

The
CTMA  **VIEW**

Spring/Summer 2017

Voice of the Canadian Tooling & Machining Association

2017 BUYERS' GUIDE

**LEADING THE WAY
FOR MEMBERS:
FROM SKILLS TRAINING,
TO APPLYING FOR GRANTS,
TO FORGING NEW PARTNERSHIPS**



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Skills Training for the 21st
Century



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Booming Automotive
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ON THE COVER: This issue's cover features an abstract macro shot of a metal mill drill bit, highlighting the shape of the blade edges.



Spring/Summer 2017

Published For:
The Canadian Tooling & Machining Association
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The contributed articles presented in this magazine represent the opinions of the authors and the interviewees. Their inclusion does not directly or implicitly denote concurrence by the Canadian Tooling & Machining Association. Articles were selected for inclusion based on the issues and views of interest to the industry.

Published By:
Matrix Group Publishing Inc.
 Return all undeliverable addresses to:
 309 Youville Street
 Winnipeg, Manitoba R2H 2S9
 Toll-Free: (866) 999-1299
 Toll-Free Fax: (866) 244-2544
 www.matrixgroupinc.net
 Canada Post Mail Publications
 Agreement Number: 40609661

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Steve Watson, CTMA President

A Message from the CTMA President

SPRING IS IN THE AIR at the Canadian Tooling & Machining Association (CTMA). Every year around this time, I receive an e-mail from the association office that registration for the CTMA Annual Shotgun Tournament is open. This is typically the first corporate golf tournament I attend each year, and it is one of the best-organized ones I participate in. It is always a sold-out event and it reminds me every year of the incredible generosity of our sponsors.

Many economists who I have heard from have suggested that manufacturing in North America will remain strong until 2019. The information I receive from many CTMA members is that this has been one of the busiest winters on record. However, I continue to hear that finding qualified skilled labour is a challenge. The industry is faced with a serious dilemma. Baby Boomers are retiring and taking a tremendous amount of intellectual property from the industry with them. Thus, manufacturers have not been able to replace skilled labour at the same rate it has been disappearing at. This is the challenge I hear our members lament time and time again.

The CTMA—Robert Cattle, specifically—has had a hand in helping

many Generation Ys find employment in manufacturing through our Earn While You Learn program and the Introductory Trades Training Program. The last government-funded intake for this program began December 5, 2016. However, I would encourage everyone to share the success of these programs with your local MPs, MPPs and school boards. As an industry, we need to spread the word that there are well-paying careers available. As CTMA Executive Director Rob Cattle has stated in the past, "This is not your granddad's tool shop anymore."

The CTMA continues to address other issues affecting Canadian manufacturing as well. Manufacturers have moved from menial jobs toward automation. The buzzword of the Liberal government appears to be "innovation." According to a recent report, Canadian research and development spending is 50 percent less than what the private sector spends in the U.S.

In April 2017, members of the CTMA's board of directors met with Canada's Minister of Innovation, Science & Economic Development, the Honourable Navdeep Bains, to discuss how the current federal government can help Canadian manufacturers invest in innovation.

We proposed government tax incentives for industrial capital equipment acquisition and the ability to depreciate the cost of machinery over a three-year period. We also discussed the potential for the CTMA to administer programs funded by the federal government (similar to the Advanced Software Training Program from 2009 to 2012) that would help encourage

investment by the industry. Finally, we discussed simplifying the scientific research and experimental development application process for smaller companies. This is further evidence that the CTMA is in your corner and working hard to effect positive change in our industry.

Please join me in welcoming HRdownloads as a new affinity partner and Bank of Montreal (BMO) as a new corporate sponsor. With HRdownloads, members receive a 10 percent discount on all of their products. For more information, please visit www.hrdownloads.com. More details about BMO will be announced shortly.

In March, our Western Ontario Chapter was graciously hosted by Deloitte (another one of our corporate sponsors) in their private box at a Junior A hockey game between the Kitchener Rangers and the London Knights. The Toronto Chapter toured MHI Canada Aerospace in Mississauga, ON, followed by dinner at the Chop Steakhouse & Bar.

In April, the Windsor Chapter hosted an interesting tour at the Canadian Historical Aircraft Association. Following the tour and presentations, attendees enjoyed a barbecue-style dinner in the hangar. During all of this, we also held a meeting at Mazak Canada with Cambridge MP Bryan May to discuss issues affecting the machine, tool, die and mould industry.

I hope to see many of you at the CTMA golf tournament on June 6. I'm looking forward to sunny skies as it has never rained at the tournament in Dorchester—hope this doesn't bring bad karma! ■



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Ontario Manufacturing: Skills Training for the 21st Century

By Russell Alder, CEO, AEI Inc., MBA, T&D, MM



Ontario has moved from being the major manufacturing hub of Canada to the position of exporting approximately one third of its 1995 volume. There are over 300,000 fewer people working in manufacturing compared to 10 years ago. Skilled trades work such as tool and die, mould making, and the machinist trade were some of

the first jobs to move offshore, as the cost savings to companies was significant.

A reorganization of the corporate value stream has seen a separation of manufacturing and design, procuring the tooling from overseas sources while designing in-house. The resulting lack of investment in Ontario manufacturing and skilled trades training has created a workforce deficit from which to rebuild this industry.

Industry members and government officials agree that a focal point of a broader,

more comprehensive plan for economic growth in Ontario must be a new skills agenda. According to a recent survey conducted by the Canadian Tooling & Machining Association (CTMA), 87 percent of member companies anticipate an increase in business over the next year. However, they are experiencing widespread challenges in recruiting new apprentices for these positions and major employers have had to recruit from abroad.

I recently wrote a thesis paper where the primary goals were to attain an understanding of how Ontario government-mandated apprenticeship training is aligned with manufacturers' needs; understand what change, if any, is required; and identify how stakeholders can move toward implementing any identified changes.

To this end, the apprenticeship program governance and certification process were reviewed and stakeholders were questioned in an effort to clarify the process and bridge any current disconnect between industry, education, and the regulatory bodies. Why there was a need for this review is clearly displayed in the 2015 analysis of apprentice completion rates, as seen in Figure 1, where



Figure 1. Adapted from Statistics Canada, 2015.

it shows less than a 10 percent completion rate.

Recruiting and training the next generation of skilled tradespeople is one of the biggest problems the Ontario machining and tooling industry faces. This sector already laments the post-secondary graduate who is lacking in apprenticeship trade skillsets. Many tooling and machining companies in Ontario's manufacturing industry have voiced disenchantment with the skilled trades apprenticeship process as presented by regulatory bodies and college training facilities due to a perceived dearth of communication, lack of continuity of services, and a mandated trades curriculum that is ineffective for business realities in the 21st century.

As the Ontario economy continues to diversify, it is increasingly important that the manufacturing industry, and more specifically the skilled trades sector, is not dismissed as an obsolete choice of vocation. Increasing the skill level and competence of the tradespeople will help to make the manufacturing process in this sector more efficient. A recent article in *Canadian Manufacturing* showed cutting-edge technologies being introduced to Ontario's machining and tooling sector in an effort by companies to become more competitive, yet no new skills agenda has been developed to support these endeavours. The hope is to engage the youth of today in an effort to decrease the current skilled trades shortage and create a sustainable manufacturing presence.

Through collecting and examining available data sources and conducting primary research, the information gathered offers relevant labour market insight into the apprenticeship training requirements in the manufacturing trades that can be used by stakeholders in developing the skilled tradespeople Ontario needs.

The literature review of peer-reviewed articles, industry reports, popular press, and academic sources used in my research provided an overview into the history of apprenticeship in Ontario, current governance structure, the politics of organizational change, the changing industry environment, training and curriculum development, and lean management.

The literature review also provided insight into challenges and resistance

factors consistent with organizational change initiatives with respect to the Ministry of Advanced Education and Skills Development's (MAESD), formerly MTCU, introduction of the Ontario College of Trades (OCOT) as a new regulatory body brought into existence to move toward a more controlled and viable apprenticeship training process. These insights were probed in a 10-question survey disseminated to stakeholders from the MAESD, OCOT, college professors who teach the trades, current registered apprentices in the machining trades, and the machining and tooling companies that employ these tradespeople. Based on the data, interview questions were formulated and semi-structured interviews were conducted with industry representatives. Further questions were generated for additional interviews with government representatives.

Findings from the data analysis indicated that apprentice training is currently lacking in relevance to industry needs. Common themes were governance and accountability, funding improvements, capacity, quality assurance, culture and change, and training. Further analysis suggests the need for change as represented by the distinction between episodic and continuously evolving incremental change (economy vs. technology). This contrast is important in the conceptualization of the direction of change required in organizing a new approach to training curriculum.

There are also strong indicators that the framework and curriculum for training apprentices should be modified in the area

of delivery platform. As indicated by Figure 2, 30 percent of those surveyed chose three eight-week block release sessions to allow for an uninterrupted focus on the academic portion of training.

Research indicates the block release platform promotes deeper learning and better subject matter retention, as the day-to-day demands of industry are temporarily removed from the apprentices' cognitive concerns. This format encourages lasting bonds with industry peers, which may help increase retention rates through increased apprentice support.

Findings indicate that the industry believes that options for apprenticeship schooling should include private sector training delivery agents. This would allow apprentices to have a choice, thereby increasing competition which should pressure colleges to improve their facilities and instructors in order to maintain market share.

These recommendations, supported by both primary and secondary research findings, are focused on OCOT realigning and reconnecting with its members creating long-term initiatives to cultivate valued, employable people for this manufacturing sector. Through relevant modifications of the framework and curriculum for apprenticeship training, OCOT can raise the knowledge level of skilled tradespeople required to drive Ontario industry in the ever-changing global economy. ■

A copy of Russell Alder's complete thesis paper, including references, is available from the CTMA office.

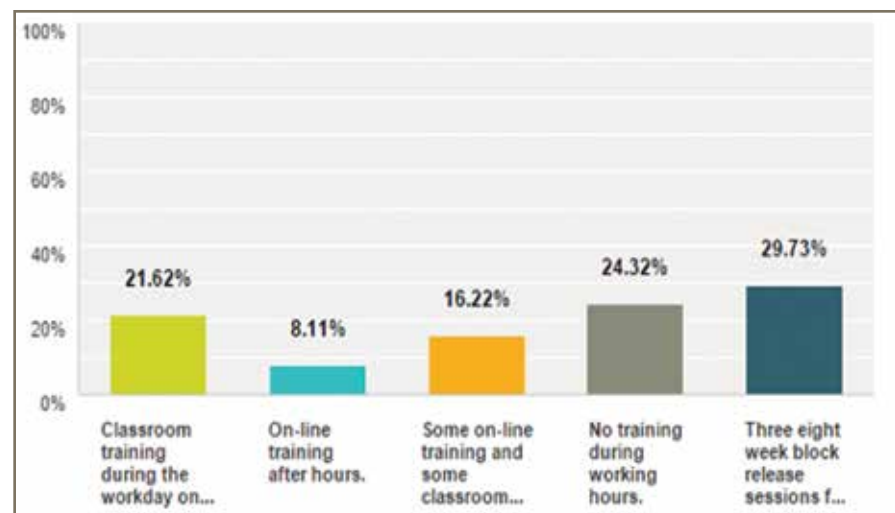


Figure 2. Respondents' preferred training platforms.

Expanding Your Market Reach:

How to Accelerate Three Export Strategies with Government Grants



By Chris Casemore, Director of Client Management & Development, Mentor Works Ltd.

Approximately one-third of Canadian businesses state that finding new clients or partners is a pressing challenge facing their company. This issue can be especially unnerving since unused production capacity results in lost profits and, ultimately, poorer performance. But this doesn't have to be the case.

Oftentimes, gaining access to new clients and partners comes down to expanding your market reach. Exporting products or services to foreign countries and establishing international partnerships could have profound benefits to your organization, but it also brings a degree of risk that must be overcome. Luckily, Canadian government grants are available to help businesses reduce the cost, and therefore risk, of market expansion projects.

There are several ways that Canadian businesses can tap into international markets, and federal and provincial governments extend support for many of these activities. Whether your business is planning to begin exporting or you're an established exporter who is evaluating new markets, small business grants may accelerate market penetration and reduce

the amount of time it takes to realize profits from the new market.

WHY ACCESS GOVERNMENT GRANTS TO PERFORM EXPORT EXPANSION?

Successfully pulling off your business' expansion into new or existing markets relies on two factors: the strategy behind your expansion and financing to confidently implement the plan. When both of these conditions are met, companies stand a good chance of their project going well.

The problem is that many companies underestimate the cost of export expansion projects, especially the costs to travel to and/or from the market, participate in trade shows, generate marketing materials, adapt products to conform to new regulations, and find partners to help gain market share.

While these strategies may be good in theory, without access to financing, it's impossible to actually achieve them. That's why government grants are the essential link toward export success for businesses. If you have the right strategy and plan for export success, the government will reimburse a large portion of the expenses, therefore removing the burden of expansion and making the project less risky.

Companies should consider applying for government grants to implement any of the following export market strategies:

1. Participating in trade shows;
2. Establishing a foreign partner to commercialize the market; and
3. Training Canadian employees to identify and respond to the needs of international customers.

FINANCE OPERATIONS IN NEW INTERNATIONAL MARKETS

Canadian government funding is available to support a wide range of projects related to expanding market reach. This includes CanExport and the Going Global Innovation (GGI) program.

Discover how you can use these grant funding programs to drive the greatest return from your export expansion project.

PARTICIPATE IN INTERNATIONAL TRADE SHOWS

A popular choice for those who are evaluating their business' potential abroad, trade shows provide unparalleled access to consumers and strategic partners across the world. Companies can participate in trade shows themed around a specific product or service, or

access industry trade shows to broaden this audience.

While not as big of an issue for medium and large-sized companies, trade show participation can be quite costly for small businesses. Purchasing booth space and trade show passes for employees, developing booth marketing materials, and traveling to and from the show are all expenses that may ultimately prevent businesses from participating. Thankfully, these are also expenses that can be offset by applying for Canadian government grants.

Small and mid-sized businesses (SMEs) may receive up to 50 percent of eligible project expenses to reduce new market development costs with CanExport.

CanExport grants can provide contributions ranging from \$10,000 to \$99,999 to explore the viability of a new country they haven't sold goods to in the past 24 months. This is a great program, especially if your business is considering expansion to markets within Europe or Asia.

ESTABLISH STRATEGIC PARTNERS TO COMMERCIALIZE INNOVATIONS

Companies can grow most quickly by expanding the number of customers they reach. But in order to be introduced to as many international customers as possible, it often makes sense to partner with organizations who are fully integrated into the market already. Working with others to establish market share supports accelerated success, with less time and money needed.

Developing international partnerships can be tricky. Securing commitment from an international partner often requires travel, lodging, meals, and meeting expenses, and all of these need to be incurred prior to the partnership's solidification. This implies risk; there's a chance that businesses can go through all of these steps and still not come away with a profitable partnership.

If your business could profit from the international commercialization of technologies, the Going Global Innovation program may cover up to 75 percent of eligible expenses.

Going Global Innovation grants will provide up to \$75,000 towards several costs required for international travel

and meetings. Companies can't apply for research funding towards current partnerships; the funding is meant to help potential collaborators meet and secure the partnership agreement through 3 or 4 international meetings.

STRENGTHEN OPERATIONS IN ESTABLISHED EXPORT MARKETS

Government grants are also available to support your company's operational abilities. This is made possible through the Canada Job Grant, a training initiative that reduces third-party training expenses incurred while training their Canadian-based employees.

TRAIN CANADIAN WORKERS TO BETTER SERVE INTERNATIONAL CLIENTS

Although new market expansion is an exciting endeavour, growth opportunities may exist within export markets you already sell to. Maintaining a workforce who can communicate effectively with customers will help to exploit some of these opportunities, such as upselling customers or developing new, highly-demanded products.

Unfortunately, third-party training can be costly when implemented across a team, or business, as a whole. Hiring a trainer to conduct specific courses, paying for tuition, and then affording materials can be too expensive for some firms, especially when the financial return on their training is unknown.

If your business is conducting third-party training for Canadian employees, up to 66 percent of costs may be recovered through Canada Job Grant funding. The Canada Job Grant offers up to \$10,000 per employee trained and will offset most costs related to the trainer/training program delivery. This training could benefit Canadian employees by helping them learn about international marketing, finance, supply chain management, and other international trade management specializations.

DEVELOP A MARKET EXPANSION PLAN THAT INCLUDES GOVERNMENT GRANTS

Availability of specific government funding programs is largely based on a business' location and the time of year they're applying. Understanding the unique requirements of each program is critical to your application's success, so it's important to research these programs and apply for those that best fit your upcoming projects.

Every day, our team of Government Funding Planners work with Canadian businesses to solidify project plans and communicate deliverables to the government through application writing, submission, and reporting services. ■

If you would like to learn more or confirm your business' eligibility for any of the programs mentioned in this article, please contact Mentor Works by calling (888) 599-3111.

