

# MOD-PAL<sup>®</sup>

ROBOTIC PALLETIZING SIMPLIFIED



Manufactured By

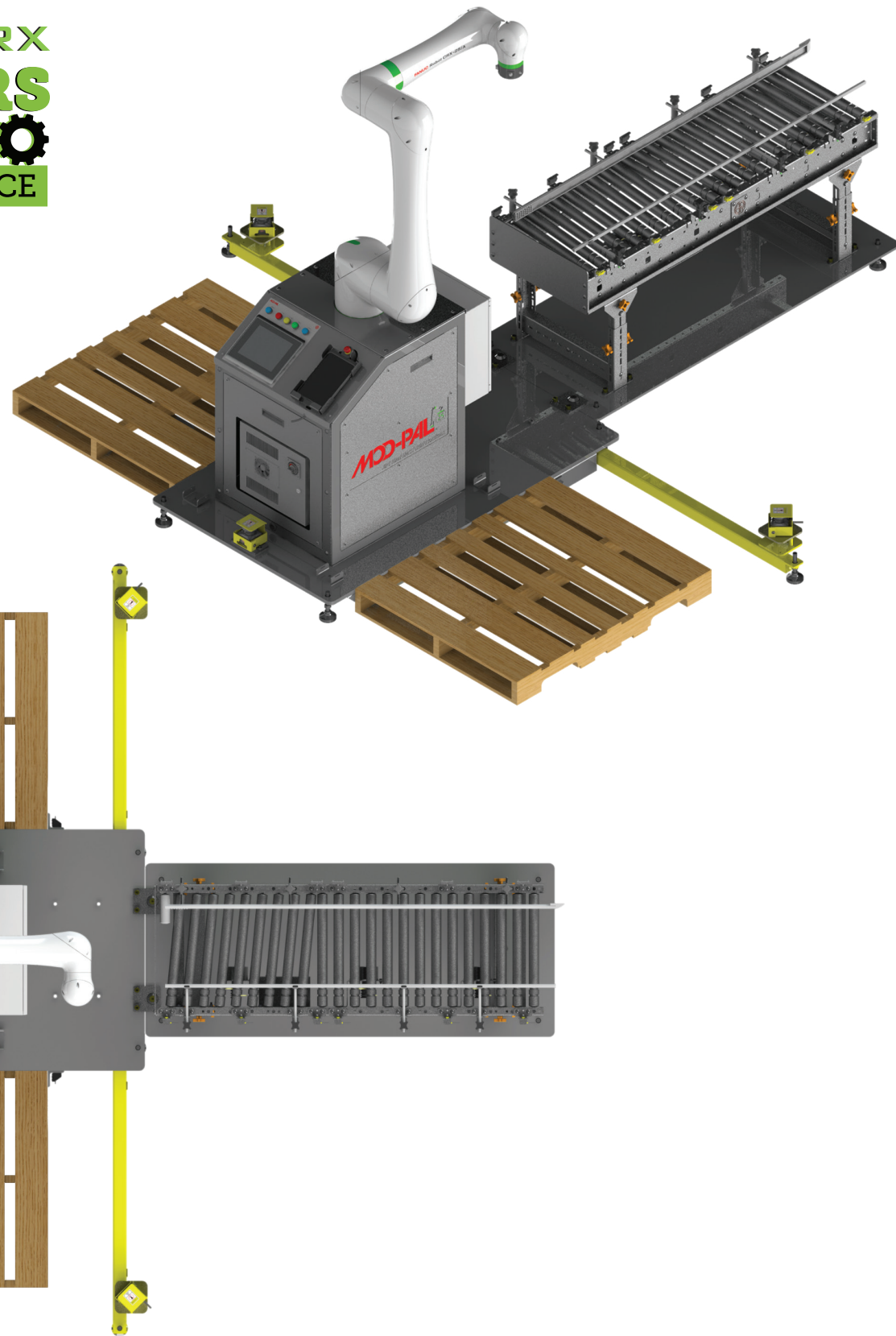


# TABLE OF CONTENTS

CRX-25 Floor Level Example.....	3
Modular Units .....	5
1 In 1 Out Floor Level Example .....	7
1 In 2 Out Floor Level Example .....	9
2 In 2 Out Floor Level Example .....	11
1 In 1 Out Pass-through Conveyor Example.....	13
2 In 2 Out Pass-through Conveyor Example.....	15
1 In 1 Out Over/Under Conveyor Example.....	17
2 In 2 Out Over/Under Conveyor Example.....	19
Controls Made Simple with Visual Factory Concepts .....	21
An In-Depth Look at the Operator Interface .....	22

