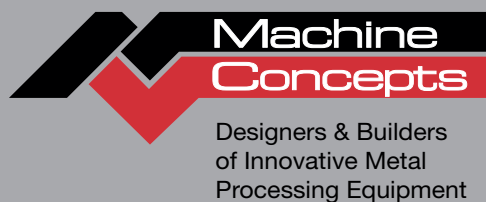


Company Profile



Coil Processing & Slitting



Mill Products & Rebuilds



Spray Valves



Precision Shape Correction Levelers



Press Auxiliary Equipment

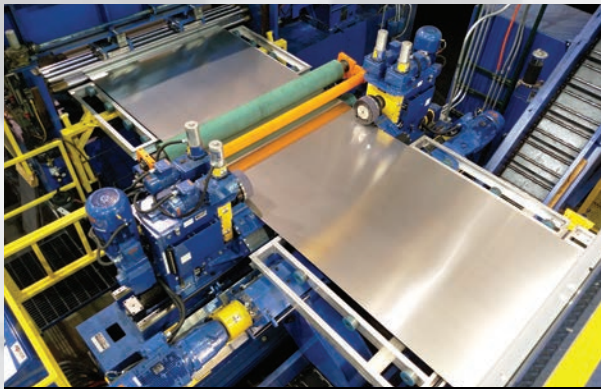


Specialty Automation & Robotics



Air Bearing Shape Rolls

Coil Processing & Slitting



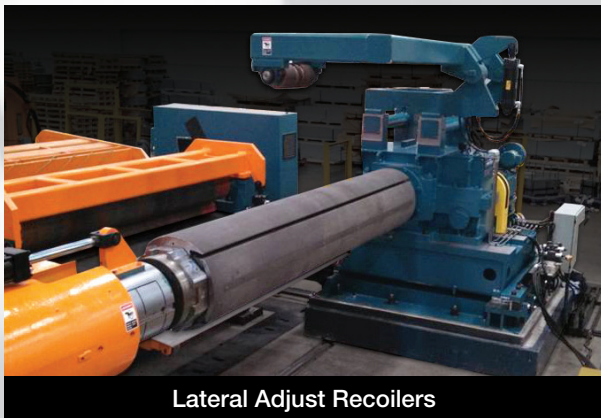
Side Trimmers/Scrap Choppers



Entry Equipment



Specialty Lines

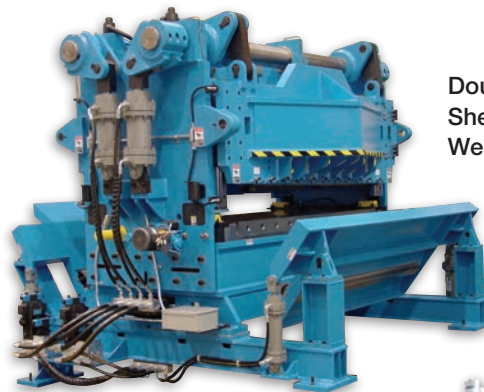


Lateral Adjust Recoilers

Coil Processing & Slitting

Machine Concepts is a leading manufacturer of coil processing equipment for a wide range of applications. We specialize in custom design/build projects and complete coil processing lines to accommodate almost any slitting, side trimming or coil processing need. Our coil processing equipment, includes:

