



**Machine
Concepts**

Designers & Builders
of Innovative Processing
Equipment



Improve Processes

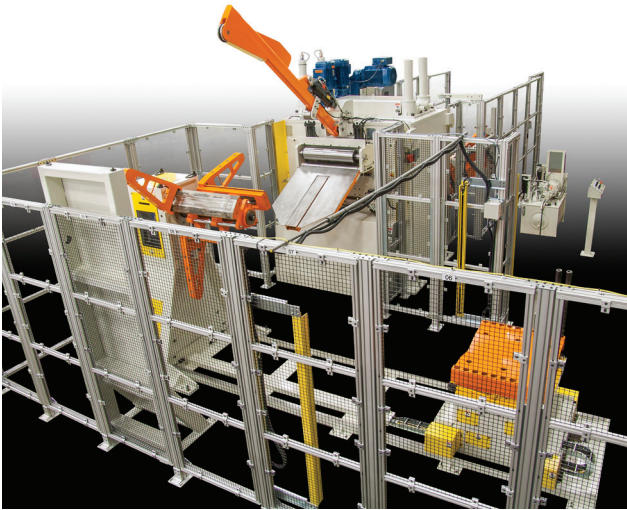
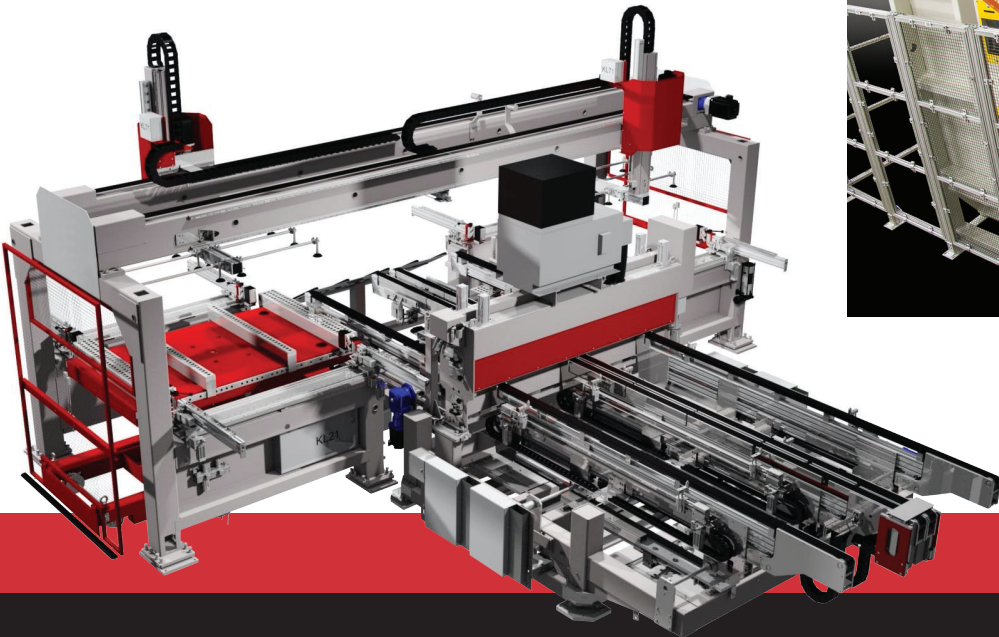
with an Innovative Partner in
Custom Automation Equipment
& Specialty Machinery

