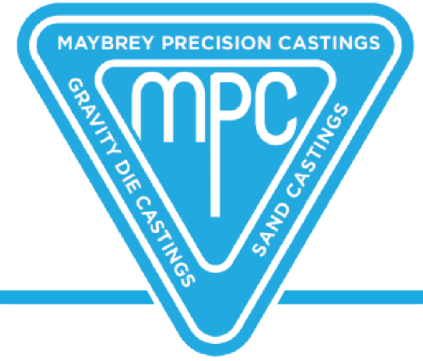


MAYBREY PRECISION CASTINGS LTD

THE HOME OF MAYBREY RELIANCE FOUNDRY



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Capability Statement

6 August 2026

Maybrey Precision Castings has produced sand and gravity die castings from its Aylesford facility in Kent, and has held unbroken aerospace foundry approval since 1937, the longest of any UK foundry. As part of the Caro Group, Maybrey combines specialist casting expertise with the resources of a wider group and a certified commitment to Carbon Net Zero. This statement sets out our accreditations, processes, materials, capacity, and the sectors we serve.

About Maybrey

Maybrey's origins trace to 1839, when the business began as the Hatcham Iron Works. In 2002, Maybrey Precision Castings and Reliance Foundry merged, bringing the best equipment and expertise from both businesses together. Today the business operates from a single purpose built facility, Unit 2, Old Mill Lane, Aylesford, Kent, ME20 7DT. Maybrey is led by the Hills family, now in its third generation, and is a member of the Caro Group alongside Caroflow, Caro Systems, and Caro Flood Defence.

Almost 190 years of casting experience (traceable to 1839) informs every pour, every pattern, and every specification Maybrey works to.



Quality control registration
GB95/5352 GB/05 66954



Accreditations and Certifications

- AS9100 Rev D: aerospace quality management, held without interruption since 1937. Covers aluminium sand and gravity die castings.
- ISO 9001:2015: quality management, covering all ferrous and non-ferrous castings, pattern manufacture, and machining.
- EN9100 / EN9001: European aerospace standards, applicable to EU based aerospace and defence customers.
- JOSCAR registered: Joint Supply Chain Accreditation Register, relevant for UK defence sector procurement.
- Cyber Essentials: UK Government endorsed cybersecurity baseline certification.
- CMF member: Cast Metals Federation, the UK trade body for the casting industry.
- FNZ Platinum Carbon Net Zero Award: the highest level of the Future Net Zero programme, awarded to the Caro Group.

All certificates are available on request.

Casting Processes

Sand Casting

Sand casting in grey cast iron, ductile (SG) iron, high silicon iron, nickel and chrome iron, aluminium alloys, and copper based alloys including silicon bronze, from single pieces to batch production. Iron castings to 750 kg, non-ferrous castings to 250 kg. Not a high-volume production foundry: single pieces, short runs, and batch production across every sector Maybrey serves. Full grade ranges are set out in Materials and Capacity below.

Gravity Die Casting

Aluminium castings to 25 kg from permanent steel dies, giving a superior surface finish, improved mechanical properties, and dimensional consistency across a production run. Suitable for commercial grades through to class one aerospace alloys, at mid-to-high production volumes. Tooling maintained by our in-house toolroom. Full grade ranges are set out in Materials and Capacity below.

3D Printed Sand Moulds

Casting moulds produced directly from a CAD file, without conventional pattern tooling. Enables complex geometry, undercuts, and fine surface detail for one off pieces, prototypes, and art castings, with first casting achievable in days rather than weeks.

Tooling Manufacture and Reverse Engineering

All tooling, including patterns, gravity die tooling, and machining fixtures, is designed, simulated and produced in house or through a long standing sub-contract partner. Where a

customer has a physical sample but no drawing, Maybrey can reverse engineer component using spectrometric analysis to confirm the alloy and 3D scanning to produce a CAD model, before manufacturing the tooling needed for casting.

Post-Process and Finishing Services

Maybrey takes a casting from raw component through to a finished, tested, ready to fit part, all from a single Aylesford facility.

- Surface preparation: shot blasting, aluminium grit blasting
- Thermal processes: heat treatment (To ASTM 2750 and ASTM 2771), annealing, HIPping (NADCAP approved)
- Non-destructive and destructive testing: X-ray, NDT, dye penetrant testing (all NADCAP approved), chemical and mechanical testing
- Machining: CNC and conventional machining, turning, milling, drilling
- Surface finishing: polishing, patina, powder coating, wet painting
- Assembly: welding, and complete assembly of multi-component castings

NADCAP approved processes: HIPping, NDT, Radiographic, and dye penetrant testing. All approvals current and available on request.