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Michigan Mold Lien Act Under Fire

By Ralph Colasuonno, Warner Norcross & Judd LLP



SEJASMI INDUSTRIES CASE UPDATE

Michigan's *Mold Lien Act*, MCL Sec. 445.611 (the "MLA"), protects mould builders with a lien on any mould they construct that requires third parties relying on the mould to respect the original purchase agreement with the mould builder. By following the procedures set forth in this Act, mould builders are protected—or so they thought. Recently, the Michigan Court of Appeals (COA) threw this protection into doubt with its ruling in *Sejasmı Industries, Inc. v A+ Mold, Inc. et al*, Macomb County Circuit Case No. 14-004273-CB, Court of Appeals No. 328292, Supreme Court No. 153625, wherein the COA essentially strips the mould builder of the security interest in its own mould.

SEJASMI CASE

In *Sejasmı*, Takumi Manufacturing Co. (customer) hired Quality Cavity (mould builder) to build a mould, which was delivered to Sejasmı Industries (moulder). Sejasmı, in turn, used the mould to make parts for the customer, Takumi. Sejasmı paid Takumi for the mould, but Takumi never paid the mould builder, Quality Cavity, who retained a lien on the mould pursuant to the MLA.

Sejasmı then brought suit to invalidate Quality Cavity's lien on the mould, claiming that the lien was discharged when Sejasmı, as the moulder, notified Takumi that it had "paid" the amount for which the lien

was claimed, as required under the MLA. Sejasmı relied upon the language of MCL Sec. 445.619(5)(b), which provides that a mould builder's lien may be invalidated if the customer (Takumi) receives a verified statement from the moulder that it has paid the amount for which the lien is claimed.

The provision does not specify to whom the amount must be paid for the lien to be extinguished. Though Quality Cavity, the lien holder, was never paid, the COA ruled that serving Takumi with a verified statement that the amount Sejasmı paid was at or more than the amount of Quality Cavity's lien had extinguished the lien under the MLA. Currently, all interested parties are awaiting a decision on whether the Michigan Supreme Court will hear this case.

POSSIBLE IMPACT

This decision has enormous impact on the mould building industry, essentially depriving mould builders of meaningful protection under the MLA. Under this ruling, any original equipment manufacturer wanting to invalidate a mould builder's lien rights under the MLA—so as to not worry about possible disruption of its supply of parts by a mould builder threatening to repossess the mould for non-payment—could certainly attempt to structure its transaction in accordance with the facts in *Sejasmı*. Further, should this interpretation of the MLA stand, it would set precedent that could apply to

the rest of the tooling industry. Michigan's *Special Tools Lien Act*, MCL Sec. 570.541, which provides tool builders with lien rights, was enacted at the same time as the MLA and uses similar language to the MLA and could well be interpreted to deny tool builders of their lien rights, even if they have yet to be paid for their work. For now, both the mould building and tooling industry eagerly await the ultimate outcome of the *Sejasmı* matter.

With the support of 18 distinct participants, both national and international, including the Canadian Tooling & Machining Association (CTMA), the Michigan law firm of Warner Norcross & Judd LLP (WNJ) has filed a motion with the Michigan Supreme Court for leave to file an *Amici Curiae* Brief in support of Quality Cavity's Application for Leave to Appeal. This Brief provides a strong showing of the importance of this appeal to the tooling industry and will undoubtedly get the attention of the Michigan Supreme Court.

A native of Ontario, Ralph Colasuonno is senior counsel with Warner Norcross & Judd LLP (WNJ). Ralph assists automotive suppliers with all aspects of litigation, including contract disputes, enforcement of tooling and mould liens, and the defense of bankruptcy preference actions. A full-service law firm, WNJ maintains multiple locations across the state of Michigan and services clients in both Ontario and Michigan.

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ISCAR Recognizes Achievement in Skills Training



The manufacturing delegation at ISCAR's headquarters in Tefen, Israel in November 2016.

If you had told Ashly Burkoski that she would be working in a machine shop one year ago and that she would have earned a trip to Israel, she likely would have laughed at the thought.

Ashly is a recent graduate of the Canadian Tooling & Machining Association's (CTMA) Introductory Trades Training Program – Earn While You Learn Stream (conducted at the Valiant Training and Development Centre in Windsor, ON) and the recipient of a special



Ashly Burkoski takes in the view in Jerusalem, Israel.

achievement award from ISCAR Tools. Before being accepted into the CTMA's training program, she was working at McDonald's and Border Services and was not sure what the future held for her.

"I had no background in machining. When I learned the CTMA was looking for young people to be trained in their program, I applied and got in," recalls Burkoski.

The 42-week program was a challenge, she says, but she persevered.

"It was a lot to learn. I started in a classroom and then did manual work on machines and moved over to CNC machines, where I learned a lot about vertical and horizontal machines, boring, grinding and saw cutting," says Ashly. "I learned to program using conversational programming and then Mastercam. It was a lot of pressure, but I could see a career in my future, so I kept going. I looked at this as a huge opportunity."

Indeed, now that she has graduated, she says she is amazed by the opportunities.

"When I finished the program, I had three or four offers of employment, and that's just crazy. I had applied in the past to shops where I didn't have chance. I started at Concorde Precision Machining on January 4, 2017, and I'm already working on a CNC machine. Just recently, Concorde Precision gave me my papers to start an apprenticeship and the company will be paying for my schooling."

Last fall, during the CTMA's annual general meeting, Burkoski also received an ISCAR Tools special achievement award, the IQ Award Training Intelligently. ISCAR, with support from the CTMA, established the award to recognize youth who are building careers in the industry. As part of the award, Burkoski was invited on a manufacturing delegation trip to ISCAR's headquarters located in Tefen, Israel.

"One of my favourite parts of the trip was networking with manufacturers. I had the chance to speak with tradespeople from different industry backgrounds about opportunities in manufacturing," she says. "I had planned to move out west, but after speaking

with some people who said it wasn't the best time to do that, I decided to stay in Ontario and accepted a position with Concorde Precision Machining Inc."

"I had an amazing experience in Israel at the ISCAR learning seminars. We toured the ISCAR plant the first day and learned about the manufacturing of carbide inserts. We had a seminar in the afternoon on lathe tooling, turning, grooving and parting tools—all very interesting. The next day, we toured the building where they manufacture the Sumocham drills. The amazing thing here is that they machine everything after heat treat! We then went to the custom tooling building, where they manufacture custom made tools for all industries," says Ashly.

"ISCAR has very skilled machinists and engineers working together. A seminar covering all their milling tools followed, with their applications being demonstrated. They literally have robots everywhere handling a lot of the manufacturing. There's no time wasted there! Another interesting aspect was the heat treat facility they have built for the



Travelers flock to the Dead Sea from around the world to float in its salt and mineral-rich waters and see if the black mud's healing properties will cure their ailments.

tools that they manufacture. They used to send out a truck every day for heat treat until they built their own facility. We then spent two days visiting historic sites in Masada and Jerusalem, and we even floated in the Dead Sea!"

Ashly has the following advice for youth looking to start a new career.

"If you get an opportunity like this, you need to work hard at it. Some people in the training program gave up, but if you

work hard, it becomes a good career," she says. "I now see a lot of opportunities to do more than just machining. I'd like to work on machines for a few years and then get into more programming. I can even see myself possibly managing other people on the shop floor in the future." ■

This article is based on information from a Shop Metalworking Technology Magazine April 2017 article and other sources.



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The Western Manufacturing Technology Show is Back



WESTERN MANUFACTURING TECHNOLOGY SHOW

FOR THREE DECADES, THE WESTERN Manufacturing Technology Show (WMTS) has been a complete manufacturing experience providing Western Canada with the resources and knowledge needed to stay competitive.

Held every two years, the show will take place at the Edmonton Expo Centre, Northlands (Hall C) from June 6 to June 8, 2017.

In addition to well-known exhibitors such as DMG MORI, Machine Toolworks, Elliott-Matsuura Canada, Mazak Canada, Cascade Capital Machine Sales and Mitutoyo, WMTS offers three days of hands-on learning, including equipment demonstrations as well as training and networking with industry leaders in machining and tooling, metalworking, additive manufacturing and 3-D printing, advanced manufacturing solutions, including automation and robotics, as well as workforce development.

FIVE REASONS TO VISIT WMTS 2017

- Explore manufacturing equipment and cutting-edge manufacturing solutions from over 100 suppliers from across the globe.
- Absorb the invaluable information shared by three world-class keynote speakers, including futurist Jim Carroll.
- Spend time with industry experts and exchange ideas and information on advanced manufacturing in one of the 12 interactive technical sessions.
- Take advantage of peer-to-peer networking opportunities in a relaxed environment during the Come Together opening reception on June 6.

ONE-STOP SHOP

A one-stop, all-encompassing event for the latest technologies and trends in machine tools, tooling and accessories, metal fabrication, design, automation and assembly, advanced manufacturing, plant maintenance and process control. More than a tradeshow, WMTS brings together invaluable feature speakers, the interactive Knowledge Pod Series, and entertaining networking opportunities.

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SME connects all those who are passionate about making things that improve our world. As a nonprofit organization, SME has served practitioners, companies, educators, government and communities across the manufacturing spectrum for more than 80 years. Through its strategic areas of events, media, membership, training and development, and the SME Education Foundation, SME is uniquely dedicated to the advancement of manufacturing by addressing both knowledge and skills needed for the industry. ■■

For more information or to register, please visit www.wmts.ca or call (888) 322-7333, ext. 4426.

CTMA Forges



New Partnership with HRdownloads

AS YOUR ASSOCIATION AND ADVOCATE FOR the interests of the Canadian tooling and machining industry, the Canadian Tooling & Machining Association (CTMA) strives to provide members with resources to help their businesses thrive and is pleased to announce a new partnership with HRdownloads.

As part of HRdownloads' efforts to provide human resources solutions that fulfill our industry's unique challenges and priorities, CTMA members now save 10 percent on HRdownloads' Human Resources services.

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and safety requirements, HRdownloads™ understands the HR challenges that affect small business owners. Discover why they are trusted by thousands of Canadian businesses like yours, and how they can help you focus on your essential business activities.

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To learn more about HRdownloads and request a free trial, please visit the affinity page at www.ctma.com. ■■

How to Capitalize on the Booming Automotive Industry

ON MAY 3, THE CANADIAN Tooling & Machining Association (CTMA) was pleased to host a very informative event that featured operational best-practices and funding to improve the profitability of automotive manufacturers. Mentor Works Ltd. discussed Canadian government funding opportunities for Canadian automotive suppliers, while the keynote, Harbour Results Inc., put a spotlight on emerging industry trends.

GOVERNMENT FUNDING FOR AUTOMOTIVE MANUFACTURERS

It's an exciting time to be an automotive supplier. Emerging trends, technologies, and processes continue to inspire Canadian automotive stakeholders to invest in their competitiveness. In her presentation, Bernadeen McLeod of Mentor Works Ltd. discussed how businesses can integrate government funding into their strategic planning efforts by aligning their initiatives' timelines with funding application intake periods to optimize their funding potential.

An effective approach to government funding involves three main components:

1. Strategic projects/priorities;
2. Project timelines; and
3. Government impacts.

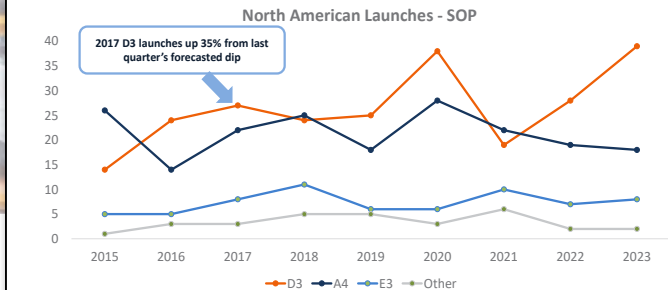
By focusing on all three of these aspects, businesses can ensure they are receiving funding for key activities at the right times for reasons that align with the government program's objectives.

Being proactive with government funding allows businesses to access funding for training, hiring, research and development, capital and technology adoption, and business expansion efforts. Bernadeen also covered some of the impacts of the Canadian Federal Budget 2017 on future funding, which committed a significant amount toward innovation, job creation, and clean technologies.



Left to right: James Ricci, Harbour Results Inc.; Bernadeen McLeod, Mentor Works Ltd.; and Robert Cattle, CTMA executive director.

The D3 Leads in Overall Number of Launches However, 2018 Shows Aligned Launch Numbers for D3 and A4



BEST PRACTICES AND EMERGING TRENDS IN THE CANADIAN AUTOMOTIVE INDUSTRY

James Ricci, chief technology officer of Harbour Results, provided insight into automotive best practices. James and his team offer operational and financial expertise to clients to help deliver results that impact their bottom line. James used his 20+ years of experience in engineering, manufacturing, quality and supply chain to take an overarching view of the Canadian automotive industry and its impact on the tool and die sector.

The keynote reviewed the results of the Q1 2017 Automotive Tooling Barometer Study, which found that sentiment among tool and die shops is at 85 percent—the highest it's been since the survey started in 2014. Additionally, James reviewed emerging trends, challenges, and opportunities that industry players should be aware of as they're conducting their strategic planning efforts.

The presentation also covered 2017 LMC Automotive vehicle launch data, which indicates that although the number of planned launches for 2018 remains high, there has been some slippage and delays specifically in the area of light vehicles. This information fueled a discussion around business and operational best practices for North American automotive stakeholders, including illustrative examples of how businesses have leveraged emerging trends to achieve improved growth, market share, or productivity.

LEARN MORE ABOUT FUNDING AND EMERGING TRENDS

If you missed the event, be sure to visit Mentor Works' blog, www.mentorworks.ca/blog, and Harbour Results' news site, www.harbourresults.com/newsblog, for the latest funding and industry news, respectively. ■■

If you have any questions, please contact:

Government Funding Support

Bernadeen McLeod, Mentor Works Ltd.
bernadeen@mentorworks.ca

Automotive Manufacturing Consulting

James Ricci, Harbour Results Inc.
jricci@harbourresults.com

CTMA Discusses Industry Issues with Federal Minister

By Robert Cattle, CTMA Executive Director

ON APRIL 21, CANADIAN TOOLING & Machining Association (CTMA) representatives met with the Honourable Navdeep Bains, Canada's Minister of Innovation, Science & Economic Development, to discuss issues affecting the machine, tool, die and mould industry.

With very tight time constraints, we sent an advance list of several industry issues, then focused our face-to-face meeting on three items we believe his department could assist with:

1. Canada is falling far behind on government tax incentives for Industrial Capital Equipment Acquisition. Under the previous government, depreciation on new equipment was 25 percent in year one, 50 percent in year two, and 25 percent in year three. New machinery is now depreciated over eight to ten years. This is a far cry from what the Italian government allows with its super-depreciation of 40 percent on new machine tools and hyper-depreciation of 150 percent on expenses corresponding to Industry 4.0 criteria.
2. Funding for the reinstatement of the CTMA's Advanced Software Training Program on a national scale (it ran in Ontario from 2009 to 2012). This program was a tremendous success and helped companies harness the latest technologies and improve competitiveness. It also stimulated new and updated design and machining software purchases.



Left to right: CTMA Director Ray Buxton (Mazak Canada); CTMA President Steve Watson (Century Tools & Machinery); CTMA Government Relations Chair Horst Schmidt (retired); the Honourable Navdeep Bains, Canada's Minister of Innovation, Science & Economic Development; CTMA Toronto Chapter Chair Jaswinder Bhatti (Samco Machinery Ltd.); and CTMA Executive Director Robert Cattle.

3. Scientific Research and Experimental Development (SR&ED) changes have adversely affected smaller companies. The program expects the same level of sophistication from SMEs as that of large ones with full engineering departments and the academic experience to manage and report their projects. SMEs have projects that qualify under SR&ED, but without the sophisticated engineering and academic resources, they do not apply for, nor receive, the much-needed benefits, placing them at a distinct disadvantage to larger companies.

Minister Bains appreciated the issues we discussed, and we look forward to future developments that will help solve them.

CTMA representatives also recently met with Bryan May, MP for Cambridge, ON, at Mazak Canada's offices to discuss issues affecting the machine, tool, die and mould industry. ■



Left to right: Chris Hergott, CTMA Director (XL Tool Inc.); Robert Cattle, CTMA Executive Director; Bryan May, MP Cambridge ON; and Ray Buxton, CTMA Director (Mazak Canada).

Struggling with Surface Prep prior to Coating or Bonding?

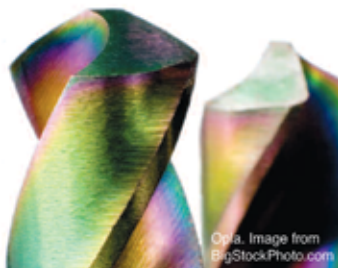
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Hittin' the Green

CTMA 19th Annual Shotgun Golf Tournament

June 6, 9:00 a.m. - 7:00 p.m.

