IMTS 2002 Preview Charmilles to Showcase CleanCut Technology at IMTS

New Ideas in EDM

IMTS 2002

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Charmilles Turns 50
Charmilles Celebrates 50 Years as a Leader in EDM Technology

Ferron Mold and Tool Relies on Charmilles
Ferron Turns to Charmilles to Start and Grow Their Business

Path Technologies Cuts Corners
3 Charmilles Machines Clear a New Path

Charmilles Awards Grand Prize
Charmilles Awards Form 20ZNC to NTMA Contest Winner

37 Square Inches per Hour
Customer Response Form

How is Charmilles doing?
Can we help you with any concerns related to Charmilles?

If we can be of assistance, please fill out the form below and mail, fax, or e-mail to:

Charmilles Technologies
Attention: Quality Manager
560 Bond Street
Lincolnshire, IL 60069-4224

E-mail: enid.herrmann@charmillesus.com
Fax: 847-913-5340

This form is also available on our website at www.charmillesus.com/contact-response.cfm

Machine Model Number: ____________________________
Serial Number: ____________________________________

Description of concern or customer need: Date: __________________
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At your company, whom should we contact? _____________________________________________
________________________________________________________________________________

Company name _________________________________________________________________
Phone number ( ____ ) ______________________________
Your name _______________________________________________________________________

CHARMILLES

This form is also available on our website at www.charmillesus.com/contact-response.cfm
A host of new cutting-edge machines will be on display at the Charmilles booth at this year's IMTS. The show will run from September 4 to 11 at Chicago's McCormick Place. Charmilles' booth number is D-4000.

2002 is a very special year all around for Charmilles as it marks the company's 50th year as a leader in the EDM industry. As Charmilles moves into the next half-century, technological advances continue so that customers' realize even greater efficiencies.

Charmilles' Robofil 240cc/440cc are showcase examples of this new technology. These machines use the new CleanCut generator to dramatically improve machining speed while preserving the surface integrity of the machined material. With the introduction of the Robofil 240cc/440cc, Charmilles is bringing the technology of high-speed wire EDM cutting to the wire EDM market. The cutting speed in tool steel can reach 37 square inches an hour, smashing the top speed barrier, which had been about 30 square inches an hour.

The CleanCut generator is a digital generator based on high-tech components. From roughing to finishing, the CleanCut generator protects parts against surface finish pollution effects. As a result, users of the 240cc/440cc receive the fastest cutting speed on the market plus a clean surface finish in rough and skin cutting. The cutting speed increases apply even when a tall part is being cut, up to 15.75" on the 440cc.

The key to the 240cc/440cc's speed is Charmilles' new spark design. The maximum ignition voltage has been increased by 25%. The maximum amplitude has been tripled from 400 amp. to 1,200 amp.

The high quality of the surface finish is another advantage of these revolutionary machines. The machine achieves finer surface finishes with fewer skim cuts. An important application segment of the CleanCut generator is the medical industry, which uses a lot of titanium on titanium alloys that frequently is placed into the human body as artificial parts. The CleanCut generator prevents oxidation on the titanium and maintains surface integrity free of brass and zinc materials originating during the cutting process from the wire electrode. In carbide applications the machine minimizes cobalt depletion, the effect of which is to hold tungsten together. This insures a higher bearing capacity of punches and dies. The new generator shines as well in cutting PCD (poly crystalline diamond) form tools. The surface finish and edge sharpness is at least equal and, in most cases, better than grinding.

The 240cc/440cc also comes equipped with ThermoCut and collision protection. ThermoCut is a unique high-speed and maintenance-free wire threading system that anneals the wire and cuts it under the effect of heat, regardless of wire diameter and material. The Integrated Collision Protection (ICP) provides effective protection on all five axes of the machine during manual or unattended operation. It boosts performance and cuts down on maintenance costs in the event of programming or manual positioning errors.

Charmilles' Taper-Expert option is also available to be added on the 240/440 and the 240cc/440cc. This feature makes it possible to cut very high-precision angles, up to 30°. An accurate taper is especially important for moldmaking and extrusion applications.

