacturing engineering initiatives.

Our sustainability journey has a far wider agenda than a net-zero target. We want to set the bar and tread a path trailblazing and encouraging others to follow, one that illustrates and demonstrates how conscientious a future-facing manufacturing partner can be.

This is an ongoing commitment and a core company value rather than a goal and this commitment and cultural mind shift increasingly permeates our business activity, bringing benefit to stakeholders at every level.

We can't pretend we have all the answers, but we can demonstrate how hard we are trying to have meaningful positive impact, and we are making good progress.

Cambridge Precision Ltd are proud to have been recognised and awarded the Sony **'Green Partner'** Award every year since Sony introduced the award in 2001.





# Awards



Cambridge Precision Ltd has been announced as a recipient of the King's Award for Enterprise for International Trade. The King's Awards for Enterprise are the most prestigious awards for UK businesses, recognising and celebrating business excellence across the UK.

Cambridge Precision Ltd (CP) is one of only 252 organisations nationally to be honoured this year with a King's Award. *'We are chuffed to bits. What an achievement. For all our team who have, time and time again, gone the extra mile and found a different way, this award is rightly yours.'* Tony Murray, Senior Export Manager.

The long-established Queen's awards programme was renamed last year to reflect His Majesty the King's commitment to continuing the legacy of HM Queen Elizabeth II, who initiated the scrutinising awards programme. Now in its 58th year, this is the most respected business award in the country.

Employing 83 people, CP was founded in 1991 and today is widely acknowledged in tech innovation and bio-med technology sectors, as the production partner of choice for consequential precision engineered components and sub-assemblies.

For CP, establishing a dedicated production unit for Export and working collaboratively with clients (based overseas or requiring alliance with international suppliers and distributors) has been a key focus over the last five years. Acting in partnership with customers to overcome trade barriers and implement sustainable global supply chains, has helped the business to develop greater agility and develop as an organisation within the global market.

# Awards Continued...

## Our affiliations & awards include:

JOSCAR Registration in 2024  
AS/EN 9100 Certified  
ISO 9001 Certified  
ISO 14001 Certified  
ISO 45001 Certified

Sony Green Dragon accreditation  
IET Manufacturing 4.0 Award 2021  
Sustainable Growth APCRG Responsible Business Champion 2019–2022  
(Parliamentary – All Party Corporate Responsibility Group)  
Department of International Trade – Export Champion 2019–2022





# Mission Statement

At Cambridge Precision Ltd, our mission is to provide exceptional precision engineering solutions to our clients in the UK and beyond. With a strong commitment to quality and innovation, we leverage our extensive expertise and state-of-the-art technology to deliver reliable, cost effective, precision engineering services and solutions.

As a company that holds a range of internationally recognised accreditations and recently a Kings Award for Enterprise, we are dedicated to upholding the highest standards of excellence in everything we do. Our accreditations demonstrate our commitment to quality management, environmental responsibility, and the safety of our staff along with their wellbeing.

We strive to be a trusted partner for our clients, working closely with them to understand their unique requirements and delivering tailored solutions that meet and exceed their expectations. Our team of skilled engineers and technicians are equipped with the knowledge and experience to tackle even the most complex engineering challenges.

At Cambridge Precision we believe in continuous improvement and investing in the latest technologies and techniques. This enables us to stay at the forefront of precision manufacturing engineering, constantly pushing the boundaries of what is possible and delivering cutting-edge solutions to our clients.

Ultimately, our mission is to help our clients succeed by providing them with precision engineering solutions that are reliable, efficient, trusted, and of the highest quality. We are proud of our accreditations and Kings Award for Enterprise, and we will continue to uphold these standards as we strive for excellence in everything we do.

**Quality Through Technology.**





# Plant List

Cambridge Precision has an extensive range of state-of-the-art manufacturing precision machine tools, Collaborative Robotics (Cobot), and supporting Quality Assurance (QA) technology.

All this technology and infrastructure is housed within approximately 60,000 sq. ft. making the facility one of the most comprehensive and highly accredited precision manufacturing engineering facilities. In support of production the facility additionally houses, assembly, laser marking and further manufacturing support systems and software.

A wide range of qualified, certified traceable material types and sizes are held on site to support our R&D facility based offsite from the main production departments. This enables rapid turnaround of prototype parts or small batch production.

The core manufacturing is supported by JIT delivery to our dedicated materials handling and CNC cutting facility.