Materials and Capacity

Capacity by process:

Material	Sand casting	Gravity die casting	Typical volume
Irons	Up to 750 kg	Not applicable	Low to mid volume
Aluminium alloys	Up to 250 kg	Up to 25 kg	Mid to high volume (die)
Copper based alloys	Up to 250 kg	Not applicable	Low to mid volume

Aluminium Alloys

Process	Grades available
Sand casting	LM6, LM25, LM27, 2L99, BSL169, A356, A357, EN-AC series. Other grades confirmed at quotation.
Gravity die casting	LM6, LM25, LM27, 2L99, BSL169, A356, A357, BSL119, EN-AC series. Other grades confirmed at quotation.
Heat treatment to ASTM 2750 and ASTM 2771	Solution treatment and precipitation hardening (ageing) conditions. Specific conditions confirmed at quotation.

Cast Iron

Iron type	Grades available (sand casting)
Grey cast iron	BS1452 grades 150, 180, 200, 220, 250, 260, 300, 350, 400.
Ductile iron (SG iron)	BS EN 1563 EN-GJS grades 900-2, 700-2, 600-3, 500-7, 420-12, 400-15, 450-10, 370-17.
High silicon iron	Available. Specific grades and compositions confirmed at quotation.
Nickel and chrome iron	Available. Specific grades and compositions confirmed at quotation.

Copper Based Alloys

All copper based alloys are available in sand casting. Specific grades and compositions are confirmed at quotation.

- Aluminium Bronze (AB2)
- Leaded Gunmetals (LG2, LG4): copper based casting alloys
- Silicon Bronze: prized for its warm golden colour, long term patina, and weldability. The material of choice for monumental sculpture
- Phosphor Bronze
- Bell Metal: a hard, corrosion-resistant copper-tin alloy with a clear ringing sound, used mainly for bells

Sectors We Serve

Aerospace and Defence

AS9100 Rev D certified without interruption since 1937. Aluminium and copper based castings to aerospace specification, with NADCAP approved NDT, X-ray, and HIPping, full material traceability from melt to delivery, and CNC machining. In line with customer requirements, Maybrey does not name aerospace or defence clients in public communications; capability evidence and reference documentation are available under NDA on request.

Architectural and Heritage

Complex iron, aluminium, and copper-based alloy castings for landmark restoration, new build, and heritage projects, working from CAD, drawings, samples, or photographs. Maybrey's reverse engineering capability, using 3D scanning and spectrometric analysis, is particularly valued by architectural and heritage customers reproducing existing ironwork or fittings from a surviving piece.

Art Foundry

Intricate bespoke castings for artists, sculptors, and designers, principally in silicon bronze, aluminium, and iron. 3D printed sand mould technology provides the design freedom to realise complex, low volume work that conventional pattern tooling cannot achieve. Single pieces, small editions, and prototypes are a core part of this work, not an exception.

Commercial

Broad material capability and full post-process services make Maybrey a genuine one-stop casting partner across marine, motorsport, rail, utilities, buildings products, and general engineering. Quality systems (ISO 9001:2015) apply across all commercial production, and Maybrey supplies castings to EU customers and further afield.



Sustainability

As part of the Caro Group, Maybrey holds the FNZ Platinum Carbon Net Zero Award, the highest level of the Future Net Zero programme. This reflects net zero emissions achieved ahead of the 2050 target, a 50% reduction in greenhouse gas emissions ahead of the 2030 deadline, and a 42% reduction in total carbon footprint over five years. Maybrey always describes this as Carbon Net Zero, never carbon negative, as a precise and verified claim.

Notable Projects

- Black Renaissance: 52 unique silicon bronze castings for the Freedom Monument Sculpture Park, Alabama, for the Equal Justice Initiative. Winner, Cast Metals Federation Casting of the Year 2024, Component of the Year.
- Mother Verite: London's first public statue of a postpartum woman, unveiled on the steps of the Lindo Wing, St Mary's Hospital, Paddington, for the maternal care brand Frida.
- SG iron lampposts for Regent's Park: three SG iron lampposts, each exceeding four metres, reverse engineered from an original lamppost with no surviving drawings or patterns, produced for the Royal Parks.
- Heritage restoration castings for the Houses of Parliament, Westminster Council, and the National Gallery.

Contact

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