The Robofil 2030SI-TW twin wire machine, the first of its kind, was introduced, reducing cutting times by up to 50% by switching from a large-wire diameter automatically to a small-wire diameter.

The Robofil 2030SI-TW is the first wire EDM to feature a fully automated dual-wire system. Now it is possible for a quick changeover from large to small wire diameters or from small to large diameters without operator intervention.

The productivity gains from this unattended ability are significant. Depending on the application, productivity can increase from 30 to 100 percent because the fast-cutting large wire can be used for the rough-cut before the slower-cutting small wire is applied for small-radius finishing. Time is gained in this process which boosts productivity.

The Robofil 2030SI-TW does not require any special technologies or programming. Installation of the two wires does not complicate the use of the machine since the set-up is automatic for both. During machining, the Robofil 2030SI-TW automatically switches to another wire as programmed. This changeover takes less than 45 seconds.

Agie Charmilles Group will also exhibit the ACTSPARK Brand of affordable, entry-level electrical discharge machines (EDM) for the North American market. Both of the AC Group EDM companies in North America, Agie and Charmilles, will support sales, distribution, and service for the new ACTSPARK Brand of entry level EDM machines.

“The ACTSPARK EDMs address the needs of the entry-level market and really complete the product offering of the Agie...
The ACTSPARK brand includes Full CNC Die-sinking machines, Basic CNC Die-sinking with X,Y positioning, low cost wire machines as well as high speed small hole drilling.

The ACTSPARK product offerings include a full range of CNC die-sinking EDMs. The ACTSPARK “SE Series” CNC machines feature a rugged mechanical design with short C frame casting, DC motors, precision ball-screws and encoders as well as linear guide-ways for the XYZ axis to ensure a high degree of accuracy and mechanical stability. The SE1, SE2, and SE4 also feature a simple user-friendly programming interface allowing machining programs to be generated automatically without using ISO codes. Contouring, linear/circular interpolation and helical machining are all possible and the machines include a fully functional C-axis, linear tool changer and remote control as standard.

The SE series is priced starting under $75,000.

The “SP Series” offers a compact design in a small footprint. The Z-axis is driven by a DC-servo system and the X and Y axes are driven by a step-motor servo system. The SP1’s maximum worktable load is 1,320 pounds and it can accommodate a maximum electrode weight of 176 pounds. The SP3 can take on even heavier projects. Its worktable load is 3,300 pounds and it can accommodate a maximum electrode weight of 551 pounds.

Both the SP1 and SP3 also feature very simple series of easy-to-follow programming screens. The typical application for the SP1 and SP3 is the machining of multiple cavities with the same electrode.

The SP series is priced at under $39,000.

Developed by Charmilles, the Robofil 690 EAF (Enclosed Adaptive Flushing) wire EDM saves time and money in a wide variety of applications. With a mechanical design that delivers precision, ruggedness, and reliability, the Robofil 690 is well suited to support a multitude of stamping tools, mechanical engineering applications, and plastic injection mold inserts.

The Robofil 690 delivers instant cutting action without the need to fill or drain the work tank. EAF also provides easy loading and ready access to the workpiece for improved productivity. But the Robofil 690 also improves efficiency and lowers costs since it has no filling pump and requires no tank seal maintenance.

Charmilles Service “Report Card”

In the mid 1990’s when Charmilles sales doubled in 2 to 3 years due to the Robofil 310 and Roboform 20 series, our service was, at best, average. Since then we have invested heavily to improve service to the highest level in the industry. We will report to you on our ongoing results in this issue, in future issues and on our web site.

<table>
<thead>
<tr>
<th>Service Phone Calls</th>
<th>All 2001</th>
<th>YTD 6/30/02</th>
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<tr>
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<td>% of orders shipped complete same day</td>
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Recent Innovations:

- Users can submit service and applications questions / problems:
  - On our web site at www.charmillesus.com/faq
  - Response is typically same day/next day, Monday — Friday
- Prior to machine shipment we are now emailing to each customer:
  - A list of individuals and managers to contact, sorted by problem type.
  - A Customer Response Form to send in anytime regarding any unresolved problem.
  - Parts CD (7,000 part pictures, #’s and descriptions linked to 73 most recent models) available on the CT-US web site.

