Press Release

EPUMENT® Mineral Casting – Maximum Vibration Damping For Maximum Dynamic Stability

RAMPF presents high-performance material for the manufacture of machine beds and structural components at IMTS 2022 – Booth 236618 / North Building Level 3

Wixom, MI, USA, August 30, 2022. RAMPF Group, Inc. is presenting its EPUMENT® mineral casting technology for the manufacture of high-performance machine beds and structural components at the IMTS trade show from September 12 to 17 – Booth 236618 / North Building Level 3.

RAMPF is the world's leading manufacturer of mineral casting. Its EPUMENT® mineral casting technology is used by major equipment manufacturers in the machine tools, metrology, medical, semiconductor, and 3D printing industries, amongst others.

The key advantage of the epoxy resin-aggregate bonded material over cast iron and steel fabrications is the significantly higher vibration damping, which provides for higher precision and better finishes of machined parts and longer cutting tool life. Comparative measurements of the logarithmic decrement as a damping parameter show that mineral casting has a damping capacity that is eight to ten times greater than metal.

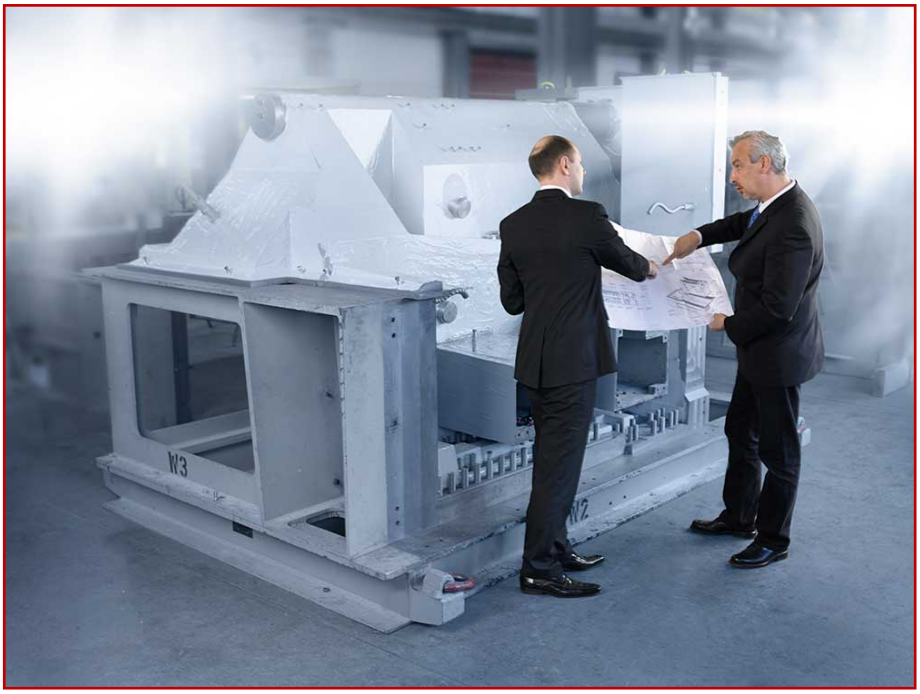
Further benefits of EPUMENT® mineral casting include:

- Thermal stability.
- Design flexibility – castings can be made to varying wall thicknesses.
- Superior chemical and corrosion resistance to most alkalis, oils, and cutting fluids.
- Cost efficient through component integration and casting to finished tolerances.
- Noise reduction.
- Short lead times.

The demand for EPUMENT® mineral casting is also rapidly increasing due to its resource-efficient manufacturing and environmentally-friendly disposal and recycling:

- The mineral casting is cold cast in molds made from wood, steel, or plastic, with the manufacturing process requiring up to 75 percent less energy than metallic castings.
- The high casting precision, combined with RAMPF's groundbreaking in-house replication technology, eliminates the need for external processes and reduces/avoids the use of processing machinery; CO_2 emissions are roughly 50 percent lower when precision surfaces are replicated rather than milled.
- Mineral castings are near 100 percent recyclable, they can be reused or disposed of similarly to normal construction materials.

Panos Angelopoulos, Division Manager Machine Systems at RAMPF Group, Inc. – “We are a global, full-service solution provider for the development and manufacture of highly sophisticated custom machine beds and components. Our high-precision products are manufactured via 3D CAD systems with cutting-edge replication, grinding, and lapping processes in a temperature-controlled environment. Our service offering encompasses material-specific design and engineering, FEM modeling, and the design of casting molds, replication gauges, and fixtures. RAMPF is the only mineral casting producer with production facilities on three continents. We look forward to presenting the enormous technical advantages, cost benefits, and outstanding green credentials of EPUMENT® mineral casting at IMTS 2022.”



Leading mechanical engineering companies across the globe use EPUMENT® mineral casting for constructing machine beds and components such as columns, gantries, and traverses. Mineral casting offers a unique variety of designs and is tailored to meet the individual requirements of customers.

www.rampf-group.com/en-us/

RAMPF Group, Inc., based in Wixom, Michigan, USA, is a market-leading specialist for

> Mixing & dispensing systems for the reliable processing of polymers
> Two-component polymer systems based on polyurethane, epoxy, and silicone
> Modeling and mold engineering materials, in particular for the automotive, marine, and aviation industries
> Machine bases, machine frames, and other structural components made from mineral casting (polymer concrete)

RAMPF Group, Inc., is a company of the international RAMPF Group based in Grafenberg, Germany.

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