New 5-Axis Auto Tuning System Replaces Manual Process for Maintaining Motion Accuracy in CNC Machines

The Auto Tuning option for Okuma 5-axis machines reduces tuning time from five hours to 10 minutes and maintains higher machining accuracy. Auto Tuning is the fourth in Okuma’s “Intelligent Technologies” suite of performance-enhancing functionalities.

Charlotte, N.C. (PRWEB) August 21, 2013 -- Okuma America Corporation, a world leader in CNC machine tool manufacturing, introduces the 5-axis Auto-Tuning System, which replaces the manual tuning process typically used to maintain motion accuracy in the CNC machining process. Manual tuning, a typical practice in many machine shops, can take five hours or more to perform, resulting in costly downtime. The 5-Axis Auto Tuning System performs measurements and compensation in real-time and allows for adjustments to be made in 10 minutes, minimizing downtime and enabling higher levels of accuracy. Auto Tuning is currently available as an option on a variety of new Okuma 5-axis machines, including the MU-V series, and is the fourth addition to Okuma’s “Intelligent Technologies” suite of performance-enhancing functionalities.

Combating General Wear and Tear in 5-Axis Machines
When machining with a 5-axis CNC machine tool, it’s common for kinematic errors to affect the quality of the finished part. Commissioning and general wear and tear can take a toll on the kinematic chain and result in potential quality issues. Machines also come out of level over time, and even the smallest bumps can cause geometric errors. When these issues arise, it’s common for machine operators to perform an on-site kinematic tuning to compensate for geometric errors. Done manually, this is a painstaking process involving complex mathematical calculations and manual data entry, and is prone to some degree of human error. These tasks can take up to five hours or more, and require an experienced technician.

Reduce Tuning Time from 5 Hours to 10 Minutes
With Okuma’s 5-axis Auto Tuning System these adjustments can be performed in approximately 10 minutes, depending on machine size. In addition to time savings, 5-axis Auto Tuning System does not require a high-level of skill to operate. 5-axis Auto Tuning System measures the machine and automatically compensates up to 13 geometric errors, including volumetric accuracy. This gives the end-user the ability to check and correct the machine anytime they need to, ensuring accuracy and productivity, and minimizing downtime.

For more information on 5-axis Auto-Tuning or the other Intelligent Technologies, visit www.okuma.com/intelligent-technology.

About Okuma America Corporation
Okuma America Corporation is the U.S.-based sales and service affiliate of Okuma Corporation, a world leader in CNC (computer numeric control) machine tools, founded in 1898 in Nagoya, Japan. The company is the industry’s only single-source provider, with the CNC machine, drive, motors, encoders, spindle and CNC control all manufactured by Okuma. Okuma’s innovative and reliable technology, paired with comprehensive, localized service protection, allows users to run continuously with confidence – maximizing profitability. Along with its industry-leading distribution network (largest in the Americas), and Partners in THINC®, Okuma facilitates quality, productivity and efficiency, empowering the customer and enabling competitive advantage in today’s demanding manufacturing environment. For more information, visit www.okuma.com or follow us on Facebook or Twitter @OkumaAmerica.
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