## Quality Through Technology.







# Milling

The trusted production partner of choice for consequential precision engineered components.

**Milling Maximum Envelope:**

1500mm in X-axis, 770mm in Y-axis & 625mm in Z-axis

**Five-axis Maximum Envelope:**

762mm in X-axis, 508mm in Y-axis & 508mm Z-axis (500mm dia. platter)

- 4 x Haas UMC-750 Five-axis
- 4 x Haas mini mill (2 x HA5C collet rotary indexers)
- 4 x Doosan NM 410
- 1 x Doosan DVF 5000 Five-axis
- 3 x Doosan DNM 4500
- 1 x DNM 6700
- 2 x DNM 6700 with Nikken Five-axis
- 4 x DNM 6700 with Cobot unmanned manufacturing cell with Nikken Five-axis
- 1 x DNM 650 with Nikken Five-axis
- 1 x DNM 500
- 2 x MYNX 750
- 5 x DNM 6700

2 x DNM 650 – Working envelope:

**1270mm in X-axis, 670mm in Y-axis, 625mm Z-axis**

3 x DNM 400 – Working envelope:

**800mm in X-axis, 450mm in Y-axis, 510mm Z-axis**



# Plant List



X Axis Travel distance	625 mm
Y Axis Travel distance	450 mm
Z Axis Travel distance	400 mm
Max. Workpiece Diameter	550 mm
Max. Workpiece Height	450 mm
Max. Workpiece Weight	400 kg
X Axis Rapid Traverse	50 m/min
Y Axis Rapid Traverse	50 m/min
Z Axis Rapid Traverse	50 m/min
Max. Spindle Speed	18000 r/min
Max. Spindle Power	18.5 kW
Max. Spindle Torque	117 N·m
Rotary Table Diameter	500 mm
Max. Table Weight	400 kg
No. of tool station	120

# Plant List



X Axis Travel distance	800 mm
Y Axis Travel distance	450 mm
Z Axis Travel distance	510 mm
X Axis Rapid Traverse	36 m/min
Y Axis Rapid Traverse	36 m/min
Z Axis Rapid Traverse	30 m/min
Max. Spindle Speed	12000 r/min
Max. Spindle Power	18.5 kW
Max. Spindle Torque	117.8 N·m
Table Length	1000 mm
Table Width	450 mm
Max. Table Weight	600 kg
No. of tool station	60





# Turning

**Turning Maximum Volume:**  
650mm Dia. x 500mm long

**Note:** Sliding Head min. turning dia. 0.50mm

- Doosan Puma
- 230MS Doosan Lynx
- 200L Doosan Lynx
- 220 Goodway TA-32
- Doosan Puma 240L
- Poly-Gim Mini-88
- Hanwha ML 20 H (Sliding Head 20mm Dia.)
- Doosan Puma TT1800SY
- Akebono Minc 26
- Doosan Puma 2500Y
- Hardinge Conquest GT
- Goodway GCL-2
- Doosan Lynx 210L
- Doosan Lynx 220LSY



