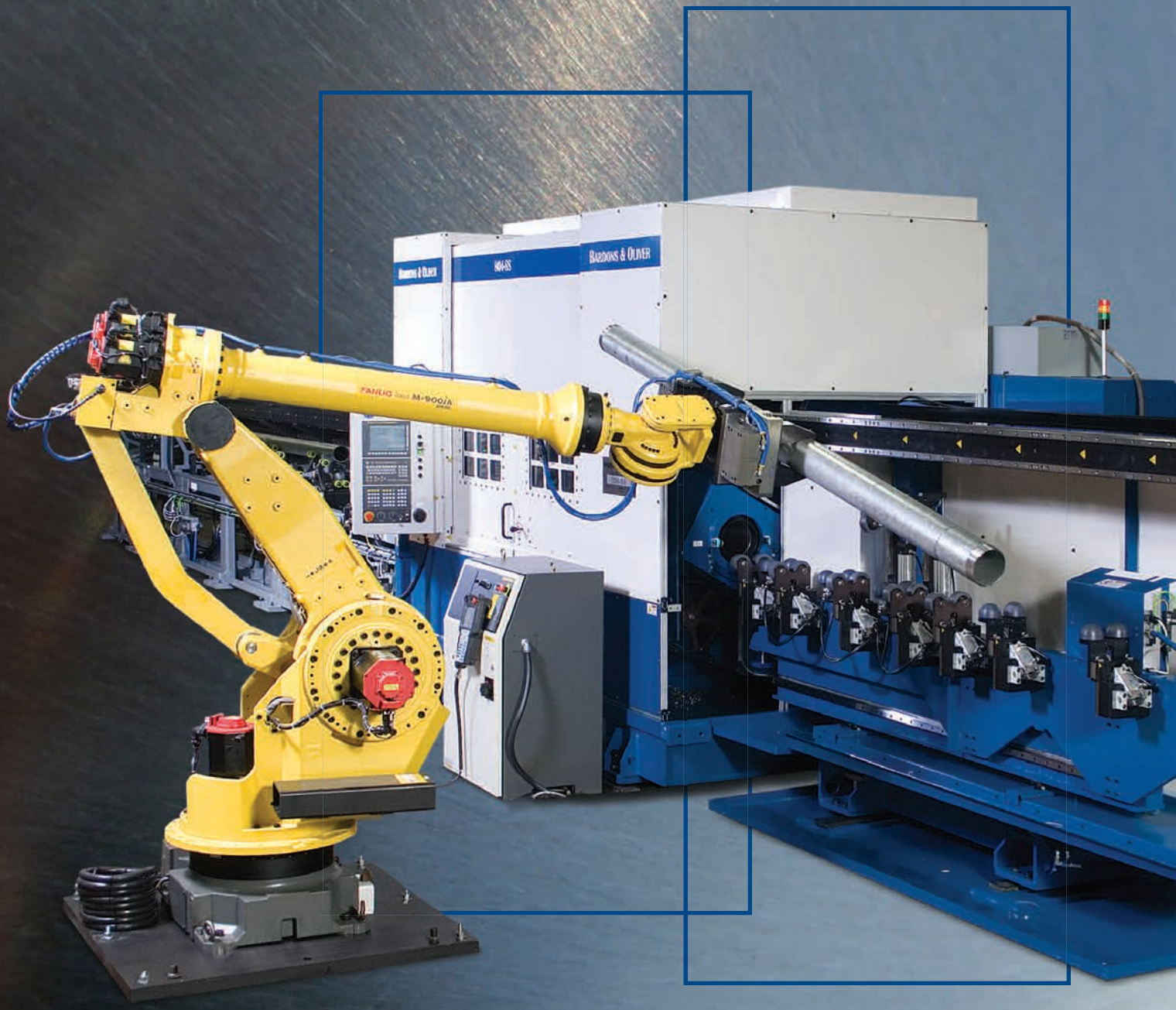
BARDONS & OLIVER

System Automation and Robotics Integration



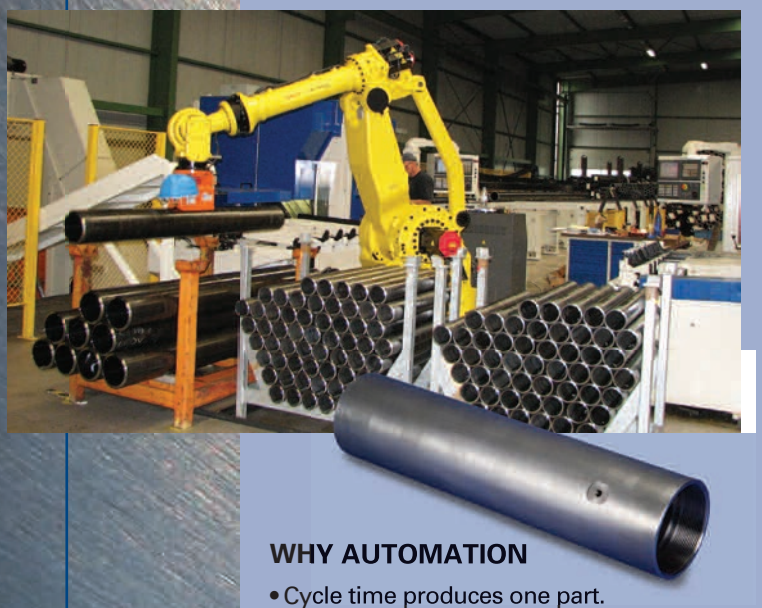
Eliminate the Variables. Optimize the Process.

Bardons & Oliver System Automation and Robotics Integration

UNIQUE SYSTEM AUTOMATION AND ROBOTICS INTEGRATION LIKE NO OTHER

ELIMINATE THE VARIABLES - OPTIMIZE THE PROCESS

- Bardons & Oliver, a Certified Fanuc Robotics System Integrator, offers a full range of robotic and industrial automation solutions. With our diverse mix of machine building and automation experience and our highly qualified team of engineers and technicians, we can meet the demands of your most exacting applications.



WHY AUTOMATION

- Cycle time produces one part. An efficient cycle produces one part quickly.
- Process produces hundreds, even thousands of parts shift after shift, week after week. Process includes all aspects of manufacturing the part, ***including cycle time.***
