

I FA-1 Medium-sized Robot/ Compact automation solution

~ Practical, Easy to Operate and Affordable!

FA-1 + FANUC ROBODRILL Combination Options



FANUC ROBODRILL
X-axis 700

Simple and Safe

*Meets the Automation Needs of Small and Medium Product Series

FA-1 is your fully integrated solution for automation in production. With flexible robot units, you can combine various processing steps with minimal personnel investment, providing universal support for both **High Mix small and large volume production**.

It can be used as a standalone unit, combined with a machine tool, or as a component in a broader production line.

FA-1 offers integrated automation solutions suitable for both small and large batch production.

What you can do with FA-1.



- ✓ FA-1 is a feeding system that can load materials and work in conjunction with industrial robots.
- ✓ It is suitable for milling, turning, cleaning, and inspection feeding systems.
- ✓ FA-1 can be used with single or multiple processing machines, depending on the production requirements.
- ✓ It can be used with various types of processing machines, such as milling machines, lathes, or turning-milling combination machines. The planning mode can be 1 to 1, 1 to 2, or 1 to 3, providing increased integration and versatility.
- ✓ FA-1 has multiple drawers and a large storage capacity, allowing for the arrangement of workpieces based on their size.
- ✓ FA-1 ensures the safety of the workers while the robot is carrying out loading and unloading operations on the other side.
- ✓ The tray size of FA-1 is 30.75 x 19" / 780X480 mm, making it particularly suitable for medium-sized workpieces or for placing quick-change clamping modules. The tray can still be manually handled by one person after loading the workpiece.
- ✓ FA-1 is equipped with a touch panel, providing a visible, user-friendly production schedule interface.
- ✓ The control system uses an industrial computer, enabling flexible communication with peripheral machines.

Medium-sized Robot for material/drawer storage warehouse system



multi-layer drawers

Advantages.

• Advantage 1:

- Continuous material replenishment enables uninterrupted production
- Suitable for heavier and larger parts
- Features multiple drawers and extensive storage capacity
- High storage capacity for lights out and holiday production time

• Advantage 2:

- User-friendly touch panel for operation
- Visualization of production status for intuitive learning
- PC-based system for easy communication and integration with peripheral systems
- The system can record multiple production items for quick changeovers.
- The system can record error messages for information collection
- The system is highly autonomous, with minimal operator intervention

Medium-sized Robot for material/drawer storage warehouse system

Advantages.



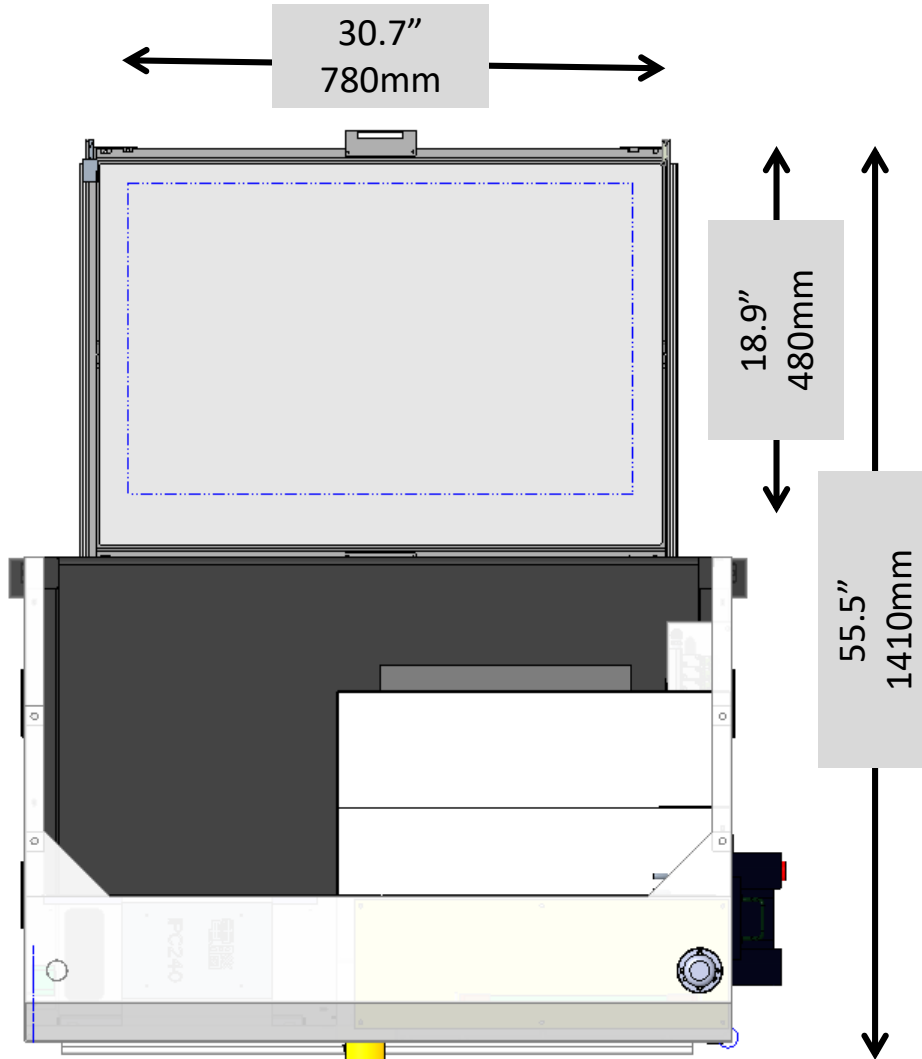
- **Advantage 3:**

- Robot can be located above the drawers, close to the machine
- Modular system for easy integration with machines

