

FIELD NOTES

→ **PRODUCT:**  
MA-500 HII HMC  
with Turn-Cut

→ **SUPPLIER:**  
Okuma

→ **END USER:**  
Kytech Machine

[www.emecmt.com](http://www.emecmt.com)  
[www.kytechmachine.com](http://www.kytechmachine.com)  
[www.okuma.com](http://www.okuma.com)

→ When Chris Birker and his machine shop team attended IMTS 2014 in Chicago, they had a mission: to find a new multi-tasking machine with the ability to run unattended.

“As soon as I saw it, I wanted it,” says Birker, who formed Kytech Machine Works Ltd. in Mount Albert, ON, in 1996.

The “it” was an Okuma MA-500 HII HMC equipped with Okuma’s Turn-Cut, a programming option that allows for full turning functions on a HMC. The function enables ID/OD turning, facing and grooving operations on the HMC, eliminating the need for a CNC lathe. Birker says the company was already using turning machines with live tools and sub spindles, but they couldn’t do what this machine could do.

Birker says he liked the concept of the HMC with the Turn-Cut option because it could meet two of his requirements: a machine that could handle milling and turning in a single setup and run unattended on multiple jobs and parts.

“We needed something that would allow us to keep our pricing structure the same for our customers, even with shop costs increasing. We couldn’t do that during the day with manned hours. The only way I saw of doing this was to run a machine unattended during the nights and on week-ends.

It has helped to free up valuable manpower during the day and improve on delivery times.”

The machine and its ability to run unattended also matched Birker’s philosophy about running a clean and efficient machine shop and investing in technology.

He researched other multi-tasking machines, but in the end selected the Okuma for several reasons. For one, the machine was 25 per cent heavier than other machines he considered, an important consideration for rigidity, says Birker, a self-described “old school machine shop guy.” He also likes that Okuma is a single source supplier.

“The machine and the control are from

the same manufacturer and that’s important to me because it means one phone call and no one points fingers when a problem occurs.”

He says he likes the Okuma THINC control because it’s an open architecture, Windows-based platform. This in turn allows for the easy installation of apps, which is another plus for Birker.

“The software is able to communicate with our smart phones. We’re using some of the apps, including one that is an alarm notification when a machine stops. And Turn-Cut is a feature no one else was able to replicate.”

The machine is equipped with a six-pallet automatic pallet changer, a Matrix 171-tool automatic tool changer and a high torque CAT 50 BIG Plus 12,000 rpm spindle. Kytech’s machine is also equipped with an optional Renishaw probe for automatic gauging and tool breakage detection, and a 1,000 psi through-spindle coolant system from MP Systems.

Birker says the significant investment was “a huge leap” and “a game changer” for the company.

“We’re an eight-man shop. This is the biggest and most expensive machine we’ve ever invested in. I try to stay ahead of the curve by investing in technology almost every year. We keep it small but keep it high tech in the shop.”

The Okuma machine has met Birker’s expectations. It’s running about 30 per cent unattended and he expects unattended time to increase.

“We had no tie to Okuma in the past but this machine pulled us away from our traditional suppliers. Support from EMEC has been excellent and above my expectations.”

Kytech Machine Works sits on the site of an old lumber yard. The business is comprised of three converted buildings totaling approximately 1,301 sq m (14,000 sq ft). The machine shop houses 15 CNC machines, including milling, turning, EDM and multi-tasking equipment and has the ability to machine small and large parts.

