

**TOYODA**

**JTEKT Group**



**ENGINEERING A BETTER WAY FORWARD**



TOYODA



A message from Howard Michael  
President and C.O.O.

A successful machine tool design is more than advanced engineering and manufacturing technology. It's a unique combination of pride and craftsmanship, of experience and innovation; but above all, it's the result of an exchange of ideas. Whether your process calls for micron level accuracy or turnkey automation, Toyoda will engineer an application specific solution that meets your needs - and we'll stand behind it with the best service and support in the industry.

### MISSION STATEMENT

Toyoda Machinery USA is dedicated to continuous improvement and customer satisfaction. Our mission is to build, supply and service machines that are productive, reliable, durable, easy to maintain and above all, meet customer capability.

● **1931** First Toyoda automobile built.



● **1953** Began production of automotive parts.

● **1956** Achieved Meehanite casting technology.

● **1968** Began sales of machining centers.

Began production of power steering for automobiles.

● **1972** Began sales of programmable controller TOYOPUC. Delivery of first FMS.

● **1977** Toyoda Machinery U.S.A. Corporation established in Arlington Heights, USA.

## 30's 40's 50's 60's 1970 1980

● **1941** Toyoda Machine Works, Ltd., founded.

● **1955** Created technology for production of cylindrical grinders.

● **1961** Invented technology for production of 2-type milling machine.

Completed conveyor line for assembly of grinders.

● **1980** of CV jo

● **19**  
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● **1986** Introduced concept of the Total Production Maintenance (TPM).

● **1987** Grinding Machine Division established in Wixom, MI USA.

● **1988** Selected for The PM Excellent Prize for 1988.

● **1993** Selected for The 1993 PM Excellent Award.

● **1999** Completion of Toyoda Customer center.

● **2000** Established Toyoda Machinery & Engineering (Germany).

● **2001** Toyoda achieved ISO 9001 QS 9000-TE Certification.

● **2002** Toyoda Machinery USA celebrates its 25th Anniversary.

● **2006** JTEKT forms.

● **2008** Established new facility in Mexico.

1990

2000

● **1985** 1985 First Japanese machine tool company to be awarded the prestigious Deming Prize.



● **1981** Introduced concept of Total Quality Control (TQC).

Began production of machine tools.

● **1997** Established Toyoda TRW Steering Pumps Ltd. (TTSP).

Obtained ISO 1400 registration.

● **1996** Obtained ISO 9001 registration (Automotive parts division).

● **1995** Certified by ISO 9001 (Machine Tools and Mechanics Division).

● **2004** Established Standard Products Division, Arlington Heights, IL; Automotive Products Division, Wixom MI.



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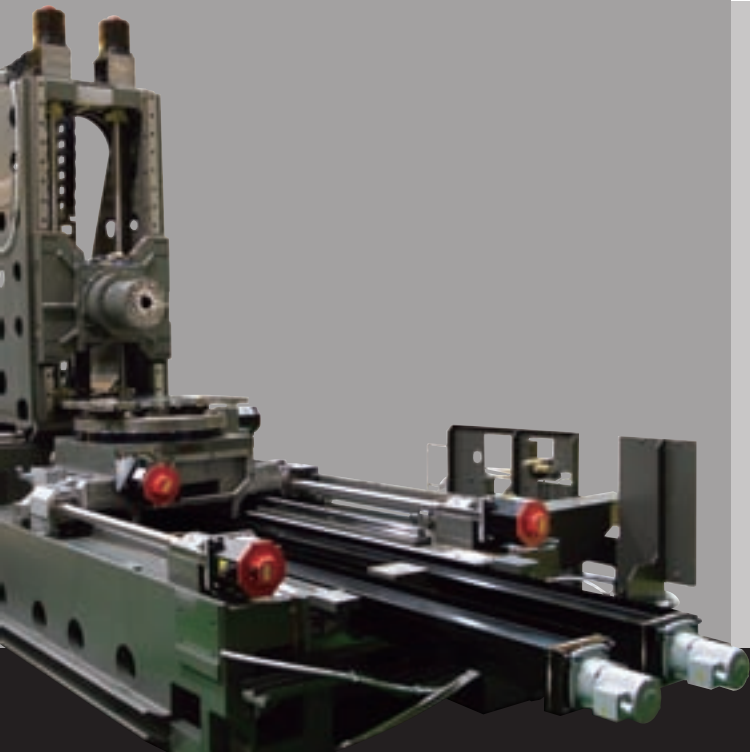
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## HIGH SPEED MACHINING CENTERS

Toyoda HMCs are the machine of choice for demanding applications requiring high speed, tight tolerances, and maximum productivity.