- A well thought out process provides for the constant flow of raw material into the machine tool, assures having the right part program and tooling, allows for the removal of the finished part from the machine's work zone, and results in the efficient handling of thousands of pounds of finished parts.

TURNKEY MACHINING CELLS

- Bardons & Oliver CNC Turning Machine Cells and Cut-Off Machine Cells focus on converting long tubes or bars to finished parts in one step. Parts travel the shortest possible distance. Work In Process is eliminated. Inventory is reduced.

ONE CELL. ONE SOURCE.

DEVELOP YOUR PROCESS WITH CONFIDENCE

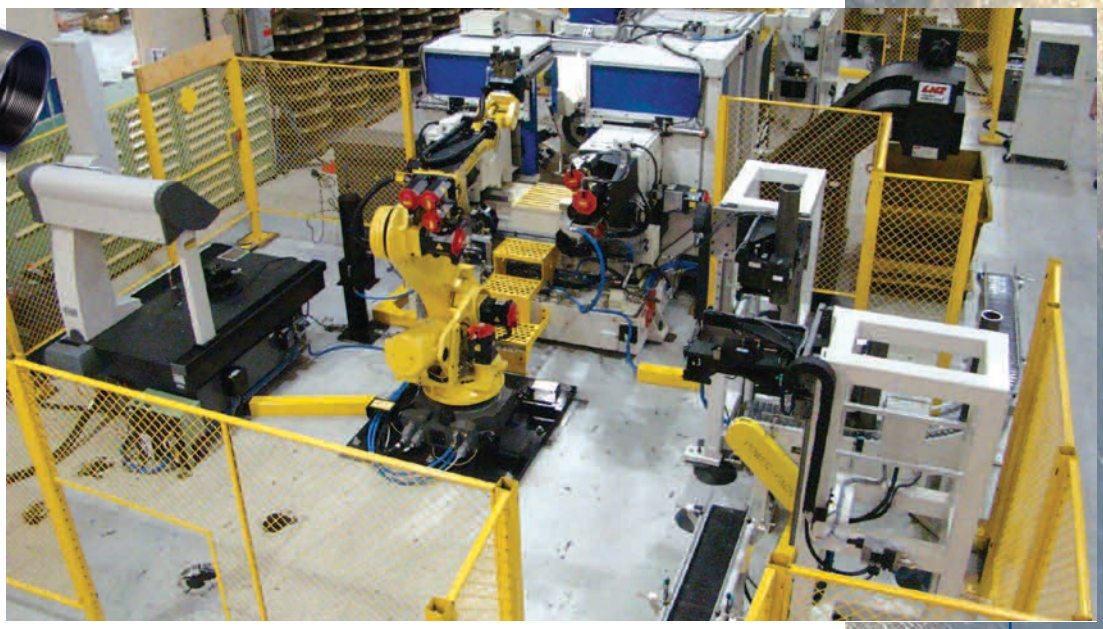
As a full line machine tool builder, we design and build your automation system. We take full responsibility for its performance. As a Certified Fanuc Robotics System Integrator, the Bardons & Oliver engineering team has access to the latest simulation tools available.