If your recent experience with Charmilles is not up to the level expressed in our Report Card above, please:

1. Email harry.moser@charmillesus.com, or
2. Fill in the Customer Report Form on the inside front cover of this newsletter and fax it to us, or
3. Call Enid Herrmann, Quality Manager, at (847) 955-7172.

We are committed to providing the best customer support in the machine tool industry. Please tell us when we miss, so we can keep improving.

Harry Moser
President
The Robofil 690 comes equipped with linear glass scales as standard equipment to insure cutting and positioning accuracy. The fixed table design allows for the loading of heavy workpieces up to 5,071 pounds.

Charmilles has designed a specially enclosed stainless-steel cabinet to protect the operator against the splashing of water that is inherent in any flushing operation. This design provides a stable temperature environment around the cutting zone.

Known as ThermoCut, a unique high-speed and maintenance-free wire threading system stretches the wire and cuts it under the effect of heat, regardless of wire diameter and material. An additional no-hole detection feature prevents the machine from shutting down. The machine moves automatically to the next hole/threading location, which is especially critical during unattended machining.

To avoid wire breakage and to improve job quality, a special flushing nozzle provides local submerged conditions around the wire while maintaining a regular flow during finishing.

In order to meet today’s stringent CNC requirements, the Robofil 690 also comes with the CT-Millennium CNC, a Windows-based numerical control. With functions similar to those of a desktop PC and navigation not unlike that of a website, operators easily manage programs and technologies with ready access to visual supports, on-board documentation, and clear operators easily manage programs and technologies with ready access to visual supports, on-board documentation, and clear.

The Robofil 35P, 2400, 54P and 55P are now offered with the high-speed EDM cutting feature, Z-AC. Also, because of Charmilles’ new Pilot-Expert software, the 35P, 2400, 54P and the 55P are able to perform rib cuts and most complex jobs with unequalled ease and efficiency. Higher axis speed reduces set-up time, accelerates tool changeover, and provides for even faster removal rates.

These machines are rugged enough to accommodate large workpieces while requiring limited floor space. A large drop tank design on the 35P and 55P provides easy access to the workpiece for simple set-up and greater operator comfort.

A new carbide-cutting option, HM-Kit, can be added to the 35P or the 2400. Existing models can be retrofitted for this feature. Additionally, the.

35P, 55P can come with a QCRi or Quick Change Robot option. This built-in robot handles workpieces and electrodes. The QCRi allows operators to further boost their total hours of EDM productivity. A wide variety of magazine configurations provide for utmost flexibility and uninterrupted machine operation — up to 6,000 hours per year.

Another exciting machine to be introduced at IMTS 2002 is the Roboform 44. This diesinking EDM contains a proven Charmilles generator, the same generator available on the Robofil 55. Its reliable C-axis allows for helical applications and its CNC control enables the Roboform 44 to cut carbide and perform contouring operations.

The Roboform 44 comes with a five-position linear tool changer. Glass scales that enhance accuracy are also part of the standard equipment on the Roboform 44. The compact machine base means that the dielectric tank is located conveniently under the machine tool. Finally, all of this Charmilles technology is available for a very attractive price.

The Roboform 85 is one of Charmilles’ biggest machines with great capacity. Its X,Y,Z travel is 31.5 x 23.62 x 19.68 in. The maximum workpiece dimensions are 63 x 43.3 x 17 in. (width x depth x height). The machine has a motorized, drop-down door for easy access to the working zone. It comes with a five or seven-position linear changer or a 32-position rotary tool changer option.

It comes equipped with a new generator design with the latest Pilot-Expert system, the Pilot-Expert 3. The Pilot-Expert 3 optimizes machining efficiency by adjusting spark parameters as required by machining conditions. Once the job is under way, Pilot-Expert 3 allows autonomous machining without operator intervention and ensures perfect repeatability.