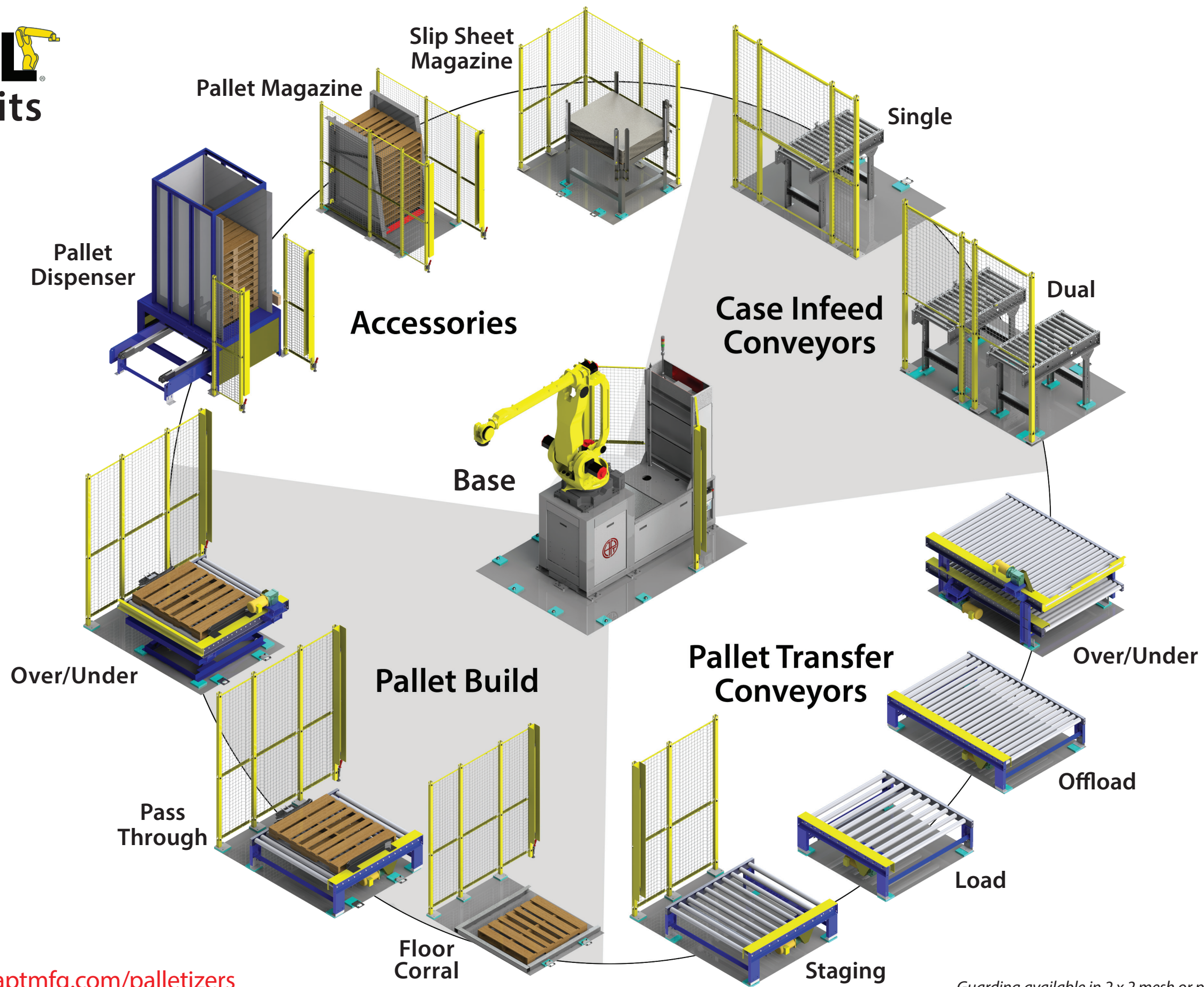
# CRX-25 Floor Level Example

**FANUC CRX**  
**8 YEARS**  
**ZERO**  
**MAINTENANCE**



## **MOD-PAL** **FEATURES & SPECS**

Model	MOD-PAL® 25
Robot	FANUC CRX 25 Cobot 120 vts
Warranty	8 year Zero Maintenance, Service for Life
Max unit load height (including pallet)	65"
Case rate (picks/minute)	Single Pick and Place, 7 case per minute max
Compact footprint	Portable with Pallet Jack or Lift
User-defined pallet pattern	✓
Pre-engineered cell configurations	✓
Standard patterns	Interlock or Column
Standard layers	Flipped or Non-flipped
Case sizes	9" x 5" x 5" to 24" x 17" x 16"
Pallet dispenser	✗
Pallet Type	All types, 40" x 48"
Stretch wrap-ready	✓
EOAT	Product-specific
Powered roller infeed conveyor	Includes a 2-zoned power conveyor
Pallet jack accessible	✓
Forklift accessible	✓
Safety	Area Scan
Rockwell PLC/HMI	Included
Utilities	Requires Air 80psi and 120 VAC 20AMP

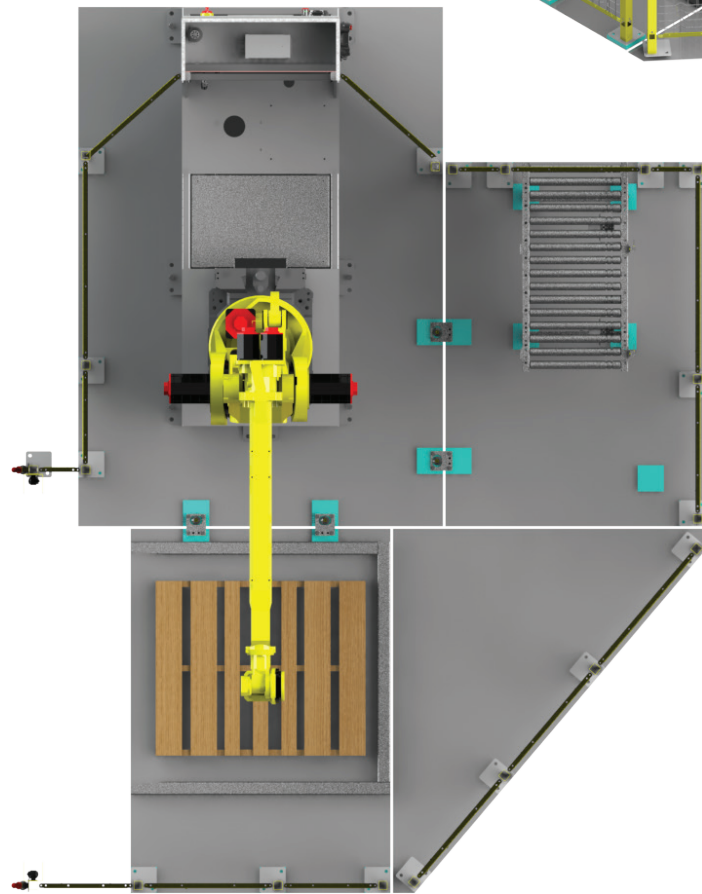


Build your system at [aptmfg.com/palletizers](http://aptmfg.com/palletizers)

Guarding available in 2 x 2 mesh or polycarbonate and 60", 30" and 45°.