Starting with the small FH450S (with a 23.6-inch pallet), each model varies in size and features to offer the most productive combination for different materials, part sizes, and production runs.

Our SX line machining centers showcase our impressive spindle design with removable taper that enables quick changes for different types of tooling and maximized machine uptime. Most models are available with high-speed or high-torque spindle options, magazines with up to 494 pockets, and fourth or fifth axis tables. Toyoda specializes in customer-engineered solutions and automation for lights-out production, incorporate our RGV pallet changing system or tool matrix to many FH series machines to dramatically increase productivity.



### FH1250SX

Expansive work envelope for giant parts or multi-part fixtures. Special pallet design for heavy loads.



### FA800

Large-part workhorse with a powerful 50-taper spindle and solid boxways.



### FH450S

Speed & rigidity in a streamlined enclosure. Center trough design for fast chip removal.



## FLEXIBLE METALCUTTING CELLS & SOFTWARE

Toyoda horizontal machining centers can be integrated into various systems or cells to automate production. Some examples are listed below:

- **Single-level FMS with RGV**
- **Multi-level FPA with RGV**
- **Vertical Pallet Pool**
- **Robot-type Loading**

Toyoda's latest generation of Cell Controller software, Mach III, is a smart way to manage part production on your shop floor. A single operator can control numerous machining centers, work stations and pallets from one location. Mach III even allows unmanned operation for jobs with long cycle times, or lights-out production on nights and weekends.

Detailed production reports, tool management data, and operator logs automate data collection and provide information critical to managing your business. All data is stored in a Microsoft Access database. It is extremely easy for the user to generate custom reports or to upload data to a corporate database.

Windows PC Anywhere software, standard on most PCs, allows remote access to the Cell Controller via modem. This makes diagnostics fast and easy should technical support ever be needed. Internally, remote operation allows managers to adjust the production schedule, or check the status of a project, without leaving the office.

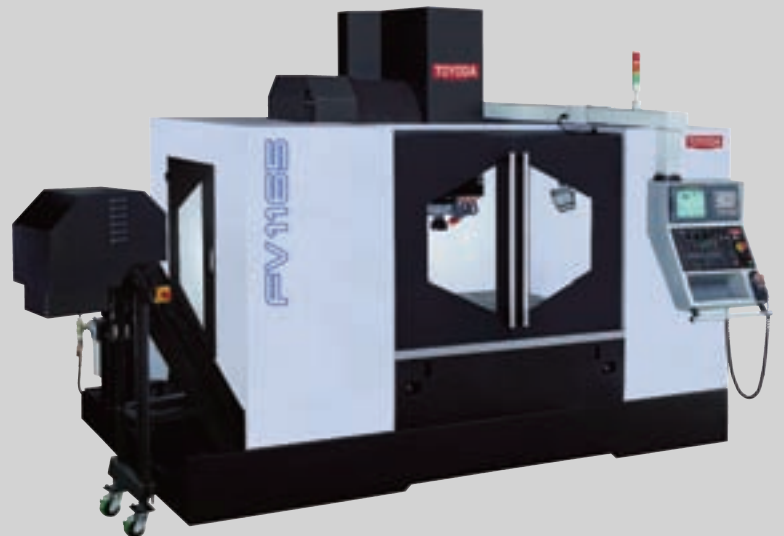
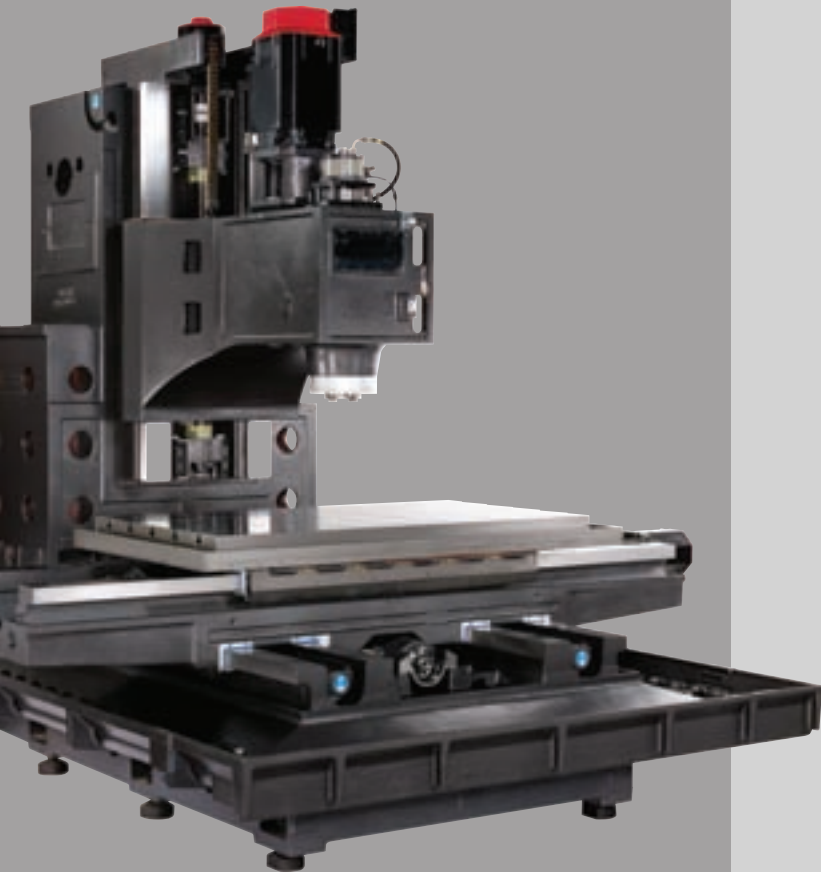


