



GKN MIM APPLICATIONS

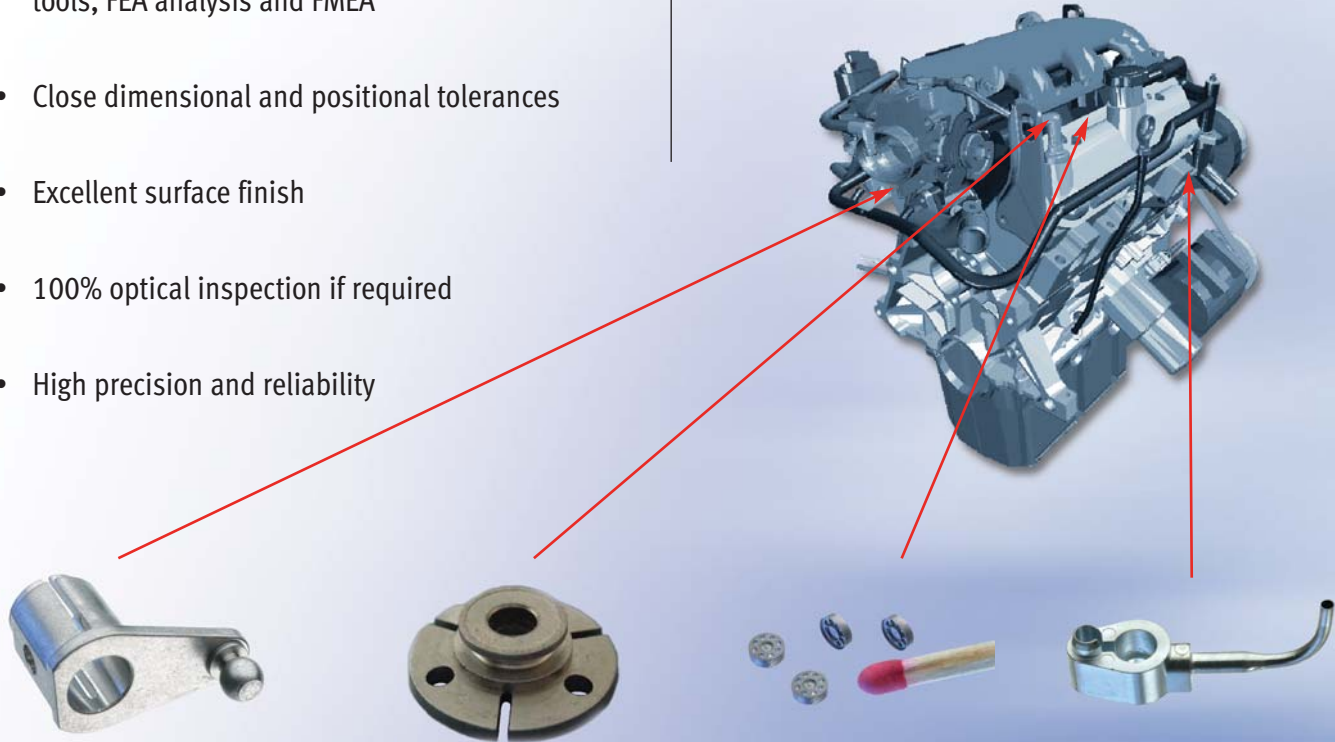
Prod. Group No. 2320



Engine Components

- Support of component design using the full potential of MIM technology
- Technical support helping customers with the development of new products. This includes methods such as feasibility studies, simulation tools, FEA analysis and FMEA
- Close dimensional and positional tolerances
- Excellent surface finish
- 100% optical inspection if required
- High precision and reliability

Valves
Nozzles
Levers

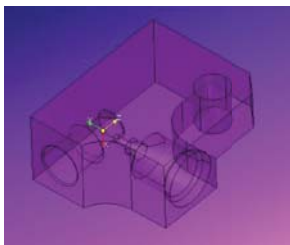


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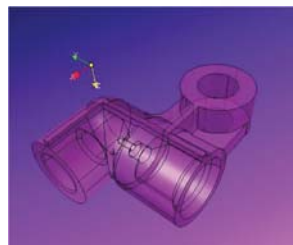
MIM Components for Engines

- Reproduceable as-moulded geometries
- 3-D complexity
- Isotropic small-grained microstructure
- Closed porosity - absolutely gas tight
- Soft magnetic materials available
- High component strength and hardness is cost effectively achieved using MIM technology
- Verification of component design using FEA analysis, simulation tools, prototype manufacture and FMEA
- Conversion from machining to MIM reducing weight and costs

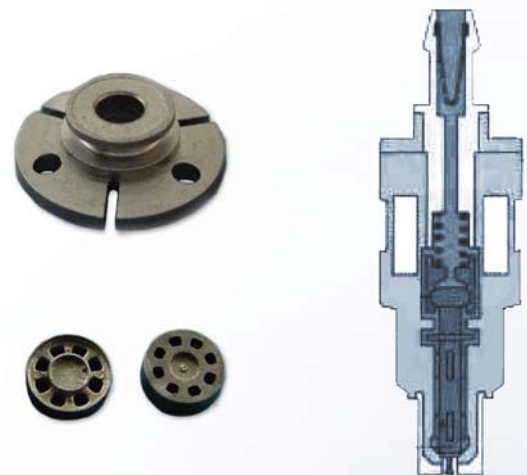
Machined component



MIM component



Injection components



Piston cooling nozzle

