

# **I PB-1 Plastic Bin Model**

## **Automation solution**

**~ Practical, Easy to Operate and Affordable**



## Simple . practical

\*Meets the Automation Needs of Small and Medium Product Series

**PB-1** is your complete automated production integration solution. This flexible robotic unit combines various processing steps needing minimal personnel investment, and offers universal support for both small and large batch production.

**It** can be used as a standalone unit, in conjunction with one or multiple machine tools, or as a component within a broader production line.

**PB-1** is an integrated automation solution suitable for **High Mix small and large volume production.**

# PB-1 Paired with CNC schematic diagram



# What you can do with PB-1?



- ✓ PB-1 is a material loading system that integrates with industrial robots. It is suitable for use in conjunction with milling, turning, cleaning, inspection, or other feed systems.
- ✓ PB-1 can be configured alongside one or multiple processing machines as part of the production operation.
- ✓ Features stackable plastic bins to maximize storage capacity.
- ✓ This system is ideal for relatively small to medium-sized robots.
- ✓ PB-1's cart design facilitates material replacement by personnel, and it can accommodate common plastic bin specifications.
- ✓ Utilizing a touchscreen panel, PB-1 offers visual display of the production progress, enhancing user-friendliness and intuitiveness.
- ✓ Its control system is built on an industrial computer framework, enabling flexible communication with peripheral machines.

# Front-entry Type -Plastic Bin silo system



## Advantages.

- **Advantage 1 :**
  - Applicable for the automation of loading and unloading objects placed in plastic bins.
  - The cart can store 3-4 plastic bins, extending production cycle.
  - The cart can be moved independently, enabling material transfer between different work areas.
  - Non-stop material replenishment for continuous production.

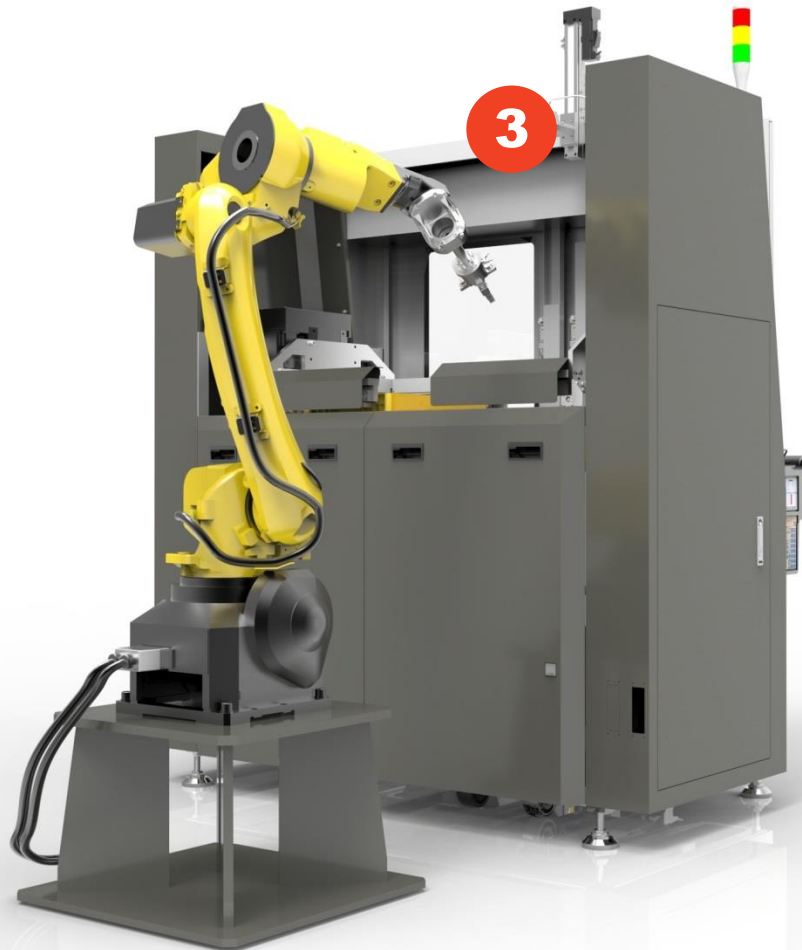
# Front-entry Type -Plastic tray silo system



## Advantages.

- **Advantage 2 :**
  - Touchscreen panel for user-friendly operation.
  - Display of production status for intuitive learning.
  - PC-based system, easily integrates with peripheral systems for communication.
  - The system can store multiple production items, enabling quick changeovers.
  - The system can record error messages for information collection.
  - The system is highly autonomous with minimal operator intervention needed.