Custom & Specialty Equipment

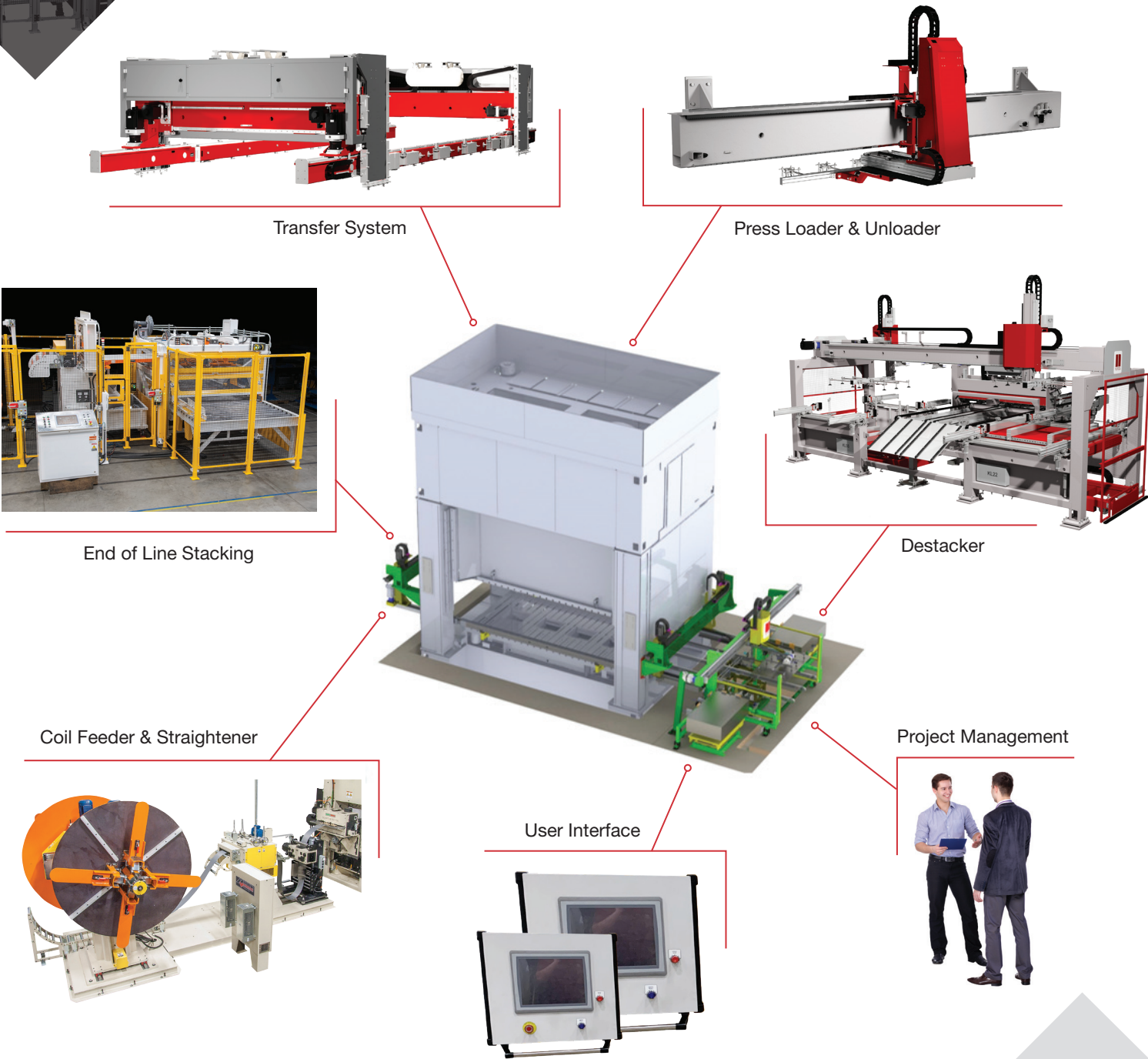
New Turnkey Press Lines with Automation and Upgrades to Existing Press Lines