# Laser Cutting & Engraving Machines

**Laser Processing Maximum Working Envelope:** 916mm X-Axis, 610mm Y-axis & 254mm Depth.

**Epilog Fusion Pro**

**Halo G02-10-22-D**

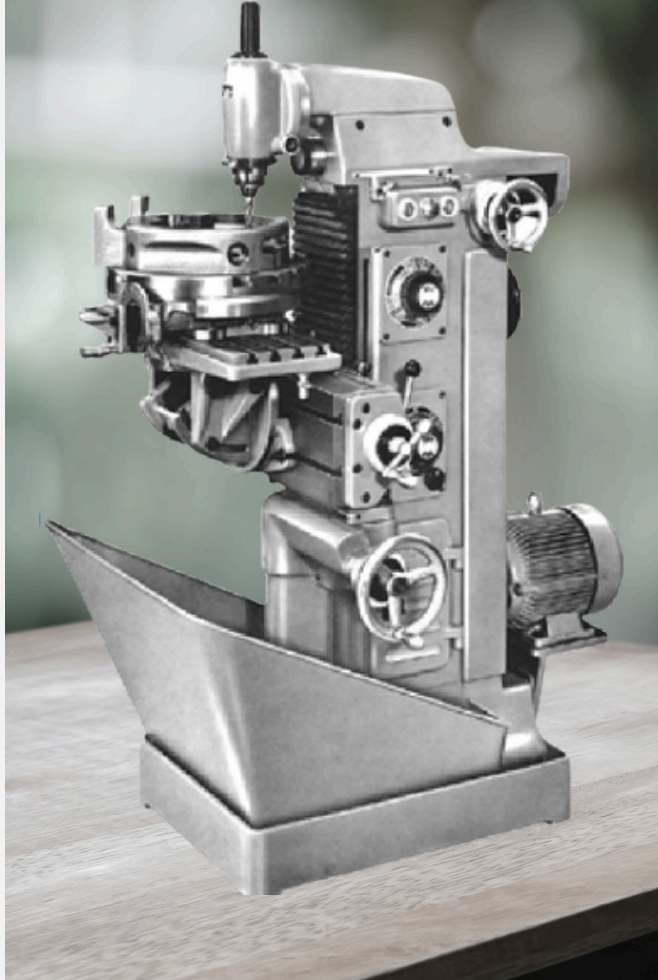


Our in-house capabilities include laser part marking, a practice that is rapidly becoming an industry standard. CP can add QR, Barcodes, assembly diagrams, instructions, and other graphics to components. These are easily applied to components and subassemblies using one of CP's three powerful laser systems.

The maximum laser processing working envelope is X-Axis 916mm, Y-Axis 610mm, with a height of component being no greater than 254mm. The laser systems also have a rotary axis for round parts. We can accept several different graphic file formats and can generate original, bespoke graphics to support our customer requirements.



# NPI and R&D Facility



Our dedicated New Product Integration (NPI) and R&D facility has the following capabilities that complement our capacity list.

### **CNC Machine Tools:**

- 2x HAAS VM3
- HAAS VM3 NIKKEN, 5-AXIS
- 2x HAAS MINI MILL
- DOOSAN DVF 5000 5-AXIS

### **Pure Manual Machines:**

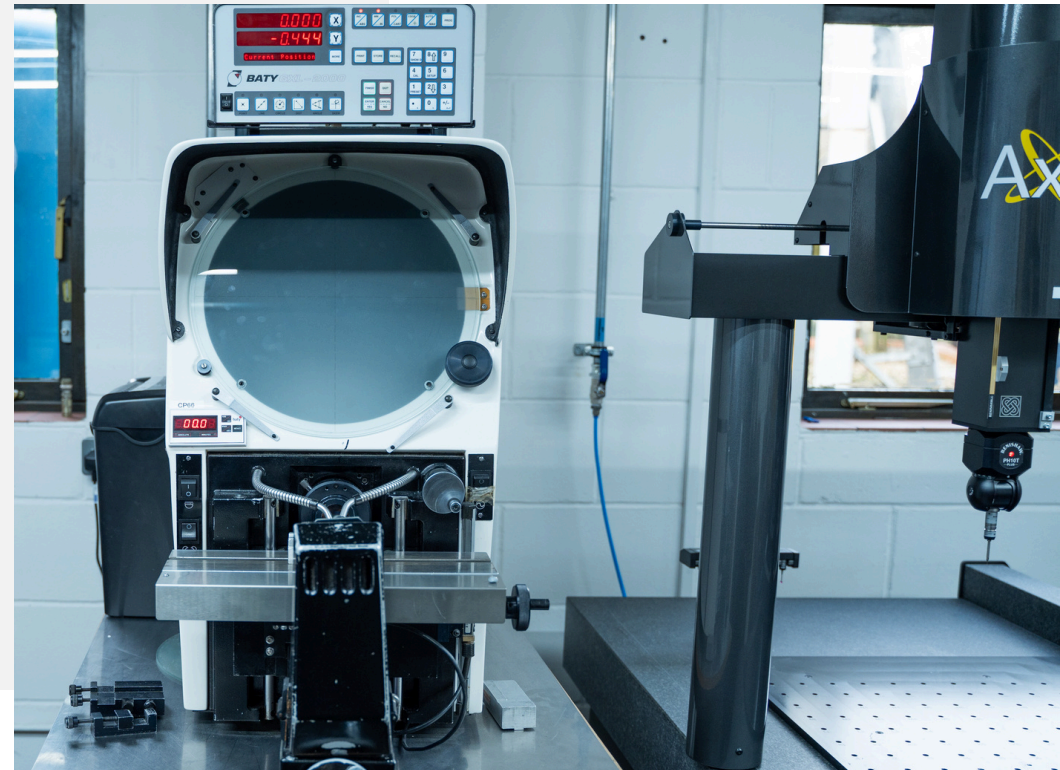
- COLCHESTER MASTER 2500
- COLCHESTER TRIUMPH
- HARRISION M250
- THEIL UNIVERSAL MILL
- THEIL UNIVERSAL MILL  
DECKEL FP1
- SYDERIC TAPPING MACHINE
- TAPPING MACHINE
- 20 TONNE PRESS