- **Advantage 4:**

- The system moves independently and is highly autonomous
- The system can be used with multiple applications, enabling rapid changes without affecting production

Drawer Specifications



• Specifications:

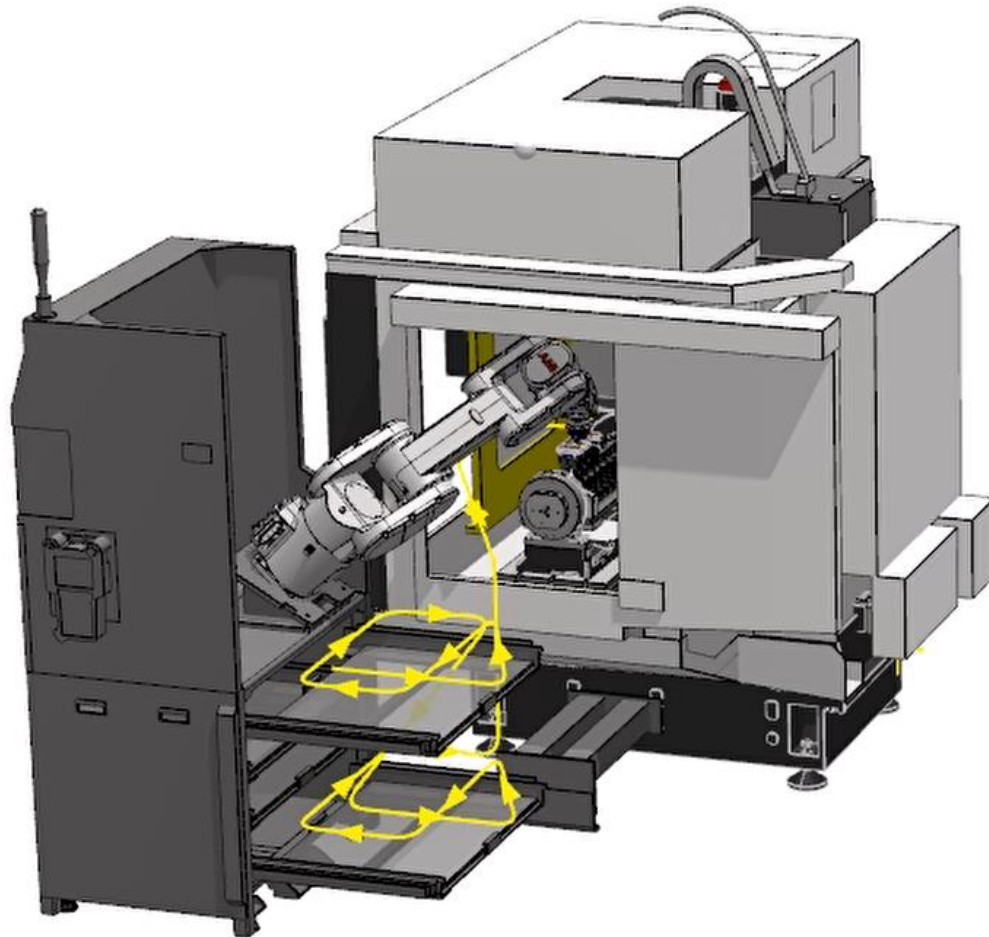
- Internal space within the drawer (inside the dashed lines): Width 30.75 x19"/780mm * Length 480mm
- Material: Aluminum
- Single-layer height: Approximately 5.1"/130mm, with a total of
- 4 layers
- Maximum load capacity per single layer: 176 lbs./80 kgs .

• Reference for tray placement quantity:

Part dimensions ("/mm)	Part height ("/mm)	Single layer quantity (units)	Total number of storage bins (units)
1.4x1.8/36x46	1.1 / 27	144	576
3.25x2.75/83x70	1.4 / 35	35	140

* the actual placement of materials and weight depends on design specifications.