- ◆ **Complete Turnkey Solutions** – Our customers rely on MCI for complete turnkey solutions, whether you require a new automated press line or an upgrade to your existing line.
- ◆ **Engineering-Based Machinery Builder** – We have over 40 full time engineers ready to customize your equipment to fit your production needs. We can incorporate an extensive array of processes as needed.
- ◆ **Complete Before-the-Press Solutions** – Front of the line Decoilers, Straighteners, Levelers, S-Loops, Destackers and Feeders can be incorporated to enhance production and optimize performance.
- ◆ **Press Equipment** – We can provide the press, leveraging our relationship with multiple Hydraulic or Mechanical Press Suppliers to help you select the right equipment. We can also work with the manufacturer of your choice if you purchase the press direct.
- ◆ **Press Transfers** – We provide press transfer systems to get your parts through the press accurately and quickly.
- ◆ **Post Press Automation** – Stackers, Roller Conveyors for racks and dunnage, post press assembly or forming and other equipment/operations can be incorporated to fully utilize your press.
- ◆ **Complete Press Set Up** – For smaller and medium size press applications we can set the press up on our floor with automation equipment for a full factory runoff.
- ◆ **After Market Service & Support** – Service and support is available at a level that best fits your needs, including technical support, training, field service, maintenance, parts, and more.

Take production to unprecedented levels with an innovative, engineering-based machinery builder



