

CYBER WORLD



No. 53

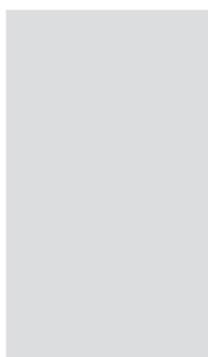
New Year's
Greeting

Event Report

EMO Hannover

Customer Reports

- 05 OHMIYA-SEIKI CO., LTD.
- 07 EIGHT INDUSTRY
- 09 Fort Walton Machining, Inc.
- 11 Red Point Alloys bv
- 13 MAZAK PEOPLE
- 14 News & Topics
- 15 The Yamazaki Mazak Museum of Art



New Year's Greeting

Tomohisa Yamazaki,
President of Yamazaki Mazak Corporation



I wish you a Happy New Year.

The previous year started with concerns about the future due to uncertainty in various political and economic issues on a global scale. Nevertheless, the economy actually recovered in Europe, Japan, China and the US while other developed countries, as well as emerging countries, also improved their economic situation. As a result, the global economy was healthy overall and grew throughout the year.

Reflecting on this economic environment, the machine tool industry, to which Yamazaki Mazak belongs, was also booming as the automotive, semiconductor and various other industries maintained a high level of capital investment. EMO Hannover held in Germany in September last year and Mechatronics Technology Japan (the largest machine tool exhibition in Japan next to JIMTOF) in October were also successful with many visitors, which indicated the strong desire of companies for investment, and I expect that it will help the machine tool industry continue to grow this year.

While the "IoT" and "shift to EVs" have recently been established as keywords in the manufacturing industry, manufacturers are required to develop products and offer total solutions in response to such changes in the environment. Manufacturers worldwide have been utilizing "IoT" at an increasing pace over the past few years. The electrification of automobiles, the shift to EVs, was accelerated last year with the announcement of a policy to ban the sales of cars powered by internal combustion engines in the future by a number of countries against a backdrop of the tightening of environmental regulations on a global scale. Since the design and manufacturing method of EVs are different from those of conventional cars powered by internal combustion engines, this trend is also likely to have a major impact on the machine tool industry.

While there is a tendency that only the negative impact of the shift to EVs on the manufacturing and machine tool industries is emphasized under the current circumstances, I am convinced that the advance of the shift to EVs will also generate new demands for manufacturing batteries, motors and the charging infrastructure as well as industrial machinery to produce them. I believe that it is necessary to pay attention to such positive impacts of changes in the external environment, in addition to their negative impacts, and respond to them promptly.

Yamazaki Mazak is actively and constantly committed to the development of new technologies to meet the new demands for manufacturing generated by the changes in industry. Commencing with the "hybrid multi-tasking machine" series, which incorporates different machining technologies such as additive manufacturing and friction-stir welding into metal-cutting machine tools, we will continue to develop new manufacturing concepts with innovative machine tools.

While the diversification of customer requirements has led to the necessity of variable volume production of a variety of components in a wide range of business categories, I assume that the demand for versatile multi-tasking machines with the capability of being integrated into a flexible production line will further increase with the development of specialized machining techniques such as gear machining and high-precision 5-axis machining. In addition to the development of technologies that will meet such demand, we will also accelerate the development of automation systems that will help solve the medium- and long-term shortage of labor, which is a challenge in many countries.

We are now working to establish our unique smart factory called the Mazak iSMART Factory™ in our production facilities. Our Oguchi Plant was transformed into an iSMART Factory last year. This year, the first stage of construction of the Inabe Plant in Mie will be completed and start operation as a new production base, and the digital integration of two production facilities in Minokamo based on IoT technologies is also underway to transform them into large smart factories.

Under the slogan of "continuously evolving factories," we will always incorporate the latest technologies in developing the Mazak iSMART Factory™ concept. We will actively introduce IoT-related technologies through investment in our equipment and accumulate the technologies and expertise to help customers transform their plants into smart factories.

While the environment surrounding the manufacturing industry is changing on a daily basis and at an accelerating rate, Yamazaki Mazak will work diligently to constantly create a new future for manufacturing with customers through the concerted efforts of all our employees.

Last but not least, I hope for your continued good health and success in this New Year.



EMO Hannover 2017



Latest Mazak iSMART Factory™ solutions were introduced in the center of the booth



Enthusiastic business discussions were carried out every day



Visitors experienced the ease of operation of the MAZATROL Smooth CNC



Presentation of cutting-edge IoT solutions and introduction of 15 new models

For six days from September 18 to 23, 2017, EMO Hannover 2017, the largest machine tool exhibition in Europe, was held in Hannover, Germany. A total of 2,226 companies from 44 countries, mainly European, participated in the exhibition at the Hannover Fairgrounds, the largest convention center in the world. Many people from around the world visited this exhibition in Germany, which is one of the manufacturing powerhouses and committed to Industry 4.0.

