



The Yamazaki Mazak Museum of Art was opened in April 2010 in 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, as well as Art Nouveau glasswork, furniture, and more. We look forward to seeing you at the museum.



GALLÉ, Émile (1846-1904)  
Engraved vase (1890s)

### ◆ Émile Gallé - Engraved vase with thistle design

The blue glass gives the impression of a smoky, bluish-white haze. The elegant form bears a close resemblance to Japanese vases. The thistle design looks as if it has silently bloomed while dripping dew amidst a misty morning, and it gives one the feeling of a poetic resonance fomented by the restraining of the color tone.

In the latter half of the 19th century, the West was experiencing a boom of interest in Japanese art, known as "Japonisme." Japanese culture, exported via private traders and other avenues, immediately fascinated many of the culturati, including of course Gallé, as well as the poet Baudelaire and painters such as van Gogh and Whistler. Coexisting with nature and living together with the changes in the seasons, the Japanese view of nature opened a door to a new world for the countries of the West.

### THE YAMAZAKI MAZAK MUSEUM OF ART Collection Showcase

### ◆ Eugène Delacroix - La Sibylle au rameau d'or

This piece is from the mature period of Delacroix, a painter representative of 19th century French Romanticism. As Delacroix painted surging emotions using dramatic colors and intense brushstrokes, his work is referred to as "Romanticism."

Depicted in this piece is a scene from the ancient Roman epic poem the Aeneid. The Trojan prince, Aeneas, wants to meet his deceased father. In order to do so, he must obtain the Golden Bough. The oracle Sibyl is pointing to the Golden Bough over her head. When Delacroix presented this painting at the Salon in 1845, he explained that the Golden Bough symbolized the chosen of the gods. It is said that this painting was filled with his pride at having "been endowed with the Golden Bough by God" as an artist.