THE CTMA IS HOSTING ITS 19th Annual Shotgun Golf Tournament on June 6, 2017 at the Pine Knot Golf & Country Club in Dorchester, ON. This sold-out event has attracted people from the tool, die, mould and machining industries since it began.

The day will begin with a putting contest and registration starting at 9:00 a.m., followed by the shotgun tournament at 10:30 a.m. and a boxed-lunch.

The 19th hole reception on the clubhouse terrace, a steak dinner, and the awards presentation will complete the day. ■



THANK YOU TO THIS YEAR'S GENEROUS SPONSORS!



MEMBER IN THE NEWS

Cavalier Tool & Manufacturing Opens New Facility

CAVALIER TOOL & MANUFACTURING HELD a ribbon-cutting ceremony on March 29, 2017 to mark a significant milestone in the company's history.



The audience of over 250 included municipal, provincial and federal dignitaries, culminating in the ceremonial ribbon-cutting by Windsor Mayor Drew Dilkens, Cavalier's President Brian Bendig, and General Manager Brenda Quint.

Showcased was their \$6 million, 22,000-square-foot addition, which included some of the additional \$3 million in new technology investment. The new facility will allow for advanced manufacturing processes in the assembly of moulds to help with speed-to-market capabilities.

As part of the ceremony, Cavalier continued with its long-standing tradition of supporting the community by announcing \$15,000 in scholarships and charitable donations. ■

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FGL Precision Works Inc. Embraces a Proactive Design Approach

By Paul Adair, Staff Writer, *The CTMA View*

FOUNDED BY FRANK, GEORGE, AND Leslie Meisels in 1965, FGL Precision Works Inc. has proudly cultivated a well-earned reputation for specializing in new moulds which are designed, engineered, and manufactured to meet customers' individual and specific needs.

Strategically located close to Toronto's Pearson International Airport, FGL has grown from its regional roots to sending international shipments around the world to countries such as the U.S., Australia, Belgium, Northern Ireland, Turkey, Saudi Arabia, China, Israel, Russia, and Venezuela.

FGL currently operates out of a 52,000-square-foot facility that includes 40,000-square-feet of manufacturing space. This purpose-built facility provides a comprehensive range of fully integrated CNC equipment that enables FGL to manufacture its complex and highly specialized moulds.

In-house design engineers use the latest in CAD and 3D modelling software while project managers implement the very latest in manufacturing principles to ensure overall quality and efficiency is completely optimized. From the beginning, FGL has carefully maintained a culture in which attention to detail is a core value, with the company applying stringent reviews and checks just to make sure each and every mould is machined to the highest quality standards.

The company's 50-plus years of experience in the plastics industry has allowed FGL to complete numerous projects across a

wide variety of industries, with an unrivaled expertise in custom moulds. Of note, FGL was responsible for building the world's largest mould, which boasted dimensions of 170 inches x 100 inches and weighed in at more than 90,000 pounds!

FGL specializes in low-pressure structural foam tooling, which reduces the amount of plastic used compared to conventional high-pressure injection. The process provides both cost and environmental benefits. When manufactured in this way, final product parts are also lighter in weight, which reduces associated transportation costs.

The company is wholly dedicated to gaining an in-depth understanding of its customers' products as they pertain to design and production. The company consults with clients during each step of the process, from design inception, to mould manufacturing and maintenance, to potential mould design revisions. The insight gained by doing this promotes a proactive design approach and better meets the specific needs of each and every project.

"Our customers have come to expect us to partner with them to develop tooling from a project's inception," says Tom Meisels, president of FGL Precision Works Inc. "We are willing and able to lend our expertise and experience to further develop a customer's ideas to make production and manufacturing possible."

FGL continues to meet the ever-changing needs of its customers as the industry evolves by freely adopting technological



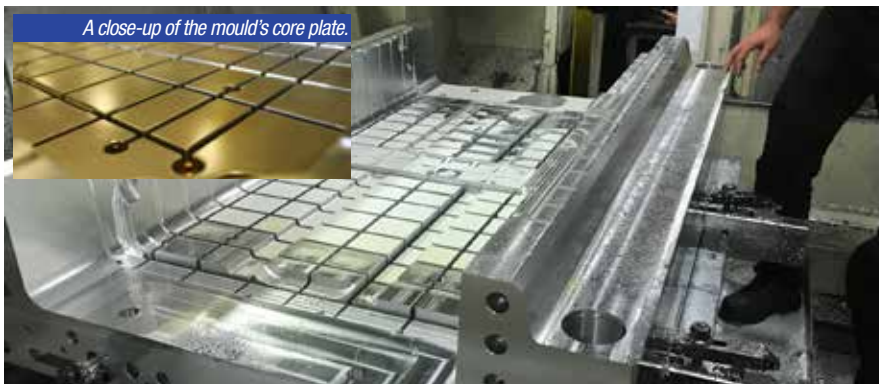
Roughing a cavity plate of a mould and removing aluminum from the block to achieve the general shape before finishing the process.

advancements in techniques, software, and equipment.

"As more and more current products are converted to reusable and recyclable plastics, FGL can use its expertise to help our customers convert their products to more environmentally-friendly materials, minimizing product material conversion times and make cost-effective tooling to reduce production and manufacturing costs," says Meisels. "FGL has always focused, and will continue to focus, with customers on developing their products using innovative techniques, no matter the size or scope of their project."

FGL supports and participates in Canadian Tooling & Machining Association (CTMA) activities in order to share ideas and help give back to the industry. The company has been involved in the association's CNC Program, hiring new workers who are just entering the labour-force and providing mentorship and training to the next generation of machinists. FGL also views the CTMA as a valuable resource that provides a large database of potential support, vendors, and information.

"The CTMA fosters a community within the industry that offers resources and insight to share ideas and learnings," says Meisels. "The association facilitates investment and future growth and benefits the health of the industry by educating companies on trends in future technology and markets." ■



A close-up of the mould's core plate.

A mould's core plate being finished for the construction industry (burial vault for fibre optics).

FOR MORE INFORMATION:

FGL Precision Works Inc.
475 Fenmar Drive
Toronto, ON M9L 2R6
Tel: (647) 288-1212
www.fglmolds.com

MAZAK BRINGS MULTI-TASKING PROWESS AND ADVANCED CNC TO WMTS

At WMTS 2017, Mazak Canada will demonstrate how the QTN 450M turning center with Multi-Tasking Done In One® capabilities boosts productivity and reduces cycle times for large-diameter, shaft-type part manufacturing. The company will also run simulations of its MAZATROL SmoothX CNC, the industry's fastest, most progressive machine tool control, in booth 213 from June 6 to 8 in Edmonton, AB.



The QTN 450M provides high-performance and value via its single set-up turning and milling operations that allow for improved throughput. The machine sports 457-mm (18") chuck mounted on a 50-hp, 2,000-rpm integrated spindle motor main turning spindle for heavy-duty metal removal. The spindle is a full-function, CNC-controlled C axis for milling and it indexes at 0.0001-degree increments to accurately position parts for square facing and slotting cuts and precisely-drilled holes.

With a 12-position drum turret and 10-hp, 4,000-rpm rotary tool spindle, the machine performs milling, drilling and tapping operations for efficient single set-up part processing.

Mazak's MAZATROL SmoothX CNC allows for faster and easier programming in either EIA or MAZATROL conversational and contributes to overall shorter part cycle times. It features several advanced functions, including high gain feed forward control, fast rotary axis speeds, variable acceleration control and intelligent pocket milling.

www.mazakusa.com

NEW SECO END MILLS BOOST MATERIAL REMOVAL RATES FOR A WIDE RANGE OF MATERIALS

Seco Tools recently released the Jabro®-HFM JHF181, an excellent choice for high-feed milling strategies in hardened steels and nickel-based alloys, and the Jabro®-Solid2 JS564 and JS565, which represent Seco's focus on developing tools for optimized roughing strategies for steels, stainless steels and titanium alloys.

The new Jabro-HFM JHF181 increases metal removal rates by up to 30 percent over traditional methods. The JHF181 is especially effective at machining complex parts that require long tool overhangs and a mix of multiple axial and radial machining operations. It also provides up to 30 percent more tool life when processing ISO H materials. With Seco's new HXT coating, the JHF181 gains a hard layer that delivers advanced thermal protection and high wear resistance.

The JHF181 is available in two-, four- or five-flute options with cutting diameters from 0.0787" (two mm) to 0.6299" (16 mm) and length options ranging from 2xD to 7xD. This end mill also has through-tool coolant capability for diameters from 0.2362" (six mm) to 0.4724" (12mm).

Designed for optimized roughing strategies, the new Jabro-Solid2 JS564 and JS565 offer 20 percent longer tool life due to stable tapered cores, polished NXT coatings and other features. The JS564 and JS565 provide a high radial engagement while maintaining high feeds and speeds for optimized roughing passes. The positive frontal teeth geometries make these end mills successful in axial and helical interpolation operations.

New, optimized chip splitter options create small chips when using long cutting lengths, ensuring the best possible chip evacuation, which is beneficial when machining deep pockets and reduces tool breakage and workpiece scrap.

The JS564 and JS565 are available in four- and five-flute designs in a broad range of cutting diameters and lengths. The JS565 is also available without chip splitters. For both the JS564 and JS565, cylindrical shank diameters are available from 0.1181" (three mm) to 0.7874" (20 mm), and Weldon shank diameters are available from 0.2362" (six mm) to 0.7874" (20 mm.)

www.secotools.com



CTMA Chapter News

Toronto Chapter

ON MARCH 23, 2017, THE Toronto Chapter hosted an event at MHI Canada Aerospace, Inc. in Mississauga, ON. Mitsubishi Heavy Industries (MHI) is a global company that, in 2006, created this world-class assembly facility in Canada. MHI has progressively grown in capability and capacity, with a vast product range including aircraft, aircraft major assemblies, rocket launchers, ships, power generators, and industrial machinery.

MHI Canada gave a very informative presentation, and it was amazing to see their growth in just 10 years and witness the amazing team work on the assembly lines. The presentation was then followed by a tour of MHI's manufacturing facility, where participants had the opportunity to see the plant running in full production and see the assembly of Bombardier CL350 Wing Assemblies and Global 5000/6000 Wing Assemblies, Systems Installation of Bombardier Global 5000/6000 Centre Fuselage and Marry-Up Bombardier G5000/6000 Centre Fuselage and Wing Assemblies.

Participants finished off the tour with a wonderful dinner and networking opportunity at Chop Steakhouse.

For more information on MHI Canada Aerospace, Inc. please visit www.mhi.com.



Toronto Chapter members enjoying the tour at MHI Canada Aerospace, Inc. in Mississauga, ON.



Left to right: Jaswinder Bhatti, Toronto Chapter chair (Samco Machinery Ltd.); Rod Woods, director of product definition, MHI Canada; and Michael McCarthy, president of MHI Canada.

Windsor Chapter

MEMBERS TOURED THE CANADIAN HISTORICAL Aircraft Association (CH2A) on April 5, 2017, in Windsor, ON. Their mission is to "honour Canadian veterans by preserving, maintaining, restoring, displaying, and demonstrating antique or vintage military and civilian aircraft and artifacts considered important to Canadian aviation history."

Participants learned all about the restoration of the Mosquito Bomber KB161 and the FM 212 Lancaster Bomber, which has been undergoing repairs since 2006. Over the last 10 years, volunteers with the Canadian Historical Aircraft Association have devoted more than 38,750 hours to this impressive restoration project. Windsor's Lancaster is one of only 17 left in the world today.



Windsor Chapter members enjoying the presentation by Don Christopher, vice-president and Lancaster Restoration Project manager, CH2A.

Windsor Chapter (continued)

Following a barbeque-style dinner in the hangar, Joshua Lewis, energy group manager from SNP Technical Services Inc., gave a presentation entitled CME Smart Green Program. Joshua talked about the Cap and Trade Program that came into effect in Ontario on January 1, 2017 and how the program will support manufacturers across Ontario with matching grants (50:50) up to \$200,000 for capital investment projects that reduce emissions, implement energy efficiency technologies and best practices through process and/or product improvement.

For more information on the Canadian Historical Aircraft Association, please visit www.ch2a.ca. For more information on the CME Smart Green Program, contact Joshua Lewis at jlewis@snp-tech.com.



Left to right: Mary Guthrie, events manager, CH2A; and Richard Janik, Windsor Chapter chair (J&C Tool & Die Ltd.), drawing the winner for a ride in the 1941 Boeing Stearman open cockpit biplane.

Western Ontario Chapter

MEMBERS ENJOYED A KITCHENER RANGERS game on March 3, 2017, sponsored by Deloitte in their private box. The evening provided an opportunity to network, watch the game, and enjoy the food and hospitality from our corporate sponsor Deloitte. ■■



Left to right: Ryan Wozniak, Western Ontario Chapter chair (Anchor Danly); and David Harper, senior manager of research and development tax services at Deloitte.

IN EVERY ISSUE

Calendar of Upcoming Events

JUNE 6

CTMA's 19th Annual Shotgun Golf Tournament
Dorchester, Ontario
www.ctma.com

JUNE 6-8

Western Manufacturing Technology Show (WMTS)
Edmonton, Alberta
www.wmts.ca

JUNE 16

CTMA Apprentice Awards Nomination Deadline
www.ctma.com

JUNE 28-30

ISTMA-World Conference
Joinville, Brazil
www.istma2017.com

SEPTEMBER 13

CTMA Annual General Meeting & Dinner
Ingersoll, Ontario
www.ctma.com

SEPTEMBER 14

Fifth Annual President's Invitational Golf Day
Ingersoll, Ontario
www.ctma.com

SEPTEMBER 18-23

EMO Hannover 2017
Hannover, Germany
www.emo-hannover.de

SEPTEMBER 25-28

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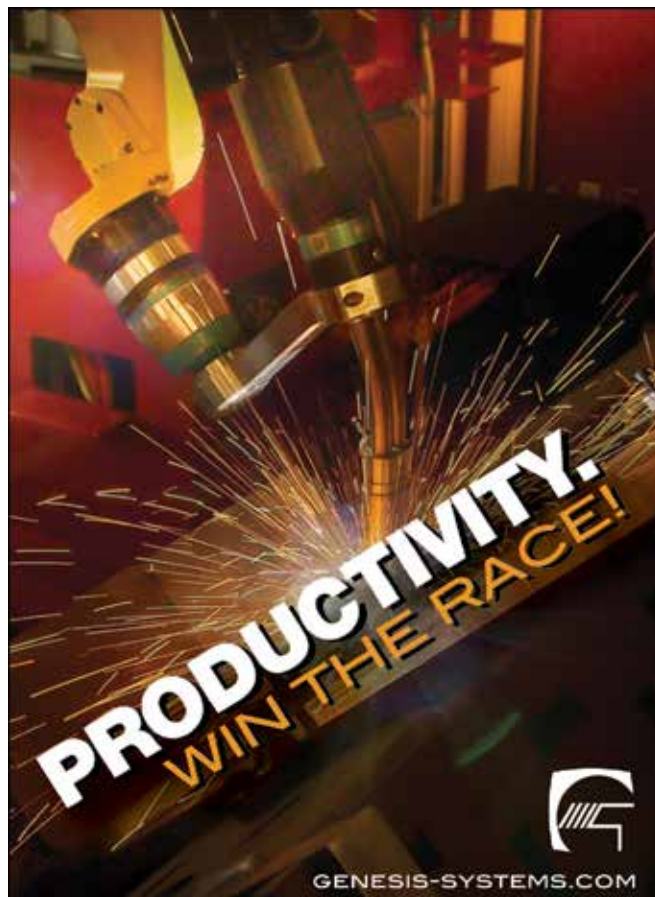
Alphabetical Listing of CTMA Member Companies

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Buyers' Guide

3D SYSTEMS / CIMATRON GROUP

Hari Sriharan
41700 Gardenbrook Road
Suite 100
Novi, MI, USA 48375
Tel: (248) 596-9700
www.cimatrontech.com
Number of employees: 16
Capabilities: Cimatron develops an integrated CAD/CAM software solution for toolmakers and manufacturers of discrete parts, which provides full associativity across the manufacturing process from quoting, through design, and up to delivery. The solutions include mould and die quoting, mould design, die design, EDM electrode, wire-EDM, 2.5-axis NC for tooling, and 5-axis milling.

A.V. GAUGE & FIXTURE INC.

Antosh Pieniazek
4000 Del Duca Drive, R.R. #1
Oldcastle, ON NOR 1L0
Tel: (519) 737-7677
www.avgauge.com
Number of employees: 219
Quality Standards: ISO 9001:2008 & ISO/IEC 17025 Accredited
Capabilities: A.V. Gauge & Fixture Inc., established in 1985 near Windsor, ON, is one of the largest fixture shops in North America and provides state-of-the-art design, build and certification capabilities required for the production of high-quality checking fixtures for the stamping, plastics and machining industries.

AARKEL TOOL & DIE INC.

