

Automation Solutions

Laser Automation



It's not where you are, it's where you're going.

SMARTFLEX

 MITSUBISHI LASER

MC MACHINERY
SYSTEMS, INC.
a subsidiary of Mitsubishi Corporation



Automation

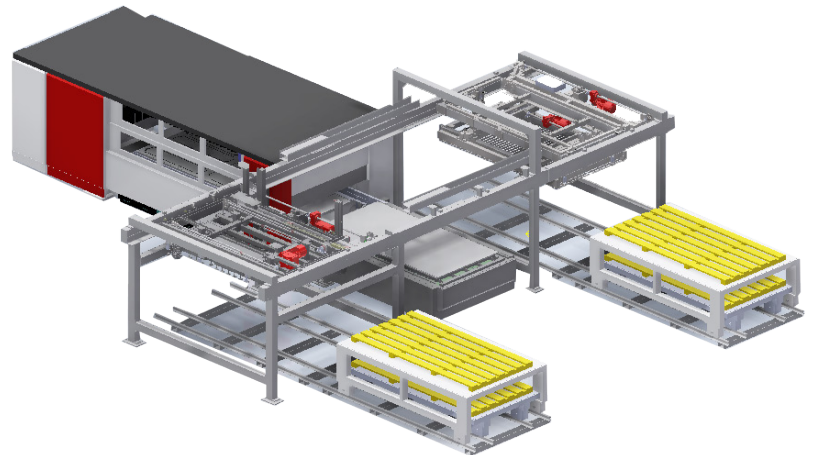
The industrial Laser World has evolved. Faster lasers require faster automation.
Mitsubishi's laser automation solutions have been engineered and manufactured for productivity and reliability. Your automation needs to keep up. With Mitsubishi, it will.

SMARTFLEX RAPID

Our Fastest Automation Option

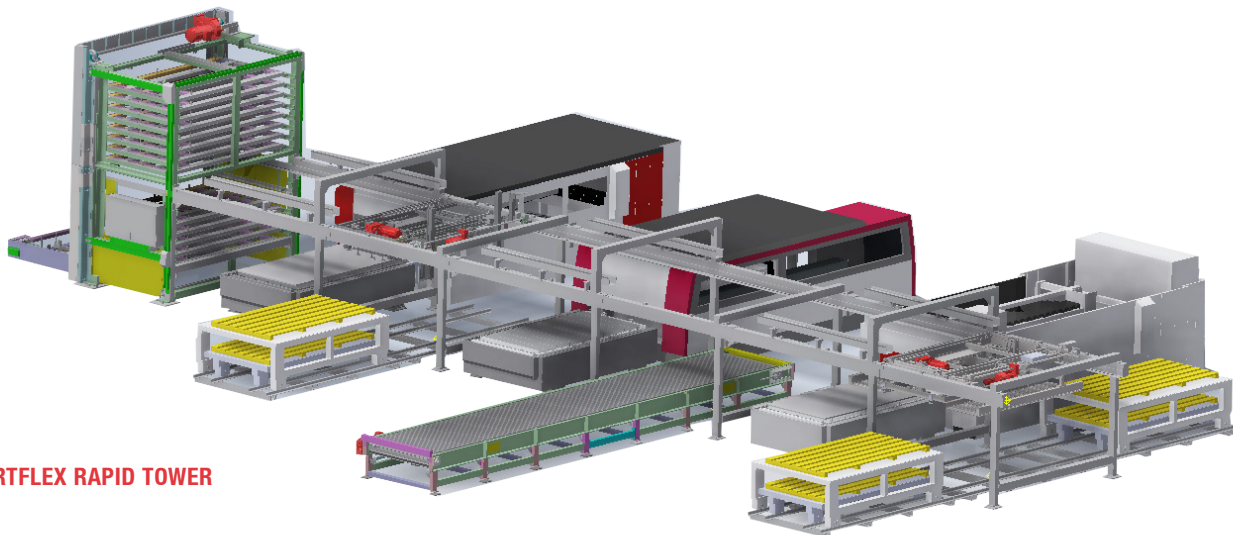
SmartFlex RAPID features an industry leading 52 second load/unload cycle time. With intelligent, fully independent load and unload units, the RAPID provides unrivaled speed and flexibility for multiple lasers. Confidently serve up to 4 lasers with one line.