Press Room Equipment



Custom Designed and Built Equipment & Innovative Solutions



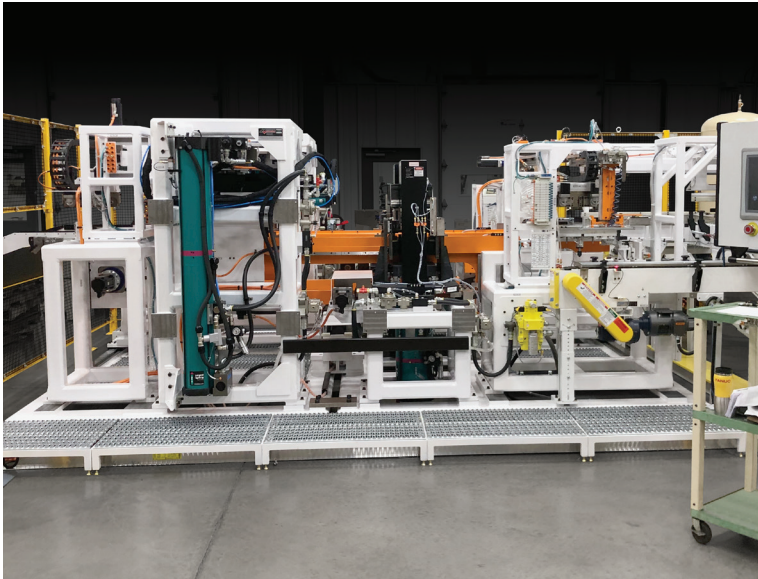
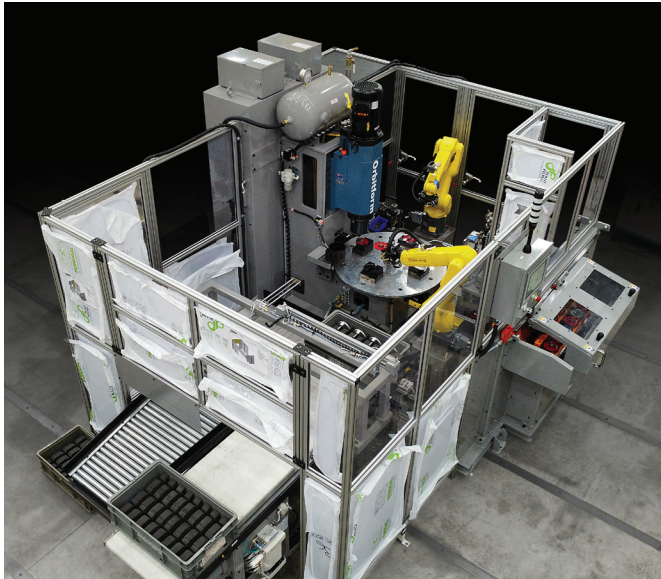
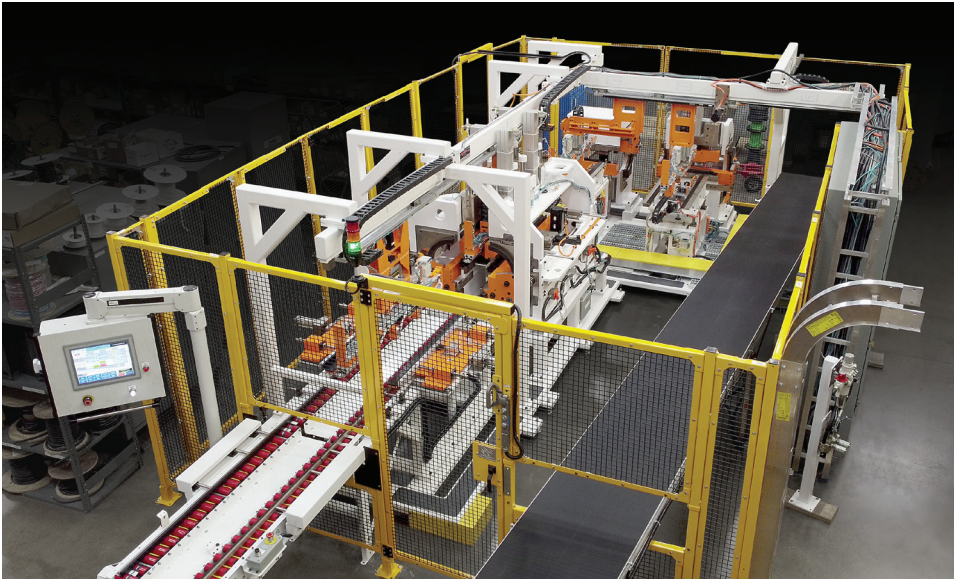
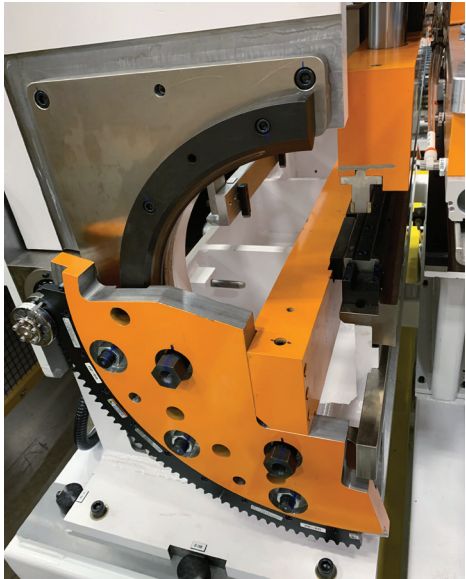
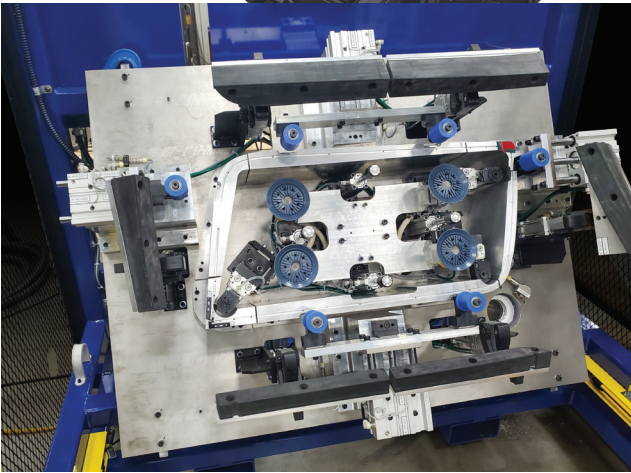
Servo Panel Benders and Metal Forming

- ◆ **Turnkey Systems** – We design and build turnkey systems including control packages designed to your specifications.
- ◆ **Custom Equipment** – Equipment is designed specifically to our customers needs matching any machine specs as needed.
- ◆ **Dedicated Servo Panel Bending Lines** – We design and build lines to provide high volumes of repeatable parts. We can also make servo adjustments to allow Bend Line position changes by the selection of a recipe on an HMI screen.
- ◆ **Sheet Metal Joining Lines** – Whether you require welds, toxes or other joining technologies, we build custom lines to meet your needs.
- ◆ **Spin Forming Equipment** – We provide custom metal spinning equipment for a wide variety of applications.



