



The Future of Stationary Workholding in Manufacturing

AS THE WORLD LEADER in the design and manufacturing of rotational chucks, stationary workholding, tooling, and custom engineered solutions for the machine tool industry, SMW Autoblok products deliver compact designs using hardened components for high-precision and long life. Stationary workholding devices provide locating and clamping capabilities for a variety of machine tool solutions. Combined with the company's automation and electronic components that monitor a part's position during machining, users get a comprehensive solution that enhances their efficiency and precision—revolutionizing production processes using the latest in automation.

Key tools that have benefited from the company's innovations include the PLUS5 system that locks/unlocks pins with only a 180° rotation. The PLUS5 is a manual quick-clamping system used to change out different-sized vises and custom fixtures. PLUS5 can be used in three-, four-, and five-axis milling machines. This device interfaces with all industry-standard products and provides uniform, omni-directional clamping through a vectorial force transmission system that binds (clamps) the pins uniformly and in all directions—and does not require a torque wrench. Each device comes with SMW



SMW Autoblok PLUS5 V5 system.

Autoblok's SinterGrip clamping inserts to minimize workpiece clamping depth without pre-machining and eliminate pre-ops. Pull-down force is 7 kN for PLUS5 52 and 8 kN for PLUS5 96; holding force is 40 kN for PLUS5 52 and 80 kN for PLUS5 96; and repeatability is <0.005 mm. Incorporating three clamping slides, the company's APS system is fully sealed (prooffline) and provides high clamping forces and rigidity using three clamping pins. APS is a pneumatic, quick-clamping, zero-point system used to exchange a variety of vises, tombstone, chucks, special fixtures, and more. Through its uniquely compact design, the APS provides a low installation height while also delivering high process reliability and a repeat accuracy of <0.005 mm. The APS is a modular

construction kit system that can be engineered for different types of CNC equipment.

With high clamping forces of up to 32 kN (50 Nm), the V5 is a self-centering vise for five-axis machines, that has all the features of the IMG with no self-centering and offers a fully sealed spindle. The V5 incorporates the company's SinterGrip inserts and jaw clamping technology. The device offers a compact design for better accessibility and very large drainage slots. Ideal for OP 10 and OP 20 operations, the V5 vise offers a wide clamping range for a variety of applications.

For use in industrial automation applications, SMW Autoblok has designed and manufactured their IMG 3-in-1 vise with a fully sealed lead screw. These self-centering vises are available with



SMW Autoblok IMG 3-in-1 vise.

or without SinterGrip inserts and jaw clamping technology depending on the application requirements. The IMG offers reversible jaws for minimum clamping depth, and a wide clamping range for maximum flexibility. The IMG device can easily be transformed into a self-centering, double clamping, or fixed jaw device. With high clamping forces, the IMG, in addition to the V5, is ideal for OP 10 and OP 20 operations. Both the IMG and the V5 interface with many different Zero Point systems, including PLUS5, APS, Zero Act, WPS and TDM, as well as industry systems. Each device comes with SMW Autoblok's SinterGrip clamping inserts to minimize workpiece clamping depth without pre-machining and eliminating pre-ops.

SMW Autoblok has continued to lead the machine tool/metalworking industry with tools for the latest developments in automation and the increased incorporation of Industry 4.0 and machine tending. An available catalog, specifically for the company's 5-Axis Workholding devices, includes multiple innovative solutions with detailed illustrations, design drawings, specifications, and many accessory products. ➡

Find out more about SMW Autoblok's modern clamping solutions and commitment to providing repeatable, flexible solutions that meet or exceed customer expectations at smwautoblok.com.