Configuration of Machine Tool Space



- **Compatible CNC Machine Models:**

- Compatible with CNC model: FANUC ROBODRILL X-axis travel: 19.7"/500mm/27.5"/700mm

- **Arm pick-and-place workflow:**

- Demonstrates the actions of the top and bottom drawers ◦

- **Application recommendations:**

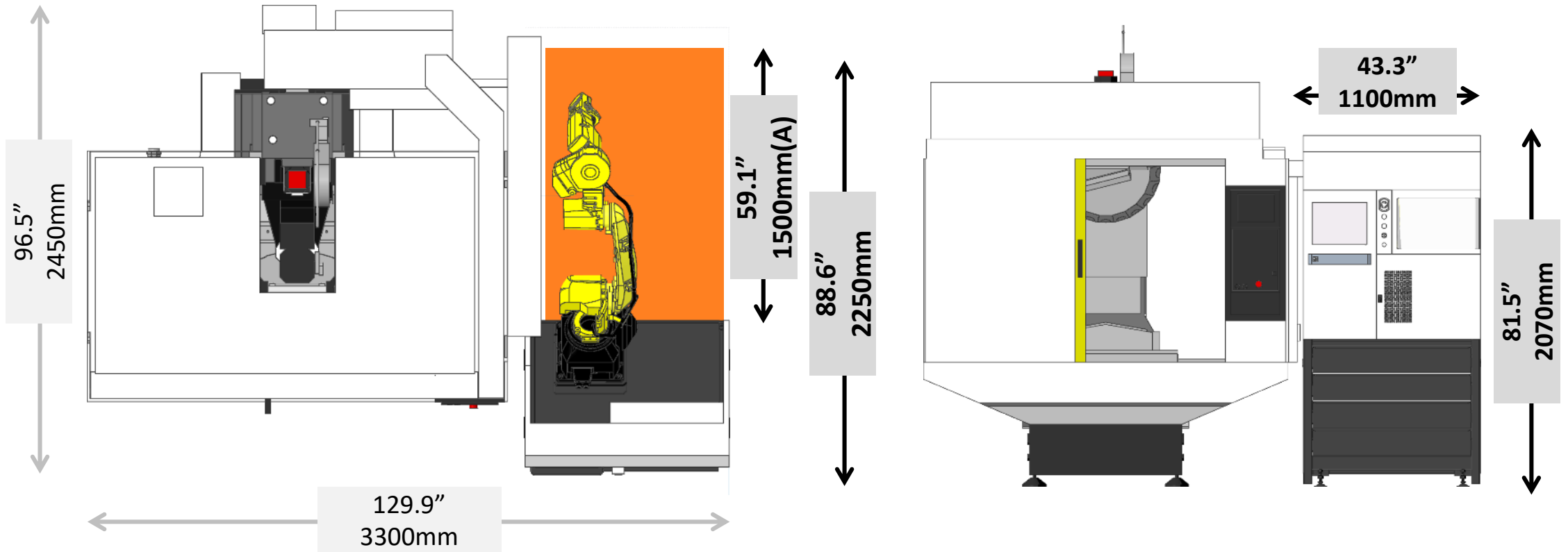
- Suitable for use with four-axis or five-axis mid-plate designs to reduce pick-and-place distances.

Robot, Communication, and Footprint Specifications



		Description		
Robot Type		FANUC Or as per customer requirements		
	FANUC Type	M10iD/12	M20iD/25	M20iA/35M
	Payload robot	26.4lb/12kg	55lb/25kg	77/35kg
	FANUC Max. reach("/mm)	56.75" /1441mm	72" /1831mm	72" /1813mm
Interface Specifications	Interface specifications	Standard configuration	IO-Link	
		Optional	Physical I/O cards, hardware, etc.	
Footprint Specifications	Dimensions:			
	Length * Width * Height ("/mm)	29.5x43.3x81.5 / 750*1100*2070		
	FANUC ROBODRILL X-axis700 Total Integrated Footprint("/mm)	130x96.5x100.75 / 3300*2450*2560		

Footprint Illustration



*A- Robot range of motion

Application Areas



Ideation. Realization.



- **Ideation:**

- We understand that business owners want to know how automation affects finances, what its cost's are, and what advantage it can bring to you. Therefore, automation's primary purpose is to enable the company's ability to compete in the long run.
- When it comes to the implementation of CNC automation in the production line, the challenge is not in choosing the brand and price of robotic arms but in planning the utilization of automation. The needs of each business owner vary, with differences in facilities, manpower, products, and more. These factors cannot be resolved simply by comparing prices.
- It's ideal when repetitive tasks and production of products during nights and weekends can be carried out with greater autonomy through automation!
- Planning for automation is highly customized, but we believe we can assist you through this process.

Ideation. Realization.



- **Realization:**

- Like procuring CNC machines, there are many peripheral considerations that need to be taken into account, with utilization rates being the main one. After evaluating your organizational manpower, product output, process sequences, inspection requirements, facility layouts, information flow configurations, etc. , we will provide a planning diagram that aligns with your expectations, ensuring successful implementation.
- Planning doesn' t account for all variables , but our years of integration experience demonstrate that we can help you realize your needed automation plan. The only thing left now is for you to call us!
- **We welcome you to contact us and look forward to working together to achieve your automation goals.**



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