

Automation Solutions





SMARTFLEX

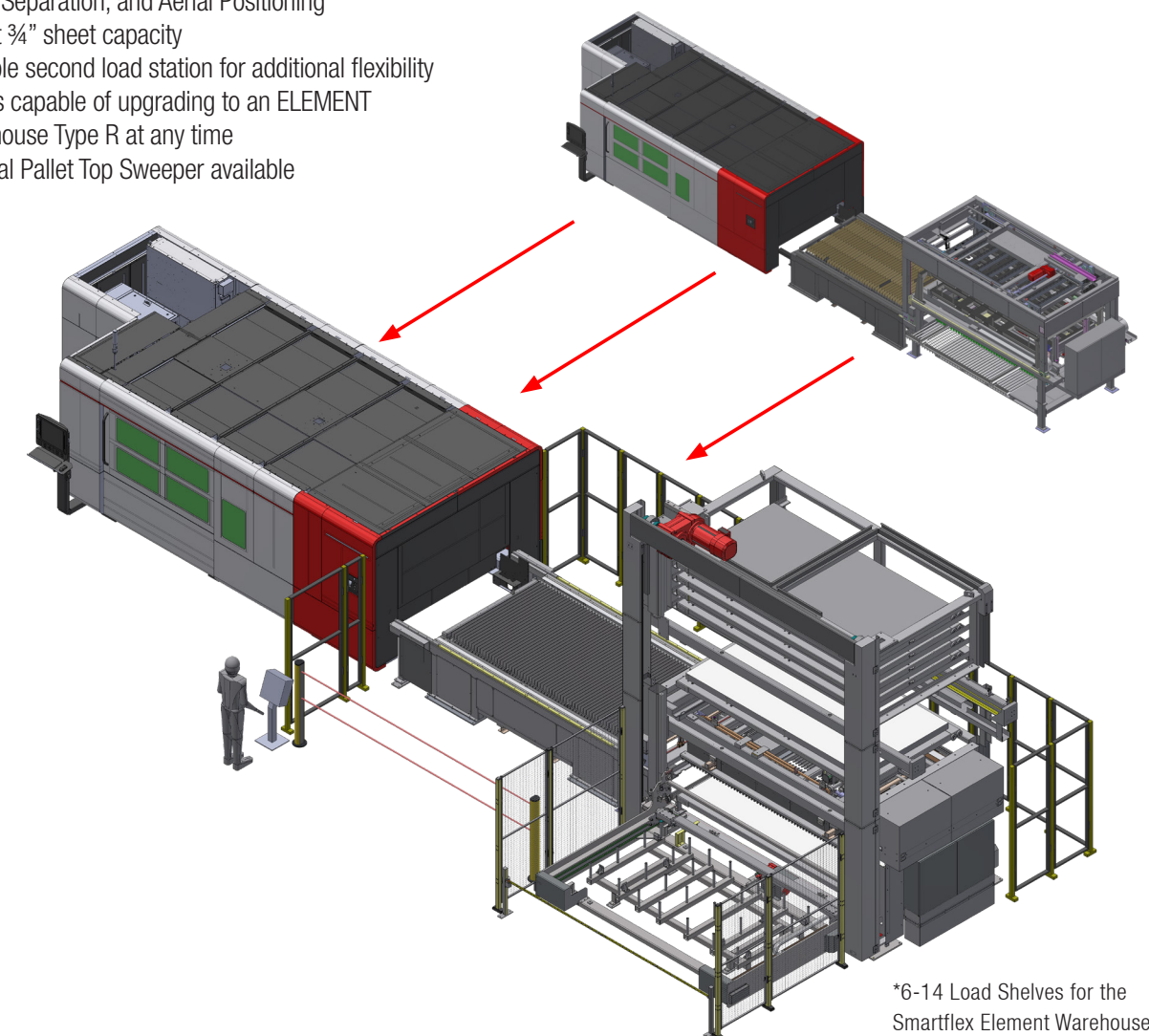
ELEMENT TYPE R

Great For Limited Floor Space

SmartFlex ELEMENT Type R

- Available as a Base with two raw material pallets or a Warehouse with 6 to 14 shelves
- Under 80 second load and unload cycle time
- 19'x 51' footprint including GX Laser and safety guarding
- Ideal for high production needs in narrow spaces
- Vacuum load with Thickness Detection, Sheet Separation, and Aerial Positioning
- Robust 3/4" sheet capacity
- Available second load station for additional flexibility
- Base is capable of upgrading to an ELEMENT Warehouse Type R at any time
- Optional Pallet Top Sweeper available

