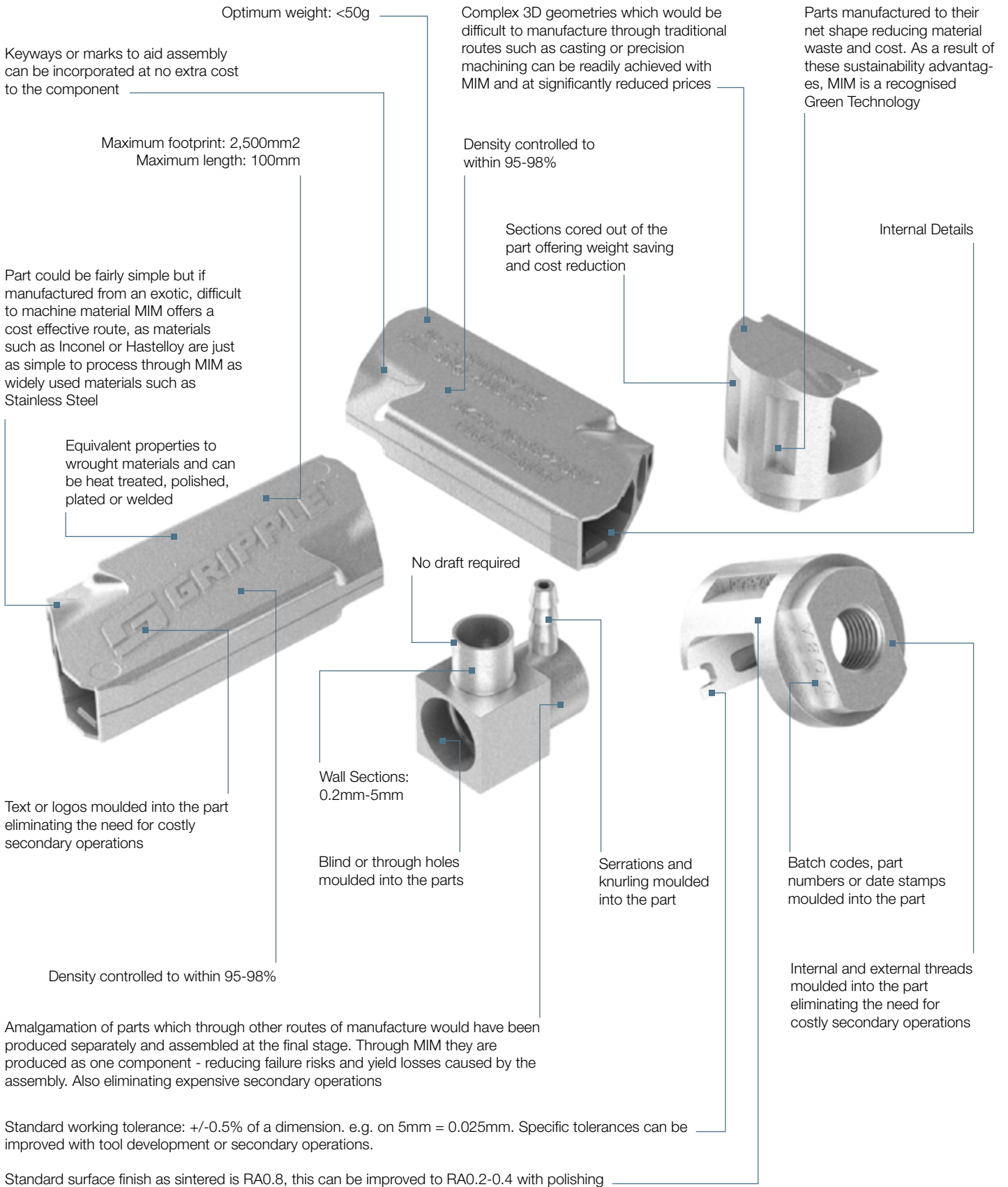


Metal Injection Moulding Design Capabilities



Optimum weight: <50g

Complex 3D geometries which would be difficult to manufacture through traditional routes such as casting or precision machining can be readily achieved with MIM and at significantly reduced prices

Parts manufactured to their net shape reducing material waste and cost. As a result of these sustainability advantages, MIM is a recognised Green Technology

Keyways or marks to aid assembly can be incorporated at no extra cost to the component

Maximum footprint: 2,500mm²
Maximum length: 100mm

Density controlled to within 95-98%

Sections cored out of the part offering weight saving and cost reduction

Internal Details

Part could be fairly simple but if manufactured from an exotic, difficult to machine material MIM offers a cost effective route, as materials such as Inconel or Hastelloy are just as simple to process through MIM as widely used materials such as Stainless Steel

Equivalent properties to wrought materials and can be heat treated, polished, plated or welded

No draft required

Text or logos moulded into the part eliminating the need for costly secondary operations

Wall Sections: 0.2mm-5mm

Blind or through holes moulded into the parts

Serrations and knurling moulded into the part

Batch codes, part numbers or date stamps moulded into the part

Density controlled to within 95-98%

Internal and external threads moulded into the part eliminating the need for costly secondary operations

Amalgamation of parts which through other routes of manufacture would have been produced separately and assembled at the final stage. Through MIM they are produced as one component - reducing failure risks and yield losses caused by the assembly. Also eliminating expensive secondary operations

Standard working tolerance: +/-0.5% of a dimension. e.g. on 5mm = 0.025mm. Specific tolerances can be improved with tool development or secondary operations.

Standard surface finish as sintered is RA0.8, this can be improved to RA0.2-0.4 with polishing

CMG's expertise

CMG Technologies is an internationally renowned specialist in MIM, providing injection moulded components to the medical, aerospace, automotive and industrial sectors for over 14 years.

Our expert team of senior engineers have over 25 years' experience in industry and are able to facilitate the entire MIM process in house - from tool design and build, to compounding the feedstock, through to the final sintering stage. This tight control at all stages ensures components are produced to a consistent quality and in line with the full accreditation ISO9001:2008.