



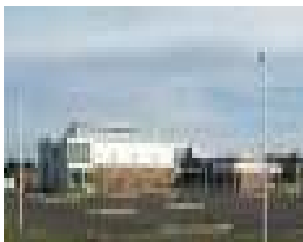
Moraine Park Technical College's West Bend, Wisconsin Applied Manufacturing Technology Center

Volume I, Issue I

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Front view of new AMTC addition at the Moraine Park Technical College West Bend Campus

If you would like to start receiving this newsletter please contact: Joe Roback @ Iverson & Co. 847-391-4258 or email us @ sales@iversonandco.com or the AMTC @ AMTC@morainepark.edu, pdulmes@morainepark.edu, cbrendel@morainepark.edu

Hardinge and Iverson & Company join AMTC- Moraine Park Partnership

On August 14th, 2002 Moraine Park Technical College's Applied Manufacturing Technology Center announced a new established partnership with both Hardinge and Iverson & Company. At the ribbon cutting ceremony the AMTC announced and displayed 5 new Hardinge machines installed and under power at their newly constructed facility. These new machines consist of 3 CNC Vertical Machining Centers (VMC 600II High Torque with Fanuc 18MC Control and two VMC 600II with Siemens controls), as well as 3

CNC Turning Centers (Two Cobra 42 CNC Lathes & a Quest 6/42 with PC front end control).

Iverson & Hardinge both have planned technical seminars to be conducted this fall at the AMTC facility. These will include: **"Workholding" on October 7th**, **"Hard Turning" on October 30th**, and **"Family-ize your parts" on December 12th**. Demo days will also be held on each day. You may register by calling Iverson & Company and ask for Joe Roback (847-391-4258) See back page.



Wisconsin Governor Scott McCallum shown at Ribbon Cutting August 14, 2002

The AMTC has spent approximately \$5.4 million on new facilities that are second to none. The new wing (shown in the lower left) consists of an auditorium, many computer labs and classrooms, as well as the lab where the Hardinge CNC machines are housed.

Continued on page 3

New machines include state of the art Hardinge Quest 6/42 w/ PC front end control

One of the most exciting additions to the Hardinge AMTC display is the Quest 6/42. This machine features live tooling and C axis contouring. Also included is a state of the art PC front end control. This will allow for many capabilities not commonly yet used in the machining field.

This machine will also feature live tooling and C axis contouring. This will give instructors the ability to mill shapes and even engrave on the outside diameter of a turned component. These capabilities are commonly featured on a 4th axis vertical machining center, rather than a CNC lathe.



Hardinge Quest 6/42 CNC Lathe

Continued on Page 2

Hardinge VMC 600 High Torque and Siemens

Three of the new machines installed are Vertical Machining Centers. All are VMC600's which feature travels of 23" in the X axis and 20" in both the Y and Z axis. One machine is a High Torque model, capable of heavy roughing cuts. AMTC also purchased a mold package in the Fanuc 18MC control. AMTC plans on using the ISCAR relationship to test out the latest technology in tools and inserts on this machine.



Terry Iverson with Jim Hokenson at the Ribbon Cutting

"Rivals of the high torque of large more expensive machines. I was impressed to find the rigidity of a 40 taper machine to be this solid.

Married with the Fanuc 18MC equipped with the 64bit risc and data server,

this is an excellent machine for the mold die application" Jim Hokenson. (AMTC instructor)

With a "spindle cam some of the machines at the AMTC will be linked".



Tim Clemens says "The Fanuc control with the 64 bit / Risc processor allows us to both 3D machine & also gives us the ability to take deeper cuts with the high torque machine with the more rigid design."

This will enable students in the auditorium to see machining operations being performed in the CNC Lab. AMTC is also working hard on the first wireless DNC link in the area.

Two of the vertical machining centers will feature the Siemens control. Tim Clemens states that he likes the robust Control with shop mill. Tim also states "We can have small user groups on 2 totally different controls" referring to both the Siemens and Fanuc 18M CNC controls.

Quest 42 with live tooling & C axis

The Quest line of CNC lathes comes in three different sizes 6/42, 8/51, & 10/65. The model designations represent the chuck size in english and bar capacity in metric.

The PC front end control allows for capabilities such as: windows based software able to house programming software such as Gibbs, Part-maker and production control software. Customers can also link to the machine control from a remote locations, allowing the potential for true "lights out machining". AMTC hopes to stretch the capabilities of

this machine and control combination.

During the course of the fall there will be hard turning seminars put on by Tom Hintz of Hardinge Inc. Hard turning demonstration will be put on by applications engineers on the Quest 6/42. This machine features a weight of 15,000 pounds and a collet-ed spindle allowing for the power & rigidity needed for ma-



chining 62C Rockwell metal. The PC front end control also features a CD Rom and disk drive. The Quest is offered with the 21iT, 18iT and 16iT Fanuc Control, depending on the option structure of the machine purchased.

The Quest 6/42 will be the featured machine front and center in front of the windows to the CNC lab.

AMTC travels east to Hardinge & Berk's Career Center

Article courtesy of:

Moraine Park Technical College

Tours demonstrations and partnership opportunities were all part of a recent visit to Berk's Career & Technology Center in Leesport, PA and Hardinge, Inc., factory in Elmira, NY.