# 1 In 1 Out Floor Level Example

## MOD-PAL<sup>®</sup> FEATURES & SPECS

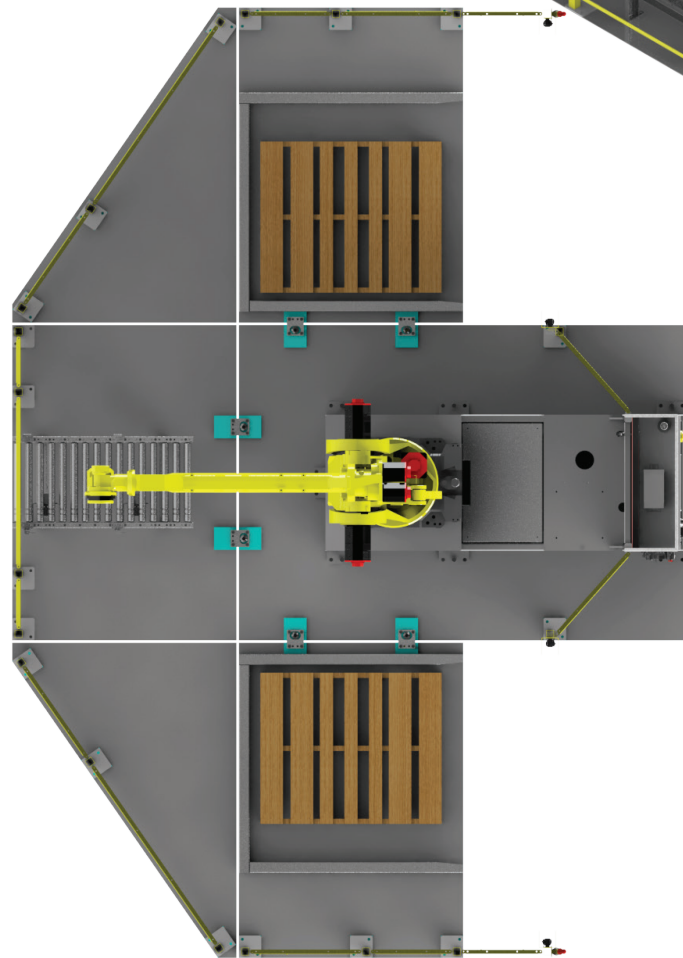
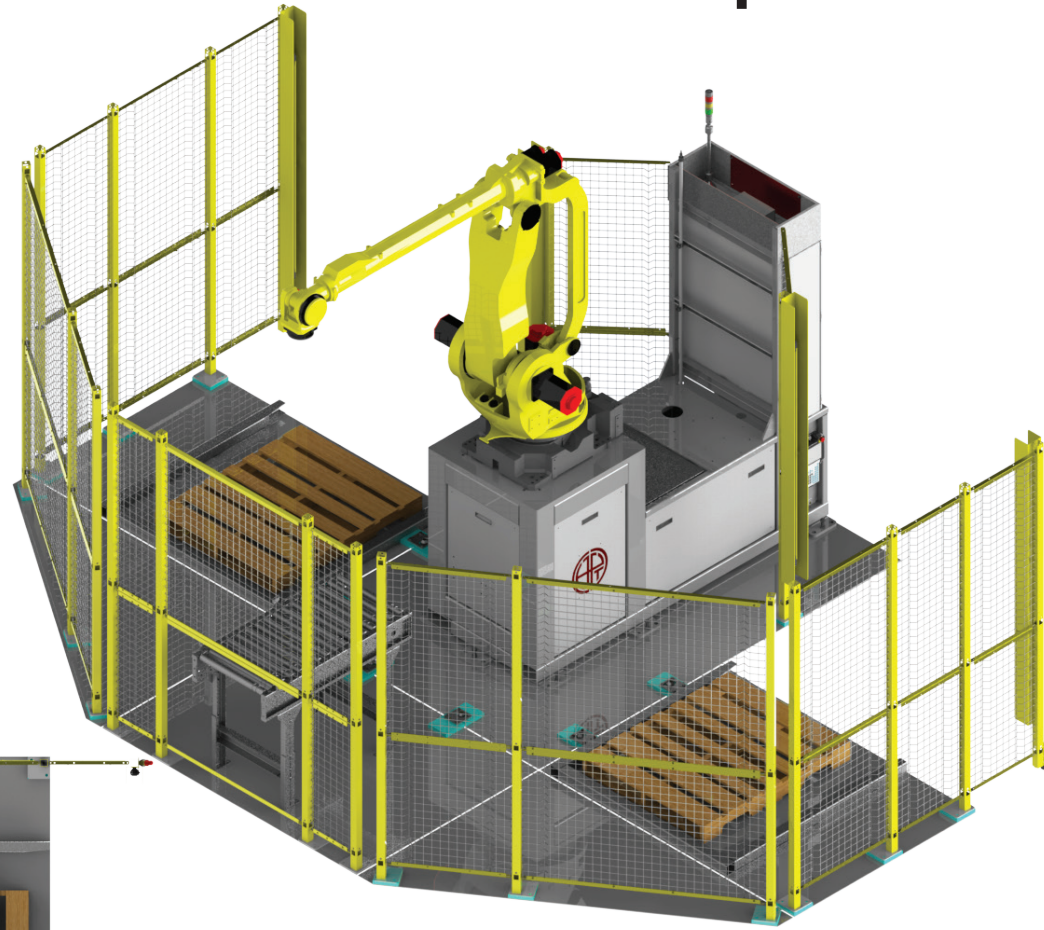


### MOD-PAL 80 Configuration shown:

Qty	Description
1	Robot Base Unit
1	Pallet Floor Corral
1	Single Infeed
1	45° Platform with Door
1	Lot Fencing and Safety

Model	MOD-PAL <sup>®</sup> 80	MOD-PAL <sup>®</sup> 140
5-axis robot	FANUC R1000iA/80H	FANUC M410iB/140H
Payload	up to 80 lbs.	up to 110 lbs.
Max unit load height (including pallet)	78"	94"
Case rate (picks/minute)	12 ppm	12 ppm
Compact footprint	✓	✓
User-defined pallet pattern	✓	✓
Pre-engineered cell configurations	✓	✓
Standard patterns	Interlock or Column	Interlock or Column
Standard layers	Flipped or Non-flipped	Flipped or Non-flipped
Case sizes	9" x 5" x 5" to 24" x 17" x 16"	9" x 5" x 5" to 24" x 17" x 16"
Slip sheet magazine option	✓	✓
Pallet dispenser	X	X
Stretch wrap-ready	X	X
EOAT	Product-specific	Product-specific
Powered roller infeed conveyor	1	1
Pallet jack accessible	✓	✓
Forklift accessible	✓	✓