SMARTFLEX RAPID BASE



SmartFlex RAPID Base

| | 3015 | 4020 |
|---------------------|---------------------|---------------------|
| Cycle Time | :52 Seconds | :62 Seconds |
| Load Weight Limit | 11,000 Lbs per cart | 11,000 Lbs per cart |
| Unload Weight Limit | 11,000 Lbs per cart | 11,000 Lbs per cart |
| System Footprint | 47'9" x 36'4" | 60'11" x 41'4" |
| Shelf Count (base) | Two Load Carts | Two Load Carts |
| | Two Unload Carts | Two Unload Carts |



SMARTFLEX RAPID TOWER

With dual automated SmartStation carts for both load and unload, the SmartFlex RAPID is as fast as it is flexible. Each SmartStation is capable of supporting 11,000lbs of raw material or finished goods.

SmartFlex RAPID Tower

| | 3015 | 4020 |
|---------------------|---------------------------|---------------------------|
| Cycle Time | :52 Seconds | :62 Seconds |
| Load Weight Limit | 6,600 Lbs per shelf | 6,600 Lbs per shelf |
| Unload Weight Limit | 11,000 Lbs per cart | 11,000 Lbs per cart |
| System Footprint | 48'1" x 40'8" | 60'7" x 48'10" |
| Shelf Count (base) | 8 Shelves | 8 Shelves |
| Shelf Count (Max.) | 22 Shelves (Single Tower) | 20 Shelves (Single Tower) |
| Max Tower Count | 3 | 2 |

Integrate a low profile storage tower with 6,600lbs per shelf capacity and you have a full FMS system that can grow with you.

- Available with up to 22 shelves, resulting in a capacity of over 145,000lbs of raw material.
- A second or even a third storage tower can be added to drastically increase capability.
- By configuring one shelf as a second load station, changing material types for multiple lasers takes no additional time.
- Shelf spacing is 90mm (3.5") for use without skids or available at 190mm (7.5") for skid compatibility.

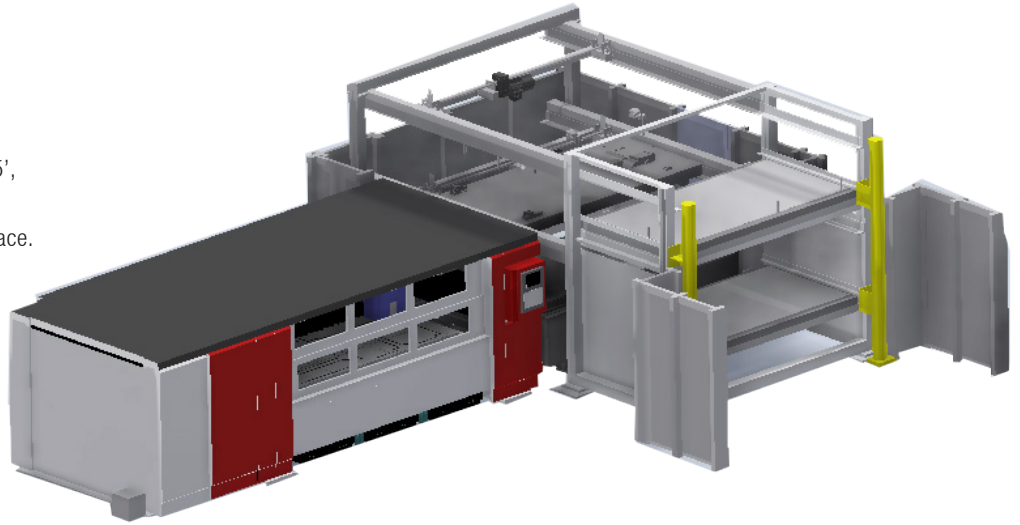
SMARTFLEX COMPACT

SMARTFLEX COMPACT BASE

With an installation footprint of less than 26' x 35', the SmartFlex COMPACT is a purpose-built load/unload for maximum productivity in minimum space.