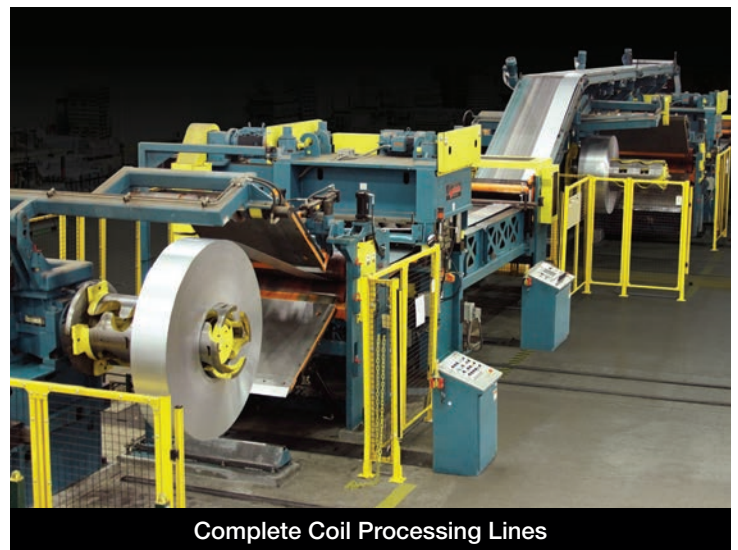
- ▶ Slitters and side trimmers
- ▶ Scrap choppers
- ▶ Coilers
- ▶ Shears
- ▶ Terminal equipment
- ▶ Tension leveling
- ▶ Bridle roll stands
- ▶ Custom equipment
- ▶ Specialty lines



Double Squaring Shears for Strip Welding Application



Side Trimmers/Scrap Choppers



Complete Coil Processing Lines

Mill Products & Rebuilds



Cold Mill De-Chockers



High Speed Ironing Rolls



Side Trimmer Rebuilds



Full Width Scrap Choppers

Mill Products

Machine Concepts provides innovative, reliable solutions for new and existing mill equipment to meet your mill process and maintenance requirements. Whether you require new equipment or modifications to existing installations, we're dedicated to helping you eliminate downtime, reduce maintenance costs, increase safety and improve quality.

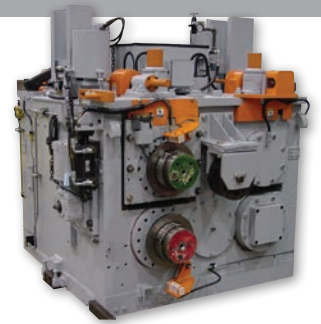
Rebuilds & Upgrades:

Machine Concepts has extensive experience rebuilding and upgrading all types of mill equipment. We also provide custom engineered solutions for complete line rebuilds and upgrades. Our services include:

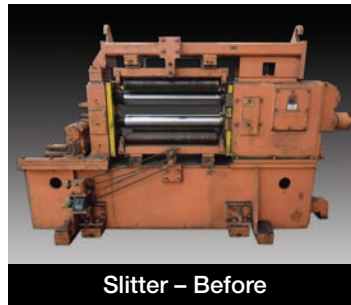
- ▶ Special expertise in slitter, side trimmer and scrap chopper rebuilds
- ▶ Complete inspection before teardown and after repairs/upgrades – all reports provided to customer
- ▶ Multiple upgrade options including:
 - ▶ New drives (retrofit into existing heads)
 - ▶ New fixed or set-up bases
 - ▶ High precision bearings
 - ▶ Improved arbor precision



Mill Belt Wrappers



Turret Trimmer Rebuilds



Slitter – Before



Slitter – After

Spray Valves

Spray Valves

Machine Concepts specializes in the integration of spray valve technology for increasing mill speeds and superior strip flatness. We design and manufacture spray valves and assemblies, and offer repair, upgrade and retrofit services.

Features:

- ▶ Single, double or triple valve assemblies
- ▶ Durable, reliable and easy inspection and maintenance
- ▶ Convenient quick disconnect feature
- ▶ Proportional spray valves – infinite variable spray positions allow for precise spray patterns, superior flow performance, wear-resistant components and easy maintenance
- ▶ Media piloted on/off spray valves – continuous or pulsing spray systems in single, double or triple row assemblies for optimal spray performance



