

NEW: Robotic spindles and hand-operated tools with quick-change system from BIAX

BIAX, a specialist in industrial deburring solutions, presents a range of new pneumatic, robotic spindles and hand-held grinders complete with an innovative quick-change system. Manufactured to an excellent standard of quality, the system allows tools to be changed regardless of working position thanks to a built-in coupling, into which the quick-change tool holder engages and can be removed again by pushing back the coupling sleeve. The machine does not have to be moved to a specific working position in order to do this.

The tool holder is also fitted with an ER collet available in a number of different dimensions. There is a small unit with up to 7 mm clamping diameter, and a large one for up to 10 mm. The system is ideal for brushing applications on powerful, low-speed machines operating at 5000–12,000 rpm. However, it can also be used with other tools on machines that operate faster than this, i.e. up to 20,000 rpm.

Robot applications

With robotic spindles, tool changing is performed using a special changing device which automatically pushes back the coupling sleeve. The spindle can be used while installed on a stationary unit or on the robot itself. These characteristics make it an interesting system for brushing applications.

The automatic tool-changing system can reduce downtime, since there is no longer a need to program a stop in operation for a manual tool change. This allows the system to be operated unattended for significantly longer, which is an incredible advantage especially for applications involving relatively short change intervals. If a component needs to be machined using different tools, it may be sufficient to stick with a single spindle. In any case, the quick-change system offers a great deal of flexibility when using different tools.

The quick-change system can also be combined with an axial compliance which yields in axial direction when used with front-facing tools such as cup brushes. Without the axial displacement, automated brushing applications would in most cases be impossible. They ensure that the brush is always pressed onto the component with the same pressure, even as the brush starts to wear. This way, you can get the most out of your tools and ensure consistent machining and surface results across a number of components. What's more, you can spend less time adjusting procedures at the programming level, and the axial compliance from BIAX is available with varying pressing forces from 5 N to 20 N.

Hand-operated tool applications

Even some BIAX pneumatic grinders and hand pieces from machines with flexible shafts can be fitted with the quick-change system. In addition to saving time changing tools, customers also benefit in terms of procurement costs, since they can avoid having to invest in multiple different machines and can instead work efficiently with just one.

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**SW Station – Changing station for tool holders
(for automated deburring)**



SW ER11 and. SW ER16 – Tool holding inserts



R 4105 – Robotic spindle with quick change system



SRH 10-12/2 SW – Pneumatic handgrinder with quick change system