Mazak exhibited 25 machines in total at EMO Hannover 2017 - 18 machines were manufactured in Japan, five in the UK plant and two in the Singapore plant. All were connected to a network utilizing the MAZAK SMARTBOX™ and the monitoring and analysis of their operations were demonstrated with the SMOOTH MONITOR AX in the Mazak iSMART Factory™ solution area set up in the center of the booth. SMOOTH SPINDLE ANALYTICS, which monitors and analyzes the vibration and load of the main spindle to support predictive maintenance and optimization of machining conditions, attracted considerable attention from visitors.

An area to demonstrate the "Smooth Technology" centered on the MAZATROL Smooth CNC, which is Mazak's latest CNC system, was always crowded with visitors who came to experience its applications and outstanding ease of operation. We also displayed gear machining by our INTEGREGX series and cutting-edge process integration based on hybrid multi-tasking machines. While market needs are being diversified in various industries, we introduced solutions suitable for high-efficiency production of many kinds of components in small lot sizes.

New Mazak models attracted much attention

15 new models were presented for the first time in the world. Since the automotive and aerospace industries are strong sectors of the European economy, multi-tasking machines and 5-axis machining centers, as well as automation systems that respond to the production of a variety of parts in small quantities, received considerable attention.

New Mazak models introduced at EMO Hannover 2017



Multi-tasking machine that can meet a wide range of production requirements
INTEGREGX i-500



This machine has the largest machining capacity in our INTEGREGX i series and can machine workpieces of up to $\varnothing 700$ mm (27.56 in). A new compact milling spindle head design improves productivity and provides a larger machining area. Its modular design offers diverse specifications for both the turning and milling spindles. It is possible to select the most suitable specifications from gear machining, high-precision 5-axis machining and other options to meet the demand for specialized and high value-added machining that is required in the automotive, aerospace and other industries.



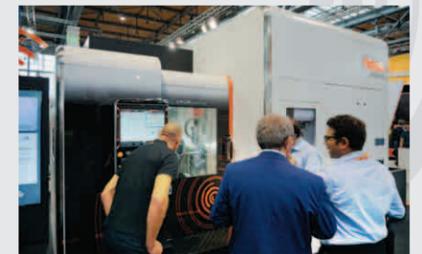
High-speed, high-accuracy simultaneous 5-axis machining center for precision die and precision machining
UD-400/5X



The UD-400/5X is designed to provide unsurpassed accuracy and quality of machined surfaces for molds and medical instrument components. Machining is performed by a 45,000 rpm high-speed integral spindle/motor and a structure/drive system with exceptional rigidity and damping capability. The symmetrical double-column construction minimizes distortion due to temperature changes, plus core cooling is utilized for the main spindle and the high-rigidity ball screws for all linear axes. Additionally, the standard equipment THERMAL SHIELD automatically compensates for temperature changes and all axes are equipped with a high-precision scale feedback system.



Simultaneous 5-axis horizontal machining center for high-speed, high-precision machining of aerospace components
HCR-5000S



Cycle times are significantly reduced thanks to the exceptional rigidity that allows the machine to be driven with high responsiveness to complex axis movements. With a central trough beneath the machine table and a large-capacity coolant tank of 800 L (211 gal) as standard equipment, machined chips are smoothly discharged from the machine. Four types of main spindles are available to meet a wide range of machining requirements ranging from the standard 12,000 rpm to a high-speed, high-output 30,000 rpm with 80 kW, which is most suitable for machining aluminum.



Simultaneous 5-axis machining center for automated production of a wide variety of components in small quantities
VARIAxis i-300 AWC



The new "Auto Work Changer (AWC)" automatically transfers workpieces to/from the setup station, workpiece stocker and machine table. The space-efficient stocker has storage capacity for a large number of workpieces. The expandable "Multiple drum tool magazine" can incrementally increase the tool storage capacity. The automation is managed by the Smooth AWC software embedded in the machine CNC system for automatic operation, to support workpiece setup for tools and programs so that unmanned operation can be performed over extended periods.

The worldwide manufacturing industry is now facing a period of major changes, such as digitalization using the IoT and a shift from automobiles with internal combustion engines to EVs. In the meantime, demand for automation is increasing on a global scale to address the shortage of labor and further improve productivity.

Mazak will continue to provide state-of-the-art automation and machining technologies and IoT solutions that meet these requirements and help improve overall production control to realize higher efficiency.



OHMIYA-SEIKI CO., LTD.

President : KENTARO KANEKO
Address : 3718-1 MANNOHARA-SHINDEN, FUJINOMIYA, SHIZUOKA
Number of employees : 90
www.ohmiya-seiki.co.jp



OHMIYA SEIKI Co.,Ltd.
大宮精機株式会社

INTEGREX has reduced the parts machining time by half

OHMIYA-SEIKI has used INTEGREX multi-tasking machines for parts machining for nearly 20 years. "The machine is helpful because it creates the complex grooves of core components in a single setup. In fact, the time for machining screw parts, for example, has been reduced by half in comparison with the previous method when we divided the process and handled it with multiple equipment including a turning machine, a milling machine and a machining center. We are also satisfied with the surface finish, which exceeds the level we want."



