

DYNOMAX SPINDLE CAPABILITIES

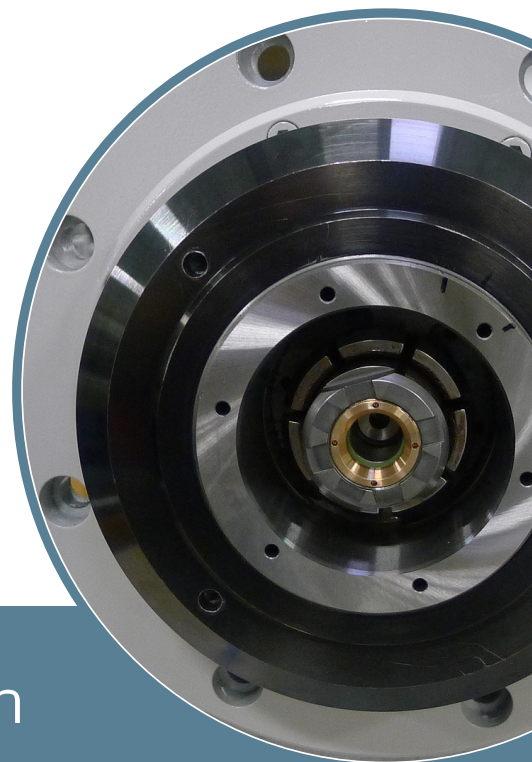
Dynomax spindle design and manufacturing...

- More than 500 standard spindles available, each with countless custom options.
- Utilize proven ISO 9001:2008 processes including vibration analyzing, balancing and run-in procedures.
- Manufactured in our worldwide facilities to stringent tolerances in controlled environments.

With locations around the globe, Dynomax Inc's headquarters location in Wheeling, IL houses only a portion of our capabilities. Designing and manufacturing spindles to super precision tolerances under ISO 9001:2008 processes, our facilities includes:

- *Engineering labs equipped with the latest precision design software*
- *Precision machining centers (tolerances of ± 0.0001)*
- *Temperature controlled clean room assembly*
- *Super precision measuring equipment*
- *Precision balancing equipment with electronic database documentation*
- *Vibration analyzing technologies*
- *Customizable test cells for precise runoff specifications*

And many more...



Please Visit
Dynospindles.com
for more information

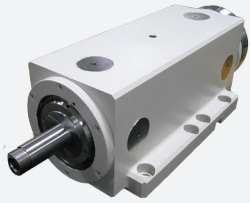
In addition to our facility, the Dynomax team is a multi-talented group of engineers, technicians and business professionals. Although the true talents of our team are continuously being revealed, Dynomax can provide support in:

- **Application Consulting**
- Including concept feasibility studies
- **New Spindle Design**
- Engineering support, design and consultation services
- **New Spindle Manufacturing**
- Of both components and complete spindle systems
- **Spindle Services**
- Including everything from repairs to spindle upgrades
- **Systems Integration**
- Assistance with controls and spindle system hardware

Advantages

- Certified and tested spindles arrive at your dock door ready to perform.
- Improved spindle performance and quality that is guaranteed for 1 (one) full year.
- Reduced delivery times of custom designs and modifications.

BLOCK AND CARTRIDGE

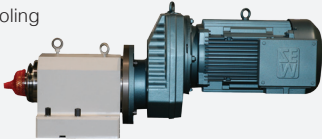


Advantages

- Variety of achievable spindle characteristics including power and torque options through use of various available motors
- Adjustable operating characteristics through changes in belt ratio
- Simplicity of design / ease of repair

Features

- Externally driven spindle (*belt driven*)
- Eagle PD drive systems improve stability of spindle system and allow for smooth transmission of power
- Available belt housing, motor assembly and brackets offer complete solution
- Gear Driven
- Multi Head
- Live Tooling



Applications

- Boring
- Milling
- Turning
- Grinding
- Facing
- ...and more

MOTORIZED



- High power and torque ratio (*direct power*)
- High load capabilities
- Most reliable (*least maintenance prone motor*)

- Dual wound motor 230 or 460v.
- Ambient air cooled
- Labyrinth seals protect bearings

- Grinding
- Milling
- Robotic
- Wheel Dressers
- ...and more

HIGHSPEED



- Highest speeds (*Maximum 60,000 rpm*)
- Glycol cooling minimizes thermal expansion, maintaining spindle integrity
- Integral motor spindle designed for optimal performance

- Relatively light weight, robotic friendly
- Modular design, easy to replace
- Test Stand Motors
- Dyno Motors
- Permanent Magnet Motors
- Connectors for power and signal connections



- Milling
- Grinding
- Drilling
- Boring
- High Speed Machining
- ... and more

ROBOTIC



- Lightweight construction to minimize payload stress on robot
- Advanced sealing minimizes threats of contamination
- Designed to operate at multiple angles and orientations, ideal for robotic machining

- HSK tooling standard
- Corrosion resistant
- Modular, quick change made easy
- Automatic tool changer with integral positioning system
- HSK63
- HSK100

- Deburring
- Grinding
- Boring
- Turning
- Milling
- ...and more

BRANDS SERVICED

Breton	Daewoo	Hardinge	Kessler	Mori Seiki	Pope
Bridgeport	Diedeshaim	Harig	Kitamura	Myford	Precise
Brown & Sharpe	Excell-O	Heald	KO Lee	Okamoto	Schütte
Chevalier	Fadal	Hitachi	Makino	OKK	Setco
Cincinnati	Fischer	Hydromat	Mazak	Okuma	Toyoda
Colombo	Gamfior	Intermac	Mistubishi	Parker Majestic	Unison

(Please visit <http://dynospindles.com/brands/> to view more brands that Dynamax Inc. services.)



DESIGN • MANUFACTURING • PERFORMANCE

1535 Abbott Drive, Wheeling, IL 60090

P. 847.680.8833 F. 847.680.8838 www.dynospindles.com

As an ISO 9001 registered company, Dynamax Inc. specializes in the design, manufacturing, and repair of machine tool spindles. Our modular designs allow us to offer custom tailored spindles for less than other spindle suppliers charge for stock, off the shelf models.