	SmartFlex ELEMENT Type R	SmartFlex ELEMENT Type R Warehouse
Cycle Time	:80 Seconds	
Load Weight Limit	6,600 Lbs	
Unload Weight Limit	6,600 Lbs (Floor Mounted Skid)	
System Footprint	23' x 53'	
Shelf Count (Base)	Two Load Shelves One Unload Location	6-14 Load Shelves One Unload Location



*6-14 Load Shelves for the Smartflex Element Warehouse Type R

AUTOMATION

The industrial Laser World has evolved. Faster lasers require faster automation.

Mitsubishi laser automation is modular and flexible, so we can grow with you. From a simple dual pallet machine to automatic part sorting and material inventory systems with many options in-between, the only limits to how you can improve your productivity and profit margins is your own imagination.

Thanks to our wide range of options—including configurations that require 30% less floor space than typical laser automation setups—we have solutions for any application.

Mitsubishi's laser automation solutions have been engineered and manufactured for productivity and reliability. Your automation needs to keep up. With Mitsubishi, it will.



**One source.
Endless expertise.**

MC Machinery Systems, a subsidiary of Mitsubishi, is the U.S.-based supplier and servicer of Mitsubishi Electric laser and automation systems, drawing from an extensive global source of support and innovation.

Our expertise spans virtually every aspect of metalworking—from simple fabrication to CNC-driven, automated manufacturing cells. Serving industries including aerospace, mold and die, job shops, medical, and energy, MC Machinery is headquartered in the

Chicago area, with technology centers in Concord, N.C.; Cypress, Calif.; Pine Brook, N.J.; Dallas, Tex.; Querétaro, Mexico; and Richmond Hill in Ontario, Canada.

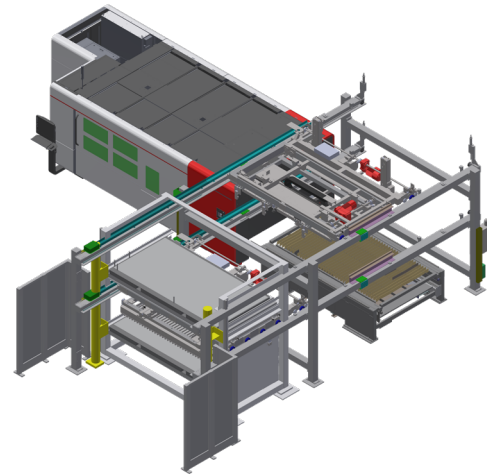
SMARTFLEX COMPACT PLUS

Nearly Unlimited Growth Potential

SmartFlex COMPACT Plus Base

With an installation footprint of 32'x 36' (3015) or 38'x47' (4020), the SmartFlex COMPACT Plus Base is a purpose-built load/unload for maximum productivity in minimum space.

SmartFlex COMPACT Plus Base	3015	4020
Cycle Time	:75 Seconds	:85 Seconds
Load Weight Limit	6,600 Lbs per cart	6,600 Lbs per cart
Unload Weight Limit	6,600 Lbs per cart	6,600 Lbs per cart
System Footprint	32' x 36'	38' x 47'
Shelf Count (base)	One Load Shelf	One Load Shelf
	One Unload Shelf	One Unload Shelf

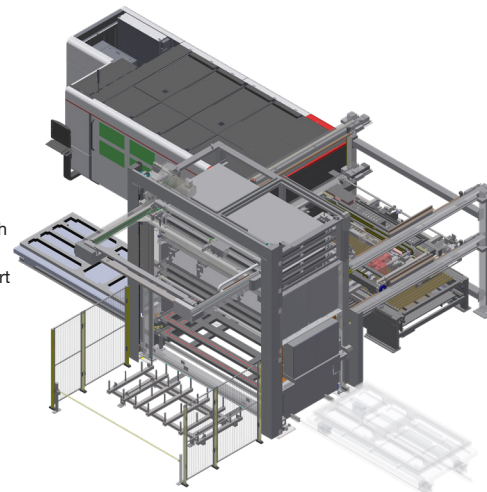


SmartFlex COMPACT Warehouse Plus

The COMPACT Warehouse Plus is specially designed to work seamlessly with the SmartFlex COMPACT Plus 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, Transfer Cart*, or conveyor for timelier de-nesting.

