

Mazak sparks CNC revolution with new SMOOTH TECHNOLOGY

Yamazaki Mazak is set to revolutionise the world of CNC and deliver a step-change in machine control and performance with the launch of its SMOOTH TECHNOLOGY.

SMOOTH TECHNOLOGY incorporates the new MAZATROL SMOOTHX CNC alongside new machine hardware and servo systems to deliver an improved operator experience, faster machining times and further integrate CNC into the overall factory management system. The result is a breakthrough in CNC which uses intuitive operations in a similar manner to smartphones and tablets.



As with all Mazak technology, the new SMOOTHX is designed with ergonomic comfort for the operator front of mind. The operating panel boasts a 19 inch touch screen yet is 36% smaller than its predecessor and can be rotated to suit the posture of the operator.

The launch of SMOOTHX also marks a major leap forward in usability with the development of the new Smooth Graphical User Interface (GUI), designed in conjunction with the world famous industrial designer Ken Okuyama. It features five new process home screens that present critical data in a single page view, whilst simplifying the key operational stages: from part programming, management of tool data and set-up, through to the actual machining cycle and machine maintenance.

The new Quick MAZATROL interface for SMOOTHX dramatically reduces the process time and number of keystrokes required to enter a conversation program by 38% compared to its

predecessor. This is achieved by the use of touch screen technology and real-time processing of the 3D part shape in simultaneous view as the program is compiled.

Editing is made simple by touching the displayed 3D part to reach the feature in the program. SMOOTHX also features a new 3D assist function to enable the import of 3D CAD to the CNC, further reducing programming time.

MAZATROL SMOOTHX also features a range of new MAZATROL programming functions such as Intelligent Pocket Milling which can reduce machining time by up to 60% compared to conventional offset tool paths. Fine increment programs such as simultaneous 5-axis machining and free-form die-mold machining also benefit from new functions such as Seamless Corner Control; Variable Acceleration Control; and Smooth Machining Control, to reduce cycle times.

Crucially, SMOOTHX is capable of ultra-fast processing speeds up to four times faster than its predecessor, enabling it to respond to the demands of the latest generation of servo motors employed.

The SMOOTHX can also play a key role in factory management operations through its ability to manage data and production systems on one platform and with an open interface, enabling automation equipment to be connected and managed from the CNC.

Marcus Burton, European Group Managing Director for Yamazaki Mazak, commented: "SMOOTHX is a revolution in CNC, going beyond merely using a touch screen to reduce programming times, by delivering a step-change capable of dramatic improvements in overall machine performance."

He continued: "SMOOTHX marks a leap in technology equivalent to the jump from desktop to tablet computing with all the associated benefits, from user interface via the touch screen, through to the integration of new intelligent control technologies, component visualisation and factory connectivity."

Mr Burton concluded: "Yamazaki Mazak has a long history of delivering cutting-edge CNC solutions. We believe our latest control to be the world's fastest CNC and an unprecedented breakthrough in the use of smart technology to aid programming, machine performance and connectivity."