

Media Release

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System 3R Tooling enhances machining operations with universal compatibility

System 3R Tooling, compatible with all OEM machine brands and models, effectively eliminates machine-to-machine setup time and allows for complete exploitation of manufacturing resources.

With neutral and open architecture designs, System 3R Tooling provides universal compatibility that extends to all manufacturing processes, so workpieces move from one machine to the next in single setups and without having to relocate and re-reference them. This stable and exact reference functionality also allows operators to preset parts outside of the machine. This enables minimized downtime and reduced stacked tolerances typically associated with repeated part locating and referencing.

System 3R's concept lets users establish fixed references for all machines in the workshop by defining each workpiece's zero point once and for all. This system converts internal setup time to external setup time, allowing machines to keep working uninterrupted as opposed to sitting idle waiting for job setup. System 3R Tooling solutions can be used for any manufacturing process from electrode manufacturing for die-sinking EDM to wire-cutting EDM, Additive Manufacturing and conventional milling.

The System 3R solution portfolio includes the Macro line of workholding chucks and the Dynafix palletization system. The Macro line chucks are available in Standard, High Performance and Nano accuracy ratings, along with the MacroMagnum chuck variant. They feature precise reference elements made from cemented carbide or hardened ground steel that reduce setup times to a few minutes, maximize throughput and practically eliminate rejects.

Repetition accuracy for the Macro reference system ranges from 0.002 to 0.001 mm with a recommended maximum workpiece weight of 50 kg. This reference system is then combined with palletization, which provides incredible accuracy as parts move from machine to machine and process to process for fully automated workholding.

System 3R Dynafix palletization permits machining with optimal cutting data without sacrificing accuracy and quality through the use of convenient aluminum pallets with high-alloy steel reference elements and directly measurable Z-references. Dynafix is a practical, user-friendly reference system that minimizes setup times, increases machine capacity and provides the basis for automated production.

System 3R provides fast and precise pallet changing in sizes from 25 mm in diameter to 400 x 400 square mm with the same basic mounting base – manually or automatically. For extreme precision, the system ensures repeatability to within 0.002 mm. When using

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the system's chuck adaptors, manufacturers gain access to practically every reference system in System 3R's extensive product range.



For higher flexibility and productivity, Dynafix tooling can be shared between die-sinking EDM, milling and laser machines in the same automated cell.

More information:

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About System 3R

System 3R is the leading supplier of productivity-enhancing tools and knowledge for the manufacturing industry, delivering complete solutions and services to world-class Electrical Discharge Machining (EDM), Laser texturing, Additive Manufacturing and Milling machines with tooling, automation and software systems backed with unrivalled customer service and support.

Profile of GF Machining Solutions

GF Machining Solutions is one of the world's leading providers of complete solutions for precision components and tools manufacturers and the mold-making industry. The portfolio includes milling, EDM, laser texturing, laser micromachining, and additive manufacturing machines. Additionally, the division offers spindles, automation, tooling, and digitalized solutions backed by unrivaled customer services and support. With its solutions, the division advances energy-efficient and clean manufacturing. GF Machining Solutions is a globally acting Division of the Georg Fischer Group (Switzerland) and maintains a presence at 50 locations worldwide. Its 3,282 employees generated sales of CHF 873 million in 2021. More information can be found at www.gfms.com.