Turnkey Assembly Lines & Fixtures

- ◆ **Turnkey Systems** – We design and build turnkey assembly lines and equipment for low and high volume applications.
- ◆ **Assembly Equipment** – Clenching, Bolt Placement, Bowl Feeders, Torquing, Welding, Force Monitoring, Leak Testing, Vision Inspection and other technologies can be incorporated into your assembly equipment.
- ◆ **Robotic Integration** – We use robots where it makes sense, however, we start by designing the machine, then determine what form of automation is the best fit for the project.
- ◆ **Assembly and Weld Fixtures** – Fixtures are designed with your Datum strategy in mind, while also allowing for quick changeover where required. We can provide full CMM reports and 3-D machining of nests.

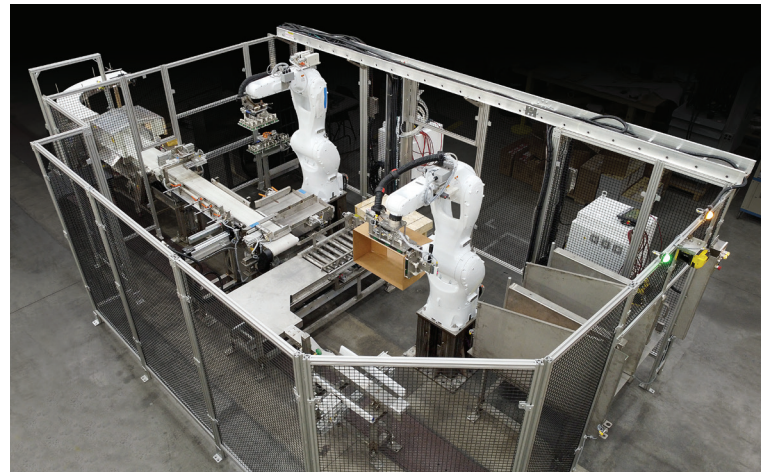
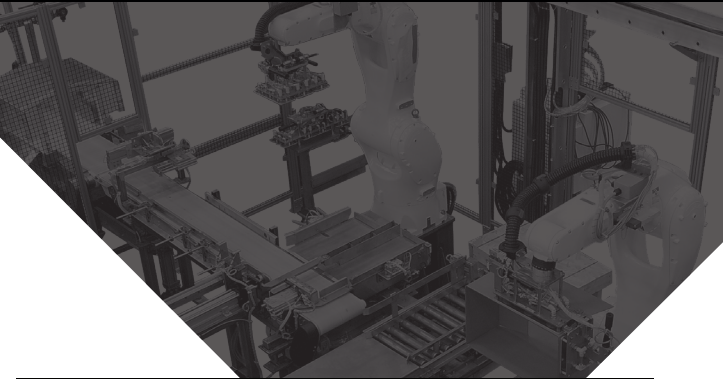


