



Do you procure complex machined parts or parts from difficult to machine materials? Want to reduce costs, lead-times & environmental impact whilst maintaining quality & performance? CMG Technologies' MIM process could be your answer.

Metal Injection Moulding (MIM) is a manufacturing process that involves manipulating metal powders to behave like a plastic by mixing them with polymer binders, offering customers a huge number of benefits including:



### Reduced Costs



Intricate and complex components that have previously been difficult or costly to produce through traditional manufacturing methods can be achieved at significantly reduced prices. CMG's MIM process only uses the metal required to manufacture the component to a 'net shape' – eliminating all costs associated with collecting and recycling left over scrap metal.

### Value Added Design



MIM allows detailed features such as serrations, internal and external threads, text and graphical symbols to be moulded into the part - removing the need for expensive secondary operations. Separate parts can also be combined into one complex component reducing assembly costs and yield issues.

### Weight Saving



MIM parts can be cored out or even hollowed out, therefore reducing the overall weight of the part. Lightweight materials such as Titanium can also be used with MIM.

### Materials



CMG is able to use MIM to produce components from a vast range of materials – the most common metals are Stainless Steels, Low Alloy Steel and Nickel Iron, but our capabilities also range from Titanium and Copper, to Hastelloy, Inconel and Precious Metals. Our in-house expertise offers endless opportunities and we are constantly developing new materials to meet our customers' specific requirements.

### Quality



CMG's MIM parts offer dimensional repeatability and are accurate to +/- 0.5% of a dimension. Surface finishes of between 0.4-1.6 microns are readily achieved.

### Density and performance



When the MIM process is complete, the density and performance of the parts are comparable with wrought and cast components. The components we produce will be controlled within the range of 95 - 98% dense.

### Volume



MIM is most effective for small, complex components in annual volumes of 1000 or more (although if the part is particularly complex and expensive MIM could still be cost effective for volumes of 500 or more)

### Lead times



CMG facilitates the entire MIM process in-house, enabling significantly reduced lead times when compared to manufacturing using more than one contractor

### Environmental impact



MIM is recognised as a 'green technology' as it only uses the exact quantity of metal required to create the finished products.

A number of World leading companies are recognising the many advantages of using Metal Injection Moulding (MIM) for manufacturing intricate and complex components.



Visit [www.cmgtechnologies.co.uk](http://www.cmgtechnologies.co.uk) or contact our sales team by calling **01394 445100** or emailing [sales@cmgtechnologies.co.uk](mailto:sales@cmgtechnologies.co.uk) to find out how your business could benefit from using MIM.



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