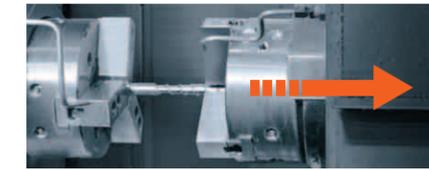
SMOOTH MONITOR visualizes equipment data for analysis to further improve productivity

tubing market. The company advanced into the medical field as the second pillar that supports its business foundation in 2002 when the domestic market for wire covering equipment was shrinking. The growth of the business in the new field has been so steady that it now accounts for 10 to 15% of the company's total sales.

The third pillar and sales increase on a global scale to go far ahead of competitors

OHMIYA-SEIKI is now considering the development of products that can be the third pillar in its far-sighted strategy. "Based on the lessons we learned in 2002, we are discussing the field to be selected while considering both existing and new business fields."

In the development of overseas business, the company plans to export products to India and Africa, following the current destinations such as China, Thailand, Philippines, Vietnam and Mexico, in which the demand for wire covering equipment has increased as a result of the advance of Japanese car manufacturers. With the 80th anniversary of its foundation one year away, OHMIYA-SEIKI will be committed to the development of new products and sales increase on a global scale to further expand its business. "You should not take a defensive stance with excessive attention to a long history. Without being complacent about the past successes, we will maintain an attitude to seek changes and innovations and keep trying to grow. Our slogan is 'Change!'"

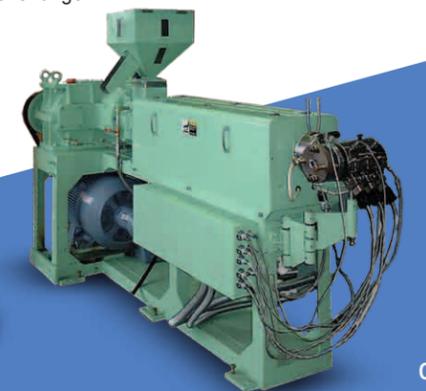


The second spindle of the INTEGREX draws out the workpiece to the programmed length to achieve shorter machining time and high-precision screw machining

In addition to the use of the INTEGREX, manufacturing in OHMIYA-SEIKI features an in-house development system to supply a wire cover production line with an extruder as the core part. "We are happy that customers say they can get all the necessary system equipment from OHMIYA-SEIKI as a one-stop manufacturer. We deliver products after completion of the test run so customers can start operating them on the day of installation. I believe that the reduction of the start-up time will also support the business management of customers."

OHMIYA-SEIKI has also used its technical abilities cultivated through the manufacturing of wire covering equipment to enter the medical

Finished extruder (right) and samples of covered electrical cables (left) The company is highly regarded for its product quality and production speed



Customer Report 01

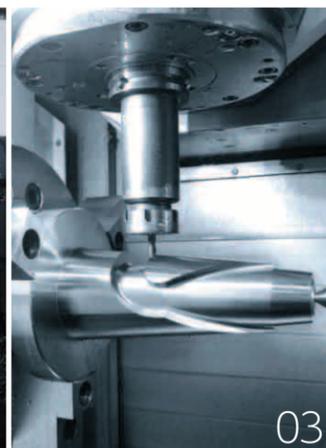
Offering one-stop solutions for electrical wire covering

Japan OHMIYA-SEIKI CO., LTD.

Electrical wire used to transmit information and supply power in an automobile is an essential automobile component. OHMIYA-SEIKI CO., LTD. located in Fujinomiya, Shizuoka (central Japan) is a leading company in the production of equipment for covering electrical wire. In recent years, taking advantage of the wire covering equipment technology, the company has entered the market of equipment that manufactures plastic tubing for medical use, etc. It is also committed to shortening the delivery period by using its unique parts machining technology, as well as to the development of overseas markets.



02



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- 01. Molding dies incorporated in an extruder, a main component of wire covering equipment
02. Mazak machines playing the core role in part production
03. Complex shape of an extrusion die machined in a single setup
04. Mr. KANEKO, President (center) and employees

OHMIYA-SEIKI was founded in 1939 by the grandfather of Mr. KENTARO KANEKO, President, for the production and sales of industrial machinery as well as parts machining. In response to the concentration of major electrical wire manufacturers in the area surrounding Fujinomiya, the company started to shift its focus to the research, development and sales of wire covering equipment around 1950. The products of OHMIYA-SEIKI in this field hold a share of approximately 40% in the Japanese market. In the company's sales volume, the sales of equipment represent two thirds while the sales of parts account for one third. Its products are delivered to customers in a wide range of fields that use electrical wires including automobiles, factory automation and construction. The company started full-scale development of overseas markets with China as the first target in 2000. Overseas sales today is two-thirds of the sales volume, a leading level in the industry.