Proportional Spray Valves



Quick Disconnect Feature



Spray Header Assemblies

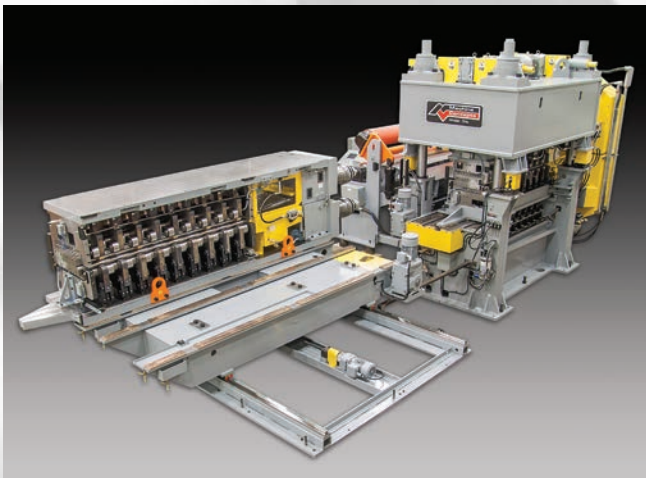
Precision Shape Correction Levelers



G3B Basic Leveler



G3CC Cart Leveler



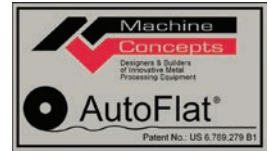
G3DC Drawer Cassette Leveler

Precision Shape Correction Levelers

Distinguished by good basic design and well thought out details, Machine Concepts' Gen III Precision Shape Correction Levelers cover a wide variety of material specifications and process applications and are noted for durability, performance and ease of use. An optional feature on all levelers is our patented and proven AutoFlat® shape control system that automatically controls back-up flights to achieve and maintain flat strip.

Standard & Available Features:

- ▶ Patented AutoFlat® shape control system
- ▶ Pivot-style hydraulic roll bending
- ▶ Patented automatic roll cleaning
- ▶ Self-calibration
- ▶ Automatic set-up
- ▶ Split drive system
- ▶ Lateral tilt
- ▶ Overload protection
- ▶ Informative, user-friendly operator controls
- ▶ Patented clutch drive to compensate for differential roll speed



Roll Grinding

Machine Concepts can handle all of your precision roll service needs. We have thorough knowledge of work roll design and provide work roll replacement and reconditioning with fast turnaround to minimize downtime. Our services include:

- ▶ New work rolls
- ▶ Intermediate rolls
- ▶ Repair and reconditioning services for multi-roll levelers, tension levelers and straighteners



Reconditioned Back-up & Individual Rolls

Press Auxiliary Equipment

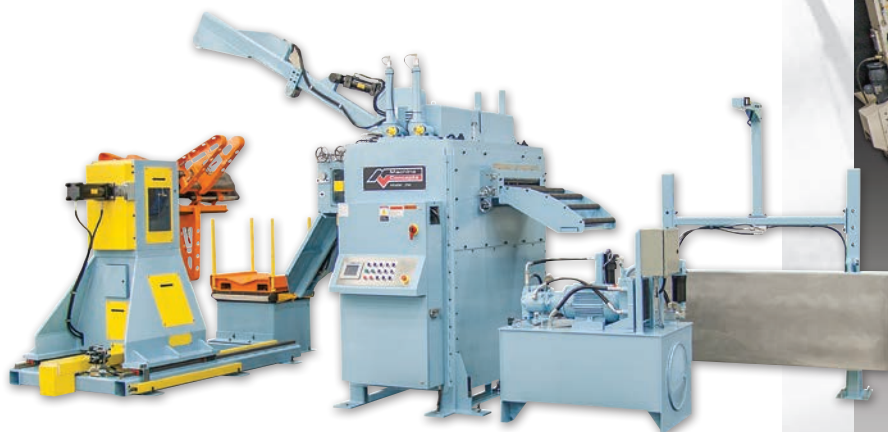
Press Auxiliary Equipment

Machine Concepts offers a wide range of press auxiliary equipment to meet your specific press room needs. Whether you require stand alone equipment, completely integrated lines or complete press-line solutions, Machine Concepts can deliver the speed, quality and precision required to handle your toughest press challenges. Our press auxiliary equipment and lines include:

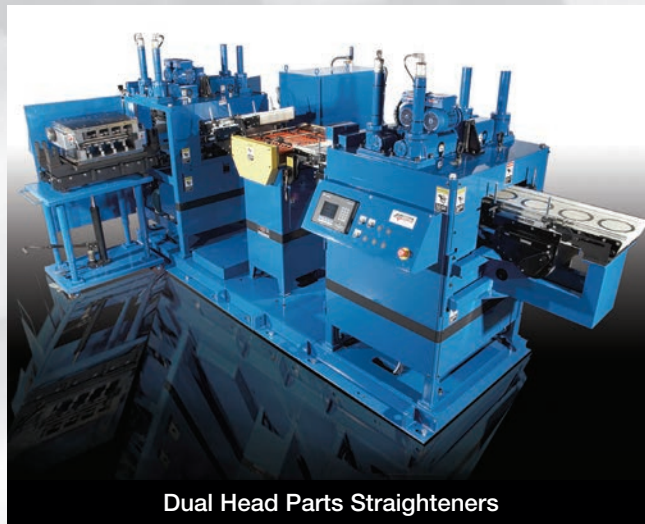
- ▶ Precision parts straighteners
- ▶ Precision coil straighteners
- ▶ Coil flatteners
- ▶ Decoilers (single and dual mandrel)
- ▶ Coil car and coil stands
- ▶ Material looping systems
- ▶ Coil rewinders
- ▶ Coil upenders
- ▶ Parts retrieval systems
- ▶ Automatic press loading/unloading systems
- ▶ Toggle shears
- ▶ Scroll processing lines
- ▶ Motor lamination stacking systems
- ▶ Custom feeders