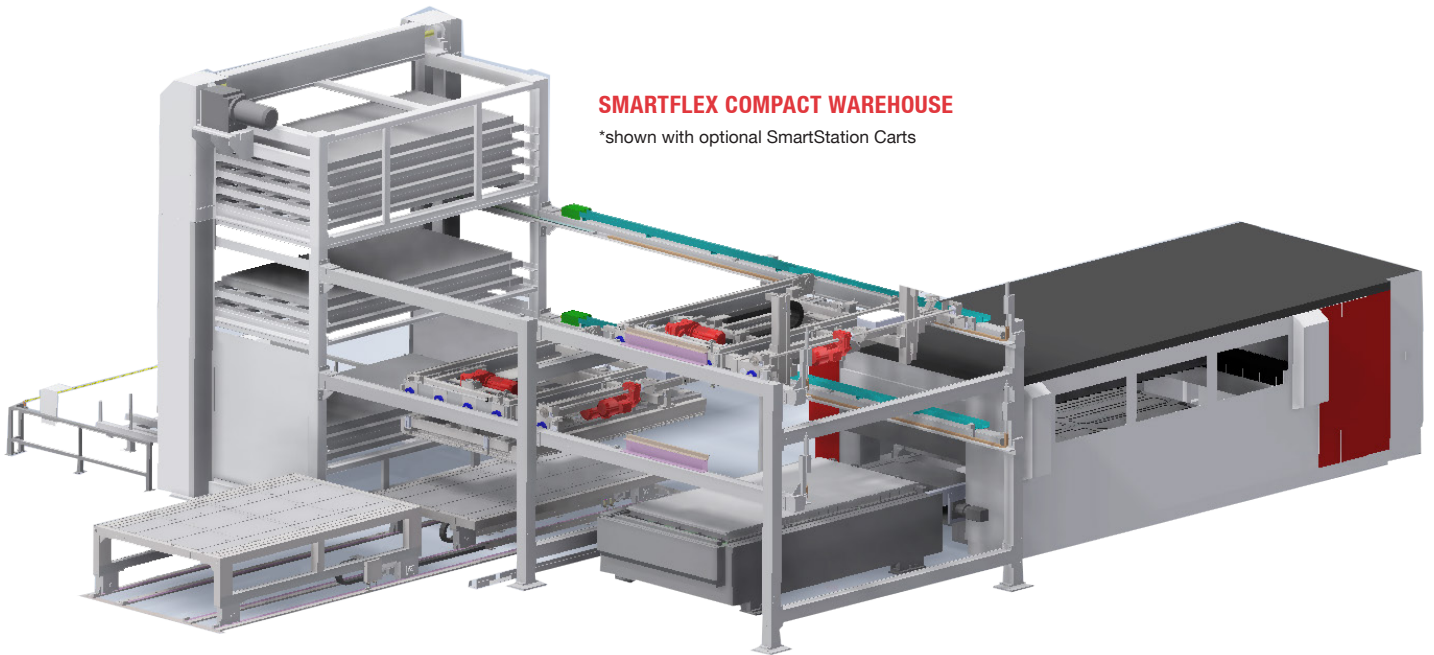
SmartFlex Compact Base

| | |
|---------------------|------------------------------------|
| Cycle Time | :75 Seconds |
| Load Weight Limit | 6,600 Lbs |
| Unload Weight Limit | 6,600 Lbs |
| System Footprint | 42' x 26' |
| Shelf Count (Base) | One Load Shelf One Unload Shelf |



SMARTFLEX COMPACT WAREHOUSE

*shown with optional SmartStation Carts



The COMPACT Warehouse is specially designed to work seamlessly with the SmartFlex COMPACT Base Module to deliver options to the user not found in most other systems. Finished sheets can be fed back into the storage tower for later use, or add a set of SmartStation carts for timelier de-nesting.