Mr. KANEKO, President, talking about growth strategy

The company produces all the equipment required for the electrical wire covering process, of which the extruder is the most important piece of equipment. The extruder, which melts and kneads plastic and covers the wire core with it, plays the pivotal role and the performance of the extruder depends on its parts including extrusion dies and feed screws. The technical capabilities to internally produce such core components and the capacity to develop and offer a whole set of the manufacturing system are the main reasons why OHMIYA-SEIKI continues to lead the industry. Such strategy of the company is supported by Mazak machines.



EIGHT INDUSTRY

President : Hidetoshi Hibino
Address : 545 Nishikoken, Inuyama, Aichi
www.eito-industry.jp



Customer Report **02**
Opening limitless possibilities with outstanding technical capabilities

Japan **EIGHT INDUSTRY**

Late deliveries: 0%, scrap rate of 0% — These figures represent the attitude of EIGHT INDUSTRY, a company located in Inuyama – near Yamazaki Mazak headquarters in Japan, that machines prototypes of automotive components and precision parts for press dies. They are actually unsurprising results for the company. Its technical capabilities, which are highly regarded in the industry, are also used effectively for the development of original products and the "spinning top competition" between manufacturing companies in Japan, in addition to the core business. Mr. Hidetoshi Hibino, President of EIGHT INDUSTRY, is improving the craftsmanship inherited from his father.



"Do your best to create good products and never cut corners." This favorite phrase of his late father still echoes in the mind of Mr. Hidetoshi Hibino, the president of EIGHT INDUSTRY. The company was originally established by his father as Eight Manufacturing in 1969 and incorporated as a company in 2008. "Eight" as the corporate name was chosen because the Japanese character of "8" has a shape spreading out towards the bottom and symbolizes good luck. The company logo also represents the letter "8" tilted to the right to look like an infinity sign with the goal of continuous growth. Mr. Hibino grew up watching his father making effective use of turning machines and milling machines to process parts for machine tool and other equipment and eventually followed the same path. Having gained training of die machining in a different company, he can control a general-purpose machine like moving his own arms and fingers. He was told to "think about using the tools you have now" during his training days and still follows the lesson, which has been used to improve the remarkable technical skills of the company with a focus on "programming that makes effective use of craftsmanship."

Introduction of Mazak machines greatly improved productivity and quality

The quality of parts manufactured by EIGHT INDUSTRY, which is highly regarded even by competitors, has led to the establishment of its current core business, namely the machining of prototypes parts for automobile safety equipment. The company installed their first INTEGREGX j-200 to further enhance their machining accuracy in 2014. "Along with the improvement of accuracy, the greatest advantage is that the machine can complete machining in a single setup that previously required multiple setups. While an increasingly shorter delivery time is demanded, we have doubled both productivity and sales." The factory also has four other Mazak machines including turning machines, with which Mr. Hibino has been familiar since his training days, and he shares machining work with Mr. Tadashi Hibino, his brother and Senior Managing Director. They inspect the quality of the items machined by each other in a strict and uncompromising manner to establish a system to generate no scrap parts.

"We achieved the mirror surface machining through enormous efforts and did not want to end by just saying 'It is great.' It was also reassuring that fellow competitors in the All-Japan Koma Taisen (spinning top competition) gave favorable comments." Mr. Hidetoshi Hibino recalled how they had decided to market the product. The high evaluations from the fellow competitors in the competition, which is known as an event where small and medium-sized manufacturers compete with their technical skills, must have been most encouraging because they can recognize the depth of techniques. The company's items that attract attention as original products now include titanium or stainless tie clips, tie pins and pierced earrings as well.



The outstanding technology of the company is also demonstrated in Koma Taisen, the tournament to compete with spinning tops

EIGHT INDUSTRY won the "Monozukuri Takumi no Waza Tournament 2017" of the spinning top competition held in Tokyo in August 2017. It also won second place in the North Nagoya Tournament in November to rank as one of the top competitors in the annual point ranking. "You can win as long as the top spins longer than the competitor even by a half rotation." The design in consideration of this basic principle, as well as the high-precision machining that the company boasts of, has resulted in the steady records. "Thanks to our challenge of developing our own brand, we have started to receive orders for new jobs. We would like to use this opportunity to increase new transactions with large companies in the future." The company seems to be making steady progress to make its hope for growth, from which the corporate name was derived, come true.



58 facets mirror-surface machining by the INTEGREGX J-200

Enhancing technical capabilities for further growth

The introduction of the INTEGREGX j-200 did not just only improve quality and productivity but also encouraged EIGHT INDUSTRY to develop in-house products for the specialty consumer market, which was a new business field for the company. It tried mirror-surface machining with 58 facets to check the usability of INTEGREGX j-200 and succeeded in making the surfaces shine by only machining without polishing, which has led to the development of cufflinks as an in-house product.

▶ The thin-wall and precision machining techniques to handle titanium, Inconel and other difficult-to-machine materials are the strength of the company



- 01. Cufflinks and other original products of the company machined with high precision
- 02. Strict quality inspection to ensure scrap rate of 0%
- 03. Factory with many Mazak machines in operation
- 04. Mr. Hibino talking about his passion for manufacturing



Customer Report 03

Precision Profiler Puts Shop in an Aerospace Sweet Spot

U.S.A. Fort Walton Machining, Inc.