PERFORMANCE AND PROCESS VERIFIED WITH FANUC SIMULATION SOFTWARE

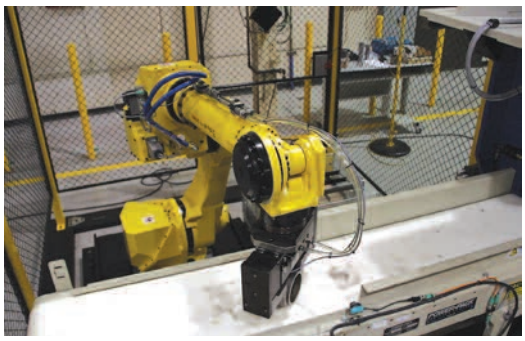
- Verify material flow to and from the cell.
- Determine optimum placement of machines, robots, and material handling.
- Verify operator access points and safety concerns.
- See your actual system completely set up on our assembly floor.
- See your process making your parts before the system leaves our factory in Solon, Ohio.

INSTALLATION AND OPERATOR TRAINING

Bardons & Oliver is the automation specialist with the team to support installation and training after shipment. Collectively, our staff has hundreds of hours of training in the latest installation and programming techniques.



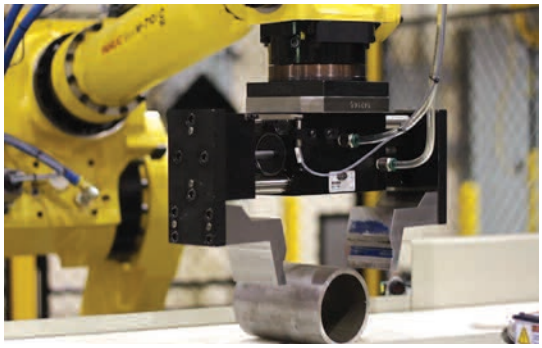
Loading and unloading stations move parts to and from cell. The robot's double gripper efficiently removes the finished part from the cell's center drive lathe and loads a new blank for processing. Critical dimensions are verified at the cell's coordinate measuring machine. A Bardons & Oliver developed algorithm determines adjustments required and communicates with the machine's CNC control.



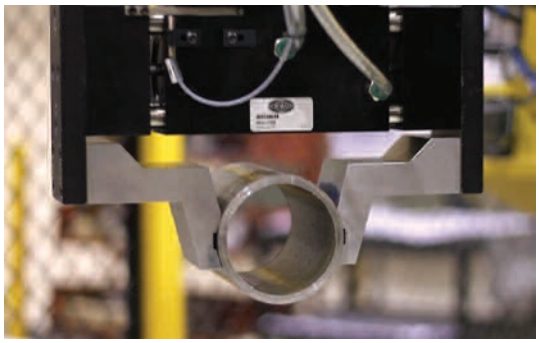
A simple pick and place application takes on new meaning when it is incorporated with Robot Guidance, Vision, and Palletizing. Vision determines the part position and orientation on the conveyor.

A SYSTEM FOR EVERY NEED

Whether designing a factory of the future to meet strict production and SPC requirements, a simple pick and place system to handle a few thousand parts a shift, or a large capacity system to do the heavy lifting, make Bardons & Oliver part of your process development team. Eliminate the variables. Optimize the process.



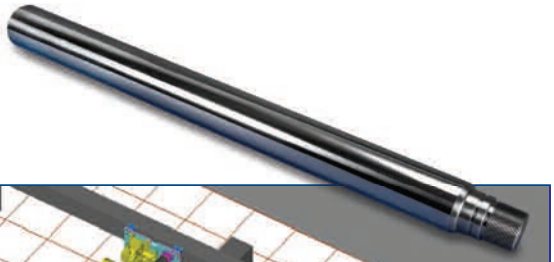
The robot moves in and picks the part regardless of location. Vision can identify random parts exiting the machine tool.

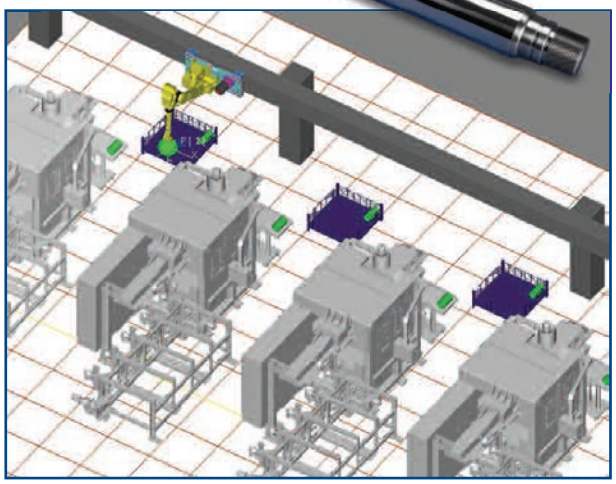


Random parts can be identified and placed in unique locations for further processing.