A key feature of the Roboform 85 is fast draining of the work tank. It takes less than a minute to drain the 85’s tank automatically.

The new Brother HS50-B is a wire-EDM based on the proven reliability of the Brother HS50-A. It features a new PC-driven control and a new threading system that reduces threading times.

A new AE generator with advanced technology files is also standard which yields better surface finishes for medical applications and production parts. Glass scales are a standard feature to ensure positioning and cutting accuracy. A B-axis can be adopted as an option.
CharmillesUs.com 2.0 looks new, acts new and well, is all new.

Charmilles launched its new web site in July 2002 to rave reviews. The new site features a clean, user-friendly design, as well as increased functionality for users.

Among its newest features is an online used machine section that allows users to browse and list used Charmilles EDMs, which will move the appropriate sales people into action, thus expediting the purchase process.

“We wanted to provide our guests the highest level of user-friendliness and accuracy with the entire site, and the used machine section is no exception,” said Gisbert Ledvon, Marketing Manager for Charmilles. Using sophisticated and web-friendly database technology, the used machine database will be updated daily.

The new Charmilles site will also host the detailed product and service information its users have come to expect, but again, in a more user-friendly format.

“The most important aspect of the new Charmilles site is that as soon as guests arrive, they know exactly how to find what they are looking for,” says Leslie Kaluzynski, Director of Communications for DGS, Charmilles’ marketing partner.

CharmillesUs.com 2.0 also features an entire section of Charmilles’ involvement with racing, an interactive press room, a parts “shopping cart” so people can select from available parts for their EDM, as well as information on Charmilles’ first class service.

As part of its ramped up web efforts, Charmilles will also host a series of training webcasts this fall. Charmilles hosted an online product launch in December 2001 to introduce the Robofil 390/690, and several other machines. Over 270 people worldwide participated in this inaugural event.

“We engineered the new site to not only reinforce the quality of the Charmilles brand, but to easily move people through the information contained on the site.”

Order spare parts online

Quality Certified Pre-Owned Machines @ www.charmillesus.com

www.charmillesus.com/V2.0

New Web Site Offers Increased Functionality for Users
PROMOTING CAREERS IN MANUFACTURING TECHNOLOGY HAS ALWAYS BEEN A PRIORITY FOR CHARMILLES, and the company will show how they do just that during the 3rd Biennial Student Summit to be held at IMTS 2002.

Held during IMTS, the Student Summit focuses on available career opportunities, and also provides information on the state and future of manufacturing technology. Students are given the opportunity to interface with industry representatives and students already on a career path in manufacturing technology. Charmilles President, Harry Moser, has been a member of the Student Steering Committee since its inception, and Charmilles annually provides one of the Modern Machine Shop series articles that are dedicated to the Student Summit.

As a Student Summit partner, Charmilles has agreed to welcome students into its booth. It will provide spokespersons to explain the featured technology. Charmilles will also provide hands on demonstrations for student participation. Charmilles continually provides to educators and the industry a broad range of material for promoting manufacturing careers. This material will be on display in the area where the students meet.

The Student Summit at IMTS 2000 drew 3,929 students and 305 faculty members and chaperones from 35 states and 13 foreign countries. Students and faculty from grade schools, middle schools, high schools, technical schools, apprenticeship programs, community colleges and universities are encouraged to attend.

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Why Settle for Less?

You expect the best performance from your EDM machine. Tests have proven that using Charmilles recommended consumables enhances the performance of your machine. The service life of the “impoters” is disappointing. Enjoy the quality, reliability and profitability you have grown to expect from a Charmilles - and make sure your Charmilles remains a Charmilles!

Obtain Information about your ORIGINAL Wear Parts by contacting Charmilles.

800-282-1336 ext. 153 or 154
Charmilles is known throughout the metalworking industry as a leader in EDM, and now their knowledge and expertise will be used to help build the technical knowledge of metalworking employees.