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## VERTICAL MACHINES

Toyoda FV Series Vertical Machining Centers and Bridge Mills deliver unmatched performance thanks to their large vibration-dampening Meehanite cast iron bases with solid box way construction. They feature large precision spindle bearings to increase rigidity and sustain higher load capacities. Select either 40 or 50-taper spindles from 6,000 to 15,000 rpm to match your machining requirements.





## SELECTG-II

Manual index for straight, angle, internal grinding.

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## GE6

Capable of small lot production of large parts.

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## GC20M

The most advanced cam grinder driven by a linear motor.

## GRINDING MACHINES

Toyoda is the world's largest producer of cylindrical grinding machines, with over 30,000 installations worldwide. We have the most advanced and diverse line of high performance grinders in the industry.

The entire line is designed to support high material removal rates and hold tight tolerances under demanding conditions. Their heavy cast iron bases provide greater rigidity, thermal stability, and absolute vibration dampening, while Toyoda's patented STAT® spindle bearing eliminates friction and wear.

We also manufacture an advanced family of highly accurate and precise linear motor driven cam and crankshaft grinders to serve the automotive market. Design innovations like our STAT® wheel spindle bearing eliminate all metal to metal contact, friction, wear and vibration. Linear motor wheel head drives provide speed and submicron precision for profiled surfaces.

Each machine is specially equipped for your application. Select from a family of flexible, multi-purpose grinders that can integrate grinding processes to lower your cost per part. Toyoda offers complete turnkey engineering, including factory automation for unmanned part loading and unloading.

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## HORIZONTAL MACHINING CENTERS & GRINDING MACHINES

Re-manufacturing or retrofitting outdated machines lengthens their productive life and may present significant savings over replacement. Updating controls, drives, electronics, gauges and part handling systems can be a cost effective way to extend the life of a machine. No matter what make or model, Toyoda rebuilds dressers, headstocks, footstocks, wheelheads and other subassemblies, and sources hard-to-find parts. More than two decades of remanufacturing virtually every make and model cylindrical grinder has made our skilled team true experts in their field. In-house design engineers, journeyman machinists, master builders and electronics technicians all blend their talents to create total performance grinding systems. Best of all, every remanufactured machine we sell carries a one-year "New" Machine Warranty. Find out what hundreds of manufacturers have learned about the lower investment, reliable performance and job-tailored engineering that are part of every remanufactured machine from Toyoda.