Larry Delacy
17 Elm Drive South
Wallaceburg, ON N8A 5E6
Tel: (519) 358-5830
www.aarkel.com
Number of Employees: 150
Quality Standards: ISO 9001
Capabilities: Extensive knowledge and years of experience in the design and manufacture of aluminum, magnesium and plastic injection tooling of any size and complexity. Local presence and global resources providing high-quality, cost-effective options, whether it is aluminum or steel tooling. Proprietary tool design software and dedicated personnel help Aarkel Tool & Die achieve industry best lead times. Stationed in-house program managers offer the latest in technical innovation and extensive experience to customers.

ABSOLUTE INDUSTRIAL MANAGEMENT

Mark Rossi
5265 Burke Street
Windsor, ON N9A 6J3
Tel: (519) 737-0497
www.absoluteteind.com
Number of Employees: 18
Quality Standards: ISO 9001
Capabilities: Absolute Industrial Management is a full-service automation company. It designs, builds and manufactures equipment for the automotive, food, pulp and paper, and general manufacturing industries.

ACCURATE MACHINE & TOOL LTD.

Peter Bodi
103 Brisbane Road
Toronto, ON M3J 2K3
Tel: (416) 661-3621
www.accuratemachineandtool.com
Number of Employees: 54
Quality Standards: ISO9001:2001
Capabilities: Accurate Machine & Tool Ltd. is a value-added stamping, manufacturing, injection moulding, insert moulding, tool die design and build company.

ACTIVE INDUSTRIAL SOLUTIONS

David Read
2155 North Talbot Road
Windsor, ON N9Y 3Y2
Tel: (519) 737-1341
www.activeindustrialsolutions.com
Number of Employees: 300
Quality Standards: ISO 9001:2008
Capabilities: Active Industrial Solutions engineers, manufactures and services plastic injection moulds, sophisticated automation and secondary processing equipment and specialty machined components. Working in partnership with leading OEMs and manufacturers, the company's diverse product offering has a broad range of applications in automotive, oil and gas, aerospace and other industries with applicable needs.

ADVANCED MACHINING SERVICES INC.

Normand Marcoux
3232 Electricity Drive
Windsor, ON N8W 5J1
Tel: (519) 944-3433
www.advancedmachiningservices.com
Number of Employees: 18
Quality Standards: ISO 9001:2008
Capabilities: Precision machining of super alloys including 718 Inconel and 17-4SS and titanium, primarily for the oil and gas sector. Other services include wire-cutting EDM, spark drilling, laser part making and small part heat treating.

AIRTRONIC METAL & MACHINE PARTS LTD.

Ramon P. Garcia
22 Golden Gate Court
Toronto, ON M1P 3A5
Tel: (416) 298-9299
www.airtronic.com
Number of Employees: 10
Quality Standards: ISO 9001:2008
Capabilities: Airtronic was founded in 1975 and subsequently established an excellent reputation as a supplier of very high quality machined parts for many high-tech industries. Airtronic offers a complete manufacturing facility to accommodate short runs, prototypes, tooling, customer orders and high-volume production from raw materials to finished product.

ALUMINUM MOLD & PATTERN LTD.

Susan Beamish
15 Vanley Crescent
North York, ON M3J 2B7
Tel: (416) 749-3000
www.seatmold.com
Number of Employees: 130
Quality Standards: ISO 9001:2000
Capabilities: Aluminum Mold and Pattern (AMP) has more than 40 years' experience as both a machine shop and an aluminum foundry. The company has operations for the design and manufacture of tooling for plastic products: engineering, CAD/CAM, pattern shop, inspection, mould and fixture fabrication. The company's many high-speed machining centres run around the clock, seven days per week to meet customers' demands quickly and accurately. The company also has a foundry and plant in Saltillo, Mexico.

AMERJY TOOL & MOULD

Jay Garden
333 Green Road, Unit 3
Stoney Creek, ON L8E 2B1
Tel: (905) 662-6464
www.amerjy.ca
Number of Employees: 9
Capabilities: Amerjy Tool & Mould is an injection mould manufacturer specializing in high alloy aluminum moulds for 10- to 750-ton injection moulding machines. Its moulds are typically for high-volume automotive and medical components. The company's strengths include on-site designing and troubleshooting and very fast turnaround for new tooling and repair work.

ANCHOR DANLY

Paul Brisebois
2590 Ouellette Avenue
Windsor, ON N8X 1L7
Tel: (519) 966-4431
www.anchordanly.com
Number of Employees: 291
Quality Standards: ISO 9001; ISO 14001
Capabilities: Anchor Danly is a leader in the die set and metal manufactured products industry. Specializing in CNC flame cutting, stress relieving, blanchard grinding and CNC boring mill work. Anchor Danly is an exclusive Canadian distributor for the complete line of die and mould components featuring Lamina, Lempco, Danly IEM components and die springs. With a complete inventory of mild steel plate, from 1/4" thickness through 16" thickness, the company has metal fabrications for mining, construction, machine build, forestry and other custom applications. It also has custom cast iron and cast steel die sets, plates and machine bases. The company has increased CNC machine capacity, with installation of Awea 4025 (30 x 98 x 157 capacity) in Cambridge, ON and a SNK RB-6VM (80 x 137 x 236) in Windsor, ON.

ANCHOR DANLY

John Lammers
311 Pinebush Road
Cambridge, ON N1T 1B2
Tel: (519) 740-3060
(All other information—website, number of employees, quality standards and capabilities—is the same as the Anchor Danly Windsor location.)

ANCHOR DANLY

Richard Deschamps
1450, rue Alphonse D. Roy
Montreal, QC H1C 2K8
Tel: (514) 525-5560
(All other information—website, number of employees, quality standards and capabilities—is the same as the Anchor Danly Windsor location.)

ANCHOR DANLY FABRICATIONS

Carl Powers
95 Lyon Avenue North
P.O. Box 790
Tilbury, ON N0P 2L0
Tel: (519) 682-0470
www.anchoranly.com
Number of Employees: 50
Quality Standards: ISO 9001; ISO 14001 and CWB Certified
Capabilities: Custom quality steel/aluminum fabrications and machining. Profile cut, plasma cut and ground plate in A36/44W/1045/4140 (10 gallon to 12" thickness). Aluminum and steel fixture bases, plate straightening presses to 600-ton (straightens up to 5" plate). Sediment removal systems for grinding operations; stress relieving; annealing; plate forming; and grinding up to 144". CNC capacity up to 80 x 137 x 236 in the Windsor, ON facility for all of your fabrication machining needs.

ANDERDON MACHINE TOOL & MANUFACTURING INC.

Philip Gagnon Jr.
5170 Ure Street
Oldcastle, ON NOR 1L0
Tel: (519) 737-6246
www.anderdontool.com
Number of Employees: 31
Quality Standards: ISO 9001:2008
Capabilities: Build/design line, progressive, transfer dies for the auto industry; CMM measurement of checking fixtures.

ANSWER PRECISION

Dave Henning
146 Otonabee Drive
Kitchener, ON N2C 1L6
Tel: (519) 748-0079
www.answerprecision.com
Number of Employees: 58
Quality Standards: ISO 9001:2008; ISO 17025
Capabilities: Answer Precision is a manufacturing technology center providing premium quality products and assemblies from design to build to inspection. Servicing automotive, aerospace, medical and energy sectors, Answer Precision is a supplier of gauging/checking fixtures, close tolerance and complex multi-axis machining, tooling and automation equipment. Its climate controlled laboratory provides reverse engineering, digitizing, part layouts, GR&Rs and gauge inspections. Answer Precision is an approved supplier to Toyota, Chrysler and Air Canada.

ARLEN TOOL CO. LTD.

Wayne Martinuk
3305 Deziel Drive
Windsor, ON N8W 5A5
Tel: (519) 944-4444
www.arlentool.com
Number of Employees: 40
Quality Standards: ISO9001
Capabilities: Arlen Tool has been in business since 1974 and specializes in the manufacture and design of prototype and production, injection moulds, compression moulds, blow moulds, two-shot moulds and cloth-wrapped moulds. Arlen provides engineering part design support within the plastics industry for automotive and plastic processors of commercial products. Some of the company's part specialties include A, B, and C pillars garnish trim, glove box and IP components, step pads, roof rails, splash shields, wheel liners, headlamp bezels, grilles, side body trim moulding, air dams, gas tanks and multi-layer blow moulds.

ARMO TOOL LTD.

Ben Whitney
9827 Longwoods Road, R.R. #32
London, ON N6P 1P2
Tel: (519) 652-3700
www.armotool.com
Number of Employees: 145
Quality Standards: ISO 9001:2008
Capabilities: Armo is a provider of precision tooling, custom automation, robotics, and stamping dies to a wide variety of industries. The company's 40 years of building long-term relationships with manufacturing companies throughout the world is based on a focus on service and repeatable quality.

BOLZANO TOOL & DIE COMPANY LTD.

Chris Nikita
5185 Hennin Drive
Oldcastle, ON NOR 1L0
Tel: (519) 737-6682
www.bolanotool.com
Number of Employees: 26
Capabilities: Bolzano Tool & Die Co. Ltd. has been serving the tool and die industry for 40 years. From the beginning, Bolzano has built and maintained a reputation for on-time delivery, competitive pricing, commitment to quality, and knowledgeable customer service. The company's capabilities include die design, die building and tryout (including large multiple blank dies); die improvement, repair and rework; large capacity CNC (5-axis high-speed machining and 3-axis machining); soft tooling; prototyping; and specialty services (in-die tapping, clinching nuts and bolts and toggle locking parts).

BOWMAN PRECISION TOOLING

Jamie Bowman
55 Sinclair Boulevard
Brantford, ON N3S 7X6
Tel: (519) 752-6533
www.jpbowmantool.com
Number of Employees: 65
Quality Standards: ISO 9001:2008; S.P.C.; AQAP 5
Capabilities: Established in 1948, Bowman Precision Tooling has grown to become a leading solutions provider of metal stamping dies for the global automotive industry. The company has extensive experience in the design, build and tool proving of mid- to large-stamping dies up to 2,500 tons and focuses on dual-phase, multi-phase, HSLA and aluminum materials with the most challenging geometries and tolerances. Bowman Precision Tooling continues to succeed due to its commitment to continuous improvement, innovative engineering, team work and dedication to quality.

BURLOAK TOOL & DIE LTD.

Les Rackham
3121 Mainway Drive
Burlington, ON L7M 1A4
Tel: (905) 331-6838
www.burloaktool.com
Number of Employees: 50
Quality Standards: ISO 9002
Capabilities: Capabilities include die design and build; metal stampings to 2,000-ton; EDM; CNC machining; general machining; fabrication; machine build; CAD-CAM; and custom waterjet machining.

CALFRAMAX TECHNOLOGIES INC.

Raymond Little
3700 Del Duca Drive
Oldcastle, ON NOR 1L0
Tel: (519) 737-9990
www.calframax.com
Number of Employees: 58
Quality Standards: CT-PAT/PIP
Capabilities: Calframax Technologies manufactures and repairs moulds. Since opening in 1995, Calframax has made a place for itself being a market leader for its industrial containers, food packaging containers and horticultural products. Its in-house plastic injection presses allow Calframax to test all moulds extensively for customer satisfaction as well as research and development options.

CAMATECH INC.

Edward Smith
20 Commerce Crescent
Acton, ON L7J 2X3
Tel: (519) 853-2699
www.camatech.ca
Number of Employees: 17
Quality Standards: AS9100 (C); Controlled Goods
Capabilities: Precision CNC machining of general aviation, alternative fuel and test equipment components.

CAMBRIDGE HEAT TREATING INC.

Peter Robbins
753 Bishop Street North
Cambridge, ON N3H 2K8
Tel: (519) 653-7002
www.cambridgeheattreating.com
Number of Employees: 10
Quality Standards: ISO 9001:2008
Capabilities: Cambridge Heat Treating services include vacuum heat treating 48" x 48" x 60" with 10 bar quench capabilities. Large component stress relieving with crane capacity up to 100 tons. Ion nitriding, gas nitriding, plasma nitriding and DLC coating. Batch carburizing and neutral hardening up to 60" x 60" x 36". The company also provides normalizing, annealing, ferretic nitrocarburizing, solution annealing, and aging to stainless steels and aluminum.

CANADA MOLD TECHNOLOGY INC.

Riki Ivano
1075 Ridgeway Road
Woodstock, ON N4V 1E3
Tel: (519) 421-0711
www.canada-mold.com
Number of Employees: 42
Capabilities: In 1989, six Japanese companies founded Canada Mold Technology Inc. (CMT). CMT was created to design, build and maintain both prototype and production plastics injection moulds. Using advanced mould-making technology, CMT is able to reduce costs and timing, giving customers a superior product in the increasingly competitive world of the automotive industry.

CAVALIER TOOL & MANUFACTURING LTD.

Brenda Quint
3450 Wheelton Drive
Windsor, ON N8W 5A7
Tel: (519) 944-2144
www.cavaliertool.com
Number of Employees: 122
Quality Standards: ISO 9001:2008
Capabilities: Cavalier Tool was established in 1975 and is a respected global manufacturer of mid- to large-size moulds. Cavalier designs and builds moulds for widely diverse applications, including products for the automotive, commercial, recreational and domestic industries. Whether your needs are injection, structural foam, gas assist, multi-shot, thermoset, prototype or compression moulds, Cavalier Tool has the solution.

CENTERLINE (WINDSOR) LTD.

Steve Renaud
415 Morton Drive
Windsor, ON N9J 3T8
Tel: (519) 734-8464
www.centrline.com
Number of Employees: 575
Quality Standards: ISO 9001:2008
Capabilities: CenterLine (Windsor) Ltd. is a recognized industry leader in the design, manufacture and supply of custom automated manufacturing and assembly systems, satisfying a full range of welding, metal forming and cold gas-dynamic spray applications for the automotive, transportation, aerospace and defense industries. With more than 50 years of experience, CenterLine is a proven integrator with a wide range of process competencies. With operations in Canada, USA, Mexico, Brazil, Germany, India and Romania, CenterLine is ideally suited to assisting customers in maintaining their competitive advantage throughout many international markets.

CENTURY TOOLS & MACHINERY LTD.

Steve Watson
425 Superior Boulevard
Unit 4
Mississauga, ON L5T 2W5
Tel: (905) 795-1999
www.centurytools.com
Number of Employees: 8
Quality Standards: ISO 9001:2008
Capabilities: Century Tools is a specialized distributor of tooling components, toggle clamps, hoist rings, drill bushings, lifting points and machinery mounts, cutting tools and abrasives. Century Tools is Canada's largest stocking supplier for Carr Lane Manufacturing, DESTACO, American Drill Bushing, and All American Products.

CENTURY TOOLS & MACHINERY LTD.

Shannon Fotheringham
1111 Stellar Drive, Unit 3
Newmarket, ON L3Y 7B8
Tel: (800) 268-3523
Number of Employees: 3
(All other information—website, quality standards and capabilities—is the same as the Century Tools & Machinery Ltd. Mississauga location.)

CIMETRIX SOLUTIONS INC.

James Janetas
1143 Wentworth Street West
Suite 100
Oshawa, ON L1J 8P7
Tel: (905) 728-6962
www.cimetrixsolutions.com
Number of Employees: 13
Capabilities: Cimetrix Solutions Inc. is a leading provider of additive manufacturing solutions (3D printers), serving the design and manufacturing communities across Canada. Cimetrix specializes in supporting high requirement manufacturing applications such as high-performance prototypes, tooling and end-use parts. The company complements its solutions with prototype, design and manufacturing services.



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sales@rudchain.com
www.rudchain.com

CIRCLE 5 TOOL & MOLD INC.

Saylo Lam
485 Silver Creek Industrial Drive
Lakeshore, ON N8N 4W2
Tel: (519) 727-6400
www.circle5tool.com
Number of Employees: 44
Quality Standards: ISO 9001:2008
Capabilities: Circle 5 Tool & Mold is a world-class supplier of injection-moulded solutions serving the automotive and non-automotive industries. The company's 36,000 sq. ft. facility enables it to build production and prototype injection moulds that range from 50 tons to 2,500 tons. With in-house design, CNC, EDM departments and extensive cooperative offshore programs through its affiliates in China and Malaysia, Circle 5 Tool & Mold Inc. is a member of the Canadian Aboriginal and Minority Supplier Council.

CLARKSON-OSBORN TOOLS LTD.

Aaron Badgley
25 Hansen Road
South Brampton, ON L6W 3H8
Tel: (905) 453-4680
www.clarkson-osborn.com
Number of Employees: 10
Quality Standards: ISO9002
Capabilities: Clarkson-Osborn offers the largest range of HSS and carbide rotary metal cutting tools in Canada. Brands include the Blue Wizard family of machine taps, two-tone multiple application drills, and the Hyper line of maintenance products. Clarkson-Osborn products are sold exclusively through local independent authorized distributors.

CLASSIC TOOL & DIE (1986) INC.

