

# CYBER WORLD

2013 **39**

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# The Latest Productivity Tools from Mazak

## ■ Compact multi-tasking machine

Designed for machining small complex parts such as bone prosthetics in a single setup



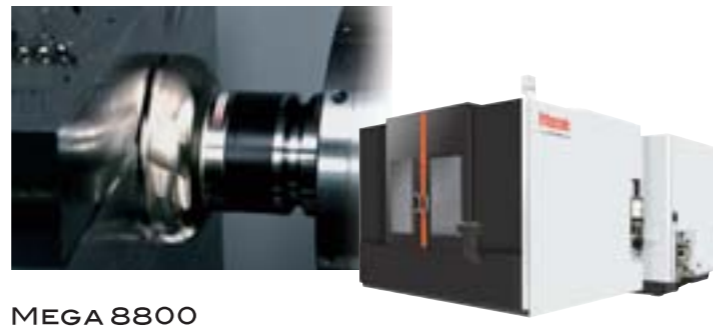
**INTEGREX i - 100ST**

Newest member of the INTEGREX i series with a 6" chuck. Done-in-One processing for unsurpassed productivity

Max. machining diameter (upper / lower turret)	ø500/400 mm (ø19.69"/15.75")
Max. machining length	854 mm (33.62")
Main / Second spindle (30 min. rating)	6000 rpm, 11 kW (15 HP)
Milling spindle (30 min. rating)	12000 rpm, 7.5 kW (10 HP)
Tool storage capacity	36, 72 (option)

## ■ Horizontal machining center for heavy-duty machining

Improved productivity for the machining of aerospace alloys



**MEGA 8800**

The MEGA 8800, equipped with a powerful 4000 rpm integral spindle / motor spindle with output of 85 kW (113 HP), Max. torque of 1249 N·m (921 ft-lbs) is designed for heavy-duty machining of difficult to cut workpiece materials.

Pallet size	800×800 mm (31.5"×31.5")
Max. workpiece size	ø1450×1450 mm (ø57.09"×57.09")
Travel (X / Y / Z-axis)	1400/1200/1350 mm (55.12"/47.24"/53.15")
Spindle (15 % ED)	4000 rpm, 85 kW(113 HP)

## ■ Machining center with unique turn-face headstock

Designed for the machining of large valve bodies used in the oil industry and other workpieces that are difficult to turn



**ORBITEC 20**

The ORBITEC 20 offers a groundbreaking approach to creating turned machining features on large, odd shaped parts, which are not conducive to normal turning operations. Large valves which require turning, threading, and tapered boring are ideal components to be processed on the ORBITEC 20.

Pallet size	630×630 mm (24.8"×24.8")
Max. workpiece size	ø1050×1300 mm (ø41.34"×51.18")
Travel (U / V / Z / X-axis)	600/600/1230/300 mm (23.62"/23.62"/48.43"/11.81")
Spindle (30 min. rating)	600 rpm, 30 kW(40 HP)

## ■ Ultra high-accuracy, high-speed horizontal machining center

Designed for components that require ultra-high accuracy machining



**μ - 8800**

Standard equipment: positioning accuracy 8 times better than ISO. Designed for high-accuracy machining over extended periods of operation thanks to high rigidity construction, a high-response feed system and counter measures to prevent thermal distortion.

Pallet size	800×800 mm (31.5"×31.5")
Max. workpiece size	ø1450×1450 mm (ø57.09"×57.09")
Travel (X / Y / Z-axis)	1400/1200/1350 mm (55.12"/47.24"/53.15")
Spindle (30 min. rating)	10000 rpm, 37 kW(50 HP)

## ■ Advanced machine tools



**HORIZONTAL CENTER NEXUS 4000-III**

Increased cutting performance thanks to high-rigidity bed and column. Optional spindle specifications provide efficient machining performance for a wide variety of workpiece materials.

Pallet size	400×400 mm (15.75"×15.75")
Max. workpiece size	ø630×900 mm (ø24.8"×35.43")
Travel (X / Y / Z-axis)	560/640/640 mm (22.05" / 25.2" / 25.2")
Spindle (40 % ED)	12000 rpm, 18.5 kW (24.8 HP)



**VARIAXIS i-500**

The newest 5-axis vertical machining center equipped with ø500 mm (ø19.69") table designed for unsurpassed versatility.

