

Mitsubishi Electric Develops Cutting Tool Position-control Method for Machine Tools

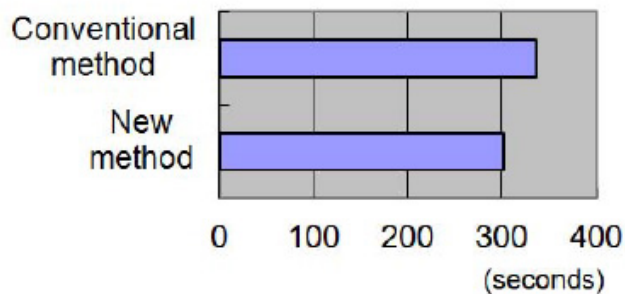
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Facilitates high-speed, high-accuracy machining of complex geometries

Mitsubishi Electric Corporation (TOKYO: 6503) announced today it has developed an advanced numerical-control method for compensating tool position error in predicted target tool paths. In five-axis machining tests, Mitsubishi Electric verified that the new method reduces machining time by 10.4% for improved productivity in machining complex geometries.



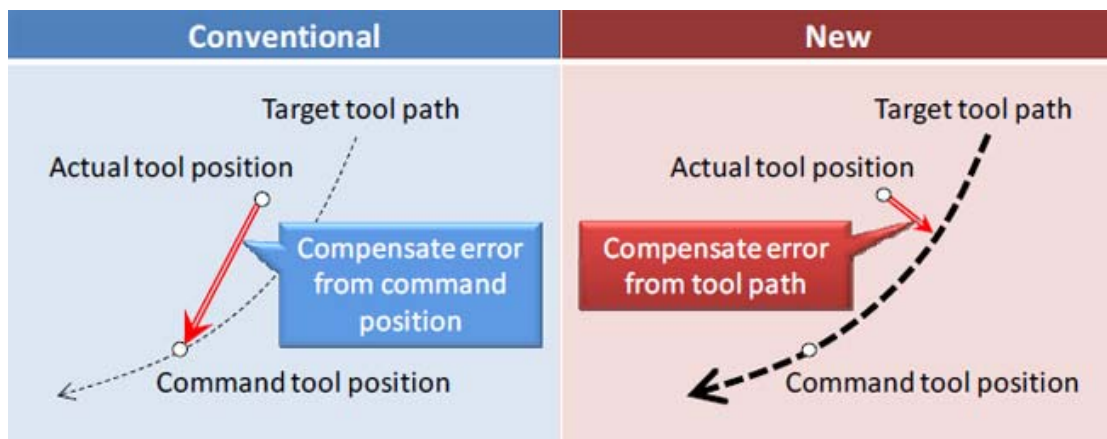
Item produced in test



Comparison of machining times

A computerized numerical controller (CNC) moves a machine tool along a target tool path during cutting. The CNC commands the tool's successive positions on the target path by controlling the motors that move the tool. Errors can occur between the specified and actual positions of the tool, but CNC is used to compensate for such errors. Curved paths require more extensive control of the tool as it moves quickly, which can lead to greater position error due to overcompensation or vibration from the cutting machine.

Mitsubishi Electric's new numerical control method compensates error based on target-path prediction rather than command tool position. The method reduces the amount of compensation required, resulting in less machine vibration and faster machining.



Market demands are increasing for cutting work, so manufacturers are looking for ways to raise productivity through faster cutting. Mitsubishi Electric's new cutting tool position-control method is expected to meet these demands by offering a key solution to the technical challenges that have hindered faster cutting.

Patents

Pending patents for the technology announced in this news release number five in Japan and three abroad.

About Mitsubishi Electric Corporation

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,054.3 billion yen (US\$ 39.3 billion*) in the fiscal year ended March 31, 2014. For more information visit <http://www.MitsubishiElectric.com> *At an exchange rate of 103 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2014