- Up to 16 shelves in a tower for maximum storage.
- Offload back to tower, SmartStation carts, conveyor, or a dedicated finished-goods tower.
- SmartFlex Compact PLUS for big storage in narrow spaces.

SmartFlex Compact Warehouse

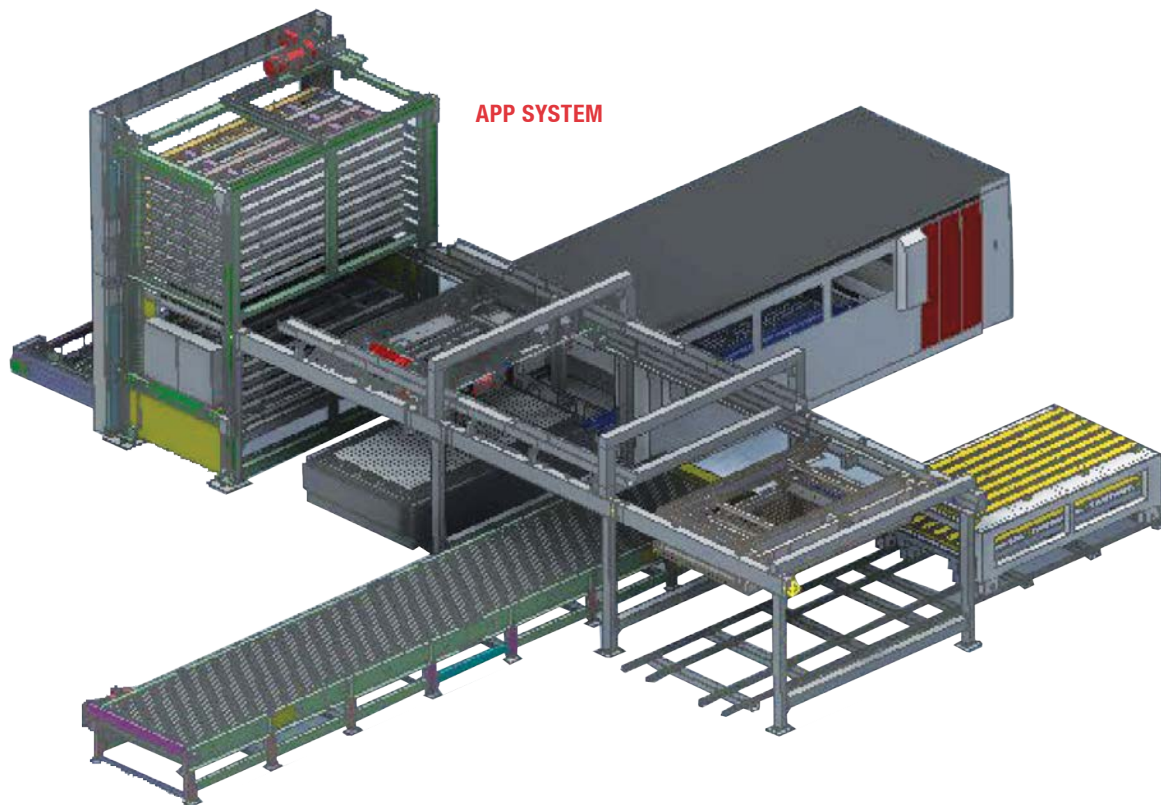
| | |
|-----------------------|-------------|
| Cycle Time | :75 Seconds |
| Load Weight Limit | 6,600 Lbs |
| Unload Weight Limit | 6,600 Lbs |
| System Footprint | 42' x 26' |
| Shelf Count (Base) | 6 Shelves |
| Shelf Count (Maximum) | 18 Shelves |

Additional Features

Our SmartFlex RAPID and COMPACT Automation designs take different approaches, but most systems maintain standard key features such as:

- Designed to be completely modular and expandable.
- Aerial Positioning ensures accurate sheet location without time consuming cutting head edge detection.
- Automatic Sheet Separation and Thickness Detection. Never cut the wrong material again.
- Heavy Duty Load AND Unload with full 1.0" thickness capability.
- Tower shelves with 6600lbs capacity.
- Automated SmartStation Carts with a full 11000lb each weight capacity.
- Available conveyor.