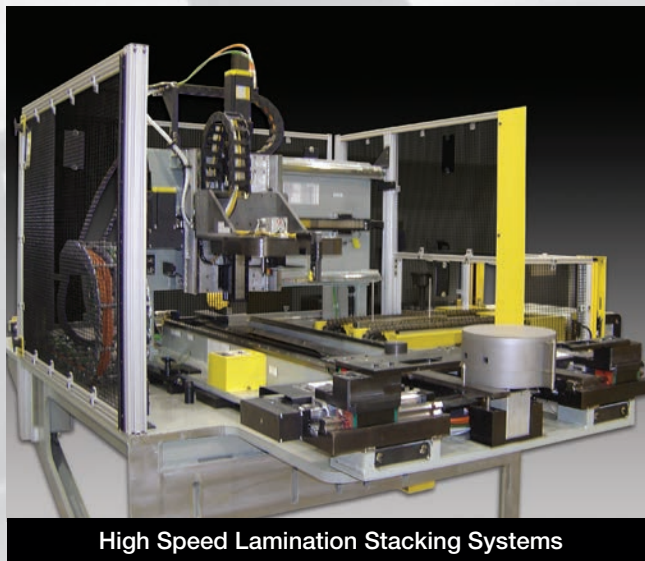
Decoilers –
Single Mandrel



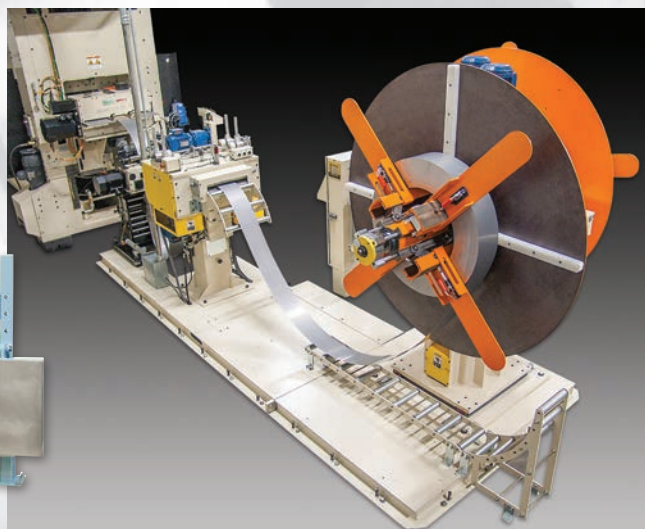
Precision Straightener Feed Lines



Dual Head Parts Straighteners

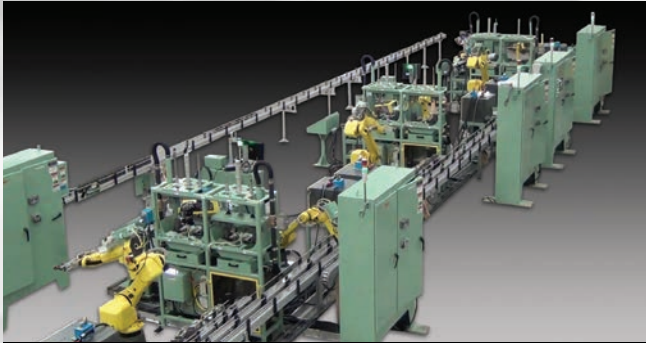


High Speed Lamination Stacking Systems

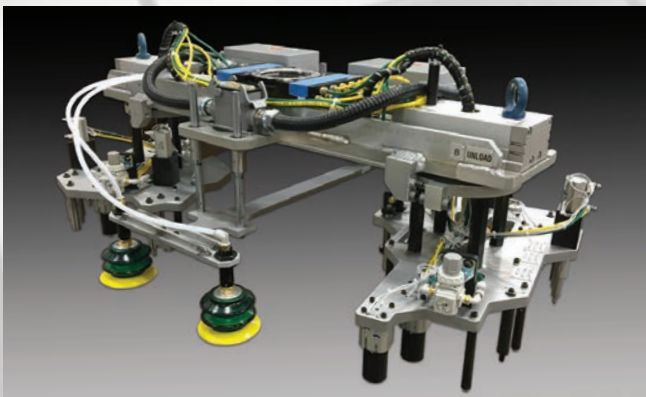


EV Coil Feed Lines for Electric Vehicle Industry

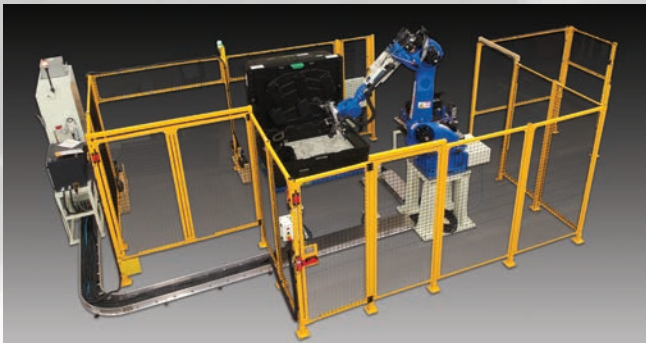
Specialty Automation & Robotics



Machine Tending & Inspection Lines



Complex End of Arm Tooling & Fixturing



Fanuc, Motoman & Kuka Experience



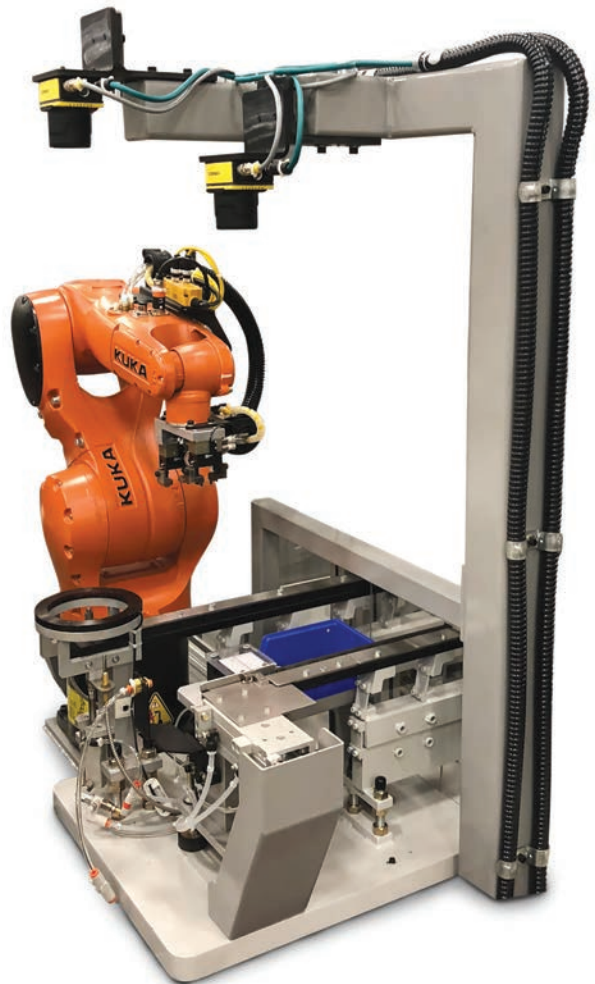
Large Footprint Lines with Heavy Payloads