Tooling University, a company that provides comprehensive and affordable online technical training for the metalworking community, will launch the new EDM section at IMTS 2002 and Charmilles will be the sole provider of information for the class.

Manufacturers are faced with many roadblocks when it comes to keeping their workforce educated, but online training can remove all of those obstacles. Learning can be achieved without downtime because sessions can be scheduled around production requirements. Training can be tailored to the company’s specific needs, content is current because material is constantly updated and there are no additional expenses for travel, lodging and meals.

Greg Jones, marketing manager for Tooling University, said Charmilles was the natural choice to provide the EDM content. “We only use best of breed companies and Charmilles absolutely fits that role,” said Jones.

Currently, Tooling University offers 40 classes covering the fundamentals of metalworking. Each class includes objectives, a course outline, a detailed lesson sequence and a final exam.

The design team at Tooling University in conjunction with industry sources and experts develops the content for the classes.
This year marks Charmilles’ 50th year as a leader in the EDM industry. 2002 is a year to look back, but it’s also a year to look forward to the future of EDM. Charmilles will celebrate their 50 year anniversary with the introduction of a host of innovative machines at this year’s IMTS.

Charmilles will be in booth #D-4000 at IMTS at Chicago’s McCormick Place from September 4 – 11.

“50 years speaks about permanence and stability,” says Charmilles president Harry Moser.

The company’s origins trace back to 1952 in Geneva, Switzerland when Jean Pfau headed up a team of engineers charged with the task of creating a machine that uses the erosive effects of electrical discharges to cut metals. Three years later, Charmilles introduced the first industrial EDM machine, the Eleroda D1, at the EMO exhibition in Milan, Italy. The industry grew quickly to the point where 7,000 units of the D10 P25 with Monitron and Microfin were built between 1967-1984.

Charmilles expanded geographically, too. In 1972, Charmilles France and the Charmilles Corporation of America were established. In 1973, Charmilles UK LTD. was formed. That year also saw the introduction of the first wire EDM, the F40 Wire Cut Machine. Innovations such as the Isocut-Planetary orbiting system and the Jetset automatic wire rethreading...
capability were developed in the late 70s.

The year 1983 marked the beginning of a new era for Charmilles when Georg Fischer AG, a company celebrating its 200th birthday this year, acquired Charmilles. Soon, all Charmilles EDMs were outfitted in their distinctive orange coloring. In 1984, the Robofil/Roboform family of machines was launched. These machines remain part of Charmilles’ core product line today. In 1987, the company developed a new plant and demonstration center in Geneva.

The Robofil 310 was introduced in 1991. This wire EDM featured the same travel in the U-V and the X-Y axis, meaning that a maximum taper of 30° could be cut on parts as tall as 15.75”. The Robofil 310 eventually became the most popular EDM in North America. Innovations from Charmilles continue in the new millennium, too. In 2000, the Roboform 35P, equipped with a quick-change robot was launched. In 2001, the Robofil 2030SI-TW twin wire machine, the first of its kind, was introduced, reducing cutting times by up to 50% by switching from a large-wire diameter automatically to a small-wire diameter. At this year’s IMTS, Charmilles will introduce the ground-breaking Robofil 240cc/440cc that brings high-speed EDM to the wire EDM market. The cutting speed in tool steel can reach 37 square inches an hour.

Even against the backdrop of an economic recession and a manufacturing slump, Charmilles has not only survived, it has thrived in recent years. Charmilles hovered around 6th place in the mid-1980s in North American EDM sales. Now, it’s been 1 for seven of the past eight years.

“Why did Charmilles survive?” Moser asks. “Because we had the financial stability of the parent company, we build the best machines, and we have developed the best service.”

That commitment to service was solidified in 1999 with the creation of the Customer Support Center, which was a merger of service and spare parts. New technology has made Charmilles more accessible to its customers than ever. 97 percent of callers to the Customer Support Center get through live to a service engineer when they call in. The average hold time is only 31 seconds.

Another example of technology working to enhance the customer experience is Office Link — a phone system feature that more evenly distributes incoming calls between inside service engineers located in Lincolnshire and outside service engineers around North America.