SMARTFLEX APP (Automated Part Picking)



Based on our SmartFlex RAPID laser automation, our A.P.P. Automated Part Picking system uses 320 independently controlled vacuum modules to pick only the parts from your skeleton!

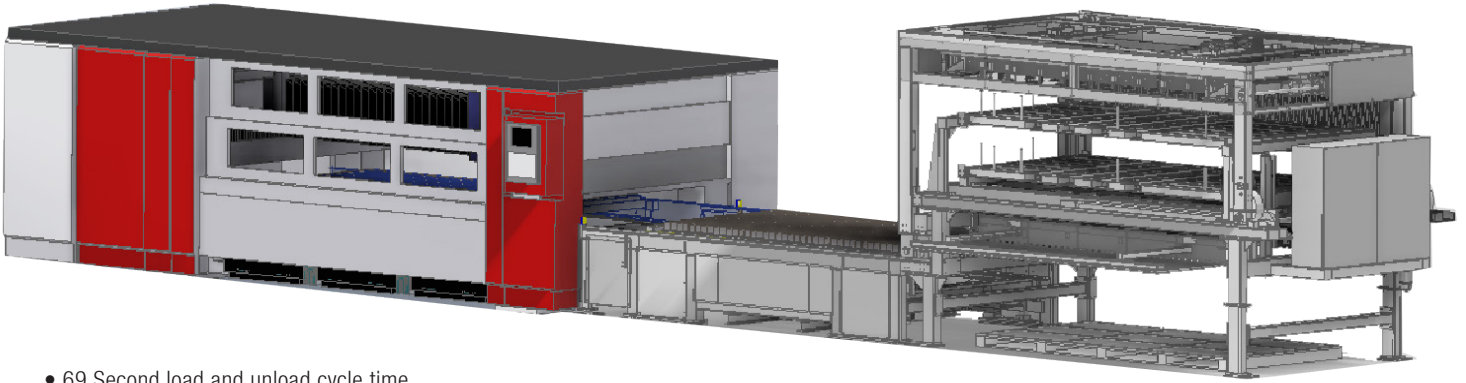
- De-Nests your parts automatically
- Pick an entire sheet of parts at once
- Eliminate tangled stacks of cut sheets
- Places parts on conveyor for easy access
- Removes scrap directly to carts
- Effective Range of .030"-.375" (.8mm-9mm)
- Load/Unload Capable of .75" (19mm)
- Available Scratch Free Conveyor

SmartFlex APP

| | |
|-----------------------|------------------------|
| Cycle Time | :52 Seconds |
| Load Weight Limit | 6,600 Lbs |
| Unload Weight Limit | 11,000 Lbs per cart |
| System Footprint | 57'7" x 51' (as shown) |
| Shelf Count (Base) | 8 Shelves |
| Shelf Count (Maximum) | 22 Shelves |
| Max Tower Count | 3 |

SMARTFLEX ELEMENT

SMARTFLEX ELEMENT



- 69 Second load and unload cycle time
- 15'x50' footprint including eX or SR laser
- Ideal for high production needs in narrow spaces
- Vacuum load with thickness detection and sheet separation
- Robust 3/4" sheet capacity
- Available second load station for additional flexibility

SmartFlex ELEMENT

| | |
|---------------------|---------------------------------------|
| Cycle Time | :75 Seconds |
| Load Weight Limit | 6,600 Lbs |
| Unload Weight Limit | 6,600 Lbs (Floor Mounted Skid) |
| System Footprint | 15' x 50' |
| Shelf Count (Base) | One Load Shelf One Unload Location |
| Max Shelf Count | 2nd Load Shelf Available |

