

DYNOMAX CAPABILITIES

With locations around the globe, Dynamax headquarters located in Mundelein, IL. houses only a portion of our capabilities. Designing and manufacturing spindles to super precision tolerances under ASO 9001:2000 processes, our facilities include:



- Engineering labs equipped with the latest precision design software
 - Precision machining centers (tolerances pf +/- 0.0001)
 - Temperature controlled clean room assembly
 - Super precision measurement equipment
 - Precision balancing equipment with electronic database documentation
 - Vibration analyzing technology
 - Customizable test cells for precise runoff specifications
- And many more...*

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

Application consulting

- including concept feasibility studies

New spindle design

- through the use of electronic 2-D and 3-D drawings

New spindle manufacturing

- of both components and complete spindle systems

Creation of total spindle packages

- complete with performance enhancing accessories

Spindle service

- including everything from repairs to spindle enhancements

System integration

- assistance with controls and spindle system hardware



DYNOMAX KNOWS SPINDLES





As an ISO 9001 registered company, Dynamax 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.

DESIGN AND MANUFACTURING

Dynamax spindle design and manufacturing...

- > More than 500 standard spindles available, each with countless custom options.
- > Utilize proven ISO 9001:2000 processes including vibration analysis, balancing, and run-in procedures
- > Manufactured in our worldwide facilities to stringent tolerances in controlled environments.

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

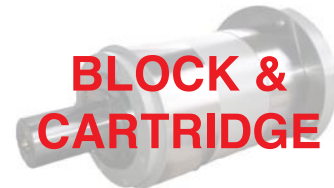
SPINDLE REPAIR

Dynamax spindle repairs...

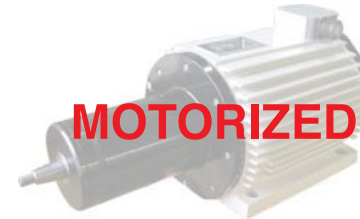
- > Utilize vibration analysis, balance and run-in procedures
- > Performed on virtually all spindle makes and models both foreign and domestic
- > Offer competitive pricing and lead times

Advantages

- > Shave your down-time and return to maximum production faster
- > Improve throughput and maximize profits



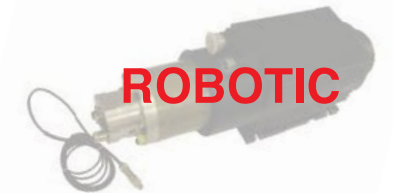
BLOCK & CARTRIDGE



MOTORIZED



HIGHSPEED



ROBOTIC

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

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

- > Highest speeds (Maximum 30,000 rpm)
- > Glycol cooling minimizes thermal expansion, maintaining spindle integrity
- > Integral motor spindle designed for optimal performance

- > 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

SPINDLE ENHANCEMENT

Dynamax spindle enhancements...

- > Transform your spindle's components and configurations to help achieve higher speeds, tolerances and stiffness
- > Add new life and enable you to get more from your existing machinery
- > Offer a cost-effective way to upgrade your machines performance

Advantages

- > Reduce capital expense required to enhance existing machinery
- > Improve production quality with precision spindles
- > Save production time as well as the costs of poor quality re-work

FEATURES

- > Externally driven spindle (belt driven)
- > Eagle PD drive systems improve stability of spindle system
- > Available belt housing, motor assembly and brackets offer complete solution

- All standard motors have the following characteristics high efficiency η , power factor $\cos \phi$; Insulation system class H (125°C/275°F) -
- Siemens, Heidenhain, Fanuc and other compatibility of control -

- Power and signal connectors and housings conform to degree of protection IP65 with secure connections -
- Available nose configurations include CAT/ISO, HSK, Grinding Nose, BT, ABS and more -
- Available customization options to further enhance performance of spindle and existing machinery -
- All manufactured components made from high alloy steel, housings crafted from high quality ductile iron, stress relieved and normalized -
- Permanently grease lubricated angular-contact ABEC-7 extra precision ball bearings unless otherwise requested -

APPLICATIONS

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

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

- > Milling
- > Grinding
- > Drilling
- > Boring
- > High speed machining
- ...and more

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