Adriano Oppio
2325 Olympia Drive
Windsor, ON NOR 1L0
Tel: (519) 737-6618
www.classic-tool.com
Number of Employees: 27
Capabilities: Classic Tool & Die was founded in 1978 by Ivo Oppio (an Italian immigrant). His passion for creative design and quality craftsmanship were the winning combination for future successes. Continuous advancements in technology have made Classic the internationally renowned corporation it is today. Classic designs and builds the tools for parts supplied to all major automotive companies. It is a 100 percent Canadian, family-owned-and-operated manufacturing business.

COMPACT MOULD LTD.

Miguel Petrucci
120 Haist Avenue
Woodbridge, ON L4L 5V4
Tel: (905) 851-7724
www.compactmould.com
Number of Employees: 39
Capabilities: Compact Mould Ltd. is a Canadian-based manufacturer of high-quality extrusion blow moulds, stretch blow moulds, and injection stretch blow moulds. The company offers a full range of services, including pre-form and bottle design, mould design, prototype tooling, high-volume production tooling, as well as mould repairs, maintenance and modifications.

COMPUTOOL GAUGE & FIXTURE INC.

Tom Gagnon
5180 Ure Street
Oldcastle, ON NOR 1L0
Tel: (519) 737-6246
www.computoolgauge.com
Number of Employees: 9
Quality Standards: ISO 9001:2015
Capabilities: ComPuTool Gauge & Fixture specialize in manual operator-controlled gauges and fixtures. The company's gauges are used to inspect metal stamped parts, machined parts, plastic parts and part assemblies. Types of fixtures include CMM positioning/holding fixtures; SPC fixtures; attribute checking fixtures; environmental inspection gauges; assembly checking fixtures; cooling fixtures; welding fixtures and jigs. The company will build to your general or specific gauge and fixture specifications.

CONCEPT TOOLING AND MANUFACTURING

Doug McNair
150 Bradwick Drive, Unit 25
Concord, ON L4K 4M7
Tel: (905) 660-1600
www.concepttooling.com
Number of Employees: 20
Capabilities: Serving the metal stamping industry for over 28 years, Concept Tooling & Manufacturing designs, builds and samples small to large progressive and transfer dies, special jigs and fixtures. Specialties include an in-house design department and all manufacturing large capacity CNC machining/wire EDM, with the capability of handling multiple part programs.

CONCORDE PRECISION MACHINING INC.

Peter Gobel
481 Silver Creek Drive
Lakeshore, ON N8N 5G5
Tel: (519) 727-5100
www.concorde-pm.com
Number of Employees: 50
Capabilities: Concorde Precision Machining Inc. specializes in the high-precision, custom machining of large scale castings and assemblies for a variety of industrial end-users in the mining, transportation, oil and gas, machine tool, energy/power generation, off-road, and aerospace industries. Our 83,000 square foot facility houses 24 machines enabling us to meet volume requirements and expedited timing needs.

CREST MOLD TECHNOLOGY LTD.

Ed Bernard
2055 Blackacre Drive
Oldcastle, ON NOR 1L0
Tel: (519) 737-1546
www.crestmold.com
Number of Employees: 52
Quality Standards: ISO 9001:2008
Capabilities: Crest Mold Technologies Inc. is a highly sophisticated design and tooling resource for complex, tight tolerance, finely detailed and mechanized, quick cycling moulds built using robot interface between lights-out machining operations for everything from multi-shot automotive components to dunnage pallets for injection machines from 35 to 3,500 tons.

CUSTOM CONCEPTS MACHINING

Jeff Preston
4 Iroquois Road, Unit 5
Leamington, ON N8H 3V7
Tel: (519) 325-0804
www.customconceptsCanada.ca
Number of Employees: 2
Capabilities: Custom Concepts offers many machining, welding and CNC services. Its experience and talent gives the company the ability to complete all types of jobs for many industries and the company prides itself on this fact. Custom Concepts Machining also prides itself on the high standards of workmanship that comes with every job it completes, providing customers with quality and precision to meet the challenge of their project and completing projects on time and within budget. State-of-the-art equipment for fabricating, machining, welding and CNC ensure projects will be completed to specification.

CUTTING-EDGE TECHNOLOGIES

Sean O'Neil
3230 Moynahan Street
Windsor, ON NOR 1L0
Tel: (519) 737-9966
www.cuttingedgetech.ca
Number of Employees: 50
Quality Standards: ISO 9001:2008
Capabilities: Cutting-Edge Technologies can provide a full range of specialty machine shop services including grinding, drilling, 3-5 axis high-precision machining. The company can provide one-off prototype details or smaller production runs as required. Use of SHOPTALK software allows the company to fully customize information and track real-time status of each job. Whether your outsource needs are highly complex cavity details, mould components, interchangeable sub-inserts, replacement cavities, special purpose machine details or automation components, Cutting-Edge Technologies can fulfill your needs!

DAYTON LAMINA

Alan Kiely
861 Rowntree Dairy Road
Woodbridge, ON L4L 5W3
Tel: (905) 264-2445
www.daytonlamina.ca
Number of Employees: 42
Quality Standards: ISO 9001:2008
Capabilities: Dayton Lamina is a global manufacturer of precision metal stamping components, including wear components, cams and die springs.

DENSMORE TOOL & DIE WORKS LTD.

Jeff LaPlante
P.O. Box 308
2 Hiscott Street
St. Catharines, ON L2R 6T7
Tel: (905) 684-3113
www.densmoretool.com
Number of Employees: 21
Quality Standards: ISO 9001:2008
Capabilities: Densmore Tool, established since 1956, is located in St. Catharines, ON. The company designs (Autodesk Inventor) and manufactures precision dies, gauges, fixtures, balance/welding chucks and container tooling. CNC-equipped for turning, milling, wire and sink EDM, surface, cylindrical contour, spline and jig grinding. Densmore serves many different industries with a need for quality tooling and/or short run, high-precision parts.

DIEMEDIC TOOL & MACHINE

Egon Stein
134 Dearborn Place
Waterloo, ON N2J 4N5
Tel: (519) 888-6141
www.diemedic.com
Number of Employees: 10
Quality Standards: ISO 9001:2008
Capabilities: Diemedic Tool & Machine designs and builds tools and dies, jigs, fixtures; custom machining; CNC and EDM wire.

DIESCAN TOOL INC.

Fabian Bertoli
2940 Portland Drive
Oakville, ON L6H 5W8
Tel: (905) 829-1772
www.diescantool.com
Number of Employees: 25
Capabilities: Diescan is a leading manufacturer of medium to large metal stamping dies. The company's goal is to not only meet your expectations, but to exceed them. Every die is manufactured to the high standards expected in today's automotive market and are designed to succeed in the harsh environment in which it will perform.

DILAST TOOL & DIE LTD.

Denny Nedeljkovich
130 Fleming Drive
Cambridge, ON N1T 2B2
Tel: (519) 622-1051
www.dilast.ca
Number of Employees: 26
Capabilities: Dilast specializes in the design and production of precision tooling. The company designs and builds progressive extrusion, compound, transfer and line dies. Its in-house capabilities include design and simulation, conventional and CNC machining, wire EDM, press tryouts and CMM inspections. New to Dilast, the company now offers 5-Axis laser cutting services.

DOMINANT MOLD & DUPLICATING INC.

Frank Hong
5425 Outer Drive
Windsor, ON N9A 6J3
Tel: (519) 737-1980
www.dominantmold.com
Number of Employees: 6
Capabilities: Dominant Mold & Duplicating is a custom machine shop specializing in complex large components (6m x 2m x 1.25m). The company has been in business for over 30 years and has worked with aerospace, oil and gas, plastic moulds, and tool and die companies with its 5-axis machines.

DORMER PRAMET

Dan Murrell
2550 Meadowdale Boulevard
Unit 3
Mississauga, ON L5N 8C2
Tel: (905) 542-3000
www.dormertools.com
Number of Employees: 10
Capabilities: With competence, dedication and openness, Dormer has developed into one of the world's largest producers of solid carbide and high-speed steel cutting tools. Brand names include Dormer, Precision and Union Butterfield. The company has a full range of products, including drills, taps, end mills, reamers, dies and milling cutters.

DURADIE TECHNOLOGIES INC.

Laurence Smith
1940 Clements Road
Pickering, ON L1W 4A1
Tel: (905) 426-9990
www.duradie.com
Number of Employees: 37
Quality Standards: ISO 9001
Capabilities: Duradie is an ISO 9001-registered, world-class manufacturer of tooling for the automotive industry. With the latest in computer-aided design, machining and tryout presses up to 1,250 tons, the company has the ability to design, build and prove virtually any size of tooling completely in-house.

EAGLE PRESS & EQUIPMENT CO. LTD.

Mark Polewski
5170 O'Neil Drive
Oldcastle, ON NOR 1L0
Tel: (519) 737-1593
www.eaglepress.com
Number of Employees: 43
Capabilities: Eagle designs and manufactures a complete line of state-of-the-art metal, plastic and composite forming equipment.

ELECTROMAC GROUP (THE)

Desmond Griffiths
1965 Ambassador Drive
Windsor, ON N9C 3R5
Tel: (519) 969-4632
www.electromac.com
Number of Employees: 135
Quality Standards: ISO 9001:2008; TS1 6949:2009
Capabilities: The Electromac Group excels in all of the key program facets, including product design, tooling design and build, forming simulation and production intent prototyping. The Electromac Group specializes in the efficient manufacture and reliable operation of transfer dies, robotic tandem line dies, progressive dies and press hardening (hot stamp) tooling.

ELLIOTT-MATSUURA CANADA INC.

Frank Haydar
2120 Buckingham Road
Oakville, ON L6H 5X2
Tel: (905) 829-2211
www.elliottmachinery.com
Number of Employees: 70
Capabilities: Elliott-Matsuura Canada Inc. is an industry-leading supplier of quality machine tools coast-to-coast in Canada. Since 1950, Elliott has provided complex metal cutting solutions to meet the challenges of aerospace, automotive, medical, energy and other industries. Elliott's portfolio includes products from Matsuura, Nakamura, AgieCharmilles, Mikron, Zeis and other complementary suppliers.

ELLWOOD SPECIALTY METALS

Mark Roselli
3282 St. Etienne Boulevard
Windsor, ON N8W 5E7
Tel: (519) 944-4411
www.ess.elwd.com
Number of Employees: 27
Quality Standards: ISO 2000
Capabilities: Ellwood is a fully-integrated producer and distributor of specialty tool steels. The company's goal is to offer quality tool steels and non-ferrous tooling materials at competitive prices and on-time deliveries for all of your tool, die and mould making requirements.

EPIC TOOL INC.

Grant Mackenzie
26 Garden Avenue
Stoney Creek, ON L8E 2Y9
Tel: (905) 664-9531
www.epictool.ca; www.millstarCanada.com
Number of Employees: 10
Capabilities: Epic Tool is a manufacturer of solid carbide cutting tools of all descriptions.

E-W METAL WORKS (1993) INC.

Dave Mazzocca
1050 Crawford Avenue
Windsor, ON N9A 5C9
Tel: (519) 253-5229
www.e-wmetal.com
Number of Employees: 25
Quality Standards: ISO 9001:2008
Capabilities: E-W Metal Works is a custom manufacturer / job shop serving the machine tool, defense and aerospace sectors. The company does CNC burning and waterjet cutting, CNC turning, milling and boring, thermal stress relieving, blasting and grinding. Large capacity to 138" X and 98" Y. The company is CWB-certified to CSA 47.1 and 47.2, AWS D1.1 and D1.2.

EXCO ENGINEERING LTD.

Jeff Blackburn
1314 Ringwell Drive
Newmarket, ON L3Y 9C6
Tel: (905) 853-8568
www.excoeng.com
Number of Employees: 140
Quality Standards: ISO 9001; QS9000

Capabilities: Exco Engineering designs, engineers, builds, develops and tests die casting dies for large aluminum and magnesium die cast parts such as engine blocks, structural parts, transmission cases, instrument panels, etc.

FBT INC.

Rob Forstinger
413 Lakeshore Road, R.R. #6
St. Catharines, ON L2R 7K6
Tel: (905) 937-3333
www.fbtinc.ca

Number of Employees: 75
Quality Standards: ISO 9001:2008
Capabilities: FBT Inc. is an advanced manufacturing company specializing in highly engineered tight tolerance precision machined components. Its state-of-the-art facility, machines, engineers and machinists will deliver solutions for improved quality and continual cost improvements. Experience working with most materials, including high-nickel alloys, stainless steels, high-speed steels, tungsten carbide and ceramics. Though the company can do smaller quantities and larger parts, its ideal program is something that could fit within a two-foot by four-foot space, has a high level of technical difficulty and range from a requirement of hundreds to tens of thousands of parts per year.

FGL PRECISION WORKS INC.

Tom Meisels
475 Fenmar Drive
Toronto, ON M9L 2R6
Tel: (647) 288-1212
www.fglmolds.com

Number of Employees: 35
Capabilities: FGL Precision Works designs and builds injection, structural foam, gas assist and compression moulds weighing as much as 90,000 lbs. for the automotive, construction, consumer, leisure, trucking, garden furniture, computer furniture, and material handling markets. Operating 24 hours a day, seven days a week, FGL's services include product development, CAD/CAM, EDM, CNC machining, gun drilling and digitizing.

G.S. DIE & DESIGN INC.

Tom Cacic
260 Superior Boulevard
Mississauga, ON L8T 2L2
Tel: (905) 670-0388
www.gsdi.com
Number of Employees: 49
Quality Standards: ISO 9001:2008

Capabilities: G.S. Die & Design Inc. designs and builds progressive and transfer dies.

GARTECH INC.

Tony Paget
910 Arvin Avenue
Stoney Creek, ON L8E 5Y8
Tel: (905) 643-6414
www.gartech.com
Number of Employees: 35
Quality Standards: ISO 9001

Capabilities: Gartech provides manufacturing services for new blow moulds, including part design, mould design and construction. Gartech also provides redesign and mould modifications to improve part quality functionality and enhance processing benefits. Due to the company's many years of experience, it also provides a consulting service relative to processing parameters, part design, and mould modifications and/or repairs.

GENIUS SOLUTIONS

Kristina Dani
1305, boulevard Lebourgneuf
Suite 510
Quebec, QC G2K 2E4
Tel: (877) 987-6005
www.geniuserp.com
Number of Employees: 8

Quality Standards: Microsoft Gold Certified Partner
Capabilities: Genius Solutions is a leading provider of manufacturing and enterprise (MRP/ERP) software for small- to mid-size companies. Genius Manufacturing provides a flexible, integrated end-to-end solution that integrates with most popular accounting packages. The company's family of products, including GeniusWorks for SolidWorks and Genius Productivity, provides the competitive edge that allows you to be successful in an often uncertain marketplace.

GLIDER GUARD TOOL & DIE INC.

Brad Cox
5135 Ure Street, R.R. #1
Oldcastle, ON NOR 1L0
Tel: (519) 737-7313
www.gliderguard.com
Number of Employees: 50
Quality Standards: ISO 9001:2000

Capabilities: Glider Guard is a recognized leader in decorative and surface trim tooling. The company designs and builds forming dies, injection moulds, fixtures and gauges, including prototype dies and moulds. High-speed machining centres, wire EDM and EDM machines, as well as tryout presses up to 500 tons.

GRAFF DIAMOND PRODUCTS LTD.

Marianne Vardon
35 Hale Road
Brampton, ON L6W 3J9
Tel: (800) 465-9021
www.graffdiamond.com
Number of Employees: 9

Capabilities: Graff Diamond Products is a Canadian manufacturer of diamond and CBN grinding wheels, jig grinding pins, diamond lapping compounds and dressing tools. Its specialty is custom-engineered tooling made to customer specifications. The company's technical tool specialists can assist you in getting the right grinding or cutting tool for your particular application.

GREENFIELD INDUSTRIES INC.

Mike Tusch
1305 Meyerside Drive
Mississauga, ON L5T 1C9
Tel: (905) 696-2300
www.top-eastern.com
Number of Employees: 9
Quality Standards: ISO 9201

Capabilities: Greenfield Industries markets a full range of high-speed steel cutting tools, such as HSS drills, taps, reamers, end mills, counterborers, countersinks, dies, milling cutters and assembled threading tools. The company also offers a full range of round shank solid carbide cutting tools. A fast delivery service is offered on special taps, intermediate diameter reamers and stepdrills.

GUHRING CORP.

Jim Gale
20 Steckle Place
Units 14 & 15
Kitchener, ON N2E 2C3
Tel: (519) 748-9664
www.guhring.com
Number of Employees: 14
Quality Standards: ISO 9001

Capabilities: A leading manufacturer of high-quality, advanced design cutting tools. The company's standard product offering totals more than 50,000 items, including metric and fractional sizes. Drills, taps and reamers manufactured from high-speed steel, HSCO and several grades of carbide. Guhring is recognized worldwide for excellent quality, precise manufacturing and outstanding performance on standard and special tool applications.

H. BECK MACHINERY LTD.

Lisa Beckstette
3085 Deziel Drive
Windsor, ON N8W 5A5
Tel: (519) 948-5430
www.hbeckmachinery.com
Number of Employees: 22
Quality Standards: ISO 9001:2008

Capabilities: H. Beck Machinery is a supplier of large-scale, custom CNC machining services, offering full 5-axis high-speed capabilities.