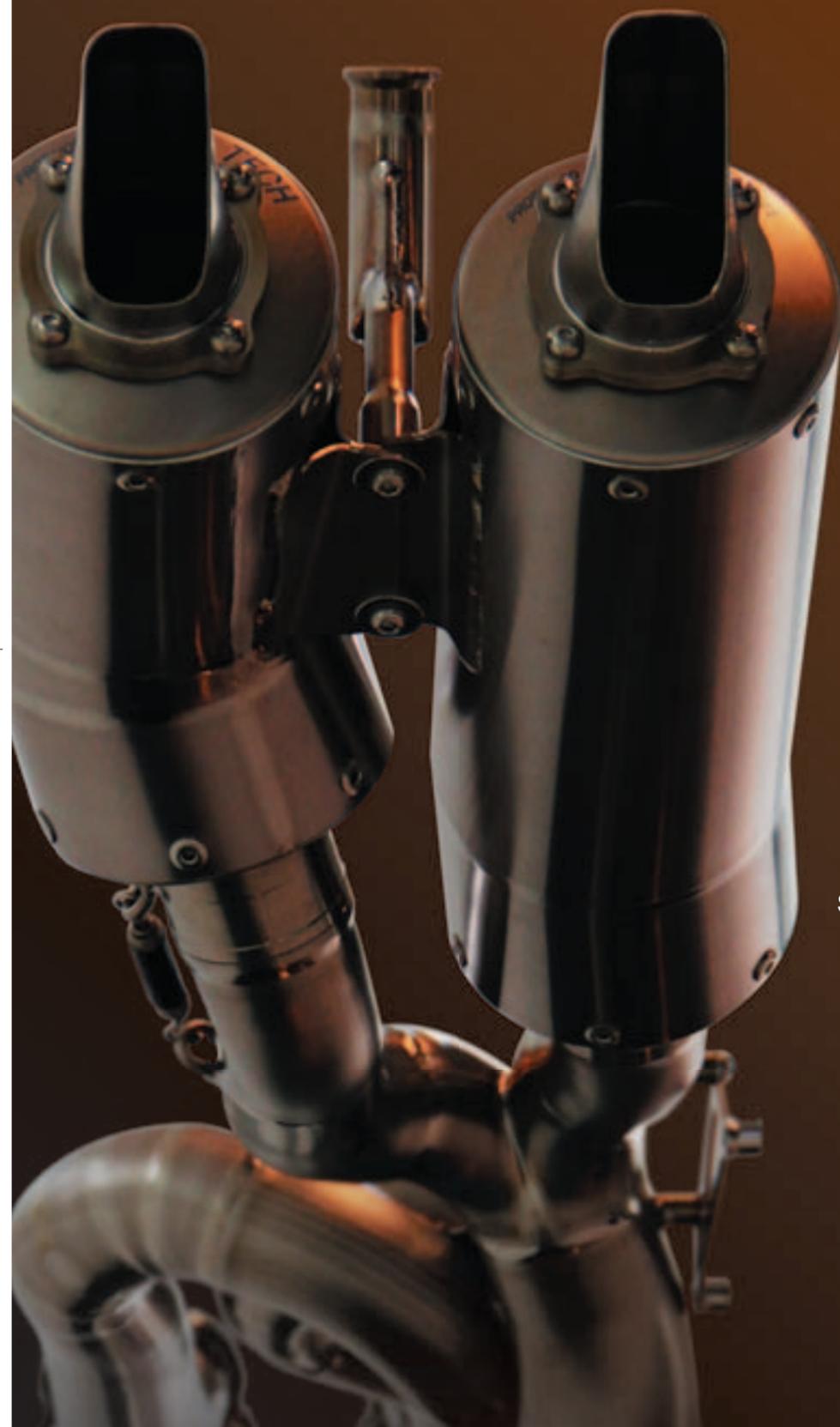


DELACROIX, Ferdinand Victor Eugène (1798-1863)  
La Sibylle au rameau d'or 1838 (Exhibited 1845)

# CYBER WORLD

2014  
No. 42

## Driving into Tomorrow



South East Asia Technology Center  
& Singapore factory expansion  
grand opening

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# GRAND OPENING OF YAMAZAKI MAZAK SINGAPORE PTE.,LTD.

## South East Asia Technology Center Starts Operation Singapore Factory Expansion

The expansion of the Singapore Technology Center and factory has been completed and a grand opening was held on March 19th. This is the fourth expansion program since the establishment of the Mazak subsidiary company in Singapore in 1988. Thanks to the factory's capability to respond flexibly to fluctuations in the exchange rate, its strengthening of our export capabilities, and the reduction of delivery times, this facility will be an important component of our new strategy to create a production system focused not just on local regions, but on the total international market.





**Further Enhancements of Customer Support**

One component of the current expansion is the strengthening of the functions of the Technology Center, which was established in 1992. Since this facility is the support base for customers located not just in Singapore, but also Malaysia, Thailand, Indonesia and Vietnam, it has been renamed as the South East Asia Technology Center. The Technology Center features a total floor space of 4,300 m<sup>2</sup> (46,260 ft<sup>2</sup>) (four times the pre-expansion size), a 1,300 m<sup>2</sup> (14,000 ft<sup>2</sup>) showroom (also four times larger), a 96-seat auditorium, online support center, training classrooms, parts center, and more. The expanded center further improves our customer support system, including advanced applications, optimum machining solutions, and after-sales service. The showroom is currently displaying a total 14 CNC lathes (10 made in Japan and 4 made in Singapore), a machining center, multitasking machines, laser processing machine, and a variety of workpieces from various industries produced using these machines. The parts center now has a capacity of 20,000 parts of 9,000 different kinds (before the expansion the capacity was 15,000 parts of 6,000 different kinds).

**Monthly Production Capacity Increased from 80 to 130 Machines**

The total floor space of the factory is now 15,300 m<sup>2</sup> (164,680 ft<sup>2</sup>). With twice the floor space when compared to before the expansion, production capacity has increased by approximately 60% from 80 to 130 machines per month. A total of 12 models - 11 turning center models and 1 vertical machining center model, can be produced in the new factory. The factory was able to quickly start the full production of the compact, high-productivity QUICK TURN PRIMOS CNC turning center which began at the end of last year. A synchronized production system is used in the factory linking the line for units such as spindles and turrets with the line for sheet metal modules. Mazak flexible manufacturing systems with multi-level pallet stockers as well as multi-tasking machines with robots all perform unmanned operation to realize unsurpassed productivity. The temperature in the new assembly area is controlled ±1°C (±1.8°F) to provide the optimum environment for the assembly of high-precision machine tools. This is done by a high-efficiency environmental control system.

**Customer Interview**

— We talked to customers who attended the open house.