Charmilles continues to play a leading role in industry development. To support careers in precision machining, Charmilles provides a broad range of career-oriented handouts, CDs, and discounts on EDMs for schools. Every spring, Charmilles plays a major role in its support of NTMA’s Annual Apprentice Competition by donating an EDM to the winner’s shop. Charmilles has donated over $600,000 in EDM machines over a ten-year period.

Charmilles Technologies — proud of its 50-year heritage, pleased to be a manufacturing leader now, and excited about its future.
Princic and his brother Joe started Path Technologies in 1986. Dave operated what he believed to be one of the first EDM machines in Ohio in 1974 when he worked at Interlake Stamping. He had wanted to start an EDM business long before 1986 but just didn’t have the money. He was working at the time for Lane Punch as a regional sales manager. “My experience and travel gave me contacts out there,” Princic said.

A business was born. Today, Path Technologies has nine wire machines, two sinkers, and a small hole EDM as well as CNC mills and grinders. Path Technologies currently has a customer base of over 800. They’ve been able to diversify, too. No one customer accounts for over 10 percent of the business which has been a key to their survival through an economic downturn. “That’s probably the only thing that’s kept us alive, especially in the last year or so,” Princic says. “When certain areas of manufacturing die out, other areas seem to keep us going.”

The next Charmilles machine that Path Technologies purchased is the only non-submerged machine, the Robofil 510F. The motivation behind this purchase was simple — the machine’s larger cutting size enabled Path Technologies to do larger work. It also had the same control that employees were already familiar with on the Robofil 330.

The 510F is easy to load because of its enclosed design

THE 16-YEAR OLD JOB SHOP THAT SPECIALIZES IN EDM PURCHASED THEIR FIRST CHARMILLES WIRE-EDM MACHINE, A ROBOFIL 330, IN THE LATE 90S. Since then, Path Technologies has also bought a Robofil 510 and a Robofil 440. Prior to the 330’s arrival, large taper cuts caused a problem for the company, located in Mentor, Ohio. Put simply, they couldn’t do them.

But that dilemma was solved with the Robofil 330. The UV 19.68” x 15.75” travel on the 330, which allows for large angle cuts, has become crucial to Path Technologies’ operations. Charmilles’ Marketing Manager Gisbert Ledvon says the unique design of the 330, in which the UV travel is larger than the XY 15.75” x 11.81” travel, is the key to cutting tapers over their full height of 15.75”. Indeed, Ledvon notes that Charmilles developed this design in the early 1990s with the introduction of the Robofil 310. Now, there are more than 4,700 of these machines in the field: 290, 310 and 330.

Asked for an example of how the Robofil 330 has led to new opportunities, President Dave Princic doesn’t hesitate. “I have a part in here that we cut for a mold,” Princic says. “It’s for the new jet fighters that the U.S. government is building. There’s no way I could have made it before I got this machine because it’s nothing but compound angles. We would never have been able to touch it without a Charmilles.”

Mark Moore, the wire EDM manager at Path Technologies, agrees. “I can get to the real steep angles,” he says. “We do a lot of entries for injections, and the quality is unbelievable.”

Prior to the 330’s arrival, when a job called for a steep angle cut, Path Technologies would have resorted to outsourcing. In-house capabilities at most were 15 to 20-degree angles.

Paying vendor invoices for outside work made it tough for a small shop like Path Technologies with only 10 employees, to remain profitable. Moore says, “Economically, we couldn’t compete with anybody if we had to continue to go outside our shop to get work done. Now that we have these three Charmilles machines, our competitive edge is in line with everybody else.”
We leave the slugs attached and then come in the morning and cut them off.

Path Technologies used to run two shifts but Princic has discovered with the efficiency of the Charmilles machines, the company is turning out as much work now in one shift as they used to turn out in two shifts. This is in large part due to the unattended capabilities of the Charmilles machines.

The wire threader is capable of threading brass or coated wires. Threading can occur from 0.004” diameter-wire up to 0.012” diameter-wire without any modifications to the mechanics or any of the parts on the wire threader.