H. J. MACHINE & PATTERN LTD.

Curjinder Jammu
675 Superior Drive
Waterloo, ON N2V 2C8
Tel: (519) 746-7077
www.hjmach.on.ca
Number of Employees: 10
Quality Standards: ISO 9001:2015

Capabilities: H. J. Machine & Pattern Ltd. is a designer and builder of tools, dies, moulds, pattern equipment in wood, metal and plastic; moulds for plastic injection, rubber, investment casting dies, vacuum forming moulds, permanent moulds, die casting dies, checking fixtures (gauges) in wood, metal and plastic; master patterns, matchplates, coreboxes; CMM services; CAD/CAM system, Mastercam, vertical CNC milling centers.

HALLINK RSB INC.

Jason Warrington
284 Pinebush Road
Cambridge, ON N1T 1Z6
Tel: (519) 624-9720
www.hallink.com
Number of Employees: 24

Capabilities: Hallink RSB Inc. specializes in the manufacture of Bio-Plastic & PET blow mould equipment and related components for the plastics industry, combining precision design and craftsmanship with state-of-the-art CAD/CAM software and equipment.

HARBOUR TECHNOLOGIES LTD.

David Glover
2545 Doty Place
Windsor, ON N8X 2W5
Tel: (519) 969-0641
www.harbouram.com
Number of Employees: 16

Capabilities: Harbour Technologies Ltd. is a third-generation, family-run company with more than 40 years of manufacturing experience. Specializing in custom machine tools, high-tolerance machining and assembled components for the nuclear, aerospace, and automotive industries, the company has a highly skilled and experienced team. Its commitment to quality and hands-on, cost-effective approach are what makes Harbour Technologies Ltd. the leader in the automation, assembly and machining of components.

HARTFORD TECHNOLOGY LTD.

Lee Shaffer
50 Paxman Road, Unit 9
Toronto, ON M9C 1B7
Tel: (416) 622-7282
www.hartfordtechnology.ca
Number of Employees: 2

Capabilities: Hartford Technology distributes vertical and wire EDM supplies, tooling and waterjet cutting machinery, and liquid filtration systems. The company also specializes in forge dies, general machining and electrode manufacturing.

HARVAN ENGINEERING LTD.

Paul Vleuten
P.O. Box 1706
612 Jack Ross Avenue
Woodstock, ON N4S 0B1
Tel: (519) 537-8311
www.harvan.com
Number of Employees: 49
Quality Standards: ISO 9001:2000

Capabilities: Harvan Engineering Ltd. manufactures valve components, threaded and splined shafts, torsion and stabilizer bars and welded suspension systems, all in a modern 49,000 sq. ft. plant using the latest CNC mills and lathes and new welding equipment. Customers include manufacturers of oil and gas equipment, agricultural machinery, military vehicles and industrial machinery.

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HIBAR SYSTEMS LTD.

Robert Flack
35 Pollard Street
Richmond Hill, ON L4B 1A8
Tel: (905) 731-2400
www.hibar.com

Number of Employees: 130
Capabilities: Hibar Systems is a leading North American manufacturer of high-technology automated liquid dispensing and filling systems. Hibar manufactures high-speed battery assembly lines, advanced dispensing systems, custom-engineered packaging systems and automated assembly systems. Hibar provides design, engineering and manufacturing automation expertise, including special equipment design, in an integrated offering.

HOPE AERO PROPELLER & COMPONENTS INC.

Terry Hope
7605 Bath Road
Mississauga, ON L4T 3T1
Tel: (905) 677-8747
www.hopeaero.com

Number of Employees: 100
Quality Standards: Transport Canada
Capabilities: Hope Aero's vision is to be a world-class preferred supplier of its products and services. The company's world-class status will be achieved by its people, who are respected for their individual and team contributions—to be customer-driven and to never lose focus on the family principles that built Hope Aero.

HORN USA, INC. - CANADIAN OPERATIONS

Duane Drape
320 Premier Court, Suite 205
Franklin, TN, USA 37064
Tel: (615) 771-4100
www.homusa.com

Number of Employees: 1
Quality Standards: ISO 9001 & 14001; API-Q1
Capabilities: Horn USA, Inc. is the technology leader of indexable cutting tools with experience in more than 110,000 custom application solutions and engineering expertise applied to more than 17,000 standardized tools for turning and milling. Highly skilled application engineers provide a foundation of communication and reliable support in the field.

HUSKY INJECTION MOLDING SYSTEMS LTD.

Dennis Sanchioni
530 Queen Street South
Bolton, ON L7E 2N3
Tel: (905) 951-5000
www.husky.ca

Number of Employees 400
Quality Standards: ISO9001:2008
Capabilities: Husky Injection Molding Systems is a leading supplier of injection moulding equipment and services to the plastics industry. The company designs, manufactures and integrates the industry's most comprehensive range of injection moulding equipment including machines, moulds, hot runners, auxiliaries and integrated systems. Husky Injection Molding Systems' value-added services include pre-form development, factory planning, customer training, systems integration and complete asset management.

INGERSOLL CUTTING TOOLS

Tom Winkler
845 South Lyford Road
Rockford, IL, USA 61108-2749
Tel: (519) 494-5252
www.ingersollcuttingtools.com

Number of Employees: 10
Quality Standards: ISO 9001
Capabilities: Ingersoll Cutting Tools is known internationally as an innovator of standard and special engineered products for the metalworking industry and is a member of the IMC Group of Companies. Ingersoll's 100-year heritage started in the automotive industry and has evolved into a company producing world-class products to suit heavy industries, aerospace, die and mould, and power generation.

IN-HOUSE SOLUTIONS INC.

Kevin Hesch
240 Holiday Inn Drive
Unit A
Cambridge, ON N3C 3X4
Tel: (519) 658-1471
www.inhousesolutions.com

Number of Employees: 55
Capabilities: In-House Solutions has been in operation for more than 25 years and is comprised of a team of experienced engineers, technicians, machinists, software developers and trainers who are dedicated to selling, supporting, developing and implementing CAD/CAM/DNC, Octopus Robotic Software, simulation solutions and portable CMM solutions.

IN-HOUSE SOLUTIONS QUEBEC

Simon Lachance
6555, boulevard Métropolitain Est.
Suite 202
Montreal, QC H1P 3H3
Tel: (877) 333-8808
www.inhousesolutions.com/fr

Number of Employees: 2
(Capabilities are the same as In-House Solutions Inc.'s Cambridge location above.)

INSPECTION AIR GAUGE LTD.

Ray Spamaay
3298 Riberty Road
Windsor, ON N8W 3T9
Tel: (519) 966-1232
www.inspectionair.com

Number of Employees: 42
Quality Standards: ISO 9001:2000
Capabilities: Inspection Air Gauge manufactures various types of gauges and gauging systems for use in quality control by the industry. The company designs and builds to close tolerances, process gauges and electronic computerized gauges in a temperature-controlled environment. Inspection Air Gauge is an authorized provider integrator of manual and robotic non-contact measurement technology.

INTEX TOOLING TECHNOLOGIES

Mark Hoefflich
230 Edward Street
Aurora, ON L4G 3S8
Tel: (289) 840-1095
www.intextooling.ca

Number of Employees: 24
Quality Standards: TS 16949
Capabilities: Intex Tooling Technologies is a Canadian tooling solutions provider to the North American plastics industry. It provides engineered solutions, two-shot moulding, multi-material, insert moulding and conventional tooling. Concurrent tooling with part design is a specialty, with a press target range 40 to 1,800 tons. Intex Tooling Technologies is driven by innovation, we embrace technology and produce excellence.

ISCAR TOOLS INC.

Ronnie O'Byrne
2100 Bristol Circle
Oakville, ON L6H 5R3
Tel: (905) 829-9000
www.iscar.ca

Number of Employees: 54
Quality Standards: ISO 9003
Capabilities: ISCAR is a market-leading producer of unique and innovative cutting tools for metalworking. Through advanced research and development, ISCAR introduced a completely new technology with its SUMO TEC product line. With specialized SUM TEC coatings and geometries for a completely new line of 3P (Premium Productivity Products), ISCAR continues to set the industry standards for cost-effective performance and end-user profitability.

J & C TOOL & DIE LTD.

Richard Janik
3400 Ontario Street
Windsor, ON N8Y 1N9
Tel: (519) 945-6391
www.jctool.com

Number of Employees: 23
Quality Standards: ISO 9001
Capabilities: Custom precision machining of small to medium size special machine, die, mould and fixture components; CNC turning, milling and wire EDM; precision and jig grinding; designers and builders of small to medium size metal stamping dies, fixtures and gauges; and repair and modification of machinery, equipment and tooling.

JAHN ENGINEERING LTD.

Louis Jahn
5040 O'Neil Street
Oldcastle, ON NOR 1L0
Tel: (519) 737-9940
www.jahngeng.com

Number of Employees: 80
Quality Standards: ISO 9001:2008
Capabilities: Jahn Engineering is a full-service company providing manufacturing process solutions from the concept stage through engineering, development, build and project management of metal stamping dies (transfer, warm-form, progressive, line, in-die welding and assembly), automation assembly equipment (robot weld lines, specialized fixtures, dedicated and flexible assembly systems, material handling and custom machining centers), check fixtures and CMM inspection services (attribute, variable, automated and assembly/verification) and specialized machining (3-, 4-, 5- and 7-axis CNC up to 400").

JANCOX METAL PRODUCTS INC.

Mark Gortnar
3966 Nashua Drive
Mississauga, ON L4V 1M5
Tel: (905) 678-0550
www.jancoxmetal.com

Number of Employees: 38
Quality Standards: ISO 9001:2008
Capabilities: Jancox Metal Products specializes in the design, manufacture and service of checking gauges and fixtures for the automotive and other industries; custom and production machining; assembly services and dimensional (CMM) inspection services.

JAVELIN TECHNOLOGIES INC.

John Carlan
3457 Superior Court, Unit 1
Oakville, ON L6L 0C4
Tel: (905) 815-1906
www.javelin-tech.com

Number of Employees: 45
Capabilities: Javelin Technologies Inc. has been a provider of technology solutions since 1997. The company is an expert in 3D design and has helped thousands of companies with solutions for mechanical design, electrical design and rapid prototyping. Large or small, Javelin Technologies has the skills and experience to propel organizations to new heights.

KAPCO TOOL & DIE LTD.

Matt Rodzik
3200 Devon Road
Windsor, ON N8X 4L4
Tel: (519) 966-0320
www.namco.com/locations-kapco-tool-die.php

Number of Employees: 43
Quality Standards: ISO 9001:2008
Capabilities: Founded in 1965, Kapco supplies North America with dies for the automotive, sheet metal and stamping die industries. Expertise in design and build of deep draw, ultra high-strength steel and aluminum parts for progressive, transfer and multistage dies, the company's facility includes six large CNC 3-axis and 5-axis machining centers (236" x 118"), and tryout press up to 1,000-ton (198" x 98").

KBC TOOLS & MACHINERY

Paula Bass
6200 Kennedy Road, Unit 1
Mississauga, ON L5T 2Z1
Tel: (905) 564-6600
www.kbctools.com

Number of Employees: 20
Capabilities: KBC Tools & Machinery has been supplying the metalworking industry since 1965 with world-class tooling and quality imports. With over 600 brand names and more than 100,000 SKUs of tooling, machinery and accessories, KBC has what you need to keep everything running. Cutting tools, carbide tooling, fluids, workholding, abrasives, measuring, tool room accessories, hand tools, shop supplies, power and air tools, and machinery.

KBC TOOLS & MACHINERY

Carmela Fachineri
5080 O'Neil Drive
Oldcastle, ON NOR 1L0
Tel: (519) 737-7000

(All other information—website, number of employees, quality standards and capabilities—is the same as the KBC Tools & Machinery Mississauga location.)

KBC TOOLS & MACHINERY

Alana MacKenzie
108-1538 Cliveden Avenue
Delta, BC V3M 6J8
Tel: (604) 540-4050

(All other information—website, number of employees, quality standards and capabilities—is the same as the KBC Tools & Machinery Mississauga location.)

KOMET OF CANADA, INC.

Joseph Tabri
2775 Slough Street
Mississauga, ON L4T 1G3
Tel: (905) 551-1743
www.komet.com

Number of Employees: 6
Quality Standards: ISO 9001:2008
Capabilities: Komet Group Tools+Ideas is the worldwide technology leader for innovative tool concepts and offers complete solutions for hole making, including finishing threading. Customers know the company as a manufacturer of premium tools and see the ideas behind its solutions. Komet Group has this objective: TOOLS+IDEAS, a new way of being able to offer customers long-term, sustainable advantages through support and services.

KYTECH MACHINE WORKS LTD.

Chris Birker
33 Albert Street
Mount Albert, ON L0G 1M0
Tel: (905) 473-4062
www.kytechmachine.com

Number of Employees: 10
Capabilities: Based in the pastoral setting of Mount Albert, ON, Kytech Machine Works is a high-technology CNC job shop. Services include CNC 3-axis turning up to 36" diameter x 240" length, CNC 4-axis and 5-axis milling up to 32" x 84".

LANDAU GAGE INC.

Ken Bishop
2950 Kew Drive
Windsor, ON N8T 3G7
Tel: (519) 944-6363
www.landaugage.com

Number of Employees: 14
Capabilities: Landau Gage Inc. has been in business since 1978 manufacturing precision gauges for the automotive industry. The company specializes in air and electronic gages, both manual and automatic inline gages and provides customers with value-added inspection and statistical feedback that is used to monitor the process.

LONGTERM TECHNOLOGY SERVICES INC.

Aaron Guo
255 Queens Avenue
Suite 1760
London, ON N6A 5R8
Tel: (226) 777-0162
www.longtermtec.com

Number of Employees: 1
Capabilities: Longterm Technology Services has more than 15 years of UG/NX experience in the automotive and consumer product mould and tooling industries. It is an independent consulting firm and Siemens Channel partner that specializes in helping customers choose and unleash the full power of Siemens NX. Whether it is through education, consultation or providing you with the right software solutions, the company will show you how you can bid on, and win, more contracts.

MANOR TOOL & DIE LTD.

Eleanor Ofner
5264 Pulleyblank Street
Oldcastle, ON NOR 1L0
Tel: (519) 737-6537
www.maxidiegroupp.com

Number of Employees: 170
Quality Standards: ISO 9001 (2000)
Capabilities: Manor Tool & Die has an 80,000 sq. ft. facility providing part simulation and development, prototype tooling, design and build of transfer, line and progressive tools to the North American automotive industry through a full complement of CNC machining centers, laser machines, press tryout and CMM facilities.

MASSIV DIE-FORM (DIV. OF MAGNA)

Mick O'Neill
7655 Bramalea Road
Brampton, ON L6T 4Y5
Tel: (905) 458-4041
www.magnaint.com
Number of Employees: 325
Quality Standards: ISO 9000
Capabilities: Manufacturers of medium and large stamping dies. The manufacturing processes include machining (numerically controlled and conventional), assembly, tryout and production. Massiv is also responsible for die design, pattern construction and casting of associated cast iron and cast steel die components. Principal technologies applied include computer-aided design, computer-aided manufacturing and coordinate measuring machine inspection.

MAZAK CORPORATION CANADA

Ray Buxton
50 Commerce Court
Cambridge, ON N3C 4P7
Tel: (800) 668-5449
www.mazakcanada.com
Number of Employees: 38
Capabilities: Mazak Corporation Canada is responsible for the sales and service of Mazak machines throughout Canada. With a product range of close to 300 models, the company has the capability to satisfy the needs of every industry. Mazak sells through its distribution partners, AW Miller (Ontario and eastern provinces) and Machine Toolworks (Manitoba and western provinces).

MCMASTER MANUFACTURING RESEARCH INSTITUTE

Stephen Veldhuis
JHE 316 - 1280 Main Street West
Hamilton, ON L8S 4L7
Tel: (905) 525-9140
www.mmi.mcmaster.ca
Number of Employees: 12
Capabilities: The McMaster Manufacturing Research Institute combines its experience with state-of-the-art equipment to meet the sophisticated research and development needs of leading manufacturers. The focus of this research group has been to develop intelligent solutions to issues faced by Canada's manufacturers in all steps of machining processes.

MEGA MOLD INTERNATIONAL INC.

David Thibert
4565 Courtney Road 46
Maidstone, ON NOR 1K0
Tel: (519) 979-5111
www.megamoldint.com
Number of Employees: 34
Capabilities: Mega Mold International Inc. produces world-class tooling for the automotive and recreational markets. The company has delivered the best-in-class cycle and part quality since 1998. Its staff of dedicated professionals assures all tooling built locally or offshore exceeds client standards, with a 100 percent guarantee. Mega Mold has in-house design, CNC, EDM and five Cranes, all handling work up to 3,000 ton press capacity.

MEGATEL INC.