**Pascal Industries Pte. Ltd.**

**Mr. Nicholas Mak**  
(5th from the left)

**Expectations for Even Faster Delivery**

— What is your impression after participating in the opening for the factory and Technology Center expansion?  
"The factory is even more spacious than before and the

facilities are more advanced. I believe that the expansion of the factory and Technology Center will have a very big influence on the manufacturing industry in Singapore. I am confident that the improved support system and high

production capacity will provide tremendous trust and confidence to Singaporean customers."

— What are your expectations for the new system?  
"As we can come in contact with a wide range of models and the latest machining solutions at the Technology Center, we can find hints to creating new production methods. On the other hand, thanks to the increase in the production capacity of the factory, we can expect even faster delivery times."

**Attended by Domestic and International Dignitaries**

The opening ceremony held prior to the unveiling of the factory and Technology Center was attended by approximately 300 guests both from Singapore and abroad, including the Minister of State at the Singapore Ministry of Trade and Industry and representatives from the Singapore Economic Development Board and the Embassy of Japan in Singapore.

Yamazaki Mazak President, Tomohisa Yamazaki, highlighted the significance of operating a business in the country, stating, "Singapore is an ideal foundation for providing innovative solutions and comprehensive customer support." Teo Ser Luck, Minister of State at the Ministry of Trade and Industry, expressed his expectations for Mazak business rooted in Singapore, stating that Mazak was "a heartening presence necessary for the development

of the manufacturing industry in the country."

Following a tour of the facility, numerous guests not only from Asia but also Europe and North and South America participated in the reception held that evening, celebrating a new start for the Mazak Singapore subsidiary company.

■ Outline of Yamazaki Mazak Singapore Pte. Ltd.

Company name	Yamazaki Mazak Singapore Pte. Ltd.
Number of employees	272
Total land area	Approx. 39,000 m <sup>2</sup> (420,000 ft <sup>2</sup> )
Total floor space	Approx. 26,000 m <sup>2</sup> (280,000 ft <sup>2</sup> )
Total number of models in production	12



01. Exterior of the Singapore factory after completion of expansion  
02. The latest machine tools on display in the showroom  
03. Stratified air conditioning system efficiently cools the work areas  
04. QUICK TURN PRIMOS turning centers produced at the factory

05. The opening ceremony, with guests invited from around the world  
06. Mazak President Tomohisa Yamazaki giving an address at the ceremony

**Customer Interview**



**JEP Precision Engineering Pte. Ltd.**

**Mr. Soh Chee Siang**

**A Showroom which Reflects Technological Strength and Regional Ties**

— What interested you at the open house?  
"I was deeply impressed by the new Technology Center.

Among other things, I was amazed by the numerous advanced machines lined up on the white floor and the innovative machining solution proposals. It truly embodies the very concept of a technology center."

— What is your response to the show?  
"The most interesting parts were the mobilization of Mazak technology and the full reflection of regional ties. I imagine this can be said for other Mazak technology centers around the world. For me, the opening show was a great opportunity to affirm the trustworthiness of Mazak's unique before- and after-sales service."



**MEGA TECH Ltd.**

President : Yasuhisa Komatsuki  
 Address : 644-16 Sumiyama-cho, Kameyama, Mie  
 Number of employees : 13

www.megatech-japan.com  
 www.livre-megatech.com (LIVRE)

Customer Report 01

**Harness the Potential of State-of-the-Art Machine Tools**

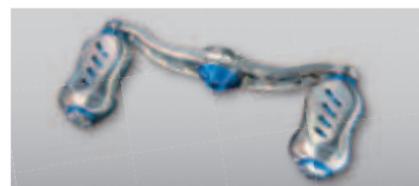
Japan MEGA TECH Ltd.

MEGA TECH Ltd. develops and manufactures such products as mufflers and frames for two-wheeled vehicles and reel handles for fishing gear. Yasuhisa Komatsuki, the company president, once the chief mechanic of a famous racing team, established the company in 1990 in Suzuka, Mie Prefecture with the desire to one day start his own motorcycle company. However, due to the economic recession which started in 2008, he was forced to abandon this dream. What saved MEGA TECH were reel handles, which could use the existing materials and facilities used for motorcycle parts.