Industry-Leading Engineering-Based Machinery Builder



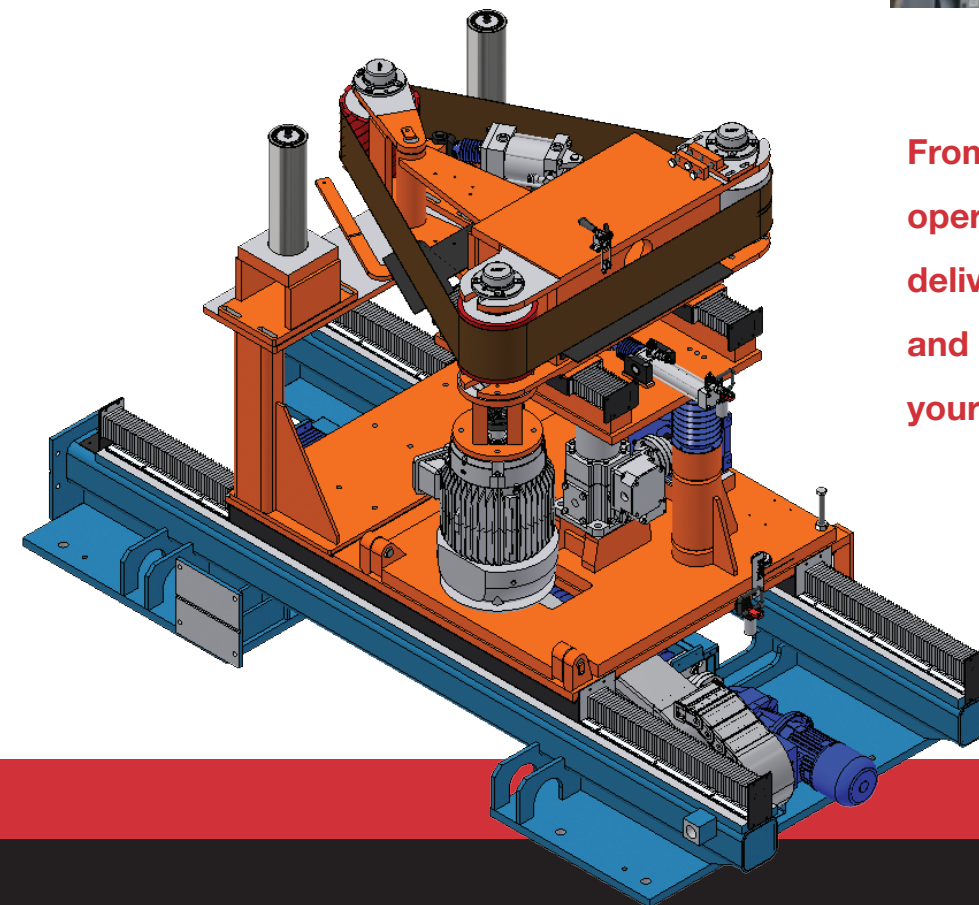
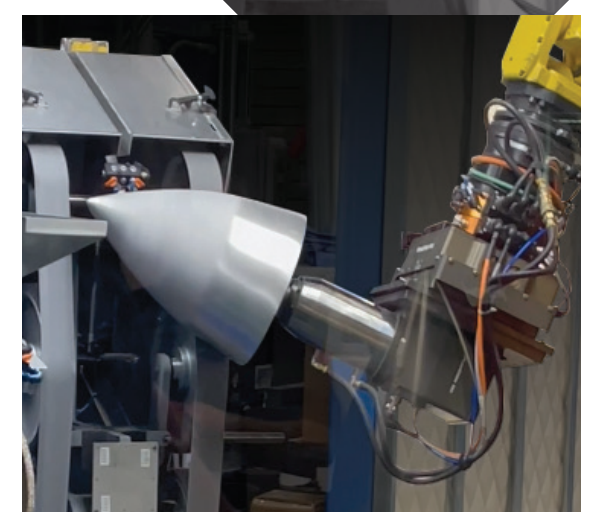
Robotic Packaging & Material Handling