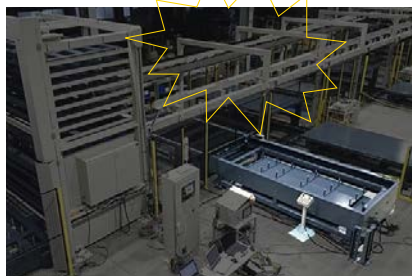
Productivity Options

HEAVY DUTY CONVEYOR



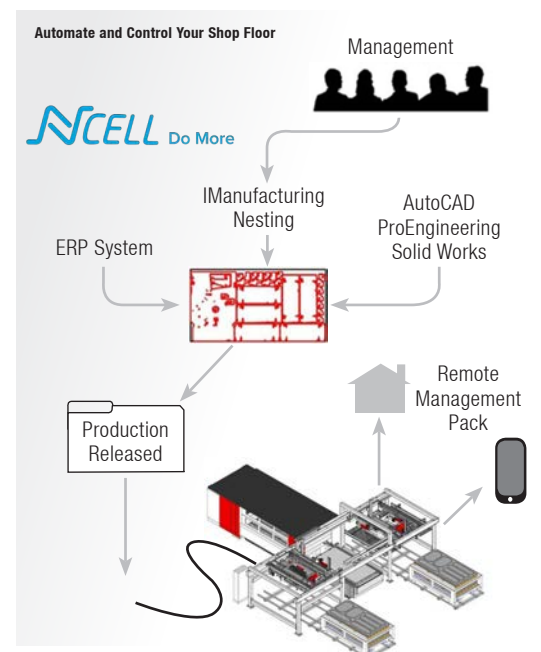
At 10.5M (34.4') long, will hold 3 full 5x10 sheets of material up to 1.0" and facilitates lean manufacturing by allowing de-nesting in the same order as cutting. Also available in standard duty, non-marring belt type.