The most recent machine Path Technologies purchased, in early 2002, was the Robofil 440, the successor to the Robofil 330. Richard Langbridge operates the Robofil 440 at Path Technologies.


Langbridge, 26, applied for U.S. jobs over the Internet. He wanted a change and says, “At my age, if I didn’t do it now, then I probably never would.” Langbridge got in touch with Princic in August of 2000 and Princic agreed to help Richard try to get a visa. A 3-year visa was obtained and Langbridge came to the U.S. for the first time on November 1, 2001.

He has adapted to America and the Robofil 440 quickly. The machine runs every day and on evenings and weekends. “In general,” Langbridge says, “I’ve found Charmilles machines to be quicker and more accurate than others I’ve used.”

The 440 comes equipped with a new wire threading system which Langbridge says can handle any wire that’s thrown at it. The new Windows NT-based control makes the machine even more user-friendly and drastically shortens the learning cycle. An easy-to-use touch screen greatly facilitates and accelerates operator input. The operator is guided by pictures and drawings, which illustrate the available functions. “The touch screen is very good on this machine,” Langbridge agrees.

He also likes Charmilles’ CT-Expert feature. The CT-Expert automatically selects all machine settings and makes adjustments so even inexperienced operators can utilize all the machine’s capacity. “The CT-Expert is easy to follow and easy to use,” Langbridge says, “All you have to do is enter basic information and the machine will select the right settings for you.”

All told, the partnership between Path Technologies and Charmilles has been terrific. Princic says, “Charmilles makes a really good machine and has exceptional service and applications support. We’re very happy with them.”

Accuracy
Linear Glass Scales

Pilot-Expert

CT-Expert
Ferron Mold & Tool Relies on Charmilles to Start and Grow Their Business

Norm Ferron has partnered with Charmilles Technologies at two important times in his company’s three-year history. The first time was just as Ferron Mold & Tool, located in Dayville, CT, opened its doors. The second occasion was when Ferron realized he had to significantly grow the business.

Ferron had never run an EDM machine when he started his own shop. Previously, he had worked for 10 years as a mold maker for another mold building company, but Ferron realized he needed an EDM’s performance to complement his other machines — a vertical machining center and a surface grinder.

“I made electrodes for the EDM machines at my previous job,” Ferron says, “so I knew as part of the moldmaking process, to be able to do a decent variety of molds, you’d have to have some kind of EDM machine.”

The next question was which one? Ferron did a test cut, a rib burn 1 3/4 inches deep, on three machines before deciding to buy the Charmilles. “It’s very fast burning,” Ferron says when asked what led him to Charmilles’ Roboform 20, “and I knew it would be extremely accurate and dependable.”

The final reason Ferron purchased the Roboform 20 was the servo-controlled machine’s fourth axis. That’s not a surprise to Charmilles’ Jim Nagle, the company’s District Sales Manager for the East Coast. He notes that the fourth axis is servo-controlled and enabled Ferron to do helical EDM work. This gives Charmilles EDMs capabilities that some other manufacturers don’t have because they just offer positioning functions on their C-axis. The C-axis can also be used to cut parts spinning a round electrode and using the maximum amperage. There is no concern that the axis will burn up and the amperage capability is much higher than in other machines.

Nagle believed that the Roboform 20 was the right choice for Ferron’s young company. “It’s one of the most economical machines so it was perfect for a start-up company,” Nagle says. “It got him (Norm) in the market and the work that he did for his customers was so good that they came back for more.”

One of the tasks that Ferron performed early in his company’s history was truly Olympian. Ferron built the mold for a javelin training device called the TurboJav manufactured by The Throwing Zone of Cranston, R.I. This device has the same flight and weight properties of a javelin but has a soft, rubber-nosed cone and body for safety.

“That was actually a funny thing,” recalls Tom Petranoff, two-time world record holder in the javelin throw and founder of The Throwing Zone. “I got thrown into Ferron’s lap because another company went under. And Ferron said they would do it and they actually did a really good job. That tool has made hundreds of thousands of units.”