**An Understanding of the Feelings of Users which Comes from a Love of the Sport**

MEGA TECH began operations producing OEM parts for two-wheeled vehicles targeting professional use, specializing in short delivery times and special machining not handled by other manufacturers in the industry. In particular, MEGA TECH focused on high precision metalworking making full use of Mazak's product family and high-level welding techniques on mufflers which has received high praise from motorcycle manufacturers both domestic and international from the time of the company's establishment. When exports to principle customers in America dropped to zero due to the recession, however, business performance slumped as well. In order to recover from this desperate situation, MEGA TECH broke out into the production of fishing gear reel handles as a new pillar of its business. "Being able to use the same materials and machines was a real advantage," says Mr. Komatsuki. His half-century history of fishing as a hobby also helped boost the switchover.

"Just by looking at what I like, the idea comes to me. Perhaps because I understand the feelings of users." Features such as combining thin-wall hollow titanium knobs with main plates made from super duralumin (A7075) carefully machined into a 3D form in place of the steel used by other companies could be said to be the personification of ideas born from a love of the sport.



A reel handle machined from super duralumin (A7075).

**Laser Processing Machine Delivers 10 Times Higher Productivity**

Currently, fishing reel handles comprise 70% of MEGA TECH's sales and mufflers 30%. As MEGA TECH began producing fishing reel handles in 2009, this five-year growth is astounding. The handle design, which Mr. Komatsuki says surprises people the first time they see it, is steeped with the idea of "daring to produce an analog feel using state-of-the-art machine tools which are bundles of digital technology."

Mr. Komatsuki proudly states, "Even though we use high-precision machine tools, our main goal is the look and feel of the components we produce." Exercising their ingenuity in areas not described in the instruction manual is also one of the company's strengths. MEGA TECH'S propensity to make full use of a simultaneous 5-axis machining center, normally only used for machining complex forms, as just another simple tool is perhaps the company's fundamental strength.



SPACE GEAR-U44, installed in 2008.

"In order to stress speed over cost," a SPACE GEAR-U44 laser processing machine installed in 2008 just before the start of the recession contributes to the manufacture of

mandrel-bend parts which comprise MEGA TECH's mufflers. Extolling the contributions made by the machine, Mr. Komatsuki states, "Compared to when we were cutting with EDM machines, our productivity is 10-fold."

**Eventually Becoming a Complete Manufacturer**

A total of six Mazak machine tools are in use at MEGA TECH's factory, including the laser processing machine, 5-axis machining center, vertical machining center, and CNC turning center. "Harnessing the distinctive characteristics of each to produce multiple prototypes side-by-side is truly handy," says Mr. Komatsuki. Drawing out their machining performance to the utmost is another strength of MEGA TECH. Commenting on Mazak products, Mr. Komatsuki stated, "Not only the reliability of the machines but also the quality of the after-sales service stands out from the crowd."



Mr. Komatsuki places his trust in a VARIAXIS 630-5X

Craftsmanship-oriented manufacturing using Mazak machines has resulted not only in products, but also a made-in-house welding robot at less than one tenth the market price. "We want to become a complete manufacturer handling all kinds of fishing gear." Having turned a crisis faced during the recession into an opportunity through market development using fishing reel handles, this is the new strategy MEGA TECH is aiming for.



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- 01. MEGA TECH's LIVRE brand boasts the top share in the industry
- 02. Reel handle components being machined by a VARIAXIS 630-5X
- 03. Muffler welds. The beautiful curve is proof of MEGA TECH's quality
- 04. Mr. Yasuhisa Komatsuki, president, (front row, 3rd from left), with employees



01

# Customer Report 02

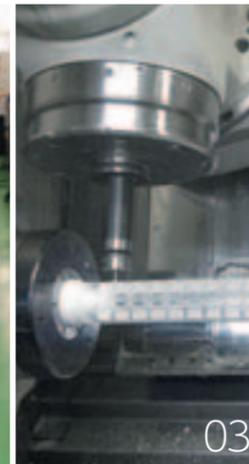
## Setting Sight on Faster, More Beautiful Product Manufacturing

Japan Kanagawa FUSO Co., Ltd.

Focusing on the machining of fluoropolymers, Kanagawa FUSO Co., Ltd. was established in Yokohama in 1990. The small, backstreet factory started by Mr. Yoshimi Sakashita, president, his wife, and several part-time employees has grown to its current size of 25 full-time employees. During this time period, what has been constant over the through three moves accompanying expansion of operations and a factory expansion are the Mazak machines which account for all of Kanagawa FUSO's primary production equipment. Just what expectations does a company which operates under the ideal of "faster, more beautiful product manufacturing" have for Mazak machines?