# 1 In 2 Out Floor Level Example



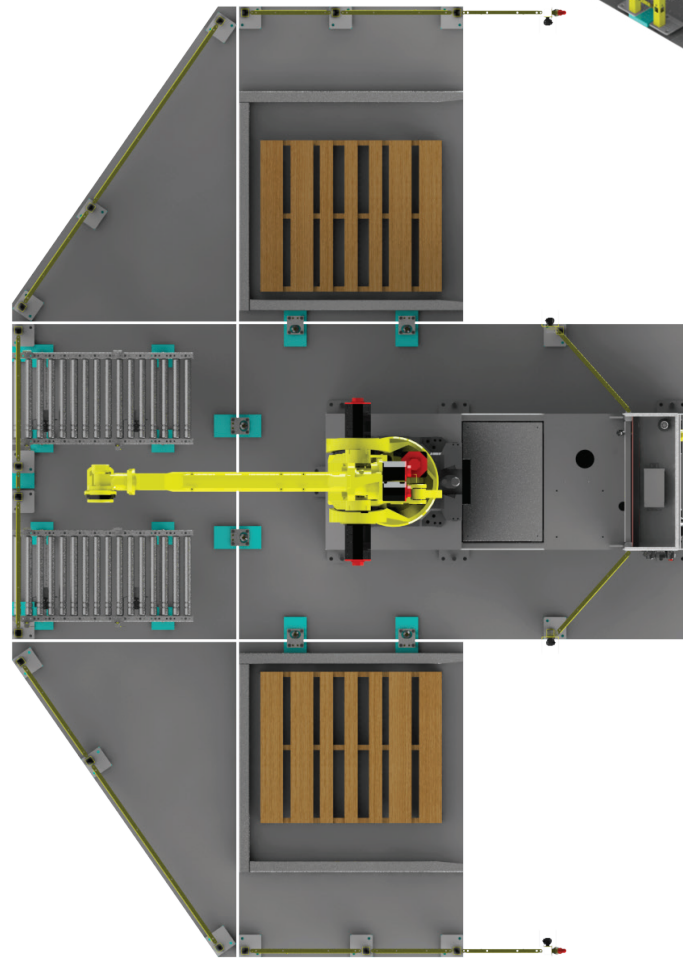
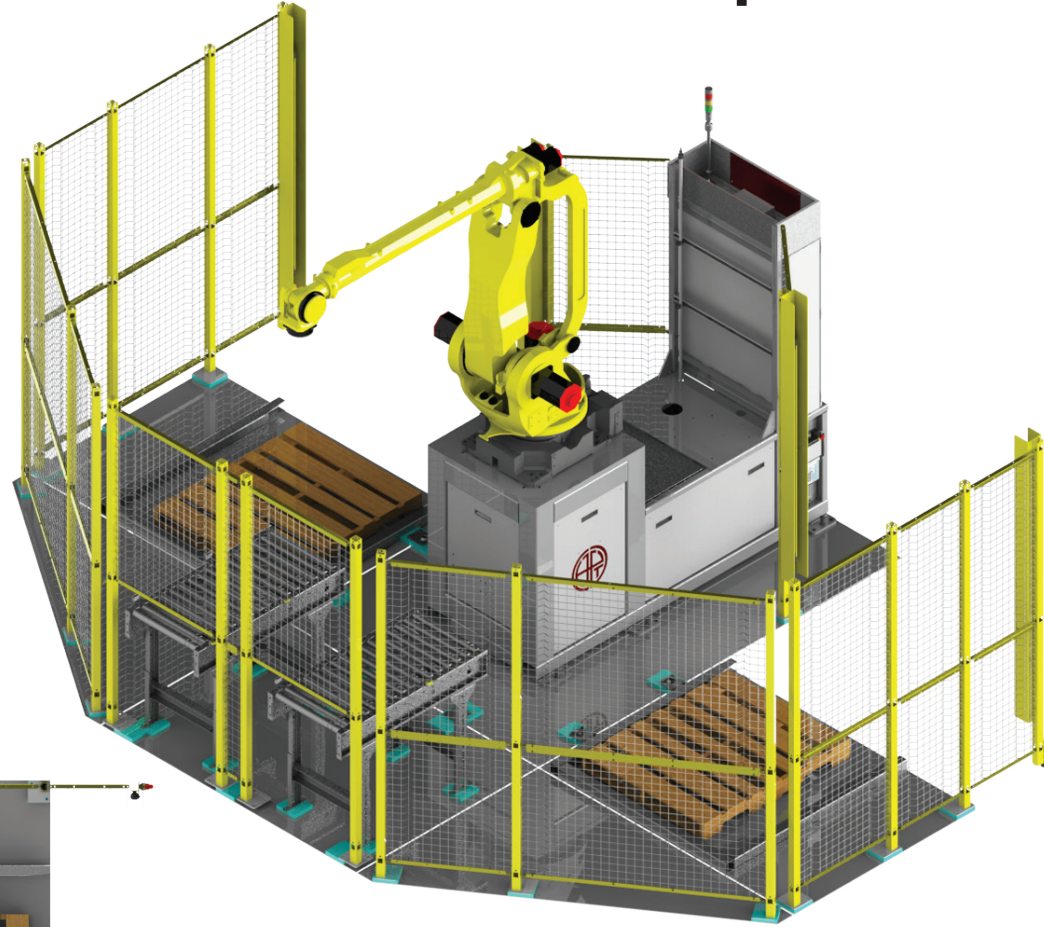
### MOD-PAL 80 Configuration shown:

Qty	Description
1	Robot Base Unit
2	Pallet Floor Corral
1	Single Infeed
1	Access Door Interlocked
1	Lot Fencing

## MOD-PAL<sup>®</sup> FEATURES & SPECS

Model	MOD-PAL <sup>®</sup> 80	MOD-PAL <sup>®</sup> 140
5-axis rrobot	FANUC R1000iA/80H	FANUC M410iB/140H
Payload	up to 80 lbs.	up to 110 lbs.
Max unit load height (including pallet)	78"	94"
Case rate (picks/minute)	12 ppm	12 ppm
Compact footprint	✓	✓
User-defined pallet pattern	✓	✓
Pre-engineered cell configurations	✓	✓
Standard patterns	Interlock or Column	Interlock or Column
Standard layers	Flipped or Non-flipped	Flipped or Non-flipped
Case sizes	9" x 5" x 5" to 24" x 17" x 16"	9" x 5" x 5" to 24" x 17" x 16"
Slip sheet magazine option	✓	✓
Pallet dispenser	X	X
Stretch wrap-ready	X	X
EOAT	Product-specific	Product-specific
Powered roller infeed conveyor	1	1
Pallet jack accessible	✓	✓
Forklift accessible	✓	✓

# 2 In 2 Out Floor Level Example



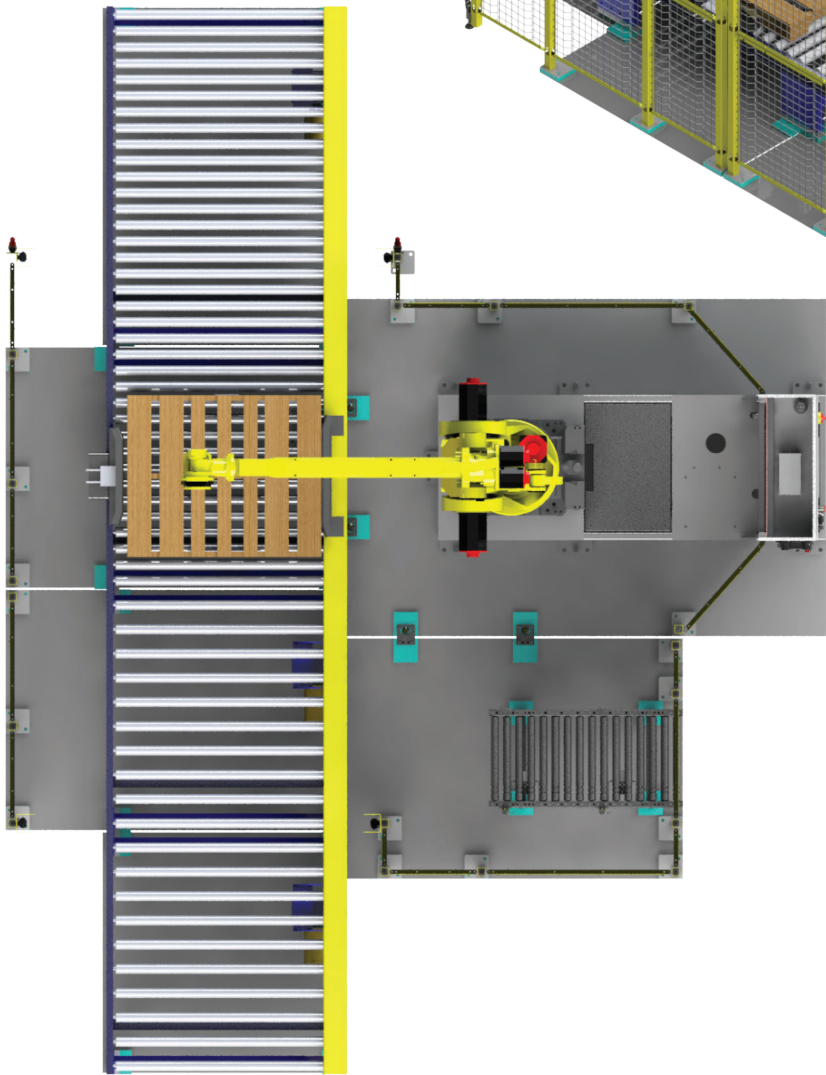
**MOD-PAL 80 Configuration shown:**

Qty	Description
1	Robot Base Unit
2	Pallet Floor Corral
2	Single Infeed
1	Access Door Interlocked
1	Lot Fencing