BREAK IN STATION

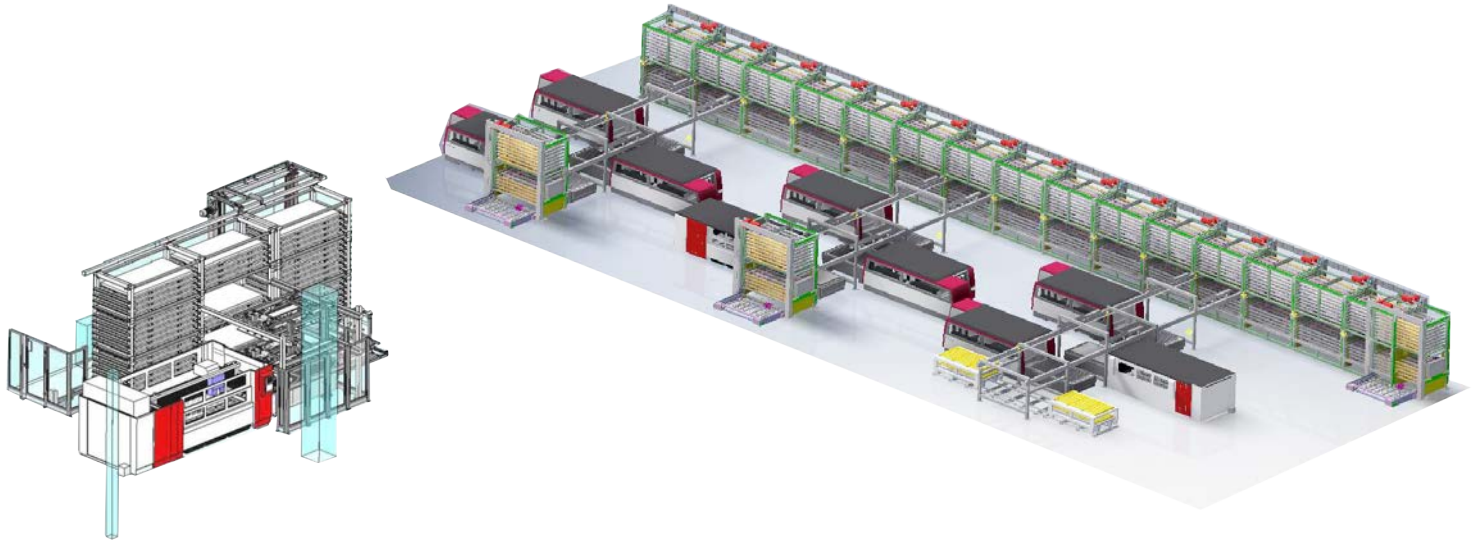


Allows loading or unloading of the laser independent from the Automation, giving you maximum flexibility. Want to break into production schedule for a hot job? ...Try THAT with another system...

NCELL SOFTWARE



SMARTFLEX RIVER



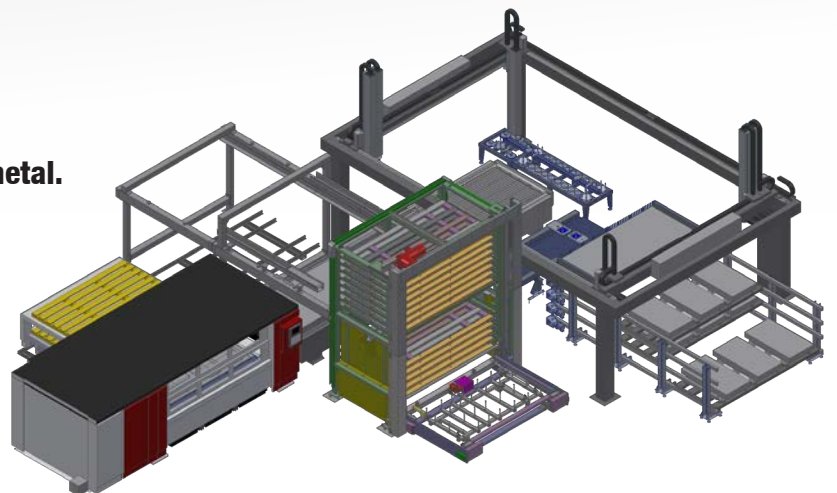
Virtually unlimited storage and machine capability. Start small or go big; the capacity is limited only by your requirements and imagination. Ask us how this custom system can work in your shop.

- Single or double line.
- Design machine access from any bay for the flexibility to fit any shop.
- Max 25 shelves per bay.
- Integrate our SmartFlex RAPID or COMPACT style systems.
- Return finished goods to the RIVER (when integrated with our COMPACT style feed system).
- Load weight 2720kg (6,000 lbs).
- Available with optional 190mm (7.5") shelf spacing for pallet compatibility.

ASTES4

Introducing the first fully integrated system for the cutting, sorting, and storage of sheet metal.

Mitsubishi Electric and ASTES4 - LASORTING - now bring you a single integrated multifunctional system capable of controlling the entire production process from loading, cutting, sorting, and unloading through to the storage of the finished parts.





Financing Solutions

MAC FUNDING CORPORATION

a subsidiary of  Mitsubishi Corporation

Simple, Fast & Easy

Being a fellow Mitsubishi Corporation company, MAC Funding is an integral part of MC Machinery Systems. We work closely with MC Machinery to ensure every transaction is fast and simple, saving you time, effort, and most importantly money.

Fast Track

For loans up to \$350,000, a signed loan application is all we need! The easy, one page application allows you to be approved within 24 hours. We also offer pre-approvals, allowing you to have your financing in place before you even decide on a machine!

630-860-4218 • info@macfunding.com



 **OVER 60 SERVICE LOCATIONS IN NORTH AMERICA**

THE MOST RESPONSIVE SERVICE AND SUPPORT IN THE INDUSTRY

With more than 200 employees, our regionalized Service Network is the most advanced and responsive team in the industry. We're here for you with phone support, operation training, on-site service, parts inventory, and a robust, interactive website.