# Front-entry Type -Plastic tray silo system

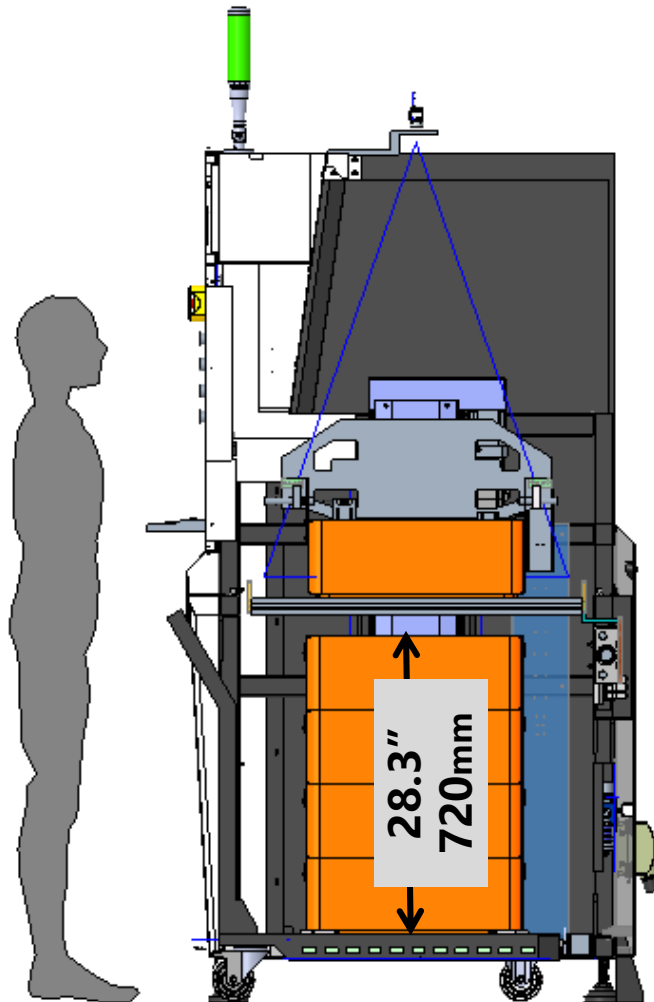


## Advantages.

### • Advantage 3 :

- Compatible with vision systems.
- Visual recognition height is fixed locating within the plastic basket.
- The visual system can be used with workpieces placed arbitrarily, recognized by the robot and then picked and placed into the machine tool.
- Suitable for use with **High Mix small volume**, diverse products, and quick changeovers.

# Basket allows space

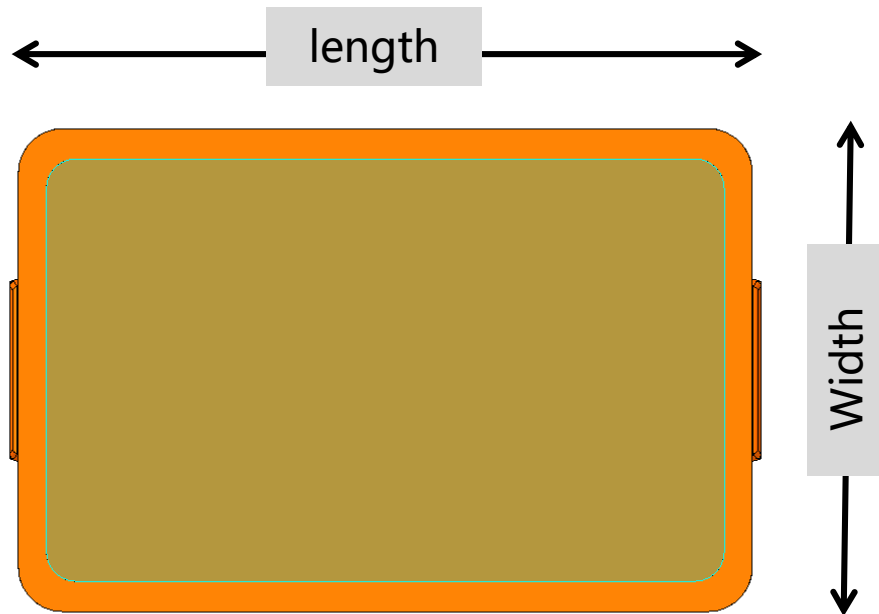


## Features:

- **Material truck transfer:**
  - Technician directly stacks the plastic bins containing placed objects onto the cart for transportation..
  - The cart can stack plastic bins with dimensions up to 24" x16.5" / 610mm x 420mm in area..
  - The cart has a maximum load capacity of 176lb / 80 kg.
  - The plastic bins allow stacking up to a height of 28.3" / 720mm.
  - 【\*Actual quantity is subject to final design considerations.!】



# Plastic basket specification range



- **Specifications:**

- Plastic bins (external dimensions) can accommodate sizes within: width 24" x16.5" /610mm x length 420mm.
- Applicable: Plastic baskets, storage containers (limited to rigid and well-structured containers that do not deform when gripped).
- Single basket allows a load capacity of 44lb/20 kg (actual capacity depends on the load-bearing capacity of the plastic basket).

- **Quantity reference for tray placement:**

Exterior length*width*height( "/mm)	Total number of stackable carts (pieces)
19.6x12.9x7 /498x327 178	4
24x16.5x8.1 /610x420x205	3

\* Actual placement of materials and weight depends on design specifications.

