FIELD NOTES

Milling Machines Metaltech Report

PRODUCT: MATSUURA MX520

End User: Camatech Inc.

From the start, Camatech Inc., a supplier to the alternative fuel, general industrial and aerospace markets formed in 2000, knew it would have to invest in top notch machining technology to meet the tight tolerances of parts demanded by its customers.

A steady increase in complex machining work lead to the purchase of two Matsuura five axis machines acquired from Elliott Matsuura in 2010 and in 2011.

The Acton, ON, manufacturing business operates out of a 13,000 sq ft facility which houses a Zeiss CMM and 15 CNC machines, including lathes from Colchester Storm, turning centres from Mazak, a tapping centre from Brother, a multi-axis machining centre from Nakamura-Tome, machining centres from Matsuura and Romi, and the most recent addition, the two MX520 Matsuura five axis machining centres.

"We're machining more complex parts that need a done-in-one type of machining to reduce set-ups and that's why we went with the five axis machining process," says Paul Culumovic, vice president. "We have other machines, including other Matsuura's and they're reliable machines with little downtime."

Culumovic adds the machinists in his shop are comfortable with the Matsuura machines because they've worked on them for several years. "The controls are the same and although the software program is a little different—it's more user friendly—at the end of the day it's a Matsuura and our employees know how to work with this machine.

The machine is also better ergonomically designed, says Culumovic.

"It's easy to load and unload the parts; you can step into the machine and load the parts, so during setup you don't need to be a contortionist."

While Camatech likes the design of the machines, it's the productivity gains of five axis machining that cinched the decision to purchase them. Five axis gives the company the ability to machine a variety of parts from simple to complex faster and in one set-up.

The two 12,000 rpm Matsuura machines are five axis vertical machining centres that can hold workpieces up to 520 mm in diameter by 350 mm in height. Machine load is made easier because of the 385 mm distance from the machine door to the table centre and a front door opening width of 805 mm.

X, Y and Z axis travels are 630 mm, 650 mm and 510 mm respectively. The rapid traverse rate in X, Y and Z axes is 30m/min. In the A axis it's 10 min-1 and in the C axis it's 25 min-1.

New to these machines is several support functions that are now standard, but were optional in the past. Among them is a collision avoidance system, Intelligent Protection System (IPS), and the new generation operation system, the Matsuura Intelligent Meister System (MIMS).

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