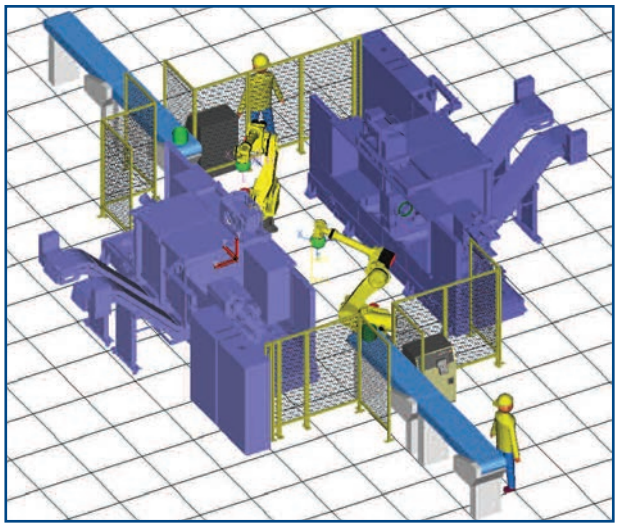
FANUC Robotics AUTHORIZED INTEGRATOR

AMT THE ASSOCIATION FOR MANUFACTURING TECHNOLOGY

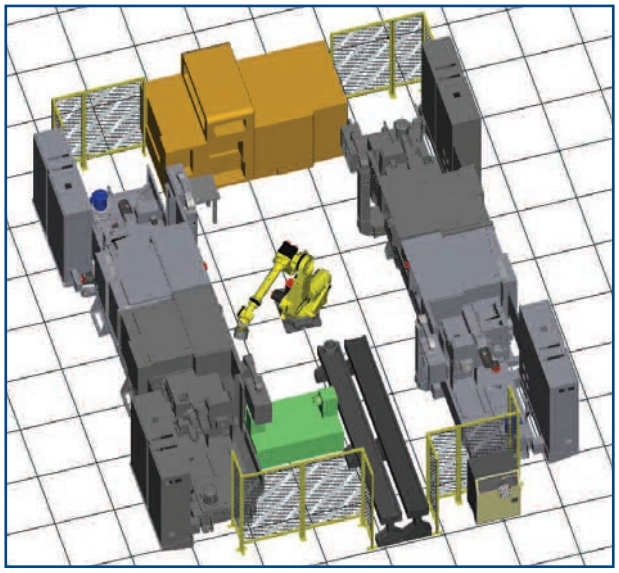




Verify robot movement and ability to service multiple locations.



Verify material flow through the cell and operator access.



Confirm optimum machine position and verify process output.

LOADERS AND

LOADERS

Bardons & Oliver has decades of experience building systems that process long tubes and bars to finished parts or precision blanks in one step. Applications include processing heavy wall tube, hot rolled seamless tubing, even chrome plated bar.

Bardons & Oliver is an expert at handling any length incoming tube or bar. Sawing blanks is eliminated. Response time is shortened.

Eliminate sawing. Reduce material handling. Loaders are constructed to handle bundles of tube or bar in random lengths.

Systems, typically built to handle 24' to 26' length material, can be built in any length configuration.

Stage multiple jobs. Maintain continuous operations.

UNLOADERS

UNLOADERS

- Operator fatigue from lifting heavy parts eliminated
- Uninterrupted production insured

Unload virtually any length or diameter workpiece from your turning center effortlessly with a Bardons & Oliver combination steadyrest/unloader. The technical team at Bardons & Oliver has an incredible range and depth of experience that can only be developed over decades of product development. Allow your machine operator to focus on higher level tasks while an automated unloading system handles thousands of pounds of finished parts throughout an 8-hour shift.

Unload a variety of finished parts. Combination unloaders handle high production of short blanks or long parts.

Handle long heavy parts. Servo style unloader extracts long parts from sub spindle lathe.

Protect finished parts from damage. Singulating unloader for parts made from chrome bar eliminates any risk of marking or scratching high precision parts.

Unload parts without interrupting production. Buck-style unloader collects finished parts for bundling. Unloader holds back parts and allows production to continue.