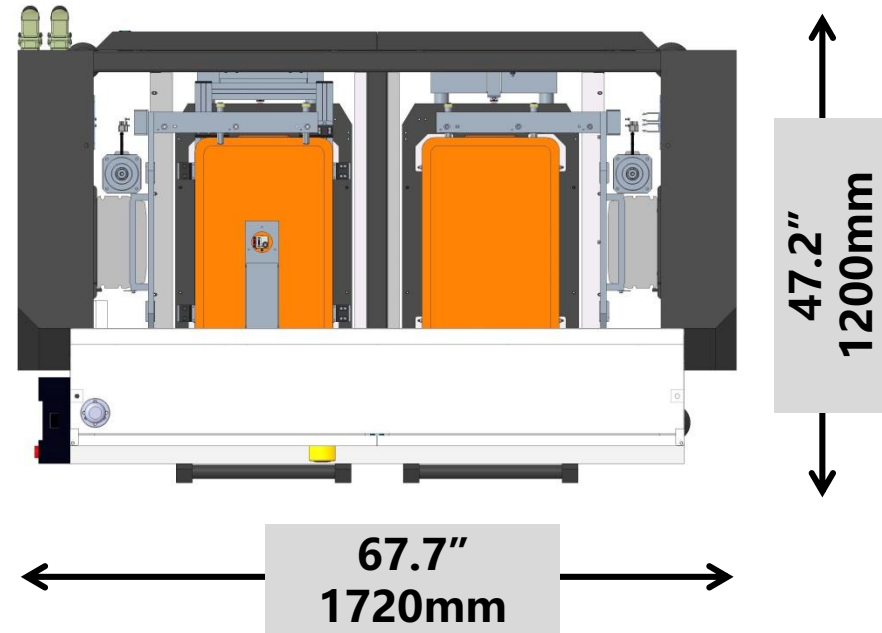
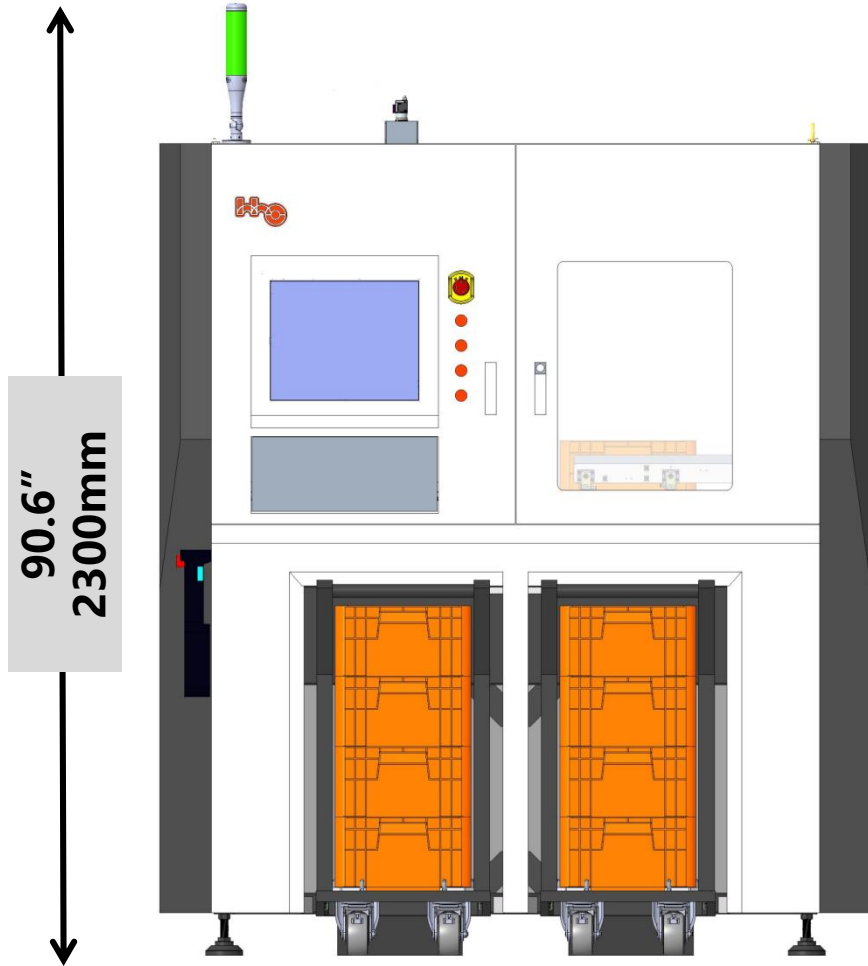
# Robot, Communication, and Footprint Specifications



		Description		
		FANUC Or as per customer requirements		
<b>Robot Type</b>	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
<b>Interface Specifications</b>	Interface specifications	Standard configuration	IO-Link	
		Optional	Physical I/O cards, hardware, etc.	
<b>Footprint Specifications</b>	<b>Dimensions:</b>			
	Length * Width * Height ( "/mm)	67.7" x47.2" x90.6" / 1720mmx1200mmx2300mm		

# Footprint Illustration

單位 : mm



# 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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**Taichung, Taiwan P:8864-2249-3490 F: 8864-2249-2446 E:**

**[marlinauto@bbluesman.com](mailto:marlinauto@bbluesman.com) W: [bbluesman.com](http://bbluesman.com)**