"If we aren't on the cutting edge technology wise, our competition will run right over us. Advanced technology is everything in our business," said Mr. Tim McDonald, Director at Fort Walton Machining located in Fort Walton Beach, Florida. According to Mr. McDonald, the aerospace part-processing sweet spot falls between 5-axis machining centers and big gantry-type machines. He explained that most aerospace shops machining aircraft structural components can cut parts up to about 11' long. But when it comes to larger sizes, a shop must make a committed effort to incorporate gantry-style machines with capacities for parts up to 22' long.



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- 01. VHP160 enhanced the shop's cutting capabilities
- 02. Many Mazak machines are in operation in the machining department
- 03. High speed machining by the VARIAXIS 630/5X II
- 04. Drill-bits for the oil industry produced by Fort Walton's state of the art machining technology

COMPANY PROFILE



Fort Walton Machining, Inc.

President : Jan McDonald
Head office : 43 Jet Drive NW Fort Walton Beach, Florida U.S.A.
Number of employees : 180

www.fwmachining.com



U.S.A. Fort Walton Machining, Inc.

Ms. Jan McDonald, Mr. Tim McDonald's mother, is the current president and owner of Fort Walton Machining. Her late husband purchased the company in October 1997 and from the start relied on machine tool technology from Mazak. The lion's share of machine tool technology at Fort Walton Machining has come from Mazak. The shop has over 20 Mazak machines that include various models of QUICK TURN NEXUS Multi-Tasking Machines, VARIAXIS 5-axis Vertical Machining Centers, SLANT TURN NEXUS Turning Centers and VERTICAL CENTER NEXUS Machining Centers. So it comes as no surprise that the shop's "sweet spot" machine, its VORTEX HORIZONTAL PROFILER (VHP) 160, was also acquired from Mazak. In fact the shop purchased the first one ever built in the world. Travels on the VHP 160 measure 165.35" in (4,200 mm) X, 59.06" (1,500 mm) in Y and 21.65" (550 mm) in Z, and the machine has a powerful 106-hp, 26,000-rpm HSK-A63 integral spindle/motor. And because of its large 157" (3,988 mm) x 49" (1,245 mm) vertically oriented worktable, the VHP 160 easily accommodates a maximum load capacity of 6,615 lb (3,000 kgs).

particularly when it comes to aerospace components with deep, thin-walled pockets and requiring lots of metal removal. "Anyone can machine a 0.050"(1.3 mm)-thick wall that's only 0.100"(2.5 mm) deep/high," commented Mr. McDonald. "But try holding tolerance, straightness and required surface finish when that thin wall is 3" (7.5 mm) high/deep. It all comes down to your machine's capabilities – speed, accuracy and rigidity. Without the right machine and tooling running at the right speeds and feeds, you'll never succeed."



VHP160 is designed for a wide range of workpiece sizes

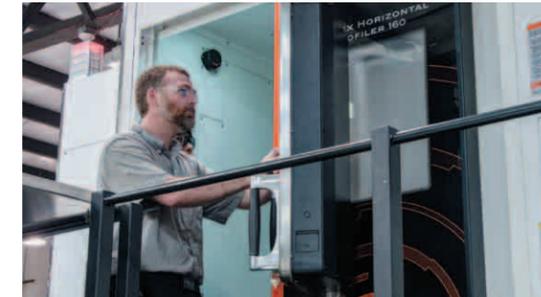
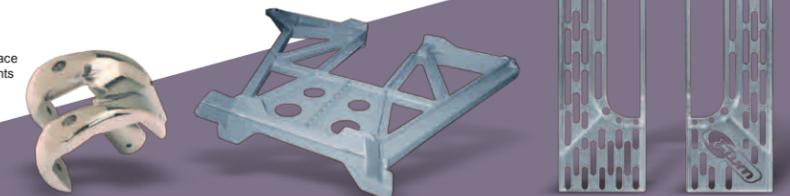
"While a part may be machined to exact tolerances, sloppy aesthetically displeasing surface finishes give the impression of imprecision, poor performance and potential part failure," explained Mr. McDonald. With the VHP 160, we can fulfill both requirements and reduce cost per part through optimized setups, speed and precision. "With the VHP 160, we improved part accuracy and achieved seriously shorter run times," said Mr. Chad Weisenburger, CNC mill supervisor at Fort Walton Machining. "The machine reduced cycle time by 50 percent, and for us, that kind of speed means more parts and more profit." Fort Walton Machining is a high mix/low volume supplier. The shop's lot sizes range from one to 500 parts, and 80 percent of them are made from aluminum with tolerances that range from 0.030" (0.762 mm) to as tight as 0.00005" (0.00127 mm).