# Quality Assurance: Inspection

**CMM maximum Measuring Envelope:**  
800mm X-axis, 1000mm Y-axis, 600mm Z-axis

- 3x Aberlink Axiom Too High Speed – HS1200 CMM
- Aberlink Axiom Too HS600 CMM
- Aberlink Zenith CMM
- Aberlink Horizon CMM Aberlink
- Axiom Too 900 CMM
- Aberlink Axiom Too 600 CMM
- 2x Trimos V4 Series Height Gauge
- 3x Trimos TVA600 Height Gauge
- Tesa Height Gauge
- Baty GXL-2000 Shadowgraph
- 2x Mitutoyo PJA3000 Shadowgraph
- 2x Mitutoyo SJ210 Surface Roughness Tester







# Assembly

Here are some key highlights of the precision assembly work conducted at Cambridge Precision:

In addition to our extensive production services, Cambridge Precision has a dedicated facility for the assembly of mechanical and electro-mechanical components with exceptional accuracy and quality.

Our team of highly skilled technicians and engineers are dedicated to delivering high quality assembly services for various industries, including aerospace, automotive, medical devices, and more.

To enhance our turnkey capabilities, we also have our own precision masking department. Painted, or coated machined precision components require special attention during the masking process because they often have intricate and delicate features that must remain unaffected by the paint or coating application.



# Assembly Continued...

**Expertise:** The skilled technicians at Cambridge Precision possess extensive knowledge and experience in handling complex mechanical and electro-mechanical assembly projects. They are well-versed in working with a wide range of components, including motors, sensors, circuit boards, connectors, and other intricate parts. Masking further enables components to have better electrical conductivity and involves carefully covering or 'masking' of specific areas that should not be painted or coated, for example critical dimensions, threaded holes, critical features or mating surfaces.

**State-of-the-Art Facilities:** Cambridge Precision boasts state-of-the-art facilities equipped with advanced machinery, tools, and equipment necessary for precision assembly work. These cutting-edge resources enable Cambridge Precision to achieve the highest levels of accuracy and efficiency in the assembly processes.

**Quality Assurance:** Quality is of utmost importance at Cambridge Precision. We strictly adhere to stringent quality control measures throughout the assembly process to ensure that every assembly meets the required specifications and standards, no matter how simple or complex. Our commitment to quality guarantees that the final product is reliable and performs optimally, and our range of accreditations evidence our commitment to excellence.

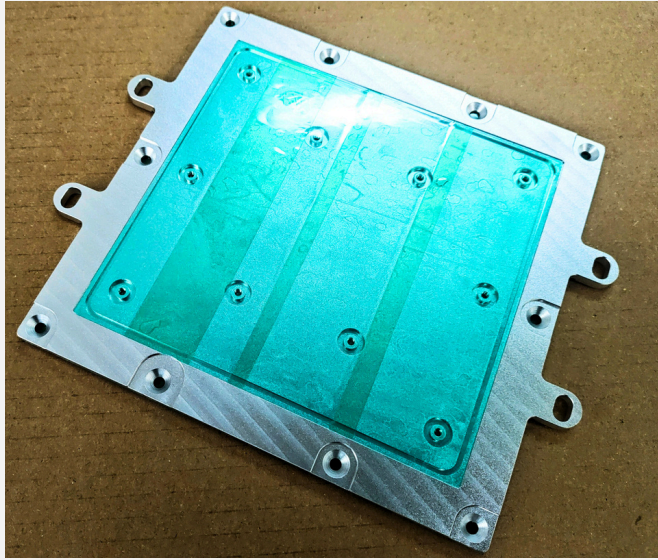
**Customisation:** Cambridge Precision understands that every project is unique, and they offer customised solutions tailored to meet specific client requirements. Our team collaborates closely with clients to understand their needs fully and deliver customised mechanical and electro-mechanical assemblies that align with their expectations. Masking prevents paint or coatings from interfering with precise tolerances and dimensions. It ensures that the covering does not contaminate or damage critical surfaces, such as sealing areas, contact or connectivity points. Additionally, masking aids in achieving a clean and professional finish, enhancing the overall aesthetics of the components we produce.

