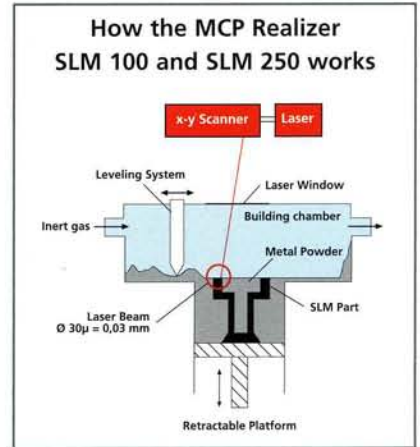


## A new world-class generative process developed for direct product realisation with **Selective Laser Melting**.

Applications include sheet metal press tools, pressure die casting tools, injection moulds and finite metal parts. Even high quality metal parts such as components for medical implants can be produced to exact details.

### The advantages of the MCP SLM Realizer Technology:

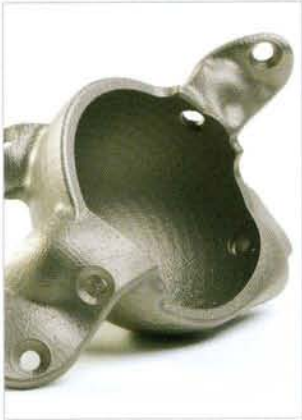
- Builds high quality parts and tooling inserts from almost any type of metal: Stainless steel (tool steel), titanium, cobalt-chrome, various nonferrous-metals and, if required specially designed HQ-Powders.
- Homogeneous build up of components and tool cavities up to 100% density depending on requirements.
- Fast and low cost because no post processing such as heat treatment or infiltration.
- Same day process: produce the component (insert, press or mould part) literally within hours. Fully automatic building process – parts overnight.
- Produces tools and inserts with internal undercuts and channels for conformal cooling.
- High resolution process, dimensional accurate, low heat generation, no distortion.
- Quick building process – 7.000 mm<sup>3</sup> dense steel per hour on average.



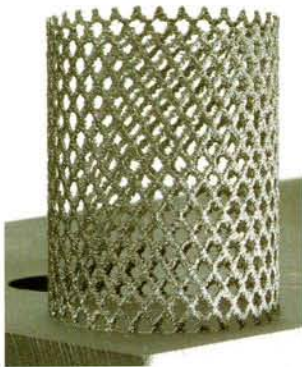
## SLM Examples



Tooling made from stainless steel (316 L) or Tool Steel (H13) for heavy gauge sheet metal formings. 3000 parts with 3 mm thickness without visible wear.



Individually generated medical implants, dental bridges and crowns. Material: Cobalt chrome CoCr (right) with material properties better and more durable than castings. Acetabular cup (left). Material: Titanium (Ti6Al7Nb).



Light weight and lattice constructions. Material: Titanium (TiAl6V4). These applications and prospects are seen in the areas of medical implants, aircraft and the automotive industry.



Injection mould insert in dense tool H13 (right). The built-in conformal cooling channels reduce cycle times.

SLM (Selective Laser Melting) is a registered Trademark of F & S GmbH.

