



METAL COMPONENTS

Our comprehensive metallurgical expertise and extensive manufacturing capabilities deliver globally competitive metal component solutions to OEM's and Industrial Clients. Reduce your costs by selecting an alternative manufacturing method or let us quote your existing manufacturing process to compare price.

**“ OUR MISSION IS TO KEEP LOCAL
OEMS GLOBALLY COMPETITIVE ”**

Our team of Metallurgists and Engineers will work closely with you to ensure we understand your requirements and meet your needs.

We understand that sending us your designs and concepts requires an assurance of confidentiality. We are committed to protecting your intellectual property and happy to enter into non-disclosure agreements.

MANUFACTURING CAPABILITIES

- Casting
- Forging
- Machining (5 Axis)
- Grinding
- Welding & Fabrication
- Heat Treatment and Surface Engineering
- Hydraulic Cylinders and Valve Blocks
- Hard Chrome Bars

TESTING & VERIFICATION

- Mechanical Test Lab
- Metal Chemistry
- Metallographic and Heat Treatment Lab
- Non-Destructive Testing (NDT)
- Dimensional Verification – Metrology

MANUFACTURING CAPABILITIES

Casting

We offer a range of casting methods and produce castings ranging from a few grammes to several tonnes

- Investment Casting
- Hard Sand

Materials include:

- Carbon Steel
- Alloy Steel
- Stainless Steel
- Hadfield Manganese Steel
- NiHard
- NiResist

Forging

- Closed Die steel forging from 0.5 to 70Kg (1 to 155lb)

Machining

- Milling & Turning
- Speciality Shaft Manufacture
- Gear Cutting
- Thread Rolling

Grinding

- Surface
- Centreless – External and Internal Diameters

Welding and Fabrication

- Laser Cutting
- Plasma Cutting
- Bending
- Certified Welding
- Up to 25mm Plate (1")

Electrical Discharge Machining (EDM)

- Die-Sink EDM
- Wire Cut EDM

Hydraulic Cylinders and Valve Blocks

- Single Acting Linear Cylinders
- Double Acting Linear Cylinders
- Hydraulic Valve blocks

Hard Chrome Bar

- Induction Hardened Chrome Plated Bars
- Chrome Plated bars
- ISO f7 tolerance
- Maximum Length - 6000 mm

Heat Treatment

Full Heat treatment capability including:

- Vacuum Furnace
- Anneal, Normalise, Homogenise
- Harden and Temper
- Case Hardening
- Nitriding

Surface Engineering

- Phosphate Coatings
- Zinc
- Chrome
- Nickel
- Painting and Powder Coating

TESTING & VERIFICATION

Malabou's global infrastructure includes in-house Inspection Testing and Verification.

Mechanical Test Lab

- Tensile (400kN)
- Compression
- Bend
- Impact

Metal Chemistry Spectrograph

- Ferrous (Steel, Cast Iron, Tool Steel, Stainless Steel)
- Copper Base (Copper, Brass, Bronze)
- Aluminium

Metallographic and Heat Treatment Lab

- Microscope Analysis
- Micrographs
- Micro Hardness

Non-Destructive Testing

- Die Penetrant
- Macro Hardness
- Radiography
- Ultrasonic
- Magnetic Particle

Geometric Verification

- Co-Ordinate Measuring Machine

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