SmartFlex COMPACT Warehouse Plus	3015	4020
Cycle Time	:75 Seconds	:85 Seconds
Load Weight Limit	6,600 Lbs per cart	6,600 Lbs per cart
Unload Weight Limit	6,600 Lbs per cart	6,600 Lbs per cart
System Footprint	34'6" x 36'	43' x 47'
Shelf Count (base)	6 Shelves	6 Shelves
Shelf Count (Max.)	34 Shelves (Double Tower)	30 Shelves (Double Tower)
Max Tower Count	2	2

*Shown with optional Transfer Cart



All of the Under Warehouse Offload Options can be configured to either side of the system for added flexibility

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

ADDITIONAL FEATURES

All of our SmartFlex Automation Solutions 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 (3/4" on ELEMENT Type R).
- Tower shelves with 6600lbs capacity.
- Automated SmartStation Carts with a full 11000lb each weight capacity.
- Available conveyor.

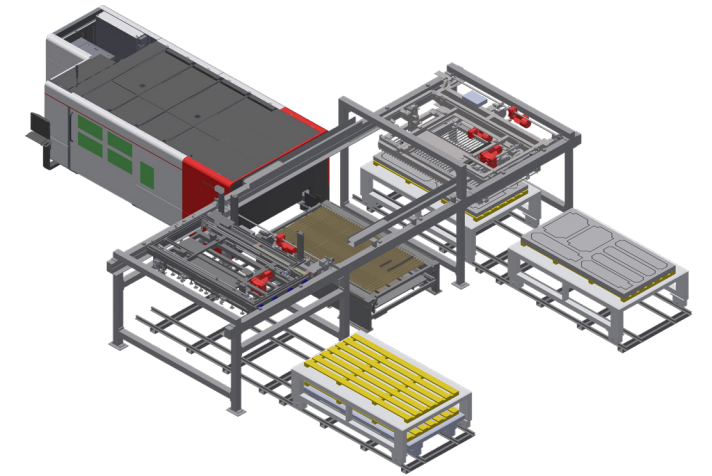
SMARTFLEX RAPID

Our Fastest Automation Option

SmartFlex RAPID Base

SmartFlex RAPID features an industry leading 52 second (3015) or 62 second (4020) 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 four lasers with one line.

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

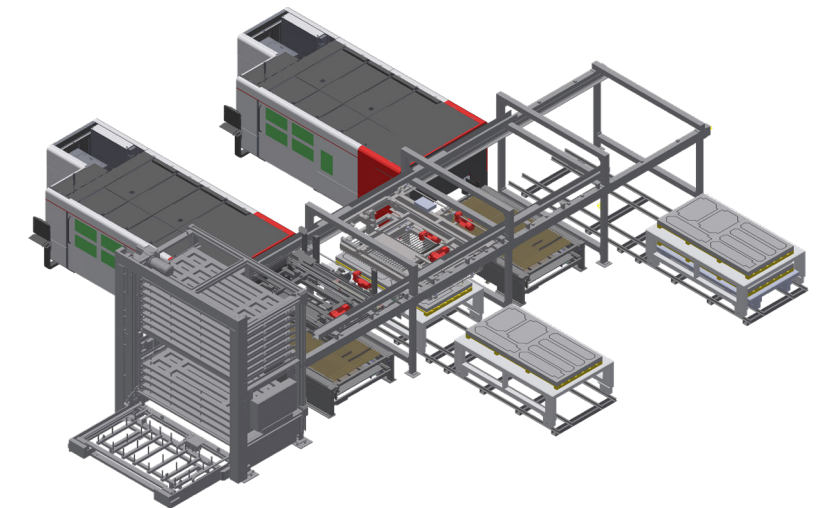


SmartFlex RAPID Tower

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.