## MOD-PAL<sup>®</sup> FEATURES & SPECS

Model	MOD-PAL <sup>®</sup> 80	MOD-PAL <sup>®</sup> 140
5-axis robot	FANUC R1000iA/80H	FANUC M410iB/140H
Payload	up to 80 lbs.	up to 110 lbs.
Max unit load height (including pallet)	78"	94"
Case rate (picks/minute)	12 ppm	12 ppm
Compact footprint	✓	✓
User-defined pallet pattern	✓	✓
Pre-engineered cell configurations	✓	✓
Standard patterns	Interlock or Column	Interlock or Column
Standard layers	Flipped or Non-flipped	Flipped or Non-flipped
Case sizes	9" x 5" x 5" to 24" x 17" x 16"	9" x 5" x 5" to 24" x 17" x 16"
Slip sheet magazine option	✓	✓
Pallet dispenser	X	X
Stretch wrap-ready	X	X
Pallet style	GMA or CHEP Standard 40" x 48"	GMA or CHEP Standard 40" x 48"
EOAT	Product-specific	Product-specific
Powered roller infeed conveyor	2	2
Pallet jack accessible	✓	✓
Forklift accessible	✓	✓

# 1 In 1 Out Pass-through Conveyor Example



**MOD-PAL 80 Configuration shown:**

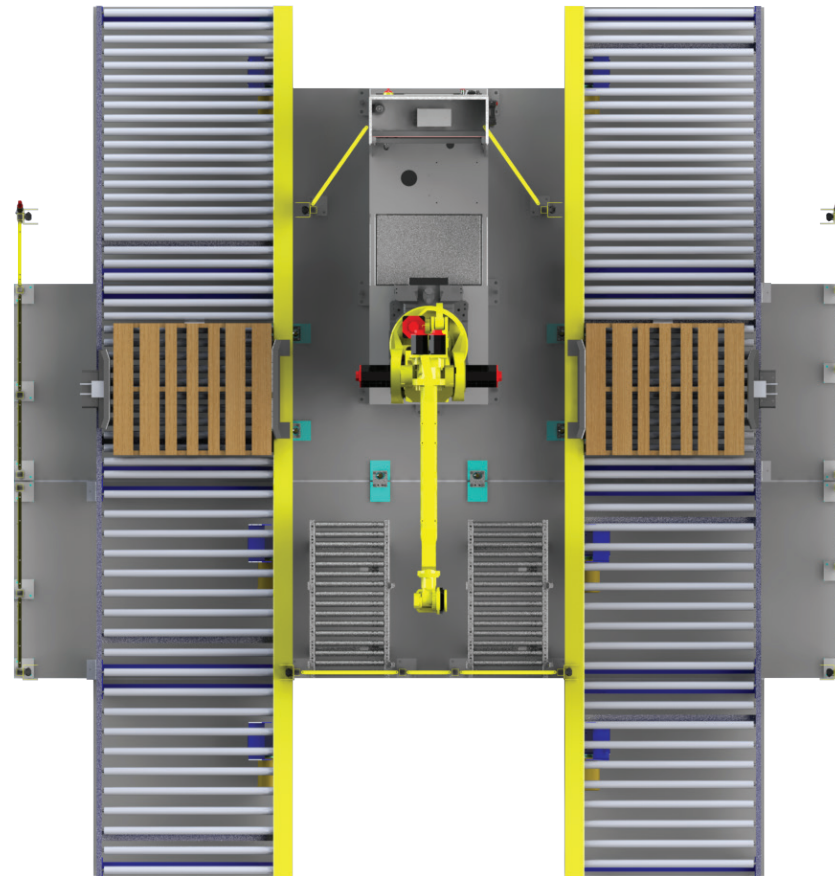
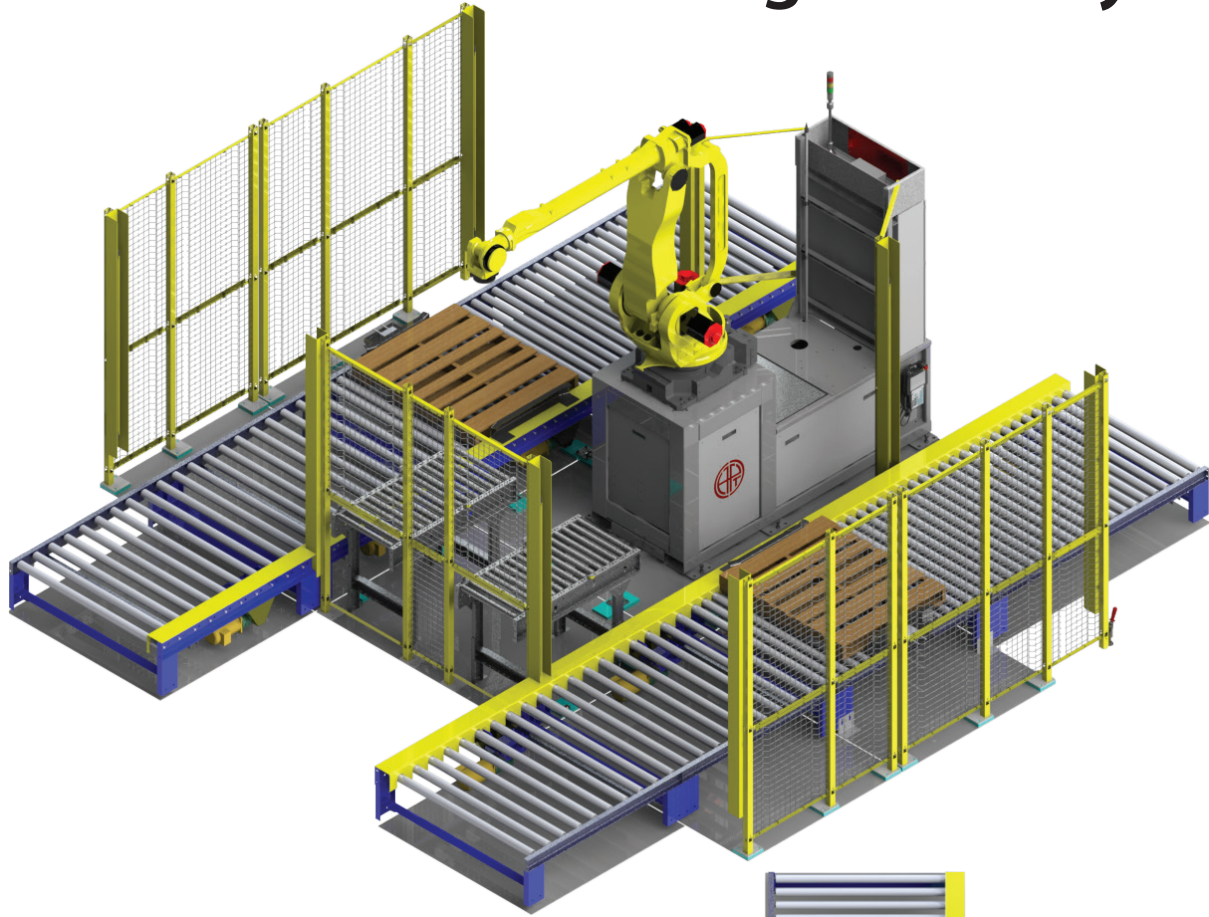
Qty	Description
1	Robot Base Unit
1	Single Infeed
1	Pallet Conveyor Build Zone
5	Pallet Conveyor Accumulation Zone
1	Access Door Interlocked
1	Lot Fencing