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01. Plastic components machined by Kanagawa FUSO  
 02. Production line of 15 Mazak CNC lathes and multitasking machines  
 03. Machining a complex form by an INTEGREX  
 04. Mr. Sakashita, president (center), and employees

### COMPANY PROFILE



**Kanagawa FUSO Co., Ltd.**  
 President : Yoshimi Sakashita  
 Address : 1-3-65 Shinomiya, Hiratsuka, Kanagawa  
 Number of employees : 25  
 www.kanagawafusso.co.jp

# Customer Report 02

Japan Kanagawa FUSO Co., Ltd.

### Operators Who Master the Balance Between Cutting Tools and Machines

Looking back, Mr. Hoshi states, "When it was common to install NC machines with gooseneck cutting tools in the plastic industry, our idea of using a turret-type lathe with MAZATROL CNC was unusual." The fact that Kanagawa FUSO's choice was not a mistake became apparent through the ability of Mazak machines to reduce the cycle times per unit over mass production equipment.



Young employee making full use of MAZATROL.

### Fluoropolymers Must Be Handled Like a Living Creature

"Fluoropolymers are alive." That's how Mr. Sakashita, who has over 35 years of experience machining fluoropolymers, explains the difficulty of handling the material. The dimensions of fluoropolymers vary significantly depending on the environmental temperature, and they contract when the heat produced during machining cools. The material truly is like a living creature. In order to prevent unneeded contraction which influences product quality, one must strive for machining which produces as little heat as possible. In order to prevent heat during machining, it is necessary to have a setup which even takes into consideration the sharpness of the cutting tools and the direction in which the machined chips flow.

Twelve operators in the machining department observe with their own eyes the techniques of Mr. Sakashita, master them, and enhance them until they become their own. At first glance, the operation of the 15 Mazak CNC lathes and multitasking machines lined up on the floor appears to be the work of a metalworking business. However, the material, the work pieces, and the machined chips are all a pure white. Not only is there no scent of coolant in the air, but the machining makes almost no sound at all. What is most different from ordinary metalworking is that all of the Mazak machines are, without exception, equipped with hand-ground tool bits.

### Drawing out the Performance of Mazak Machines Using Hand-Ground Tool Bits

"Although the interactive Mazatrol is simple and makes it easy to use, the cutting tools are extremely difficult." That's what the operators, with

an average age of 28, have to say. Almost all of them have come from non-manufacturing industries. Regardless of the lack of machining experience, "the more beautiful products" they work on satisfy Kanagawa FUSO's customers. This is because applying the hand-ground tool tip techniques cultivated by Mr. Sakashita to Mazak machines has demonstrated a synergy, boosting the assets of both parties. In fact, many of the young operators create their own cutting tools to use with the machines.



Turning with a hand-ground tool

Discussing the operators, Tomonobu Hoshi and Hiroaki Hoshi, company directors who participated in the introduction and startup of the first Mazak machines, state with certainty, "There's no need for us to give them advice. There's no doubt that our young employees, who continue to devise new techniques with creativity and originality, are our driving force." Their talents reduced the machining of a workpiece which, in a simulation requires 120 seconds, down to just 90 seconds by taking full advantage of parameter settings and G-codes.



Precision measurement

Commenting on Mazak machines, Mr. Hoshi offered, "The workmanship of machining round objects is influenced by the cutting tool and machining method. To that extent, an open mind can draw out superior abilities if expertise and inventiveness are balanced." "How much faster and more beautiful products can we supply compared to competitors?" Kanagawa FUSO's answer to this question which they have continuously tackled is to trust in the abilities of operators who have mastered the balance between cutting tools and machines.





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COMPANY PROFILE



**YUDO**

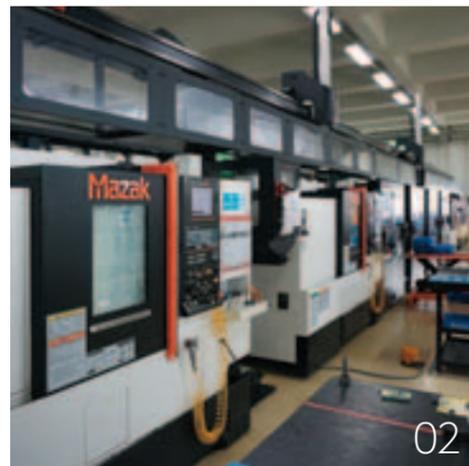
**YUDO Co., LTD.**

Chairman : Francis Yu  
 Address : 169-4 Gujang-Ri, Paltan-Myun, Hwasung-City, Gyeonggi-Do, South Korea  
 Number of employees : 3,000  
 www.yudo.com