Mr. Tim McDonald, Director

For getting into the cut as quickly as possible and shortening overall cycle times, the VHP 160 rapid traverses at speeds up to 1,380 ipm in X and 1,176 ipm in both Y and Z with an acceleration/deceleration rate of 0.5G. In addition to providing a niche in terms of part size processing, the VHP 160 enhanced Fort Walton Machining's cutting capabilities,

► High-precision aerospace and medical components produced by Mazak machines



VHP160 improved part accuracy and considerably reduced cycle times

The shop's aircraft/aerospace work encompasses cargo handling systems, floor supports and a lot of airframe components as well as brackets and other smaller parts. Job contract durations can range from two weeks to up to four years.

In addition to aerospace work, Fort Walton Machining produces medical equipment parts as well as general machining such as seat belt assemblies for all the amusement rides in Orlando, Florida.

While jobs can be quite diverse at Fort Walton Machining, the common denominator between them is the high level of required quality and precision. The shop provides "dead-center perfect manufacturing" because the parts it produces are in such critical applications. And because of its capabilities, the shop recently won the state of Florida's prestigious Manufacturer of the Year award.

"Our hard working, dedicated team, as well as our advanced machine tool technology, are all key to Fort Walton Machining's continued success," said Mr. McDonald. "That success also depends on equipment suppliers that can offer us the industry's most advanced technology, best quality and outstanding customer service. There are a lot of good machine tool companies out there, but for us, Mazak continues to go above and beyond any of the others."



Customer Report 04

Fast-track is in our DNA

Netherlands Red Point Alloys bv

Since its foundation in 1987, Red Point Alloys has firmly established itself as a leader in the fast-track supply of all kinds of valves. In fact, its portfolio is so extensive that Red Point is known as the 'yes we can' company, capable of supplying valves for practically every application customers might have. Mr. Frank van Os reflects on a year in which Red Point has further strengthened its position as a niche player in many regions and industries: "We've recently fulfilled a lot of orders originating in the US, Canada, Middle-East, Europe and China, and I can also point to successes in the chemical industries, as well as the exceptionally demanding PTA (Plasma Transferred Arc) sector," he notes proudly.



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- 01. Mazak machine tools contributing to Fast Track policy
- 02. Facilities standardized on Mazak machines, mainly QUICK TURNS and INTEGRExes
- 03. Short production lead times by using Mazak machines
- 04. Fast and accurate inspection prior to shipping

COMPANY PROFILE



Red Point Alloys bv

CEO : Frank van Os
 Head office : Radonstraat2 2718TA Zoetermeer The Netherlands
 Number of employees : 50

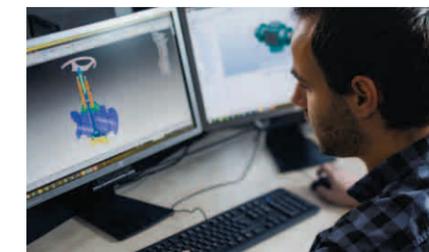
www.redpoint.nl



Becoming indispensable

The classic perception of a fast-track supplier is a manufacturer who can provide valves in a hurry. This is a role that Red Point remains very comfortable with, says Sales Director, Fred Jansen. "To give an example, we once completed an order of class A metal seated ball valves during the Christmas break-that was certainly an experience!" The fact that Red Point can work with all materials from carbon steel to nickel alloys to make a complete portfolio of valves from ball to double block and from gate to globe is another important selling point, notes Mr. Jansen. "It doesn't matter what material you need, nor does it matter if you want a standard valve or a tailor-made solution, we can deliver. Indeed, new customers often raise an eyebrow when they learn we don't have a product catalogue. But we simply don't need one! If they ask whether we can make a particular type of valve, the answer is invariably 'yes!'"

than customers may be used to when working with standard suppliers. But we are often delivering unique valves, so getting everything right at this stage helps prevent problems and delays later on."



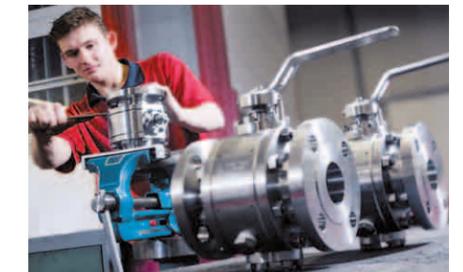
Highest technology for designing custom valves

In-house expertise

Planning the efficient use of the large and impressive machine shop must be a real challenge given the always-changing order flow, yet Production Supervisor, Mr. Patrick Huf appears utterly calm and relaxed. "Yes, our job is certainly unpredictable. An order with a six week turnaround time is no problem whatsoever, but if one or two key materials don't arrive until week five, well, that's when you appreciate the value of proper organization. The trick is to think about priorities and anticipate bottlenecks." In that light he points to the 13 Mazak CNC machines in operation - starting 20 years ago, the only machine tools purchased have been Mazak, mainly QUICK TURNS and INTEGRExes. "We have standardized on Mazak to facilitate user interoperability and safeguard product quality. Moreover, these machines have very quick set-up times which is a major advantage given that on any particular day an individual machine might run five, six or even seven different jobs." Additionally, the INTEGREx machines provide the required accuracy and short production lead times. This is important as they manufacture single parts just-in-time. In the

past with other equipment, the lead times were considerably longer. Application support from Mazak has been very helpful when training operators. When necessary, service is available immediately as well as spare parts 24/7 from Leuven Belgium.