## MOD-PAL<sup>®</sup> FEATURES & SPECS

Model	MOD-PAL <sup>®</sup> 80	MOD-PAL <sup>®</sup> 140
5-axis robot	FANUC R1000iA/80H	FANUC M410iB/140H
Payload	up to 80 lbs.	up to 110 lbs.
Max unit load height (including pallet)	78"	94"
Case rate (picks/minute)	12 ppm	12 ppm
Compact footprint	✓	✓
User-defined pallet pattern	✓	✓
Pre-engineered cell configurations	✓	✓
Standard patterns	Interlock or Column	Interlock or Column
Standard layers	Flipped or Non-flipped	Flipped or Non-flipped
Case sizes	9" x 5" x 5" to 24" x 17" x 16"	9" x 5" x 5" to 24" x 17" x 16"
Slip sheet magazine option	✓	✓
Pallet dispenser option	✓	✓
Stretch wrap-ready	✓	✓
Pallet style	GMA or CHEP Standard 40" x 48"	GMA or CHEP Standard 40" x 48"
EOAT	Product-specific	Product-specific
Powered roller infeed conveyor	1	1
Pallet jack accessible	X	X
Forklift accessible	✓	✓



# 2 In 2 Out Pass-through Conveyor Example



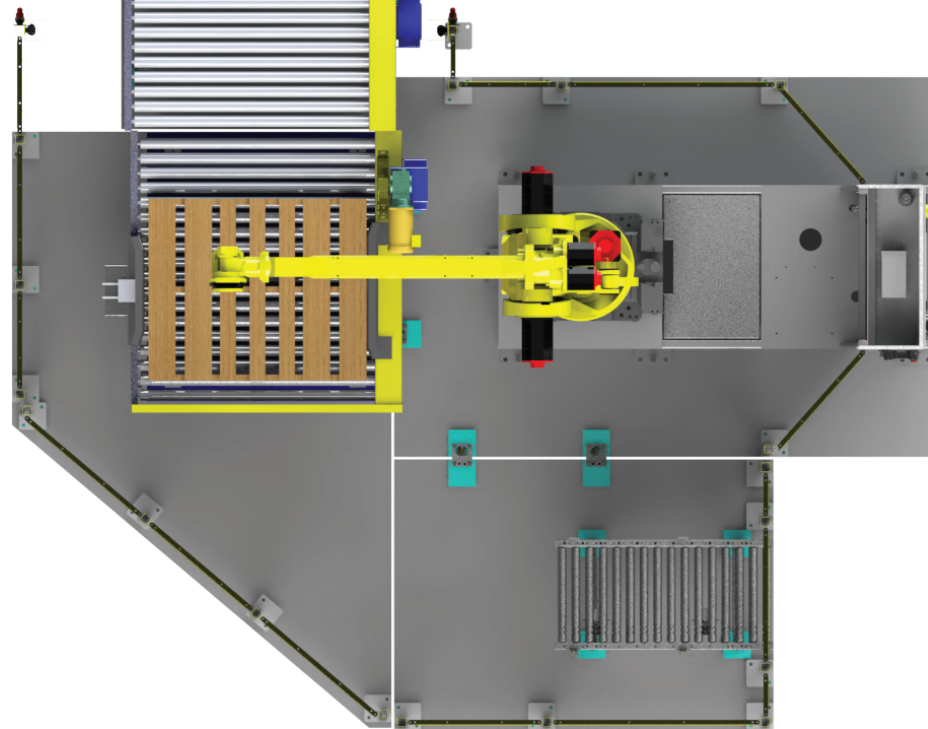
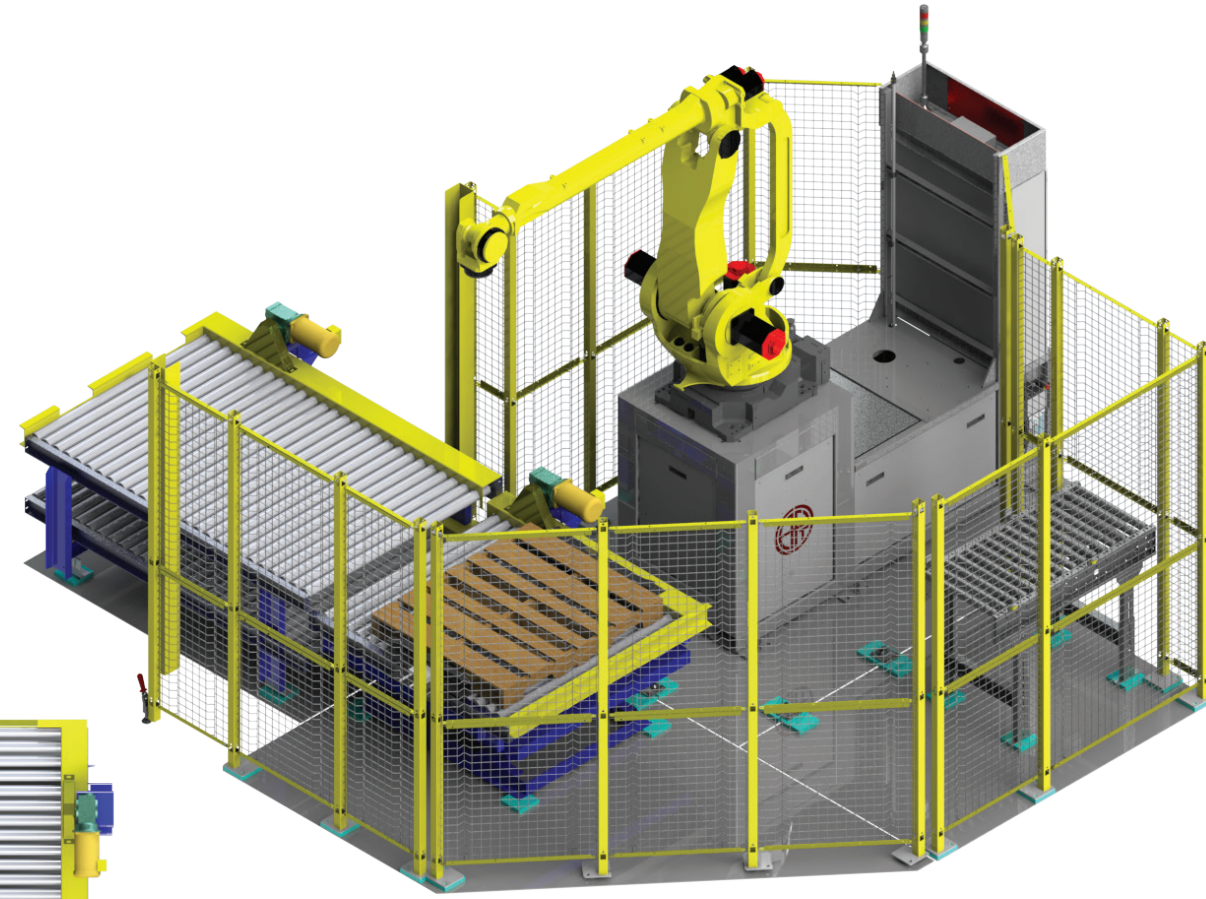
### MOD-PAL 80 Configuration shown:

Qty	Description
1	Robot Base Unit
2	Single Infeed
2	Pallet Conveyor Build Zone
10	Pallet Conveyor Accumulation Zone
1	Access Door Interlocked
1	Lot Fencing and Safety

## MOD-PAL<sup>®</sup> FEATURES & SPECS

Model	MOD-PAL <sup>®</sup> 80	MOD-PAL <sup>®</sup> 140
5-axis robot	FANUC R1000iA/80H	FANUC M410iB/140H
Payload	up to 80 lbs.	up to 110 lbs.
Max unit load height (including pallet)	78"	94"
Case rate (picks/minute)	12 ppm	12 ppm
Compact footprint	✓	✓
User-defined pallet pattern	✓	✓
Pre-engineered cell configurations	✓	✓
Standard patterns	Interlock or Column	Interlock or Column
Standard layers	Flipped or Non-flipped	Flipped or Non-flipped
Case sizes	9" x 5" x 5" to 24" x 17" x 16"	9" x 5" x 5" to 24" x 17" x 16"
Slip sheet magazine option	✓	✓
Pallet dispenser option	✓	✓
Stretch wrap-ready	✓	✓
Pallet style	GMA or CHEP Standard 40" x 48"	GMA or CHEP Standard 40" x 48"
EOAT	Product-specific	Product-specific
Powered roller infeed conveyor	2	2
Pallet jack accessible	X	X
Forklift accessible	✓	✓

# 1 In 1 Out Over/Under Conveyor Example

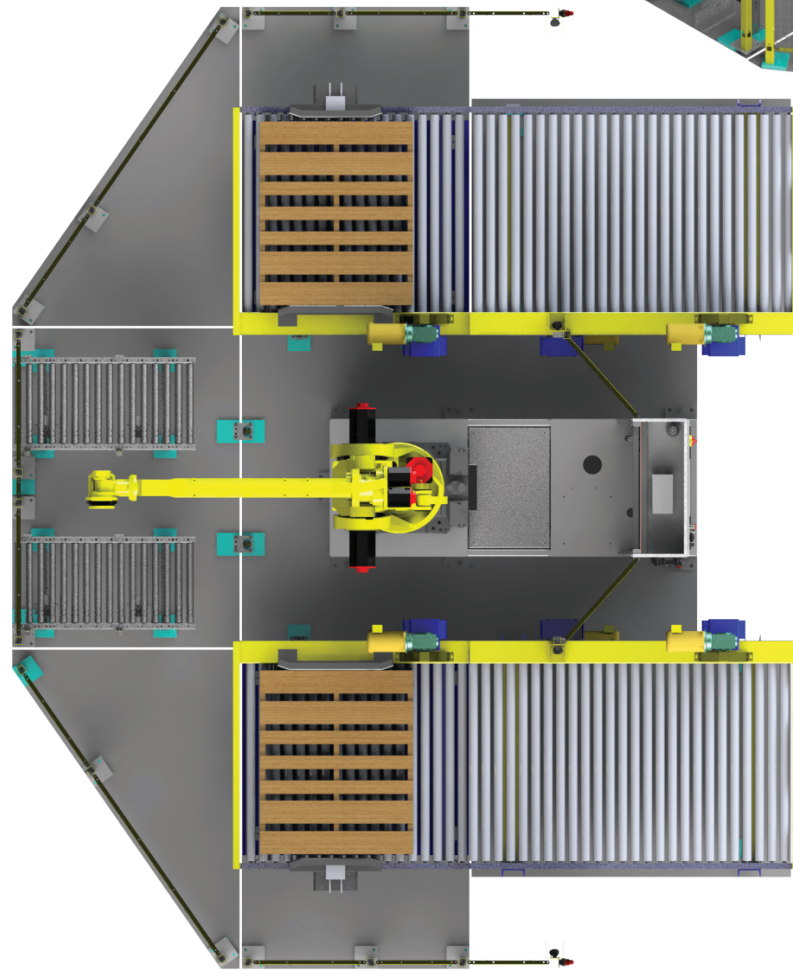
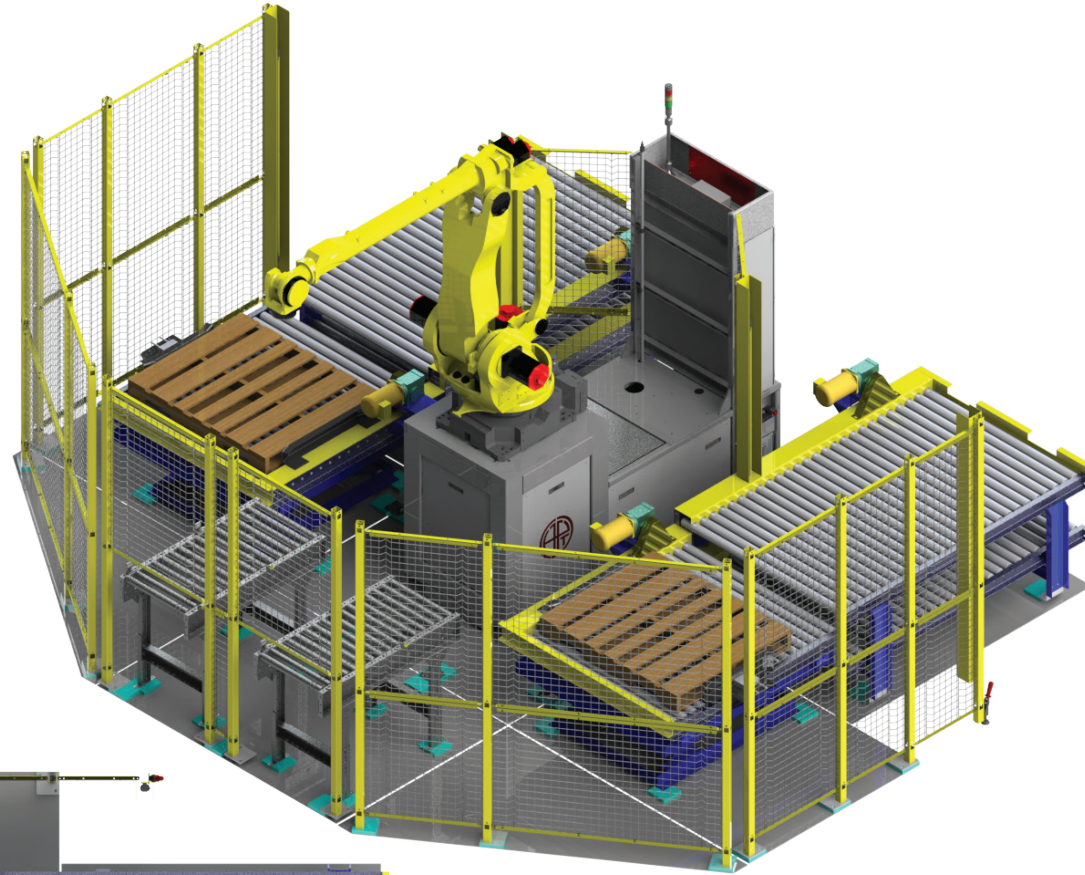