It took Ferron 12 weeks to build the mold. On earlier models, the four tail fins on the back of the training zone flew off. This design incorporated tail fins molded right on the back of the body. “It’s almost indestructible,” Ferron says. The TurboJav has gained widespread acceptance as an official event in the U.S. Junior Olympics and Youth Athletics Championships for athletes under 12 and 10 and is starting to make inroads at the high school level as well.

Soon, Ferron got enough repeat business and other business from people talking about the quality of his work that his
Since SPAC eliminates the short circuit, it also eliminates the problem of pitting, in which a small pit remains in the cavity. “If you wind up with some pits in the cavity, you’ve got a problem,” says Ferron. “With the 55, we’ve never had that happen and I think that was a terrific improvement. He admits that when he first heard of the SPAC feature he didn’t know if it was a sales ploy or a real benefit. But, he says he’s discovered that, “we’ve found that it works extremely well.”

Another feature of the Roboform 55 that Ferron likes is the auto-lube. In other words, the machine will stop if the oil runs out. And you’ll know if the machine is low on oil. “To me, that makes a lot of sense maintenance-wise,” he says. “The machine won’t run if you don’t have lube in it.”

One of the other machines Ferron looked at required partial disassembly and greasing at six-month intervals for lubrication, Ferron recalls. “I thought that was something that would be forgotten if you got too busy,” he said.

Ferron says that before he purchased the Roboform 55 he had to turn down jobs because he didn’t have the large tank capability. He now doesn’t have that problem with the Roboform 55, which has a 48-position toolchanger.

Even though the Roboform 55 performs the lion’s share of the shop’s work, the Roboform 20 is far from obsolete. “Now the small machine complements the big machine for Norm because when you have big molds like this, you’re still doing small burns within the big molds,” salesperson Arpaia says. “You can’t just get by with one EDM machine.”

Ferron has also been happy with the service after the sale. “If I have a mechanical problem or an applications issue, I call Charmilles in Lincolnshire and talk to any service or application engineer that answers the phone,” Ferron says. “They all seem to be knowledgeable. I’ve never really run into somebody that didn’t know what they were talking about which is great.”

Ferron certainly would buy Charmilles again. “The biggest reason to deal with them is the way they support their products. They get right on a problem and they’ll do whatever it takes to straighten it out.”
Charmilles Awards Grand Prize NTMA National Apprentice Contest

To support careers in precision machining, Charmilles provides a broad range of free career oriented handouts, CDs, and presentations, plus discounts on EDMs for schools.

The Ontario event was the culmination of NTMA’s regional competitions that involve hundreds of contestants nationwide. The competition was open to all NTMA national member company employees who will complete their apprenticeship during the 2002 calendar year.

Charmilles played a major role in its support of NTMA’s Annual Apprentice Competition in its donation of the grand prize to be presented to Ahaus Tool & Engineering — a Charmilles Technologies Form 20 ZNC EDM worth $35,000 or up to a $100,000 discount on any other Charmilles EDM. Charmilles has donated over $600,000 in EDM machines over a ten-year period and has been an active supporter of the NTMA for 12 years.

Charmilles Awards Grand Prize NTMA National Apprentice Contest

Robert Serrano, District Sales Manager for Charmilles’ Southern California Technical Center in Yorba Linda; Trent Wadle, Ahaus Tool & Engineering; Milt Thomas, President and Owner of Wire Cut Company, Inc., Buena Park, CA and President of the L.A. chapter of NTMA.

Charmilles Awarded The Grand Prize for 30th Annual National Tooling and Machining Association’s (NTMA) National Apprentice Competition.

Trent Wadle, who is employed by Ahaus Tool & Engineering in Richmond, Indiana, beat out 17 competitors during the intense two-day contest held in Ontario, California from May 7-11. The competition, designed to promote awareness of the machining technology industry, involved projects in lathe, mill, precision grinding, and a comprehensive written exam.

Trent Wadle, 30th NTMA apprentice winner

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