Customer Report **03**  
**An International Business Supplying Hot Runner Systems**

Korea **YUDO CO., LTD.**

YUDO Co., Ltd. was the first company in South Korea to succeed in developing the hot runner systems - the core of injection molding. A globally leading company, YUDO was established in 1980. The YUDO Group is composed of YUDO Co., Ltd., the parent company, and associated companies such as YUDO-STAR AUTOMATION, YUDO-SUNS, and YUDO-ROBOTICS, which handles such businesses as molds for injection molding machines and automation systems. Harnessing the comprehensive strength of the group, YUDO is extensively involved in the entirety of such systems, including peripheral equipment. YUDO possesses production and sales bases around the world and has installed over 600 Mazak machines.



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- 01. Six FJV-35/60s with YUDO's own FMS
- 02. QUICK TURN SMART with YUDO's own gantry system
- 03. Five FJV-90/120s with YUDO's own FMS
- 04. PALLETECH with four VARIAXIS 730-5Xs

**Turning the Asian Financial Crisis into an Opportunity**

Hot runners are key pieces of equipment incorporated into injection molding machines which supply the plastic which will become the product into the mold while warming it, producing only the molded product. They are used in the molding of a wide variety of the plastic products which are everywhere in daily life, ranging from automobile bumpers to cell phone bodies.



Hot runner nozzles machined by a QUICK TURN SMART



Cell phone body parts made using YUDO's hot runners

Taking note of areas which, although necessary, no South Korean company was working on, Francis Yu, Chairman, quit his previous company and dove into the world of hot runners. The background to YUDO's rapid growth to the very top of the industry where the company stands today lies in the decision Mr. Yu made during the major recession accompanying the Asian financial crisis. At that time, the South Korean economy was

receiving aid from the IMF and the value of the Korean Won against the dollar had dropped to around half its previous worth. Mr. Yu seized this state of a weak currency as an opportunity and took the bold step of advancing abroad. Domestic hot runner price competition in South Korea was also intensifying at this time. Using adversity as an opportunity, Mr. Yu's business sense and proactive investment in overseas expansion turned a fierce headwind into a major tailwind for growth.

**Investing in Good Machines to Make Money**

No matter where you look, the machine tools inside the giant factories standing in a row are all Mazak. Over 600 Mazak products operate in YUDO's factories around the globe. When building this factory, Mr. Yu compared and considered the products of several other machine tool manufacturers and ultimately chose Mazak. "That's because only Mazak met our requirements," says Mr. Yu, reflecting on the path that led to YUDO's purchase of Mazak machines. "Not only their reliability and the full service system, but also the prices we were presented with were things we could agree on. Regardless of the small scale of our business, Mazak listened carefully to our requirements without discrimination, and we were also deeply impressed by Mazak's willingness to respond flexibly. We entrust everything related to the options for our equipment to Mazak."

Since that first business deal, YUDO has continued to purchase all its metalworking machines from Mazak. "It is not enough to do common machining with an ordinary machine. If you do not invest in good machines, you cannot make money."

**Aiming to Be Number One in the Robot Business as Well**

YUDO has set its sights on expanding business related to automation equipment, which comprises a little under 30% of the sales of its mainstay hot runner business. "By focusing on Europe and increasing work related to automation, we will steadily expand the hot runner market," says Mr. Yu.



Interview with Mr. Yu in Japanese

Involved in automation equipment for machine tools and injection molding machines, YUDO is using its technological capabilities to create its own tandem type FMS in order to save floor space. Put together with machines such as the FJV and HORIZONTAL CENTER NEXUS, YUDO's own FMS operates non-stop in the factory. "In the future, we aim to be number one in the world not only in hot runners but also in the robot business." YUDO is currently building a new factory on the premises. YUDO's strategy of a large-scale business expansion with its core businesses set as a mainstay continues to steadily advance.





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COMPANY PROFILE



**Austbore Pty Ltd.**  
 President : Michael Botto  
 Address : 12-16 Progress Drive Mackay,  
 Queensland 4740 Australia  
 Number of employees : 35  
 www.austbore.com.au

Customer Report **04**  
**Service with Grunt**  
 Australia **Austbore Pty Ltd.**

Austbore is a large jobbing shop located in Mackay, Northern Queensland. They service the mining and resources industry and have done so successfully for over 20 years. The company originally started with only one machine has slowly expanded, now employing 35 full-time tradesmen and host a variety of machines including manual and CNC borers, CNC milling machines, CNC lathes and two new Mazak Integrex CNC multi-tasking machines, which were purchased from John Hart within the last twelve months.

