

# Mineral Casting – Excellent Damping Properties and Outstanding Ecological Credentials

RAMPF Machine Systems at the German Mechanical Engineering Summit 2019 in Berlin on October 15 & 16

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**Wangen (Göppingen), September 23, 2019. RAMPF Machine Systems is presenting the excellent damping properties and outstanding ecological credentials of its EPUMENT<sup>®</sup> mineral casting at the German Mechanical Engineering Summit in Berlin on October 15 & 16.**

When the creative minds of German mechanical engineering come together, EPUMENT<sup>®</sup> mineral casting for machine beds and machine bed components is set to play a prominent role. The high-tech material developed and produced by RAMPF Machine Systems exhibits significantly better damping properties compared to gray cast iron and welded constructions, which ensures the machine bed structure has greater dynamic stability in ultrafast and high-precision production machinery.

Further benefits of EPUMENT mineral casting:

- > Low thermal conductivity, ensuring high thermal stability
- > High isotropy and homogeneity prevent load-related deformation of machine beds
- > High media resistance
- > Lower machine cover/cladding costs thanks to surface and design functionality

### **Resource-efficient manufacture & environmentally friendly disposal**

The eco-balance of industrial production processes and thus the issues of energy consumption and recycling are becoming increasingly important. With its resource-efficient production and environmentally friendly disposal and recycling, EPUMENT<sup>®</sup> mineral casting makes a significant contribution to the environmentally friendly production of machinery and production technology.

It is cold cast in molds made from wood, steel, or plastic. As a result, up to 30 percent less primary energy is used in its manufacture compared to other materials. The casting process as such is almost free of CO<sub>2</sub> emissions.

Over 90 percent of EPUMENT<sup>®</sup> mineral casting consists of naturally occurring minerals and stones, and a binding agent based on epoxy resin. This high proportion of minerals and the environmentally friendly resin compound mean that the material can be disposed of in the same way as normal construction waste.

Thomas Altmann, CEO of RAMPF Machine Systems – “The sustainability of production processes is increasingly coming to the fore. With EPUMENT<sup>®</sup> mineral casting, we have a material that meets both

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the requirements of highly dynamic production technology and achieves top performances from an ecological point of view. We look forward to exciting discussions at the German Mechanical Engineering Summit.”



Another benefit of EPUMENT mineral casting is the high production efficiency. With RAMPF’s cutting-edge molding technology, a flatness and straightness of 0.02 millimeters are achieved over a replication length of four meters. Accuracies in the hundredths of a millimeter range could previously only be reliably achieved with molding lengths up to 2.5 meters.

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**RAMPF Machine Systems GmbH & Co. KG**, based in Wangen (Göppingen), Germany, is the leading supplier and development partner for system solutions, trunk machines, and basic machines, as well as multi-axis positioning and moving systems based on high-precision machine beds and machine bed components made from alternative materials.

The portfolio of high-performance materials includes mineral casting, ultra-high performance concrete (UHPC), natural hard stone, metal foam, and fiber composites. These materials provide a solid basis for ultra-precise and high-performance machine beds and machine bed assemblies.

The full range of services provided by the company includes everything from engineering to production, as well as assembly, system solutions, customer-specific multi-axis positioning and moving systems, and basic machines – from single-piece to series production in customized supply chain solutions.

Using innovative casting, grinding, and lapping processes, as well as high-performance assembly and testing equipment in temperature-controlled production environments, exceptional accuracy of machine bases and basic machines is guaranteed.

RAMPF Machine Systems is a company of the international **RAMPF Group** based in Grafenberg, Germany.

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