**FIT 2 PART – the workpiece is the yardstick**

**Over 700 employees, 3 production locations in Germany, experience and innovative strength: with over 140 years of tradition in Germany, the SAMAG GROUP is today an internationally active solutions provider and an innovative development partner and offers not only powerful machine tools, but also series production for innovative vehicle parts. New in the traditional company's versatile product range: the machines from the new MFZ series, which celebrated their premiere at the AMB 2016 in Stuttgart.**

**At SAMAG the workpiece defines the machine. With the concept "FIT 2 PART", the modular construction kit of the multi-spindle horizontal machining center has been developed consistently from the point of view of the workpiece to be machined. Consequently, attention was focused on flexibility. For that reason the X, Y and Z axes of the 2-spindle machine, for instance, can be corrected independently of one another.**

SAMAG has designed the modular construction kit for the new MFZ generation consistently from the point of view of the workpieces to be machined. With four sizes and two types of drive, the multi-spindle machining centers offer options both for the high-speed machining of light metals and the heavy-duty cutting of steel and cast iron workpieces. The number of spindles, the variable distance between them and the extendable tool magazine in a modular design with its variety of versions allow the machining of the most diverse workpiece dimensions and capacities.

The new MFZ generation continues the tradition of proven multi-spindle machining centers from SAMAG and at the same offers numerous innovations. All models will be available in future with a choice of linear or ball screw drive and up to four working spindles. Like the preceding models, 5-axis simultaneous machining is possible through the A/B axis combination. The W axis principle established in 1995 by SAMAG enables workpiece feed during primary processing time. The numerous newly developed special features benefit customers by providing for a noticeable increase in productivity as well as maximum flexibility and highest precision.

Particularly worthy of note here are the X-Y-Z axes of the 2-spindle machining centers, which can be moved and corrected independently of one another. This stereo 3D setup guarantees maximum precision with tight tolerances.

**Rock-solid design**

The rock-solid machine bed of the multi-spindler, which is filled with the composite material Hydropol®, is particularly thermally stable and impresses with its outstanding cushioning behavior – the basic requirements for long machine and tool service life as well as excellent machining accuracy. Its closed FEM-optimized construction (Single Frame Construction) provides for an excellent power flow and also remains dimensionally stable even with the most difficult machining tasks.

**Structural modifications to the 3D unit**

Numerous structural innovations and the modular design of the new MFZ series provide for higher machining performance and allow a larger diversity of models. A decisive innovation in the structure of the new machines is the relocation of the moving masses to the horizontal motion axis – the Zero Gravity Drive. This kinematic concept has enabled the total drive power for the main axes to be reduced. The connection of the carriage at the top and bottom provides additional stability and increases precision.

Moreover, the spindles in the 2-spindle version of the new series can be corrected in all three axes independently of one another. This gives the user numerous advantages: highest precision for critical tolerances enables the finish machining of complex components. In addition, this construction increases the range of usable tools and makes it possible to machine workpieces that could previously only be machined on single-spindle machines.

**Modular construction kit for ultimate flexibility**

SAMAG has developed the modular construction kit for the new series consistently from the point of view of the workpieces to be machined. With four sizes, two drives – linear and ball screw drives for all machines – and the design with 2, 3 and 4 spindles it offers options both for the high-speed machining of light metals and the heavy-duty machining of steel and cast iron workpieces. The number of spindles, the distance between them and the extendable tool magazine in a modular design allow the machining of the most diverse workpiece dimensions and capacities. In addition, the modular design allows a choice between machining with emulsion, minimum quantity lubrication and dry machining.

**Ergonomics, maintenance and design – easy entry architecture**

The machines from the new MFZ series are characterized by much improved ergonomics. No platform is necessary for the workpiece feeding or the operating area. Sliding doors dominate the access concept in the machine and allow very comfortable, free access to the working area, machine room and hydraulic unit, thus significantly facilitating service and maintenance. A folding control unit additionally saves space.

**Energy-efficient and environmentally friendly**

The movement of the largest masses in the X-axis requires less drive power and thus lowers the energy requirement without compromising on the dynamics. Moreover, energy-saving software and hardware features such as the sleep mode of units or frequency-controlled pumps, reduced compressed air consumption and the use of return modules for power and heat contribute to the particularly high energy efficiency of the new multi-spindlers. Also worthy of note is the possibility of dry machining or MQL machining (Minimum Quantity Lubrication), which also preserves resources and the environment.

**Highly productive and unit-cost-optimized – FIT 2 PART**

The variety of versions in the series enables the investment costs to be tailored to the workpiece to be produced. The incomparable productivity of the new multi-spindle horizontal machining centers results from the high dynamics of the machining processes with reduced machining and idle times as well as lower tool costs and shorter change-over times thanks to the improved cushioning behavior of the main machine components and, last but not least, the correction possibilities in the two-spindler.

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New: modular construction kit for multi-spindle machining centers

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SAMAG presents its new MFZ generation at the AMB 2016 in Stuttgart. Numerous innovations lead to maximum precision and a noticeable increase in productivity. Find out more…

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