John Hart were chosen largely, as Darryl Lindsay (Operations Manager at Austbore) puts it, "because of their enthusiasm in regards to supplying the Integrex. The process went very smoothly, and communication between Austbore and John Hart was very easy."

The two new INTEGREXES (INTEGREX 200S MkIV & INTEGREX e-420 x 3000) were initially bought as a way of combating long cycle times. Because all work at Austbore is jobbing with some one-off parts, cycle time is incredibly important and since the introduction of these machines, Austbore have been able to expand the variety of work they take on.

"These machines have given us greater capabilities and we've taken on work we would never have dreamed of taking on before." said Darryl, "Especially regarding the INTEGREX e-420, there are more options than you could ever dream for."

"The only problem is the machines are so versatile, after 12 months we are nowhere near where we need to be, because there is so much that can be done on them. That's not a criticism, that's a complement."

"Mazaks also seem to have more Y-axis travel, and the positioning of the head to 240 degrees provides more capability as well. Comparable machines just don't look as appealing." Says Darryl

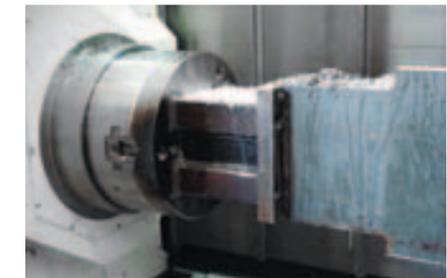
Since purchasing the e-420, Austbore have been quite creative with its use, creating a fixture that bolts onto the chuck, which allows the operators to perform milling operations on all four sides of a part without changing setups.

"The advantage of this is we can set a work piece, put the component into the machine, set the zeros, write the program, and pull the finished component out at the end of the day without actually having to reset it. These are pieces which require milling on four sides, including bores, interpolation of the bores, milling of

threads and seal areas and wear areas. "

"Before the e-420, we would have to use two to three setups, increasing the margin for error with each change over. We've managed to reduce the timeline on the pieces by two thirds. This is an enormous reduction."

This reduction is possible thanks to Mazaks "done-in-one" technology which comes standard with all Mazak Multi-tasking machines. The operators have also succeeded in exploiting the e-420's capabilities, to complete a task normally reserved for a machining center.



Fixture made by Austbore attached to machine chuck, further increases work efficiency and machining precision

John Hart initially provided a week's worth of training and a couple of days here and there where necessary. Considering that, operators have found the machines easy to transition to and between. Darryl explains, "The controllers on the 200S and e-420 make operating the machines quite separate experiences. Considering each operator has had to learn two different controllers simultaneously, they haven't had too much of an issue. Any minor problems we solved with a call to John Hart."

"We currently have two operators working between the 200S and the e-420 and while we'd ideally like 2 more to split the workload, experienced operators are hard to come by in this part of Queensland."

Rather than trying to attract experienced operators to their shop in Mackay, Darryl says Austbore are making internal training a priority, using their Mazak VTC as a stepping stone in order to prepare operators for the INTEGREXES.

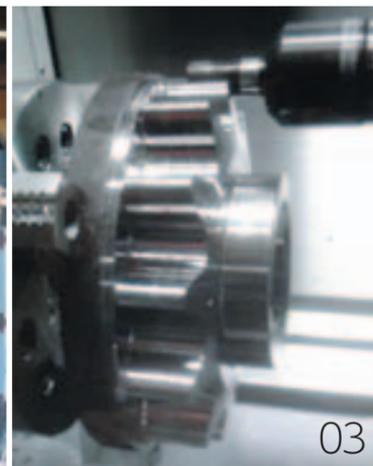


2 INTEGREXes on shop floor

If Austbore can maintain this balance between expanding their knowledge of the INTEGREXES and internally training their operators, their capabilities will continue to increase, and Austbore will be able to run extra shifts, increasing workload. The Mazak INTEGREXES, and especially the e-420 provide unlimited possibilities, and increasingly lay the pathway to manufacturing of the future.