Red Point couldn't have chosen a better location for its headquarters and manufacturing facility, just a stone's throw away from key customers in the Antwerp and Rotterdam industrial parks and a thirty minute drive to the global transport hubs of Rotterdam harbor and Amsterdam airport. This means valves can be quickly and easily shipped to customers around the world, so it is hardly surprising that the company has been industriously expanding its geographic reach for nearly thirty years.



A proven fast track service with the highest leading standards

"As you can see, the entire Red Point organization is geared to making sure that the client receives his or her valves on time and in perfect condition," comments Mr. van Os. "Making valves takes co-ordination and teamwork at every step of the way: from order intake to engineering, from procurement to machining, from assembly to testing. From standard valves in unique materials to special valves for one-off applications, a fast track service is in the Red Point DNA."



Mr. Frank van Os CEO

Fast track DNA

Firstly, all orders originate from a phone call or e-mail to the customer service area, manned by knowledgeable customer service agents and sales engineers. Working with quiet efficiency, staff here put together quotes quickly and precisely. Mr. Jizke van Dura, Sales Engineer says: "A key role for us is to ensure we obtain all the necessary specifications so we do ask more questions

► Red Point Alloys valve products machined by Mazak machines



MAZAK PEOPLE

Yamazaki Mazak Thailand Co., Ltd.

 **Ms. Churairat Klinboonnak**

Using knowledge, experience and teamwork to solve customers' problems

Yamazaki Mazak operates many bases in Japan and other countries for various functions such as production, sales and before and after-sales service and support. MAZAK PEOPLE introduces employees who are active at the forefront of the Group companies.

This issue features Ms. Churairat Klinboonnak, who works as an application engineer in Mazak Thailand Co., Ltd. She endeavors to promptly respond to requests from customers for advice on machining.

PROFILE » Ms. Churairat Klinboonnak

Ms. Klinboonnak joined the company in January 2011. After gaining work experience, she now works as an application engineer. Ms. Klinboonnak studies production techniques and other subjects in a Master's program at the Pathumwan Institute of Technology on weekends.



—Why did you choose to be an application engineer?

An application engineer needs to offer the most appropriate machining method to the actual situation of various customers. The job is difficult, but I wanted to try it after joining Mazak because it would give me opportunities to improve my skills.

—What is your current job?

My main job is to give training to customers and teach them how to operate machine tools. I am also engaged in setup for programming of the machines to be shipped, as well as demonstration of machining in the showroom. There are not many women who can freely operate CNC machine tools in Thailand. For customers, it is very uncommon to receive technical explanation from a woman so they remember my face more easily, which is also a considerable advantage for my job.



Demonstration of machining in showroom

—What do you value when you work?

Firstly, I value quick responses to the customers that have problems with operation procedures and programming of machines. In addition, I always work with an idea that failure is the way to success because successful people learn from their failures or of others regardless of the field. I think it is crucial to try to admit and accept failure in order to be successful.



Solving customer's problems with teamwork

—What have you learned through your work?

I have learned the significance of teamwork. While my department is working as a team, the work proceeds smoothly thanks to cooperative colleagues and superiors. In fact, I am often helped by fellow employees when I face a challenge. I feel the greatest joy when the team has solved a challenge and satisfied the customer. The experience of sharing the joy with team members has a priceless value.

—What are the characteristics of industry in Thailand?

While my country is well-known as a major producer of automobiles in Southeast Asia, electrical, food processing, healthcare, energy and other industries are also active. It is another feature that many foreign companies have built factories in Thailand due to the abundance of human resources with sophisticated skills, although wages are not high in comparison with other countries. The technical skills of labor here are cultivated at many domestic universities and other research organizations in the engineering field.

—What is your future goal?

I love my current job because I can make use of the experience and knowledge I have developed. So I want to continue as long as

possible. For this reason, I study production techniques and other subjects in a Master's program at the Pathumwan Institute of Technology on weekends.

"The subjects I am studying at graduate school are directly related to my current duties so I want to make use of the knowledge I have acquired from my studies for the job," said Ms. Klinboonnak. The comment shows her passion for further growth to help customers solve their problems. The knowledge learned at university and the experience gained through her sincere efforts for the job will expand the range of her job in the future.

How she spends her days off

I spend most of my time during the weekend for course work and research for school papers. The rest of the time is spent exercising and taking care of my pet. Since my family lives in Chantaburi, the eastern part of Thailand, I can't see them as much as I would like. But we keep in close touch with each other over the telephone.



News & Topics

Supporting the prosperous industries in central Japan, the home of Mazak



Mechatronics Technology Japan (MECT) is the second largest machine tool show in Japan after JIMTOF. MECT 2017 was held at Port Messe Nagoya in Nagoya for four days from October 18 to 21 last year.