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

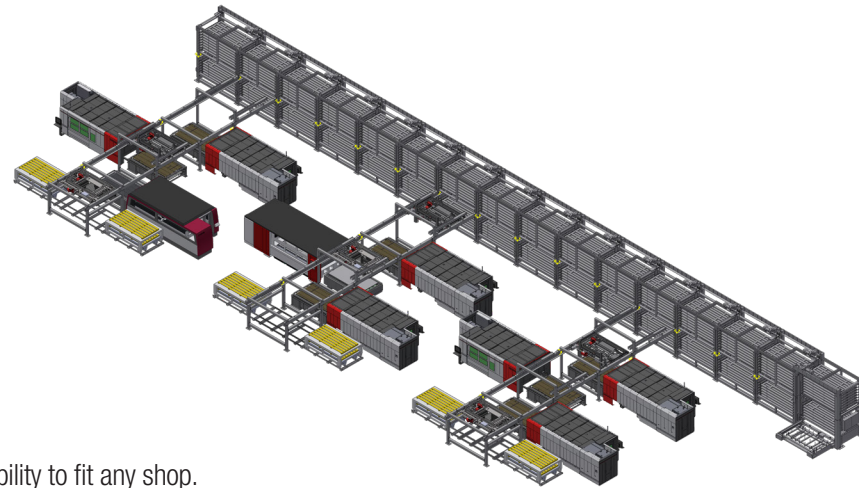
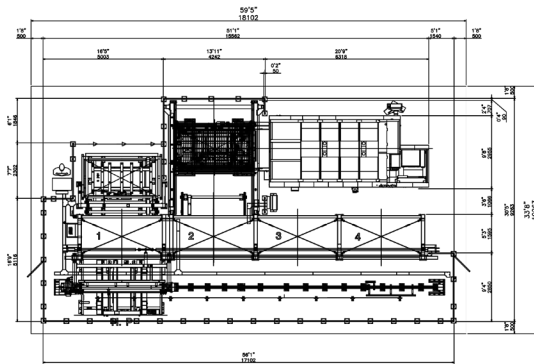
- Available with up to 22 shelves, resulting in a capacity of over 145,000lbs of raw material.
- A second or even a third storage tower can be added to drastically increase capacity to up to 71 shelves.
- By configuring one shelf as a second load station, changing material types for multiple lasers takes no additional time.
- Shelf spacing is 90mm (3.5") for use without skids or available at 190mm (7.5") for skid compatibility.
- Optional Pallet Top Sweeper available



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.)	71 Shelves	42 Shelves
Max Tower Count	3	2

SMARTFLEX RIVER SYSTEM

Maximize Workflow Efficiency



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 Load/ Unload 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.

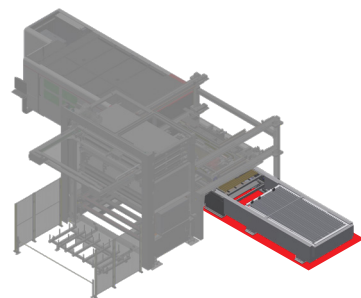
PRODUCTIVITY OPTIONS

Heavy Duty Conveyor



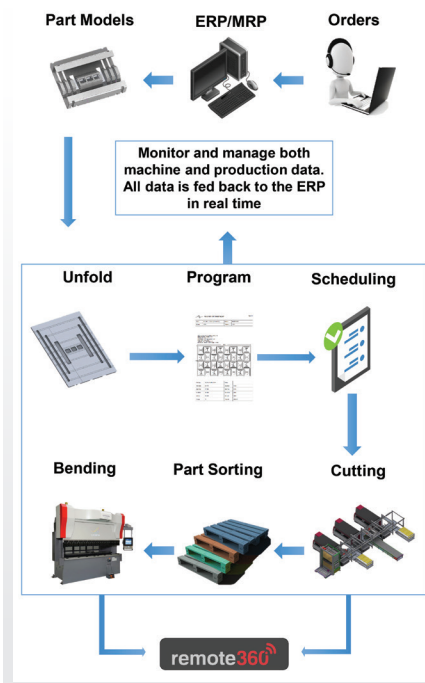
Our fully integrated conveyor options are available in either two or three sheet lengths, capacity of ½" or 1.0". Conveyors greatly facilitate lean manufacturing by allowing de-nesting in the same order as cutting.

Break In Station



Our Break-In Station adds a third laser production pallet which extends beyond our automation systems. This permits easier loading or unloading of remnants, break-in jobs, or to allow integration with our ASTES4 Advanced Part Sorting system.