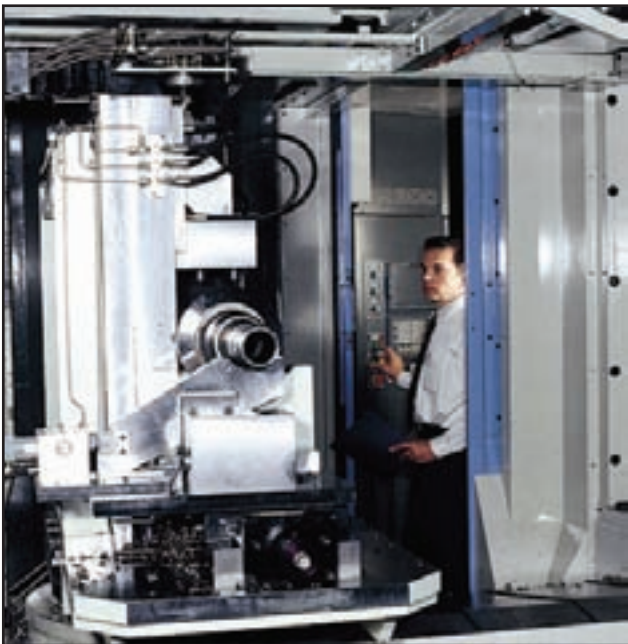
## SPINDLE REBUILDING & REPAIR

If you are ever in need of spindle repair or rebuilding on your Toyoda machining center, consider calling the experts at Toyoda. The company's Chicago facility has a state-of-the-art, factory-approved spindle rebuild department. Other suppliers may claim to offer the same service, but only Toyoda engineers can rebuild a Toyoda spindle to OEM (original equipment manufacturer) specifications. This is because our spindle construction procedures and tolerance dimensions are proprietary information. Performance testing is done with equipment specifically designed for this purpose. Only Toyoda can assemble each spindle according to the original factory prints. No other supplier can replicate this demanding process.

# TURNKEY ENGINEERING



As much as our customers rely on Toyoda machines, trusted for their unerring precision and dependability, they also look to our people. Our in-house design and application teams design total turnkey packages that include fixturing, part handling, tooling and programming. Even full systems integration. They are experts averaging more than a decade of experience in automotive, aerospace and general manufacturing industries. From turnkey engineering to complete systems integration, they'll find a way to make technology work for you.



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## SERVICE & PARTS

Equally as important as our high-performance products are the skills and dedication of the people supporting them. Responsive factory-trained service personnel are stationed strategically across the US and Canada and are on call 16 hours a day. Coupled with one of the largest parts inventories in the industry, Toyoda machines (the least likely to encounter problems) can, if necessary, be brought up and running in no time flat. More than 20,000 different components are available from our Chicago and Detroit facilities – virtually all of which can be shipped within 24 hours. The Toyoda Service Organization wants you to know that we are ready to respond to your needs.

## SERVING THE AUTOMOTIVE INDUSTRY WORLDWIDE

Toyoda HMCs, VMCs, and grinders are the machines of choice for major automotive manufacturers worldwide. And it's no wonder. For more than half a century, we've refined the rugged construction, precision and ease of operation that have made Toyoda synonymous with metalcutting worldwide. But Toyoda is far more than a machine tool builder. Our heritage of automotive manufacturing gives us unique insight into the plant floor challenges of our customers. And this experience results in practical solutions for some of our customers' toughest shop floor challenges.

## STANDARD PRODUCTS DIVISION



The 100,000 square foot plant in Arlington Heights, Illinois, (just northwest of Chicago) is the Toyoda Machinery USA headquarters. It is also home to the company's Standard Products Division, providing a range of horizontal machining centers, vertical machining centers, factory automation systems, and the widest array of production cylindrical grinders in the industry.

## AUTOMOTIVE PRODUCTS DIVISION



Toyoda's Automotive & Special Machines Division, located just outside of Detroit, specializes in serving the needs of automotive OEMs and other high-volume parts suppliers. The Automotive Division has special expertise in automation, turnkey engineering, and cam and crankshaft grinding. The facility is fully equipped to rebuild and remanufacture any make or model machine.

[www.toyoda.com](http://www.toyoda.com)

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Standard Products Division  
316 West University Drive  
Arlington Heights, IL 60004  
Tel: (847) 253-0340  
Fax: (847) 253-0540  
E-mail: [info@toyoda.com](mailto:info@toyoda.com)

Automotive Products Division  
51300 West Pontiac Trail  
Wixom, MI 48393  
Tel: (248) 624-5755  
Fax: (248) 624-3814