**Continuous Improvement:** Cambridge Precision is dedicated to continuous improvement and staying abreast of the latest advancements in precision assembly & masking techniques. This helps to maintain the functionality and performance of the components. We invest in research and development to enhance our capabilities and offer innovative solutions to our valued clients.

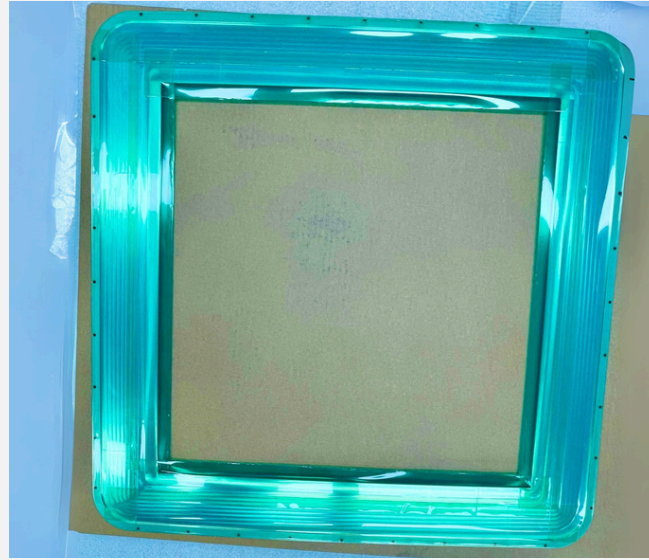
It is evident that Cambridge Precision's mechanical and electro-mechanical assembly services are at the forefront of the industry, providing clients with reliable, high-quality, and customised solutions.



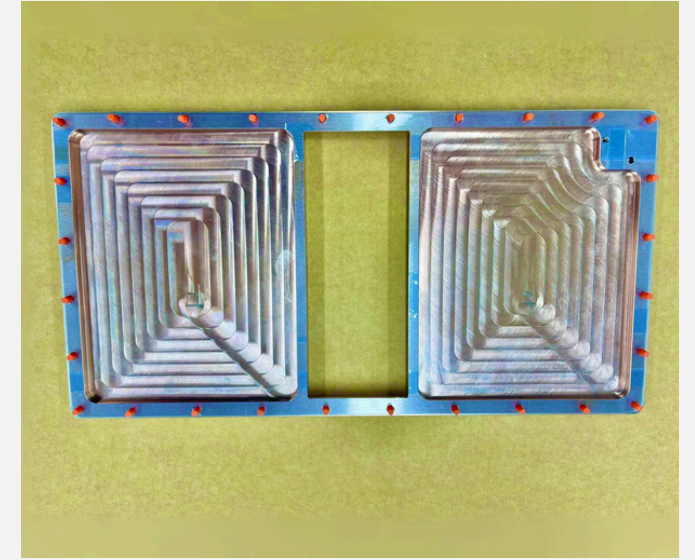
# Masking



Our in-house precision masking department enables us to provide comprehensive turnkey solutions. Painted or coated precision machined components demand meticulous masking, as they frequently feature intricate and delicate details that must be protected from the coating application.



Masking is a critical process that enhances the electrical conductivity of components. It involves carefully covering or 'masking' specific areas that should not be painted or coated, such as critical dimensions, threaded holes, key features, or mating surfaces. This selective masking ensures those important areas remain unaffected during subsequent coating or finishing steps.



Masking is essential for maintaining precise tolerances and dimensions during painting or coating applications. It safeguards critical surfaces, such as sealing areas, contact points, and connectivity points, from contamination or damage. Furthermore, masking enables a clean and professional finish, elevating the overall aesthetics of the components we produce.





# Thank you

**for taking time to review this promotional brochure, I trust you've found it a compelling read. If you have any questions and would like to know more about Cambridge Precision Ltd, please don't hesitate to contact me.**

**E:** [d.welham@cambridgeprecision.com](mailto:d.welham@cambridgeprecision.com)

**M:** +44 (0) 7463 804303

**T:** +44 (0) 1480 215196

**A** Cambridge Precision Ltd, Alington Road, Eynesbury, St Neots, Cambs, PE19 6YH