Marc Hasrouny
7100 Edwards Boulevard
Mississauga, ON L5S 1Z1
Tel: (905) 565-8888
www.megatel-inc.com
Number of Employees: 10
Capabilities: Megatel Inc. is an independent machine tool importer serving the Canadian metalworking industry with affordable and reliable solutions since 1980. Operating out of Mississauga, Windsor and Montreal, Megatel is strategically located to better serve its customers. AWEA Machining Centres, TAKUMI Machining Centres and GOODWAY Turning Centres are just a few of the major brands represented by Megatel Inc. The company has over \$8 million worth of stock across all three locations. Equipped with the latest technical support technologies and 16 service engineers across Ontario and Quebec, your machine won't stay down for too long.

MEMEX AUTOMATION INC.

John Rattray
3425 Harvester Road, Suite 200
Burlington, ON L7N 3N1
Tel: (905) 635-1540
www.memex.ca
Number of Employees: 10
Capabilities: Memex Automation Inc. has been providing innovative shop floor productivity solutions since 1992. Products include Merlin MES, OEE + DNC software, CNC memory, machine monitoring and dynamic computer-aided manufacturing (DCAM).

MENTOR WORKS LTD.

Chris Casemore
151 Savage Drive, Unit 5
Cambridge, ON N1T 1S6
Tel: (888) 599-3111
www.mentorworks.ca
Number of Employees: 20
Capabilities: Mentor Works, the Canadian government funding expert, provides assistance and support services related to small business funding grants. By assessing clients' strategic objectives and innovation challenges, Mentor Works is able to match optimal government grants for small businesses in Ontario and across Canada to accelerate business growth.

METRIC MOLD (1983) INC.

Rick Allison
2045 Astor Crescent, R.R. #1
Oldcastle, ON NOR 1L0
Tel: (519) 737-1311
www.metricmold.com
Number of Employees: 23
Quality Standards: ISO 9001:2008
Capabilities: Injection and compression moulds up to 1,000-ton capacity lens, gries, mirror housing, HSCS cosmetic and appearance parts, dose tolerance moulds, automotive and non-automotive parts.

MICROMETRIC LTD.

Vince Docimo
1210 Markham Road, Unit 5
Scarborough, ON M1H 3B3
Tel: (416) 291-1974
www.micrometric.net
Number of Employees: 6
Quality Standards: ISO 9002 (pending)
Capabilities: Micrometric Ltd., established in 1961, is a well-equipped, environmentally controlled machine shop. The company's services include, but are not limited to, design engineering, special tooling for the automation and manufacturing industry and complete turnkey solutions for problem areas. Micrometric has the ability to hold tight tolerances with high-precision equipment.

MILACRON CANADA CORP.

Gary Thibert
3275 Deziel Drive
Windsor, ON N8W 5A5
Tel: (519) 948-5001
www.milacron.com
Number of Employees: 40
Capabilities: Supplier of standard and special moulds and components, custom mould bases, and hot runner systems.

MITUTOYO CANADA INC.

Erin Farmer
2121 Meadowvale Boulevard
Mississauga, ON L5N 5N1
Tel: (905) 831-1261
www.mitutoyo.ca
Number of Employees: 58
Capabilities: Mitutoyo Canada Inc. offers total metrology solutions for today's manufacturing challenges and is trusted worldwide to deliver quality, affordability and durability. The company's wide array of measuring devices totals over 8,000. As a leader in the precision measuring instrument market, it is Mitutoyo's responsibility to advance precision measurement technology at the manufacturing level. The company, therefore, wishes to be broadly involved in every industrial field through one common element: measurement.

NACHI CANADA INC.

Tom Thom
89 Courtland Avenue, Unit 2
Concord, ON L4K 3T4
Tel: (905) 660-0088
www.nachicanada.com
Number of Employees: 10
Quality Standards: ISO 9001; QS9000; ISO 14000
Capabilities: NACHI is a Japanese manufacturer of high-quality, precision cutting tools. The company's drills, taps and end mills are available in high-speed steel, cobalt, powdered metal and carbide. Extensive research in materials and coating technology has kept NACHI at the cutting-edge of cutting tool technology.

NARMCO GROUP (THE)

Don Rodzik, Jr.
2575 Airport Road
Windsor, ON N8W 1Z4
Tel: (519) 969-3351
www.narmco.com
Number of Employees: 1,500
Quality Standards: ISO 14001; QS9000
Capabilities: The Narmco Group encompasses several tier-one manufacturing facilities of metal stamping and welded assemblies for the automotive sector.

NEOVISION TECHNOLOGY INC.

Phil Malenfant
5540 Outer Drive
Windsor, ON N9A 6J3
Tel: (519) 737-1122
www.nvti.ca
Number of Employees: 30
Capabilities: NeoVision is a manufacturer of plastic injection moulds, thermofoms and match metal trim dies, specializing in production and prototype tooling, ranging from 75 tons to 700 tons for the automotive and sporting goods industry. The company's modern 11,000 sq. ft. facility is clean and well-maintained with 30 skilled workers.

NEW ERA TOOL & DIE LTD.

Anthony Tersigni
241 TorYork Drive
Toronto, ON M9L 1Y2
Tel: (416) 742-8098
www.neweratool.com
Number of Employees: 40
Quality Standards: ISO 9001:2008
Capabilities: Since 1964, New Era Tool & Die has specialized in the machining of large components and assemblies for the steel mill, oil and gas, exploration, multi-stage pump, mining, pulp and paper, aerospace, and power generation industries. For an overview of the company's machining capability and related services, visit www.neweratool.com.

O S G CANADA LTD.

Rob Adkins
538 King Forest Court
Burlington, ON L7P 5C1
Tel: (905) 632-8032
www.osgtool.com
Number of Employees: 30
Quality Standards: ISO 9001
Capabilities: O S G is a world-class manufacturer of quality high-speed steel and carbide cutting tools, specializing in offering advanced materials, geometries and coatings to provide superior tool life in today's difficult to machine materials.

OMAX CORPORATION

Kristy Wilson
21409 72nd Avenue South
Kent, WA, USA 98032
Tel: (253) 872-2300
www.omax.com
Number of Employees: 300
Capabilities: OMAX® is the global leader in the design and manufacture of precision multi-axis waterjet solutions. As the foremost innovator in precision waterjet motion control systems with 6-axis 3D capabilities, proven direct drive pump technology and superb customer support, OMAX Waterjets maximizes your profitability and productivity.

OMNI TOOL LTD.

Rino Marinelli
5495 Outer Drive
Windsor, ON N9A 6J3
Tel: (519) 737-7147
www.omni-tool.com
Number of Employees: 35
Quality Standard: ISO 9001
Capabilities: Omni Tool Ltd. is a fully integrated manufacturer providing turnkey assembly / automation, robotics and productivity systems. The company specializes in engine and transmission sub-assembly, suspension, components, custom hand tools and machining fixtures. It also performs custom machining, waterjet cutting and wire cutting.

PROTHANE LTD.

Sean McTeer
8219 Esqueing Line
Milton, ON L9T 2X9
Tel: (905) 878-7233
www.prothane.ca
Number of Employees: 10
Capabilities: Prothane Ltd. is a specialist in urethane moulding for the tooling industry, from sheet, rod, and tubes, to seals, gaskets and stripper tubes. The company also specializes in custom designed prototype of production parts.

RAMSTAR CARBIDE TOOL INC.

Dino Baretta
2190 Blackacre Drive
Oldcastle, ON NOR 1L0
Tel: (519) 737-9277
www.ramstar.net
Number of Employees: 10
Quality Standards: ISO 9001:2008
Capabilities: Ramstar manufactures PCD, CBN and carbide inserts and round tools with 3D chipbreakers. The company focuses on quick turnaround time for relap and retipping inserts. For the die-mould industry, it distributes leading cutting tools lines, like ISCAR, WIDIA, INGERSOLL, TUNGALOY and HITACHI.

RAPID EDM INC.

Ralph Mastronardi
11555 County Road 42
Tecumseh, ON N8N 2M1
Tel: (519) 739-1100
www.rapidimg.com
Number of Employees: 2
Capabilities: Rapid EDM is the world leader in EDM process technology, providing faster processing times and superior surface finishes for even the most complex and involved part geometries.

RAPID MACHINING 2000

Ralph Mastronardi
11555 County Road 42
Tecumseh, ON N8N 2M1
Tel: (519) 739-1100
www.rapidimg.com
Number of Employees: 5
Capabilities: High-quality, high-speed custom machining. Using the latest in technology and process development, Rapid Machining is the premier CNC machining facility for your time-sensitive, high-quality, one-off or production machining work.

REDOE MOLD COMPANY LTD.

Dave Sanders
665 Morton Drive
Windsor, ON N9J 3T9
Tel: (519) 734-6161
www.redoegroup.com
Number of Employees: 114
Quality Standards: ISO 9001:2008
Capabilities: Redoe Mold is a global manufacturer of plastic injection moulds. The company specializes in multi-colour automotive headlamp and rear lamp lighting; interior, exterior and under-the-hood components; as well as other commercial and industrial moulds. Redoe provides product development and mould feasibility, in-house design / CAD, Makino 6-axis CNC machine center and CMM services and offers its customers 24-hour repair and service.

RELIABLE MOLD SERVICES

Ralph Mastronardi
11555 County Road 42
Tecumseh, ON N8N 2M1
Tel: (519) 739-1100
www.rapidimg.com
Number of Employees: 2
Capabilities: Reliable Mold Services provides on-site emergency or contract evaluation, diagnosis, repair or refurbishing of specialty industrial tools. The company uses a variety of processes such as welding, milling, EDM and polishing services to deliver fast and efficient tool repair.

RICE TOOL & MANUFACTURING INC.

Neil Teague
2247 Harold Road
Burlington, ON L7P 2J7
Tel: (905) 335-0181
www.ricetool.com
Number of Employees: 60
Quality Standards: ISO/TS 16949: 3rd Edition; CQP & NCAQE Certified
Capabilities: Established in 1956, Rice Tool & Manufacturing specializes in high-volume, quality production machining and assembly; manufacturing of special tooling and dedicated equipment; design and development of prototypes; and short run precision-machined components.

ROBUST GEAR & INDUSTRIES INC.

Anjan Tak
768 Westgate Road
Units 3 & 4
Oakville, ON L6L 5N2
Tel: (905) 827-4282
www.robustgear.com
Number of Employees: 9
Quality Standards: ISO 9001:2008; CA14/553383
Capabilities: Robust Gear has been manufacturing the highest quality custom, precision gears and machinery parts for nearly 30 years. Its main capabilities are machining and custom gear cutting. The company is proud to serve its customers locally, nationally and globally.

ROTACAN

Stan Robinson
400 B Kirkpatrick Street
North Bay, ON P1B 8G5
Tel: (705) 474-5858
www.rotacan.com
Number of Employees: 30
Quality Standards: ISO 9001:2008
Capabilities: Rotacan is the only design and manufacturing company in Canada fully dedicated to rotary blast hole drill bits, drill pipe, and other string components for the mining sector. Innovation and performance are the foundation of the company's efforts to produce rugged, dependable and quality products, providing optimal drilling performance for its customers.

ROYAL FEED SCREWS INC.

Peter Kovacevic
1945 Blackacre Drive
Oldcastle, ON N0R 1L0
Tel: (519) 737-7564
www.rfs-corp.com
Number of Employees: 6
Capabilities: Royal Feed Screws Inc. is a leading supplier of high quality feed screws—singles and twins, barrels, and tips—for more than a quarter-century in the plastics, chemicals and rubber industries of the world.

RUSSELL TOOL & DIE LTD.

Al Schilbe
P.O. Box 81
381 Park Avenue West
Chatham, ON N7M 5K1
Tel: (519) 352-8168
www.namco.com
Number of Employees: 28
Capabilities: Russell Tool & Die Ltd. is a stamping die manufacturing company with a sound reputation for quality dies, on-time delivery and innovative design. It does total in-house design and build of blank, form draw, pierce, progressive and transfer dies, jigs and fixtures and has five large duplicating machines and large tryout presses up to 1,500 tons with a 60" x 144" bed area.

SABRE MACHINE TOOL INC.

Mark Scratch
4201 Del Duca Drive
Oldcastle, ON N0R 1L0
Tel: (519) 737-1668
www.sabremachinetool.com
Number of Employees: 25
Quality Standards: ISO 9001:2008
Capabilities: Sabre Machine Tool Inc. designs and manufactures stamping dies for various industries and does total in-house design and build of blank, draw, form, pierce, progressive, line and transfer dies. The company also does detail and specialized machining and prides itself on quality and on-time delivery for full CAD/CAM capabilities.

SAMCO MACHINERY LTD.

Jasvinder Bhatti
351 Passmore Avenue
Scarborough, ON M1V 3N8
Tel: (416) 285-0619
www.samco-machinery.com
Number of Employees: 80
Quality Standards: ISO 9001
Capabilities: Samco Machinery is a global leader in the manufacture of precision roll forming equipment. The company provides a full range of roll forming solutions for the steel building construction, automotive, HVAC and furniture industries. The company's experience and innovation have helped clients improve their bottom line, increase efficiencies and stay competitive.

SANDVIK CANADA INC. - COROMANT DIV.

Randy Bossie
2550 Meadowvale Boulevard
Unit 3
Mississauga, ON L5N 8C2
Tel: (905) 826-8900
www.sandvik.coromant.com
Number of Employees: 72
Quality Standards: ISO 9003
Capabilities: Sandvik Canada Inc. provides a comprehensive program of indexable insert tooling for all applications of turning, milling, drilling and tapping. The business offers first-class tools and the know-how to achieve higher productivity and better production economy.

SCHMOLZ+BICKENBACH CANADA INC.

Ted Callighen
6350 Vipond Drive
Mississauga, ON L5T 1G2
Tel: (800) 268-4977
www.schmolz-bickenbach.ca
Number of Employees: 36
Quality Standards: ISO TS16949, ISO 14001, ISO 9001, and QS 9000.
Capabilities: Schmolz+Bickenbach Canada is the leading global supplier of premium quality tool, mould and non-ferrous tooling materials. Value-added services include CNC machining, grinding and custom vacuum heat treatment services. The company's goal is to provide premium quality tooling materials, processing and heat treatment to customers on time and at a competitive price.

SCHULLER MACHINE & TOOL LTD.

John Schuller
10 Skagway Avenue
Toronto, ON M1M 3V1
Tel: (416) 261-7131
www.schullermachine.com
Number of Employees: 7
Capabilities: Schuller Machine & Tools specializes in CNC and general machining and has six CNC machines which can handle turning and milling complex shapes requiring up to 5 axes. The company has been in business since 1956 and takes pride in the quality and precision of its work.

GUHRING**AeroX HSCO8-split point drill sets**Special
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- Suitable for general use in the aviation industry, on machines or hand drills
- Performs well in 4140 and 4340 steels



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(800) 463-5555

SECO TOOLS INC.

Branko Hohnc
2550 Meadowvale Boulevard
Unit 3
Mississauga, ON L5N 8C2
Tel: (248) 528-5200
www.secotools.com
Number of Employees: 15
Quality Standards: ISO9001:2008 Worldwide Certification

Capabilities: Seco Tools provides a full range of indexable carbide insert tooling for milling, turning, drilling and threading operations. The company also provides a full technical support service in the application of its products to ensure high productivity and cost-effectiveness are achieved in your facility.

SELECT TOOL INC.

David Tomassi
3015 North Talbot Road
Oldcastle, ON N0R 1L0
Tel: (519) 737-6406
www.selecttool.com
Number of Employees: 100
Quality Standards: ISO 9000 & 17025
Capabilities: Select Tool is a full-service provider of automation, secondary machines, check fixtures, and related tooling to the automotive, industrial and aerospace markets worldwide. The company has total in-house capabilities including design, CNC machining, fabrication, metrology, and electrical / controls.

SGS TOOL COMPANY

David Sawyer
170 Dolman Street
Breslau, ON N0B 1M0
Tel: (519) 503-5718
www.sgstool.com
Number of Employees: 3
Quality Standards: ISO 9001:2008; ISA Member; Scanlon Group Member
Capabilities: SGS is a more than 60-year-old company represented in 60 countries that specializes in solid carbide round tools. SGS has industry-recognized, high-performance branded tools, including Ski Carb - Power Carb, Series 7 - Z CARB - AP and more.

SHOPTech CANADA

Demick Lambdin
75 International Boulevard
Suite 304
Etobicoke, ON M9W 6L9
Tel: (800) 525-2143
www.shoptechcanada.ca
Number of Employees: 20
Capabilities: Shoptech Canada is the provider of the E2 Shop System and the E2 Manufacturing System. E2 is trusted by over 8,000 shops across North America. The E2 Shop System is for job shops and make to order manufacturers while E2 Manufacturing is designed for the highly repetitive manufacturer.

SIGMA ENGINEERING (WINDSOR) INC.