Table size	ø500×400 mm (ø19.69"×15.75")
Travel (X / Y / Z, A / C-axis)	350/550/510 mm (13.78"/21.65"/20.08"), -120--+30°/360°
Spindle (40 % ED)	12000 rpm, 22 kW (30 HP)
Tool shank / tool storage capacity	No. 40 / 30



**VARIAXIS i-800**

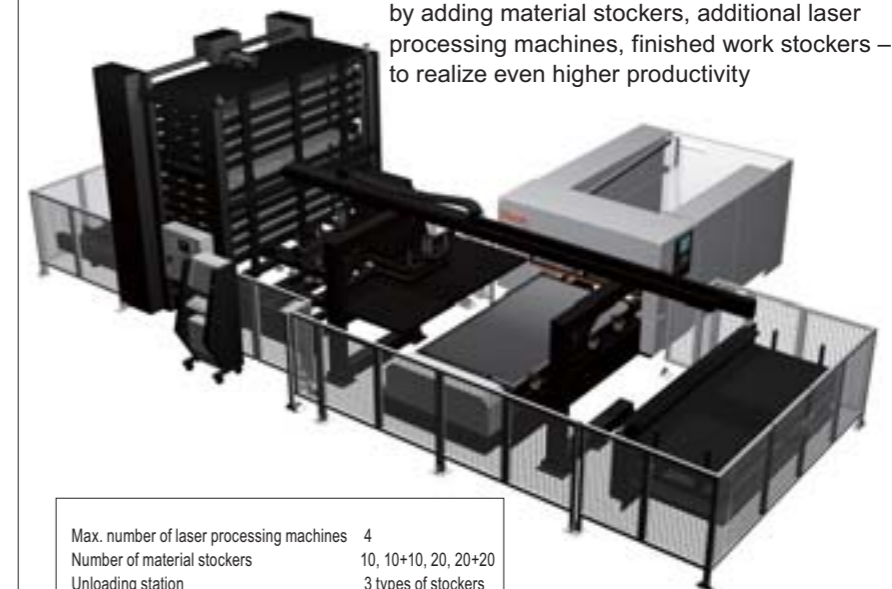
The newest 5-axis vertical machining center equipped with high-rigidity ø800 mm (ø31.5") table for the heavy-duty machining of large, heavy workpieces.

Table size	ø800×630 mm (ø31.5"×24.8")
Travel (X / Y / Z, A / C-axis)	730/850/560mm (28.74"/33.46"/22.05"), -120--+30°/360°
Spindle (40 % ED)	10000 rpm, 37 kW (50 HP)
Tool shank / tool storage capacity	No. 50 / 30

## ■ Laser EXTENSIBLE MANUFACTURING CELL

### EXTENSIBLE MANUFACTURING CELL

Latest version of the Mazak Laser FMS  
Designed for convenient system expansion – by adding material stockers, additional laser processing machines, finished work stockers – to realize even higher productivity



Max. number of laser processing machines	4
Number of material stockers	10, 10+10, 20, 20+20
Unloading station	3 types of stockers



## ● JIMTOF 2012



Mazak's booth was crowded with visitors every day at JIMTOF 2012.

At the JIMTOF 2012 machine tool exhibition, the Yamazaki Mazak booth had the main theme of "MAKING TOMORROW with Mazak," and exhibited 22 machine tools in total, consisting of 18 machines manufactured in Japan and 2 developed and produced in the US, and 2 developed and produced in Singapore. The activities of Yamazaki Mazak based on its global development and production system were also presented. We received more visitors than originally expected at JIMTOF again this year. This would not have happened without your support, and we would like to take this opportunity to express our gratitude.



ORBITEC 20 from U.S.A

## ● IMTS 2012

The Mazak corporation booth at IMTS 2012 had the main theme of "Discover more with Mazak," and exhibited 22 machine tools in total, consisting of 12 machines manufactured in Japan, 8 developed and produced in the US plant and 2 manufactured in the Singapore plant. The activities of Yamazaki Mazak based on its global development and production system were also presented. We received more visitors than originally expected at IMTS again this year.



Mazak's booth attracted many visitors every day.



The Dalian Plant in China will become fully operational in spring 2013.

## ● New Dalian Plant in China scheduled to start operation in spring 2013.

In China, Mazak started operation of the Ningxia Little Giant Machine Tool Co., Ltd. (Little Giant Plant), in Yinchuan, Ningxia Hui Autonomous Region in 2000. Currently, the construction of the second Chinese production

plant is well underway in Dalian to start full operation from spring 2013 under the name of Yamazaki Mazak Machine Tool (Liaoning) Co., Ltd. The plant will become the 10th production base for Yamazaki Mazak in the world.

In addition to the production of machine tools, the construction of this new plant aims at further improvement of before and after-sales service and support by having new facilities such as a spindle repair department.

## ● 2MB Solar Power Generation System at MINOKAMO

YAMAZAKI MAZAK has been an ISO 14000 certified company in Japan for many years. Since minimizing our impact on the environment is a high priority, construction of a solar electrical power generation system was started on the MINOKAMO plant grounds in December 2012. It's output will be 2.2 million kWh, equivalent

to the power consumption of 600 households and will be input into the local electrical power grid. This system will be located on a land area of 32,000 m<sup>2</sup> ( 344,400 sq ft ) and is scheduled to begin generation of emission-free power in July 2013.



(Architect's rendering)