DiamondFab Software



ASTES4

All In One Solution

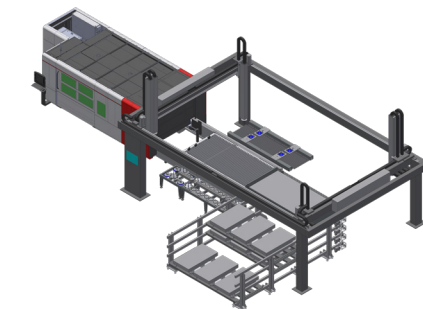


ASTES4

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

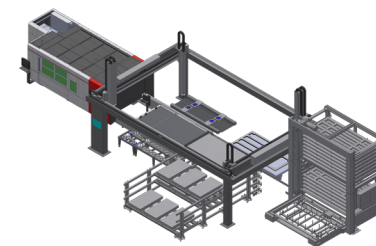
Mitsubishi Electric and ASTES4 - LASORTING - now bring you a single integrated multifunctional system capable of controlling the entire production process from loading, cutting, sorting, and unloading through to the storage of the finished parts.

STANDARD PRODUCTION CELL



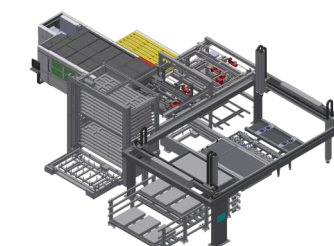
Standard cell is available in configurations and weight capacities to align with your shop's needs.

CUSTOM PRODUCTION CELL



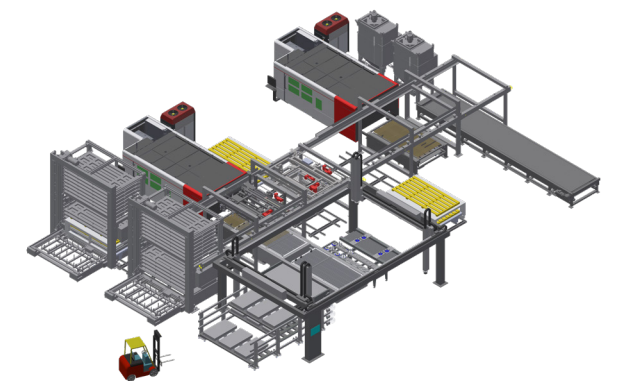
ASTES4 Plus

ASTES4 with the added storage of our High Capacity Warehouse.



ASTES4 Advanced

The advanced capabilities of ASTES4 integrated with the industry's fastest automation system.



Expandability

Our legendary expandability allows virtually unlimited product options.

PREMIER TRAINING, SERVICE AND SUPPORT



MC RP 2,000 3 21

Regionalized Service Network

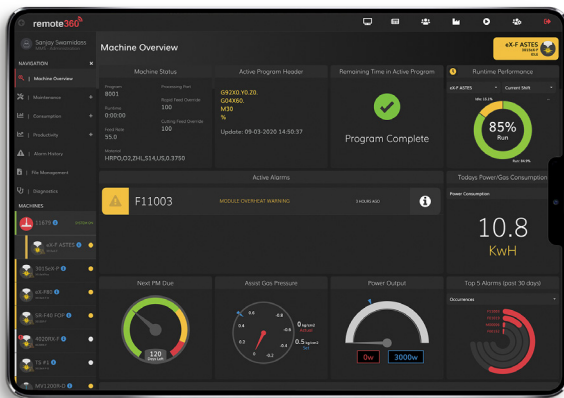
With our industry-leading regionalized service network, we have the most experienced, knowledgeable and responsive employees in the industry. We're here for you with phone support, operation training, on-site service, parts inventory and a robust, interactive website.

- With regionalized locations throughout North America, we can respond promptly to your service needs.
- We have the largest fleet of service vehicles in the field—three times more than any other company in the industry.
- 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.
- You'll have access to 24/7 support, a detailed interactive parts catalog, printable machine manuals and software.

Application Support

The value of our support stretches well beyond service, parts and training. Our experienced and creative team members put their knowledge and problem-solving skills to work for you—offering application and engineering support that includes creating 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.

remote360[®]



remote360[™] Machine Monitoring

The GX-F ADVANCED Series has a two-year machine tool warranty for parts and labor and a five-year oscillator parts warranty. Also included is two years of the remote360 machine monitoring software system.

remote360 is a robust production monitoring and support solution offering real-time data to help increase productivity, improve efficiency and reduce downtime. It provides:

- Email and mobile notifications of stoppages, completions and maintenance warnings
- Dashboard display of runtime performance by shift, day, week and month
- Proactive support with real-time monitoring and remotely connected service technicians



Remote Diagnostics



Predictive Maintenance



Two Years of remote360 Support



Consumption Monitoring

MC MACHINERY SYSTEMS, INC.
a subsidiary of Mitsubishi Corporation