Richard Ofner
5101 Ure Street
Oldcastle, ON N0R 1L0
Tel: (519) 737-7538
www.maxdiegroup.com
Number of Employees: 38
Quality Standards: ISO 9001:2008
Capabilities: Sigma Engineering strives to be the preferred supplier of innovative tools and service for the metal stamping industry worldwide by providing a safe and rewarding work environment that supports the delivery of quality tools and service on time at a competitive price.

SIGNATURE TOOL INC.

Marg Soulliere
2120 Solar Crescent
Oldcastle, ON N0R 1L0
Tel: (519) 737-1105
www.signaturetool.com
Number of Employees: 10
Capabilities: Signature Tool is an indexable cutting tool manufacturer established in 1987. The company has an experienced support team to enhance and improve tooling solutions with design, build and repair capabilities.

SIRCO MACHINERY COMPANY LTD.

Dan Ferko
40 Jutland Road
Toronto, ON M8Z 2G9
Tel: (416) 255-1321
www.sircomachinery.com
Number of Employees: 32
Capabilities: Sirco Machinery is the exclusive eastern Canada distributor for Haas Automation CNC Machine Tools. Sirco provides complete sales, service, application engineering and technical support for these CNC products.

SOLAXIS INGENIOUS MANUFACTURING INC.

David Fortin
11A, rue du Pacifique Est
Bromont, QC J2L 1J4
Tel: (450) 919-1515
www.solaxis.ca
Number of Employees: 6
Quality Standards: ISO in process for 2016 / ECOLEADER
Capabilities: Solaxis helps you fast-track your manufacturing projects. The company manufactures complex lightweight parts that will save you time, reduce weight and generate savings across your manufacturing value chain. Areas of expertise include industrial 3D printing and CAD for tooling, jigs and fixtures, end-of-arm tooling and functional prototypes production.

SOLO TOOL & MOLD (WINDSOR) LTD.

Karen Riosa
3155 Deziel Drive
Windsor, ON N8W 5A5
Tel: (519) 944-1705
www.solotool.com
Number of Employees: 12
Quality Standards: ISO9002
Capabilities: Solo Tool & Mold Ltd. boasts full CAD/CAM capabilities and over 30 years of experience in the design and manufacture of precision moulds. The company specializes in injection moulds, prototypes, plastic injection over-moulding, compression moulds, thermostat moulds, multi-shot moulds, gas assist and repairs, and alterations to existing moulds.

SOUTHWESTERN MANUFACTURING INC.

Derek Astbury
3710 Peter Street
Windsor, ON N9C 1J9
Tel: (519) 985-6161
www.southwesternmanufacturing.com
Number of Employees: 189
Quality Standards: ISO 9001:2008
Capabilities: Southwestern Manufacturing is a full-service fabrication and machine shop specializing in large complex parts for the mining, oil and gas, and various other industries.

SPECIAL MACHINING COMPANY INC.

Nick Coutinho
2536 Dougall Avenue
Windsor, ON N8X 1T6
Tel: (519) 966-3233
www.smci.ca
Number of Employees: 10
Quality Standards: ISO 9001:2008
Capabilities: Special Machining Company Inc. manufactures tools and machine components for the industry. The company specializes in precision spindles and all types of grinding to precision tolerances. It offers special tooling for transfer lines, hobbing, broaching and thread grinding (OD only), and ceramic coating. Established in 1960, the company is located in a 15,000 sq. ft. facility.

STEMA PUNCH & DIE INC.

Stefan Lorbach
1761 Bishop Street
Cambridge, ON N1T 1V3
Tel: (519) 622-1270
www.stema-punch.com
Number of Employees: 21
Capabilities: Stema Punch & Die Inc. manufactures punches and die buttons; CNC Wire EDM and CNC Sink EDM services; and custom punch holders.

TAILORED INSURANCE SERVICES INC.

Gary Spry
9030 Leslie Street, Suite 227
Richmond Hill, ON L4B 1G2
Tel: (905) 763-0000
www.tailoredins.com
Number of Employees: 7
Capabilities: Tailored Insurance Services is an affinity partner of the CTMA and provides custom commercial insurance programs for the tool and die, machine shop, mould makers and manufacturing industries.

TECHNICUT TOOL INC.

Dan Nuttall
2285 Ambassador Drive
Windsor, ON N9C 3R5
Tel: (519) 969-4048
www.technicuttool.com
Number of Employees: 58
Quality Standards: ISO 9001:2008, API Q1, CCGD
Capabilities: Technicut, located in Windsor, ON, is a manufacturer of highly tolerated, complex machined components of exotic materials (inconel, tungsten, titanium, beryllium copper, and stainless steel) for the oil and gas down-hole drilling industry, the aerospace industry, and all other industries requiring precision machining.

THISTLE TOOL LTD.

David Masters
80 Select Avenue
Scarborough, ON M1V 4A9
Tel: (416) 292-0300
www.thistle-tool.com
Number of Employees: 8
Quality Standards: ISO9001:2008
Capabilities: Thistle Tool Ltd. has been a one-stop shopping facility for 44 years, offering jig boring (60" x 36" x 72" H), jig grinding to 32-plus" high, surface grinding to 22" x 42-plus" form, cylindrical grinding to 24" diameter X 40" to 60", manual and CNC lathes and mills 80" x 0" x 40" high, and wire and sink EDM, all in a company-owned, air conditioned plant.

THOMAS WIRE DIE LTD.

Adam Thomas
P.O. Box 352
1150 Northside Road
Burlington, ON L7R 3Y3
Tel: (905) 335-7062
www.thomaswiredie.com
Number of Employees: 19
Quality Standards: ISO 9001:2008
Capabilities: Thomas Wire Die Inc. is a manufacturer of custom carbide, steel and ceramic die components and wear parts for a variety of industries including metal forming and stamping, cold drawing and heading, and oil and gas. The company specializes in grinding, and wire and sink EDM of carbide components.

TIPCO INC.

Ron Spraggett
1 Coventry Road
Bramalea, ON L6T 4B1
Tel: (905) 791-9811
www.tipcopunch.com
Number of Employees: 95
Quality Standards: ISO 9001:2008
Capabilities: Tipco Inc. is a manufacturer of punches and dies and related machining supplies, including die springs, nitrogen springs, custom jig grinding and heat treating services. The company also provides precision tooling for the stamping industry, along with custom machining requiring 4- or 5-axis capability.

TOP GRADE MOLDS LTD.

Vince Ciccone
929 Pantera Drive
Mississauga, ON L4W 2R9
Tel: (905) 625-9865
www.topgrademolds.com
Number of Employees: 75
Capabilities: Top Grade Molds Ltd. (TGM) designs and produces high-quality plastic injection moulds for some of the world's leading thin wall and packaging moulding manufacturers. TGM's full service includes engineering, milling, turning, programming, manual machining, EDM services, surface/cylindrical grinding, quality control/CMIM department services, assembly and full testing capability.

TRIMAR MACHINE INC.

Mark Cesare
7036 Smith Industrial Drive
Amherstburg, ON N0R 1J0
Tel: (519) 726-1117
www.trimarinc.ca
Number of Employees: 42
Quality Standard: CWB Certified
Capabilities: Trimar Machine Inc. is a manufacturing company specializing in fabrication and machining for automotive assembly lines.

TRUE NORTH MOLDS LTD.

Geoff Anderson
430 Industrial Road
London, ON N5V 1T5
Tel: (519) 455-3377
www.truenorthmolds.com
Number of Employees: 28
Quality Standards: ISO 9001
Capabilities: True North Molds designs and manufactures moulds for the automotive sealing systems, EPDM and TPE. The company has 5-axis CNC machines and tryout presses, wire EDM, laser welding, and 3-D printing.

TUNGALOY AMERICA INC.

John Mitchell
432 Elgin Street, Unit 3
Brantford, ON N3S 7P7
Tel: (519) 758-5779
www.tungaloyamerica.com
Number of Employees: 12
Quality Standards: ISO 9001:2000; ISO 14001:1996
Capabilities: Tungaloy is a global manufacturer of premium cutting tools. Tungaloy excels in producing carbide, cermet, ceramics, CBN and PCD cutting tools. With an office and warehouse in Brantford, ON, Tungaloy's first-rate sales team would love to help with your cutting tool applications.

TYCOS TOOL & DIE

Ron Nesselberger
2000 Langstaff Road
Concord, ON L4K 3B5
Tel: (905) 669-2350
www.tycostool.com
Number of Employees: 151
Quality Standards: ISO 9001:2008; ISO 14001
Capabilities: Tycos Tool & Die designs and machines large (10- to 50-ton) hydroform dies, injection moulds and RIM moulds for the automotive industry.

UDDEHOLM LTD.

Jamie McIntosh
2595 Meadowvale Boulevard
Mississauga, ON L5N 7Y3
Tel: (905) 812-9440
www.bucanada.ca
Number of Employees: 75
Quality Standards: ISO 9001; Nadcap for Heat Treat AS9100
Capabilities: Uddeholm Ltd. is a global manufacturer and distributor of the highest quality tool, die and mould steel. With facilities across Canada to serve you, the company offers services including saw cutting, machining, grinding, vacuum heat treatment, and PVD coatings. Contact Uddeholm Ltd. today and find out why the company is "Known for Quality, Remembered for Service."

ULTRA MACHINE SALES CO. LTD.

Frank Truyns
510 Rowntree Dairy Road, Suite 2
Woodbridge, ON L4L 8H2
Tel: (905) 850-2336
www.sodick.com
Number of Employees: 4
Capabilities: Ultra Machine Sales is a full-service distributor of all "SODICK" EDM and high-speed milling machine equipment and 3R, EROWA & HIRSCHMANN tooling.

UNIQUE TOOL & GAUGE INC.

Darcy King
1505 Moro Drive
Windsor, ON N9A 6J3
Tel: (519) 737-1159
www.unique-tool.com
Number of Employees: 75
Quality Standards: ISO 9001
Capabilities: Unique Tool & Gauge Inc. provides full-service design, manufacturing and program management of tooling, from initial concept until years later, when the product life cycle is complete. The company provides the customer with new technologies and advanced management systems designed to reduce cost and time. All parts are reviewed prior to the start of tool design in an effort to simplify the part and, therefore, minimize tool complexity.

UNIVERSITY OF WINDSOR

Horst Schmidt
401 Sunset Avenue
Windsor, ON N9B 3P4
Tel: (519) 253-3000
www.uwindsor.ca
Number of Employees: 50
Capabilities: University of Windsor's Ed Lumley Centre for Engineering Innovation opened in September 2012 and is a world-class 300,000 sq. ft. facility for students, faculty, researchers and the industry. An industrial courtyard was designed with cranes and heavy floors to provide a venue for industrial collaboration on industry-lead projects. There are 80 teaching and research labs supporting the faculties of civil, electrical and computer, environmental, industrial and mechanical engineering.

VALIANT MACHINE & TOOL INC.

Tony Elias
6555 Hawthorne Drive
Windsor, ON N8T 3G6
Tel: (519) 974-5200
www.valiantmachine.com
Number of Employees: 514
Quality Standards: ISO 9001, ISO 14001, AS 9100 Rev. C
Capabilities: Valiant is a fully integrated manufacturer providing turnkey production systems, automation, industrial washers, plastic injection tooling, precision tooling, fabrication and machining to the automotive, aerospace, construction and forestry sectors. The company's systems expertise includes body-in-white framing, body-shop tooling, closure assembly equipment, closure setting tools, powertrain automation and assembly systems, and industrial parts cleaning systems. Valiant services the global market with operations in Canada, the U.S., Mexico, Austria, Belgium, the Czech Republic, Germany, Romania, India and China.

WALTER CANADA INC.

Anthony Baas
249 Mitchell Avenue
Dorchester, ON N0L 1G3
Tel: (519) 873-0084
www.walter-tools.com
Number of Employees: 21
Quality Standards: ISO 9001 / 14001
Capabilities: Walter Tools brings innovative products for cost-effective solutions to its customers. The company provides a full line and range of indexable carbide inserts and tools for turning, drilling, boring and milling. Included in the Walter line-up are Titec drills and Prototyp thread formers and mills. Walter brings forth high-quality tools and technical sales and service to ensure reliable productivity and cost reduction on your shop floor. Walter is a global company that has 27 subsidiaries worldwide with expertise in aerospace, power generation, automotive and general machining.

WENTWORTH MOLD LTD.

Tar Tsau
156 Adams Boulevard
Brantford, ON N3S 7V5
Tel: (519) 754-5400
www.wentworthmold.com
Number of Employees: 24
Quality Standards: ISO 9001
Capabilities: Wentworth Mold is the largest independent manufacturer of blow moulds for PET and extrusion. PET: hotfill and cold fill mould for all platforms and technologies. Extrusion: from two oz. to 65 gallon moulds for all platforms. Wentworth's strength is innovation and new development in efficient blow mould design engineering and manufacturing.

WHITFIELD WELDING INC.

Sean Whitfield
5425 Roscon Industrial Drive
Oldcastle, ON N0R 1L0
Tel: (519) 737-1814
www.whitfieldwelding.com
Number of Employees: 41
Capabilities: Since 1985, Whitfield Welding has been servicing the automotive, energy, mining, military, and aerospace industries. The company is committed on all levels to providing the highest quality manufacturing solutions to customers through its intimate knowledge of various additive manufacturing technologies, strong metallurgy, and a responsive customer support group. Sources include TIG welding, MIG welding, laser cladding, laser hardening, stress relief, micro-laser welding, engraving, metalab.

WINDSORESSEX ECONOMIC DEVELOPMENT CORPORATION

Wendy Stark
700 California Avenue, Suite 200
Windsor, ON N9B 2Z2
Tel: (519) 255-9200
www.choosewindsoressex.com
Number of Employees: 10
Capabilities: The purpose of the Windsor Essex Economic Development Corporation is to attract new business, capital investment and other assessment and employment-creating enterprises; to aid in the strengthening, diversification and growth of existing businesses; to maintain an attractive business and economic environment through constant contact with the appropriate government agencies and community groups; and to promote the region as a desirable business location.

WOODBINE TOOL & DIE MANUFACTURING LTD.

Tibor Urbaneck
190 Royal Crest Court
Markham, ON L3R 9X6
Tel: (905) 475-5223
www.wtld.ca
Number of Employees: 140
Quality Standards: ISO 9001:2008 / TS16949-2009
Capabilities: Woodbine Tool & Die Manufacturing Ltd. is a three-dimensional—design, tool build, and manufacturing—company with 140 employees and two facilities located less than two kilometres apart. The company designs and manufactures tools and dies and produces stampings and welded assemblies for the automotive industry and others. Over the past 30 years, the company has developed the knowledge and capability to manage and manufacture complex production programs, from tool concept and design through production and assembly.

XL TOOL INC.

Gord Jokic
19 Crestview Place
Kitchener, ON N2B 3X6
Tel: (519) 578-6951
www.xltool.com
Number of Employees: 53
Quality Standards: ISO 9001:2008
Capabilities: XL Tool Inc. is a manufacturer of metal stamping dies—progressive, stage, compound, transfer, extrusions, brake, embossing, notching and punching, prototypes and short run. Engineered designs include custom machining and fabrication, injection moulds, 3-axis and 5-axis CNCs, 4-axis EDMs, lifting (up to 10 tons), tryout presses (up to 800 tons), CMM capabilities, NAICS 33-3519 and SIC 3544.

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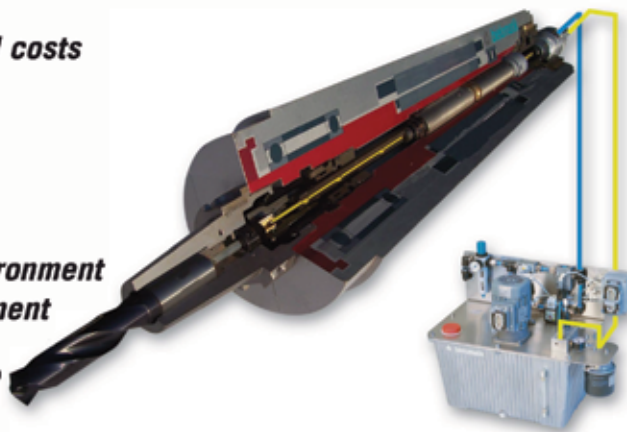
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CINCINNATI MACHINES ACQUIRES MACHINERY SUPPORT

Toronto ON Mr. George Briscoe, Cincinnati Machines' Canadian Representative reported today that Cincinnati Machines has acquired the company known as Machinery Support.



Mr. Briscoe advised us that the new company has been merged with the main operations in Cincinnati, Ohio. And while there is no physical presence here in Canada, any company in Canada that has any dealings with machine tools will want to know about this new resource. Mr. Briscoe reported that he has already been to Cincinnati to view this new operation and it is very impressive. Just imagine, an estimated 750,000 documents in 400 environmentally controlled file cabinets. This is the World's Largest Library of metalworking machinery manuals.

Machinery Support provides manuals for 5,000 machine tool manufacturers and repair parts for more than 1,000 builders.



Mr. Briscoe is machine tool Master Distributor for Cincinnati Machines in Canada.

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