Specialty Automation & Robotics

Machine Concepts provides turnkey services for the custom design and manufacturing of specialty machines and automated systems. We have over 15 years of experience in implementing custom robotic automation solutions to address your specific manufacturing needs and improve your processes. We are dedicated to helping you reduce production costs and improve product quality, operator safety and productivity.

Services & Capabilities:

- ▶ Large automation lines
- ▶ Complex end of arm tooling
- ▶ Experience with multiple brands
- ▶ Robotic assembly
- ▶ Conveyors & part manipulation
- ▶ Custom supporting equipment
- ▶ Laser welding
- ▶ Laser marking
- ▶ Vision inspection
- ▶ Vision guidance



Vision Guided Robotics & Assembly

Air Bearing Shape Rolls

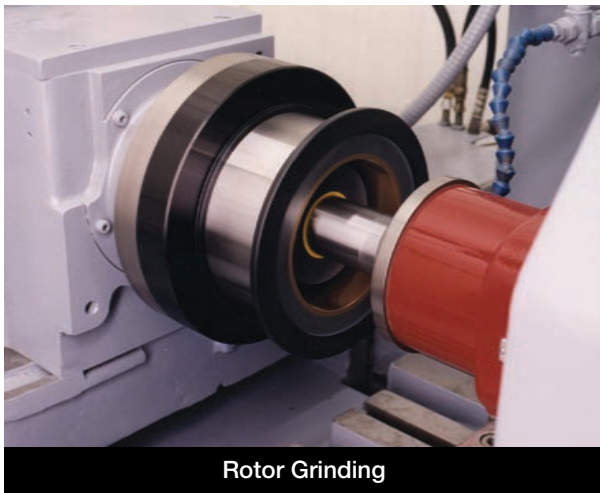
Air Bearing Shape Rolls

Machine Concepts specializes in the integration of air bearing shape roll technology. We develop and implement innovative solutions to respond to increasing mill speeds, changing properties of metal and increasing demands for superior shape measurement and improved quality of strip flatness.

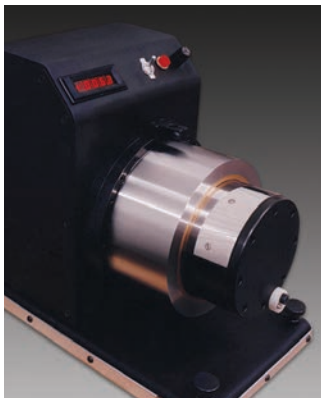
Machine Concepts is a leader in the shape roll field. We pioneered the manufacture and repair of rotors with chrome coatings and the use of wear resistant Hy-Comp composite material for rotor face pads and thrust bearing face disks.

Services & Capabilities:

- ▶ Mill engineering services and in-house manufacturing to meet process requirements
- ▶ Shape roll components/equipment – new and repair
 - ▶ Air bearing shape roll assemblies
 - ▶ Transducer cabinets
 - ▶ Retract mechanisms
 - ▶ Rotors (including chrome coated outside diameter)
 - ▶ Thrust bearings
- ▶ Field service, on-site rebuilds and repairs
- ▶ Shape roll replacement parts
- ▶ Testing and inspection

