SOCIETY of MANUFACTURING ENGINEERS
TORONTO CHAPTER 26

65TH ANNIVERSARY

Web: www.sme-toronto-26.org/ **April 2005**
E-mail: sme26toronto@yahoo.ca

ABB Robotics Tour - April 21, 2005, 7 pm

201 Westcreek Blvd, Brampton, Ont., L6T 5S6

About ABB

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in 100 countries and employs about 105, 000 people worldwide.

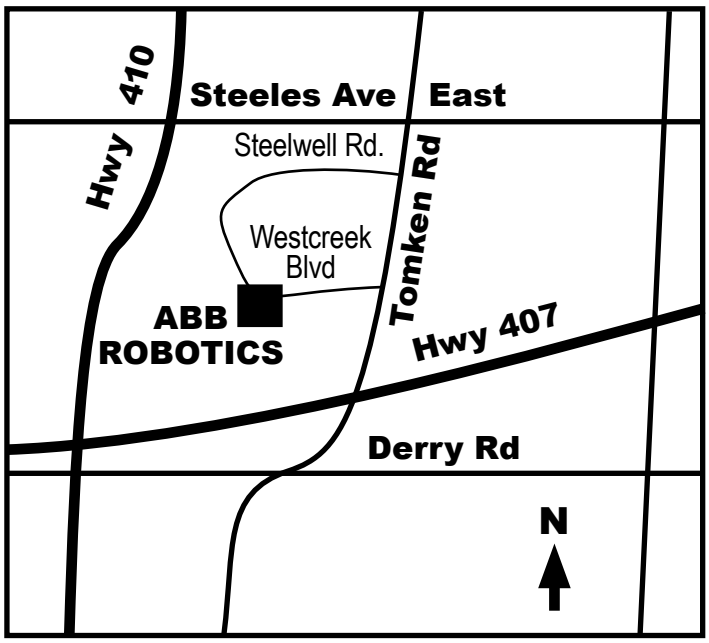
About Automation Technology Manufacturing Automation (ATMA)

ABB design, realize and install products, systems and services tailored to support the Automotive OEM and Tier One, Manufacturing and Electronics Industries needs, and also serve our Partners, mainly machine builders and integrators. We address them with a constant focus on flexibility, reliability and quality. Our offer is based on leading experience in robotics, with over 115,000 robots sold. We operate through a network of over 5,500 employees located in 24 countries around the world.

Factory facts

Built: 1999 Area: over 300,000 ft sq, Employees: 170 Quality/Certificates ISO 9001, ISO 14001, QS9000 Available facilities 8 conference rooms, two training rooms Contact for facilities robert.r.fan@ca.abb.com Robert Fan The Plant sits on 30 acres, located adjacent to two prominent highways. They give easy access from both the U.S. and other parts of Canada for customers, suppliers, shippers, and employees.

The office areas are located at the front end of the building, part of which is constructed in a two-floor configuration. Offices are provided for administration, engineering, estimating, project management, and supply management, as well as for visiting customer teams.



ABB's Brampton facility provides robots and robotic systems for customers in Canada and throughout North America.

Reservations Required by April 18. Please contact Loris Giuricich to get your name on the tour list at:

416-448-2225 or e-mail to Lgiurici@celestica.com

$12 for members (CMTDMF -Canadian Machine Tool, Die & Mold Federation- included), $18 for non-members, student members $6.

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Our continuing thanks to Professor Mark Fox, U of T, for hosting the Chapter's web site on his server at http://www.novator.com

PDC

Professional Development Conference (PDC), Baltimore, Md, June 3 and 4, 2005.

The 2005 Annual Meeting includes an SME PDC to help manufacturing professionals learn about current developments in their industries and gain critical leadership and professional growth skills. With the theme "Developing a Competitive Edge for Manufacturing Professionals," this PDC features four separate tracks focusing on managing people, resources, and careers, and a general interest track providing information about the SME Education Foundation and a Webinar on lean tools. This set of workshops, led by respected industry trainers, will help you meet the inevitable challenges that arise in your manufacturing career.

Questions? Contact service@sme.org or call (800) 733-4763.