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- 01. Mining excavation component
- 02. INTEGREX e-420H II (left) and INTEGREX 200-IV S (right)
- 03. Complex component machined with high precision by an INTEGREX
- 04. Operations Manager Darryl Lindsay

**INTEGREX j-200, Now Available with a Second Spindle**



Perform continuous operation automatically – from the first to second operation

**INTEGREX J-200S**

The INTEGREX j-200S multi-tasking machine has been well received by the world-wide machining industry. By being able to offer a second spindle, its versatility is substantially increased by having the capability of performing continuous machining-completing 1st and 2nd operation in a single machine setup.

[ Specifications ]

Maximum swing/swing over cross slide	Φ530 mm
Maximum machining diameter/maximum machining length*	Φ500 mm/910 mm
Stroke (X/Y/Z)	450 mm/200 mm (±100 mm)/960 mm
Main spindle maximum rpm*	5,000
Milling spindle maximum rpm*	12,000
Milling spindle output (40% ED/continuous rating)	3.5 kW/3.0 kW (option: 7.5 kW/5.5 kW)
Tool storage capacity	20 (option: 36, 72)

\*Maximum speed of main spindle is limited by chuck specifications.  
Maximum machining length depends on chuck specifications.

**Traveling-Column Vertical Machining Center with exceptional versatility and ease of operation**



High speed, high precision traveling-column vertical machining center

**VTC-530/20**

Derived from the highly-regarded VTC-200C, the VTC-530/20 is a traveling-column vertical machining center with the spindle moving in the X, Y, and Z axes. With its large machining area (X axis: 1,950 mm) and fixed table, the VTC-530/20 can handle a wide variety of applications such as working with long workpieces which hang over the table, loading a large number of small workpieces on the table or performing like a 2 pallet changer when equipped with a center partition.

[ Specifications ]

	VTC-530/20	VTC-200C (previous model)
Table size	2300x530 mm	2300x510 mm
Stroke (X/Y/Z)	1950 mm / 530 mm / 510 mm	1950 mm / 510 mm / 510mm
Main spindle maximum rpm	12,000	10,000
Rapid traverse rate	42 m/min	30 m/min
Tool storage capacity	30	24
Chip-to-chip	4.5 sec.	4.7 sec.



**MAZAK PEOPLE**  
Mazak Corporation (U.S.A) Production Department  
**Ms. Shawn Turner**

Since 1974, Mazak Corporation's manufacturing operations in Kentucky have grown from producing a limited variety of machines to more than 100 different models, including sophisticated 5-axis and Multi-Tasking machines. Many of these models were designed and manufactured in the United States, and shipped across North America and to export markets. In this issue, we will introduce one employee, Ms. Shawn Turner, who works in the Kentucky plant as an "Assembly Expeditor" Ms. Turner started working at Mazak Corporation in 1988.

**"What is your current position at MAZAK ?"**

"When I first started, my job was electrical wiring, later I learned to do some mechanical assembly. Then I was asked if I would like to do power-on which I did for about 6 years. My current job is Assembly Expeditor, which is to make sure the assemblers have their parts before building the machines, by going through the General Assembly kits and tracking down any missing parts."  
"In all the different jobs I've had at Mazak, I make sure that there is quality in my work, to get along with others and try to make their job easier for them. I was in a group that had to come up with an idea on how to improve the quality of the machines. After getting the presentation together our group had to present it before the judges and twice the group I was in won first place. I feel that my input in the project helped make a difference at Mazak. One of the first prize projects was presented in Japan. That is my most successful experience at MAZAK. "

**"In your life, how important is working at MAZAK ?"**

"Working is one of most important things in my life, that is, it is just as important to me as spending time with my family. But it is not just bread and butter. I've made many life-long friends here at Mazak and I like to get involved in company functions, such as golf outings and attending the company Christmas party."

**"What kind of challenge would you like to take in the future...?"**

"I am very satisfied with my current job as a parts expeditor but if I had to pick another job in the future - it would be in production control. After working in assembly and handling parts for so many years I believe that is a job I could handle. However, the most important thing is simply to do the best to my ability in whatever job I have in order to improve the quality of our machines and continue Mazak's tradition of excellence. I have about 20 more years to work before retirement and I plan on being here at Mazak for those 20 years. "

Shawn said the word quality several times during her interview. This word precisely conveys her sincere attitude to work.



Ms. Shawn Turner indicating required part



Toolbox with pictures of family and friends