As MECT is held in Nagoya, we use the show as an opportunity to introduce our products and new technologies to automotive and aerospace industries, which are located in this part of Japan. In last year's event, we exhibited a total of nine machines for the first time, both machine tools and laser processing machines.

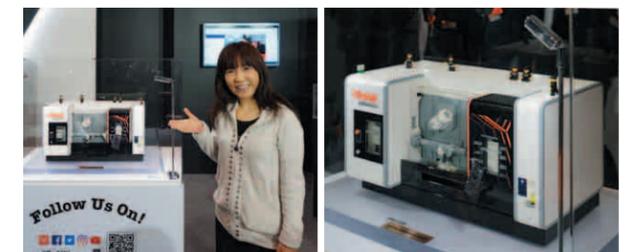
Various applications targeting the automotive industry

During this MECT exhibition, we demonstrated various applications for the automotive industry, the main industry in this region. We demonstrated "gear skiving" and other gear machining processes with the INTEGREG i-400S and QUICK TURN 300MY. The VTC-530/20 FSW, which has incorporated friction stir welding (FSW) technology that can be used for the manufacturing of cooling equipment for electric vehicles, cooling plates for semiconductor production equipment, and other similar machinery, as well as the VARIAXIS j-600/5X AM, a hybrid multi-tasking machine based on wire arc additive manufacturing that can reduce the lead time of die machining and repairs, received much attention. We also exhibited the HCN-4000, a horizontal machining center equipped with the Multi Pallet Pool (MPP), which is an automation system for unmanned operation over extended periods of time, as a solution for automation. In addition, we demonstrated high-speed continuous

cutting of thick plates and sheet metal of different materials with the OPTIPLEX 3015 FIBER III, a high power 8 kW fiber laser processing machine that was exhibited in a Japanese trade show for the first time, and introduced new IoT-based production concepts.

This Issue's Cover

We asked Ms. Sachiko Akinaga, who won three consecutive titles of "the Championship for the King of LEGO blocks" in a Japanese TV program called "TV Champion" to create a one-tenth model of the INTEGREG i-400 and displayed it in our booth at MECT 2017. The replica faithfully reproduced the original and impressed the visitors.



INTEGREG i-400 one-tenth scale model displayed at MECT 2017 and Ms. Sachiko Akinaga

The Yamazaki Mazak Museum of Art was opened in April 2010 in Aoi Higashi-ku, the heart of Nagoya in order to contribute to the creation of a rich regional community through art appreciation and, consequently, to the beauty and culture of Japan and the world. The museum possesses and exhibits paintings showing the course of 300 years of French art spanning from the 18th to the 20th centuries collected by museum founder and first museum director Teruyuki Yamazaki (1928 - 2011), as well as Art Nouveau glasswork, furniture, and more. We look forward to seeing you at the museum.



The Yamazaki Mazak Museum of Art has been awarded the "2017 Certificate of Excellence" by TripAdvisor.

TripAdvisor is the world's largest travel site. More than 570 million reviews and opinions have been posted covering over 7.3 million accommodations, airlines, attractions, and restaurants.

Starting in 2010, the Certificate of Excellence honors hospitality businesses that consistently deliver quality service. Establishments earning the Certificate of Excellence are located all over the world and have continually delivered superior customer experiences. To qualify for a Certificate of Excellence, a hospitality business must:

- Maintain an overall TripAdvisor rating of at least four out of five points
- Meet a required minimum number of reviews
- Have been listed on TripAdvisor for at least twelve months

Among 70 thousand facilities registered in Japan, less than 1% were awarded the 2017 Certificate of Excellence. Thank you very much for your patronage.



THE YAMAZAKI MAZAK MUSEUM OF ART
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GALLÉ, Émile [1846-1904]
"Engraved vase with German iris design"
1898

THE YAMAZAKI MAZAK MUSEUM OF ART

Collection Showcase

GALLÉ, Émile
"Engraved vase with German iris design"

This vase is made of purple glass laid over transparent crystal with an etched and engraved German iris motif in relief. The details of the flowers are exquisitely carved, and skillful attention is paid to the graceful overlapping of the stems as they spread outward and upward. A group of small buds is shown rising on the back of the vase. An engraved relief of clouds floats across the surface near the rim. Acid is applied to the inside wall of the vase, creating slight indentations that create a flickering effect on the surface of the transparent glass. There is a carved inscription in capital letters around the circular edge of the base reading: "NOUS MONTERONS VERS LA LUMIÈRE" (We ascend toward the light). The word iris comes from the name of the Greek goddess associated with the rainbow. Iris served as a messenger for the gods, passing over the rainbow bridge between heaven and earth to deliver divine messages to men, and it is said that she eventually changed into a flower. The German iris was bred in Germany and France in the early 1880s. It does not grow in the wild but was bred artificially by crossing plants of the genus iris. Photographs show that this flower grew in the garden of Gallé's house and factory.