Bulletin Copy Deadlines

NOTE: Send material to Jenny Ono Suttaby at jono@jentekcompany.com by the following dates for inclusion in the upcoming Chapter Bulletin:

May issue: by April 15, 2005

The SME Chapter 26 Bulletin

The SME Chapter 26 Bulletin is published eight or nine times a season by the Toronto Chapter of the Society of Manufacturing Engineers (SME). The SME provides support for people and industries in manufacturing by providing opportunities for networking, professional development and technical information. Headquarters of this 70 year old professional society are in Dearborn, Michigan. For more information or to join, phone or email the Chapter Chair, Son Nguyen, at 416-535-1593 snguyen_2050@hotmail.com or Headquarters at 1-800-733-4763. Talks and tours put on by the Chapter are listed on the Chapter web site at www.sme-toronto-26.org Headquarters web site is at www.sme.org

SEARCHING OUT A MANUFACTURING DESIGN

Often when you start a study of manufacturing improvement you are led in very unexpected directions. As an example I thought I would discuss a recent project of mine. While the project isn't finished, it's still interesting, and relevant to the topic.

A customer had come to me with a problem. As part of their process of building long length containers, they were using long sheets (18 ft plus) of 26-ga steel, aluminium and plastic. They didn't use large amounts of any one material so they brought in skids of sheets every few weeks. They have recently found that, because of variation in the mix of their product length, they were shorting the length of many of the sheets and scrapping almost 15% of their purchased material. Something had to change.

While reducing scrap was the motivator of the investigation, I soon discovered that there were many other advantages for change. The existing system required skids that were about 1 foot high, 6 feet wide and 20 feet long. These skids can't be stacked. The skids were expensive, non-returnable and very difficult to unload from a truck. Since many of these sheets must be slit, the customer required 2 tables, 20 feet long, with a slitter in between. All of this sounds like an ideal environment to stop purchasing sheets and start purchasing coil. What this customer really needed was a large "tape dispenser" with a quick-change material select.

So where are the obstacles to change? So far I have found them in two places.

Since the change involves removing some "added value" from the existing suppliers, the supplier's price must be reduced if a switch to coil occurs. In fact, some of these suppliers just buy coil and simply convert it to sheet. They are very resistant to change and would just want to lower the price and keep the business. Is this a good idea? I don't think so since they would just end up being poorer and would likely start cutting corners to make up for their loss of profit. I'm finding that I need to talk to new suppliers who understand this new coil approach. Of course my customer's purchasing department doesn't like this since any change to a new supplier is difficult and full of risks.

My second obstacle is the machine supplier. They all brag about "high-speed". I want low speed. They talk about "high-tolerance". I don't care. I need a machine that produces 35 sheets a day using 4-5 different materials. The machine won't run much but it will have lots of value and impact on the system cost. I need to find a machine supplier who is thinking about a new market approach. Slow speed, high flexibility. Sure, they can slow down their high-speed machines and try and sell me one of those, but I don't want to be paying for the unused high speed capability.

If you were on the recent SME Toyota tour, you would have noticed the new highly automated welding department in their plant. I thought the line was broken since none of the robots were moving and not much was happening. Turns out that all was well and that the machine cycle time was only about 25% of the production tack-time. The value of their robots was not in their high utilization. The value was in the fact that (when compared to equivalent labour costs) it didn't cost anything if they were stopped. Toyota must also be analysing their costs using an entirely different financial accounting model than I'm accustomed to. You and I would likely get shot by our comptroller for buying a sophisticated machine that ran only 20-25% of the day.

So my search goes on. Love to hear your comments and more will follow as this project advances.

Robert Hope
bob@rbhope.ca

Robert Hope has been a member of SME for 30 years, is an industrial designer and consultant to manufacturing. He has been President of 3 different manufacturing companies and also holds 6 US patents, the most recent one being issued in April 2005.

Joseph R. Benedetto Scholarship

The Application Form for the Joseph R. Benedetto Scholarship is available on the chapter web site at:

www.sme-toronto-26.org/

$1000 dollars is to be awarded each spring to a Toronto area student member of SME who demonstrates potential and an intention of contributing to Canadian Manufacturing.

This award is being given by Toronto Chapter 26 of The Society of Manufacturing Engineers (SME). The purpose of SME is to promote excellence in manufacturing and to advance the profession of its sponsors and members.

Questions? Please get in touch with Ken Kogej 416-553-2440, ken.kogej@sympatico.ca