From installation and on-site training to support and service throughout the life of your system, our national service network is just a phone call away. No other company has a greater depth of experience and resources than Mitsubishi and MC Machinery Systems. Access 24/7 support with our interactive website, a detailed interactive parts catalog, printable machine manuals, and software.



ABOUT MC MACHINERY SYSTEMS

MC Machinery Systems customers get the best of both worlds: A single source for a diverse arsenal of manufacturing technologies and our expansive and knowledgeable support network. Our expertise spans virtually every aspect of metalworking—from simple fabrication to CNC-driven, automated manufacturing cells.



APPLICATION SUPPORT

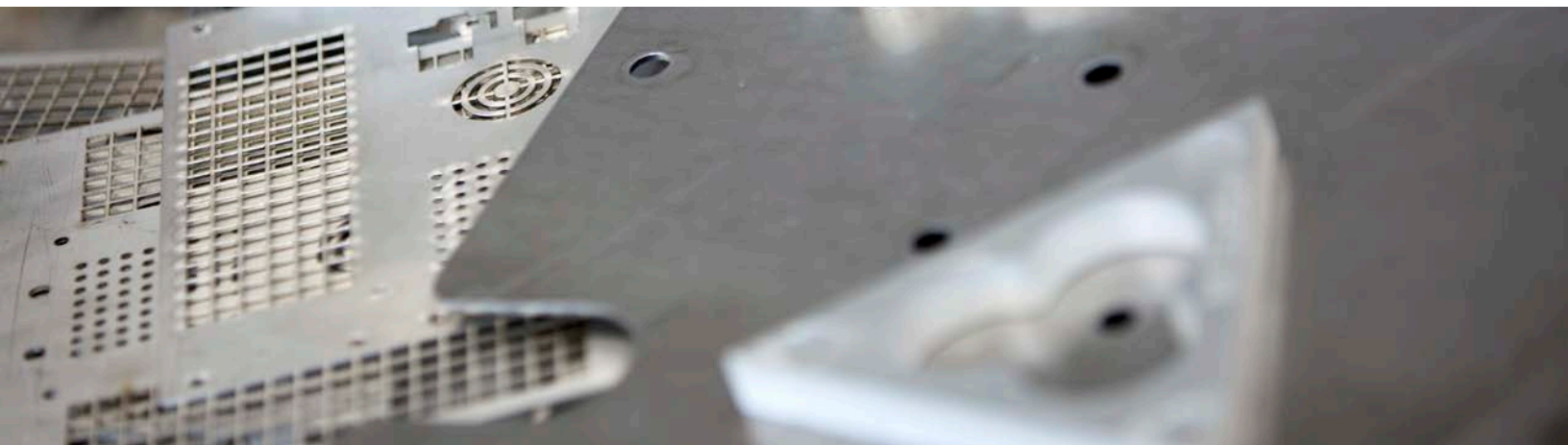
The value of our support stretches well beyond service, parts, and training. Our smart, experienced and creative team members put their knowledge and problem solving skills to work for you—offering application and engineering support that goes above and beyond what most suppliers can provide.

Having the widest range of manufacturing technology and expertise gives us the ability to create specialized shop-floor setups that work harder and get better results. Whether developing integrated manufacturing cells from the ground up, or adding specific solutions to complement existing operations, our pre-sales, sales, installation, and application support staff can help you eliminate bottlenecks, improve accuracy, and drive throughput.

MITSUBISHI CORPORATION

As part of the global Mitsubishi Corporation, MC Machinery Systems draws from an extensive global source of support and innovation. Mitsubishi Corporation employs more than 60,000 people around the world, across a wide spectrum of industries, including machine tools and controls, automotive, aerospace, industrial machinery, elevator, energy, metals, chemical, food, and textile. This diversity, strength, and stability trickles down to MC Machinery Systems customers—who benefit from Mitsubishi's massive global R&D efforts and widespread knowledge base.

To learn more about Mitsubishi Corporation, visit www.mitsubishicorp.com.



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