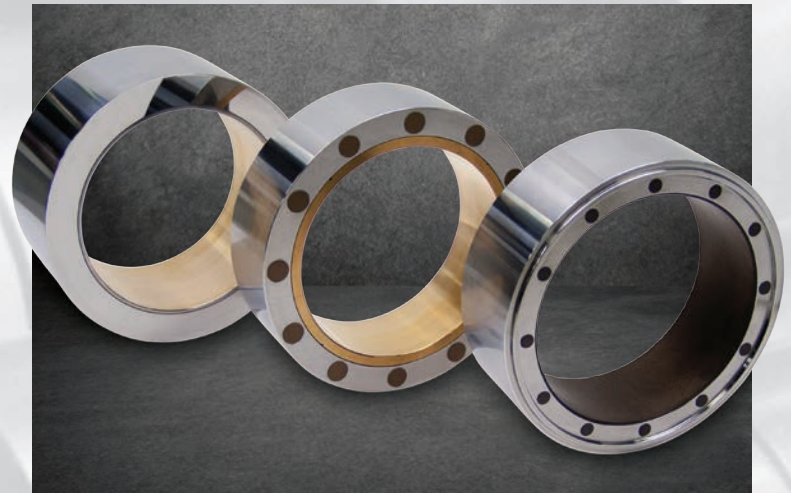


Rotor Grinding

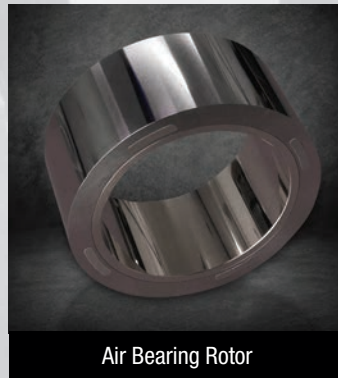


Testing and Inspection

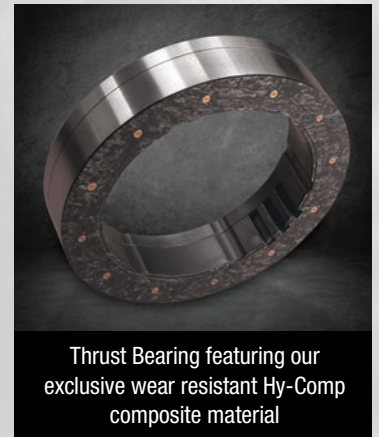
The output signal of all rotors is measured before and after repairs on a Test Stub, Machine Concepts' proprietary test fixture.



Air Bearing Rotors with chrome coatings – advantages include wear life, surface finish, corrosion inhibitor and elimination of "pick-up" on outside diameter of rotor



Air Bearing Rotor



Thrust Bearing featuring our exclusive wear resistant Hy-Comp composite material



Air Bearing Shape Roll Systems

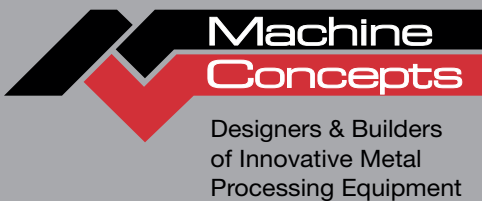
Facility

Founded in 1994, Machine Concepts has constructed a team of highly skilled engineers, machinists, assembly technicians, service and clerical staff to grow the company into the major machinery builder that it is today. This growth and progress is a product of many factors, including:

- ▶ Engineering-based company
- ▶ Innovative designs
- ▶ Continuous effort to improve products and processes
- ▶ Close relationships with our customers and dedication to keeping our customers' needs as a top priority

Facility & Capabilities

- ▶ 90,871 square foot facility
- ▶ High bay assembly area
- ▶ Climate controlled precision grinding room
- ▶ Climate controlled inspection room
- ▶ (2) 25 ton cranes
- ▶ (1) 35 ton crane
- ▶ Numerous 1 ton jib cranes
- ▶ (3) CNC horizontal boring mills
- ▶ (3) vertical machining centers
- ▶ (4) lathes
- ▶ Cylindrical grinder
- ▶ Centerless grinder
- ▶ Full panel build and wiring capability
- ▶ All machine wiring done in-house



Machine Concepts Inc. modern engineering and manufacturing facility