AMTC Director Pat Dulmes led the four person contingent that included instructors Tim Clemens, Jim Hokenson, Tom Roehl, (3 shown in photo) & Chuck Brendel. The group was joined by Terry Iverson, President of Iverson & Company, the Hardinge distributor.

The primary goal of the two day trip was to research the involvement of Hardinge in the educational environment. "It gave our group a chance to see how Hardinge

works hand-in-hand with the faculty at Berk's to train students for high-skills in the CNC machining field." said Chuck Brendel (tool & die instructor at Moraine Park) "We also discussed how other programs at the school partner with the machining programs for promotional reasons."

Day two of the trip brought the group to the Hardinge plant in Elmira. Machine explanations and demonstrations, along with a tour of the manufacturing and assembly facilities, highlighted the plant visit. Dulmes and Brendel also took the opportunity to meet with Paula Ameigh, Hardinge's North American Sales Manager, to discuss the details of the planned AMTC/Hardinge partnership, along with both group's expectations and goals.



The trip was very beneficial," said Dulmes. "We brought back some new ideas strengthened our partnership with Hardinge and made several new contacts that should assist the AMTC in expanding its training horizons beyond the local area."

Hardinge Cobra 42's with collet-ready spindle

Two of the newly purchased CNC lathes at AMTC are Hardinge Cobra 42 CNC Lathes. These machines feature a GE Fanuc 21iT CNC control and a Hardinge patented collet ready spindle. No collet adaptation chucks are needed to utilize 16C collets. The machines are also equipped with a parts removal system.

The Hardinge Cobra 42 is their low cost CNC lathe in their product line. In spite of this there are many

high end design features in the machine. This machine features the world-class Hardinge colleted spindle,

spindle bearings allowing for a more rigid set up. This allows for less TIR and also more allowable Z axis travel, because you don't have the collet chuck taking up the extra room.

Why did we choose Hardinge? "Good selection of equipment, Good reputation in the industry, longevity of the Iverson relationship with Hardinge and willingness to partner. Chuck Brendel

"I feel that the Cobra's .. will introduce them to 2 axis turning through the most commonly used control in the region—FANUC." Tom Roehl



a curvic coupling to ensure accurate indexing of the turret.

Some of the features of the collet ready spindle is it's 1 5/8" through collet capacity, belt driven design, and ability to make use of step chucks, expanding collets, and master collets and pads. The workpiece is much closer to the

In the fall there will be Hard Turning demonstrations and a seminar. The colleted spindle allows more rigidity to perform the operation better than competitors featuring other designs.

On the back page of the collet-ed spindle while a hard turning operation is performed. (shown on a Conquest machine).

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AMTC Demo Days!
December 11th 2002 !!! Stop in to see the machines run parts!!!!



*Sales and Service of
Precision
Machine Tools*



“Grinding 101” Seminar

Wednesday, January 9, 2003
Morning Session: 9:00—11:30 AM
Afternoon Session: 1:00—3:30 PM
(Reservations required by 1-05-02)

Usach, importer of Hauser, Tripet and Tschudin and Kellenberger present the basic principles of OD, ID and jig grinding. Winterthur will also present the various grinding wheel grades and criteria for selection of grinding wheels. Bring your grinding questions, problems and applications to learn how to best grind your components.

“Hard Turning 101” Seminar

Wednesday, October 30, 2002
Morning Session: 9:00—11:30 AM
Afternoon Session: 1:00—3:30 PM
(Reservations required by 10-23-02)

This seminar discusses the What, When, Why and How of Hard Turning. Seminar Outline includes: Hard Turning Defined Hard Turning Advantages Machine Requirements—machine and base construction, workholding rigidity, tool holding systems Achievable tolerances and surface finishes Tooling requirements—CBN vs. ceramics, edge preparations, coolant considerations, rake angles, lead angles, and much more.

“Family-ize™ Setup Reduction” Seminar

Wednesday, December 11, 2002
Morning Session: 9:00—11:30 AM
Afternoon Session: 1:00—3:30PM
(Reservation required by 12-4-02)

This seminar presents a good understanding of planning for minimal setup and changeover for today's manufacturing. Seminar Outline Includes: Traditional turning requirements Changes in the manufacturing environment Smaller lot sizes Just-In-time (a way of life) SPC (Statistical Process Control) in today's manufacturing Family-ize Minimizing Family-ize Minimizing change-over Tooling turrets and gang tool slides for family-of-parts

Hardinge introduces both Elite and Talent CNC Lathes to market

We're on the Web!
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The Hardinge Talent line of CNC Lathes was introduced at IMTS 2002. The two models currently available are the Talent 6/45 and Talent 8/52. At IMTS customers were astonished at the amount of machine for the money! The Talent 6/45 is shown below.



These machines feature machine standard features such as

Talent 6/45: 6” Chuck, OiT control, VDI 30 top plate

Talent 8/52: 8” Chuck, OiT control, VDI 30 top plate

The Elite 8/51 comes equipped with a lot of value for the money. This machine comes standard with 2” colleted spindle, tailstock, live tooling and C axis - all for the unbelievable low price of **\$89,900.00!** This machine also features a VDI 12 station top plate as standard and Fanuc 21iT CNC Control. This machine has been featured in “American Machinist” and “Screw Machine World” as the machine that has gained a lot of attention and notoriety in the marketplace already.



Jeff Pophal (Iverson & Co), Tom Hintz & Cliff Welch (Hardinge) and Pat Dulmas (AMTC) @ The Oct. 7th Workholding Seminar