- ◆ **Complete Automation Lines** – We have vast experience designing automated lines for material handling and packaging. The more challenging the application, the better fit we are. We pride ourselves on our ability to create solutions for demanding applications or complex processes.
- ◆ **Robotic Integration** – We utilize Fanuc, ABB and Yaskawa robots, as well as other robotic manufacturers at our customers request.
- ◆ **PLCs** – We utilize Allen Bradley, Mitsubishi and Siemens PLCs according to customer preferences.
- ◆ **Vision Systems** – 2D & 3D Vision Systems are the cornerstone of our robotics and automation solutions. Many of our packaging and material handling projects use vision to locate and place parts.
- ◆ **Box Erecting and Packaging** – When a standard box erector is not enough, we provide dedicated solutions to meet your requirements.
- ◆ **Production Challenges** – We excel in providing innovative solutions to overcome production challenges. For example, we have used large vacuum pads with check valves to pick ingots or skids with uneven surfaces or gaps in the gripping surface.



Material Removal – Grinding & Polishing

- ◆ **Tailored Solutions** – We design and build the exact solution for your application, whether it's Polishing, Sanding, Grinding, Deburring and/or Buffing.
- ◆ **Fully Automated Process for Any Application** – Manually grinding and polishing parts and materials in a repeatable process results in ergonomic and safety issues, as well as inconsistent quality. We can fully automate your process for maximum repeatability and speed and high-volume processing. Whether it's grinding the edges of sheet metal, polishing parts to a good finish, or grinding and polishing high volume wide variation shafts, we provide solutions for any application.
- ◆ **Parts and Material** – We utilize Robotics, Compliance Devices and Servo Motion to achieve accurate removal and the right finish for your parts and material.
- ◆ **Complete Systems** – We integrate vacuum and exhaust systems along with guarding and risk assessments to deliver turnkey solutions.



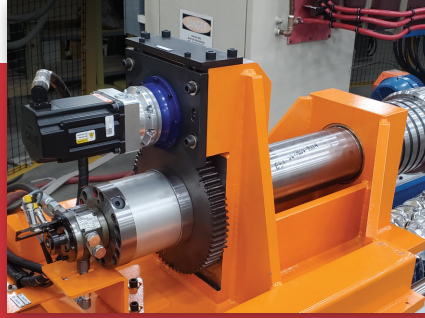
From conceptual design to operational equipment, MCI delivers pioneering technologies and machinery that overcome your production challenges.

Custom Engineering Solutions

At Machine Concepts, our specialty is customized solutions that **increase productivity and quality, decrease costs and improve operator safety**. We are an engineering-based company with over 40 full time engineers ready to tackle your custom design project that you can't find off the shelf. We have extensive experience providing innovative solutions for a wide variety of applications, including Custom Metal Forming, Custom Servo Feeders and more. **Contact us today to turn your challenge into opportunity!**



Custom Tooling



Custom Design



Heavy-Duty Equipment

Why Choose Machine Concepts

- ◆ Full staff of mechanical and electrical engineers and technicians
- ◆ Extensive experience integrating a wide range of processes
- ◆ Robot programmers also handle PLC and HMI programming to streamline integration
- ◆ Well-versed in Allen Bradley and Mitsubishi PLCs as well as experience with other manufacturers
- ◆ Experience with Fanuc IR Vision, Cognex Vision Systems & Keyence Vision Systems
- ◆ CAD Software: Solidworks, Inventor and AutoCAD
- ◆ Programming Software: Fanuc Robot Simulation Software, Allen-Bradley, Mitsubishi, HMI screens
- ◆ Implement simulation software to pre-program and test robots prior to installation for faster install and reduced production downtime

Our Capabilities

Turnkey Automation Systems

- Robotic Integration
- Part Handling Systems
- 2D & 3D Vision Systems

Custom Equipment Design & Build

- Laser Welding Cells
- Metal Forming
- Custom Process Tooling

Build and Assemble to Print

- Assembly & Weld Fixtures
- Inspection Gauges
- Re-tooling Cells

Achieve What's Never Been Done

Take production to unprecedented levels with an innovative, engineering-based machinery builder

For more information, contact Machine Concepts:

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