MOD-PAL 80 Configuration shown:	
Qty	Description
1	Robot Base Unit
1	Single Infeed
1	Over/Under Zoned Pallet Conveyor
1	Access Door Interlocked
1	Lot Fencing and Safety

## MOD-PAL<sup>®</sup> FEATURES & SPECS

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Payload	up to 80 lbs.	up to 110 lbs.
Max unit load height (including pallet)	78"	94"
Case rate (picks/minute)	12 ppm	12 ppm
Compact footprint	✓	✓
User-defined pallet pattern	✓	✓
Pre-engineered cell configurations	✓	✓
Standard patterns	Interlock or Column	Interlock or Column
Standard layers	Flipped or Non-flipped	Flipped or Non-flipped
Case sizes	9" x 5" x 5" to 24" x 17" x 16"	9" x 5" x 5" to 24" x 17" x 16"
Slip sheet magazine option	✓	✓
Pallet dispenser option	X	X
Stretch wrap-ready	X	X
Pallet style	GMA or CHEP Standard 40" x 48"	GMA or CHEP Standard 40" x 48"
EOAT	Product-specific	Product-specific
Powered roller infeed conveyor	1	1
Pallet jack accessible	X	X
Forklift accessible	✓	✓

# 2 In 2 Out Over/Under Conveyor Example



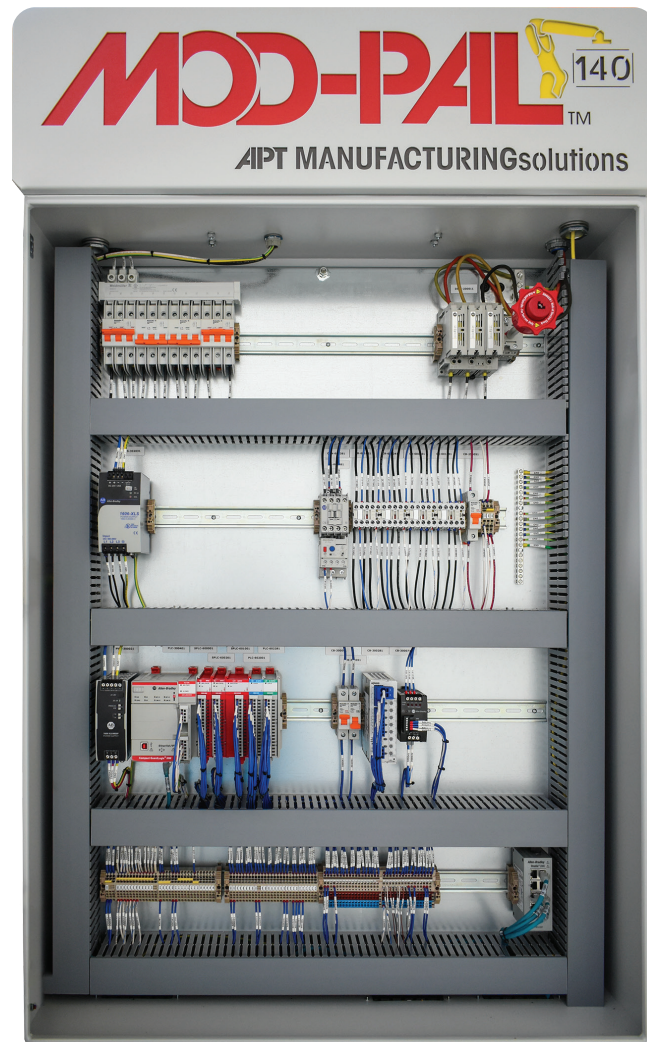
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Qty	Description
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Max unit load height (including pallet)	78"	94"
Case rate (picks/minute)	12 ppm	12 ppm
Compact footprint	✓	✓
User-defined pallet pattern	✓	✓
Pre-engineered cell configurations	✓	✓
Standard patterns	Interlock or Column	Interlock or Column
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Case sizes	9" x 5" x 5" to 24" x 17" x 16"	9" x 5" x 5" to 24" x 17" x 16"
Slip sheet magazine option	✓	✓
Pallet dispenser option	X	X
Stretch wrap-ready	X	X
Pallet style	GMA or CHEP Standard 40" x 48"	GMA or CHEP Standard 40" x 48"
EOAT	Product-specific	Product-specific
Powered roller infeed conveyor	2	2
Pallet jack accessible	X	X
Forklift accessible	✓	✓

# CONTROLS MADE SIMPLE WITH VISUAL FACTORY CONCEPTS



- Uses visual factory concepts to allow for the most accurate and efficient information conveyance
- Multiple unit load configurations
- 5 standard HMI screens with enhanced diagnostics
- Simple recipe storage; easily selectable and expandable
- Quick changeovers
- Password-protected levels
- Engineered with perfection

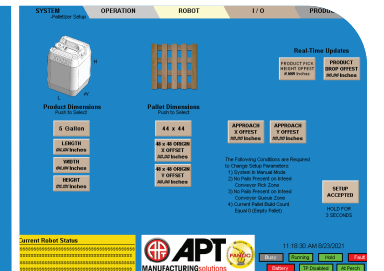


**Change the way you palletize today!**

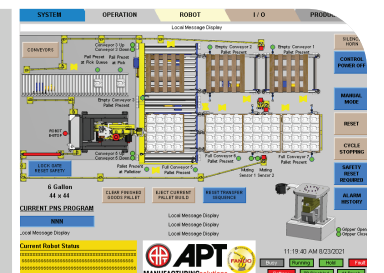
# AN IN-DEPTH LOOK AT THE OPERATOR INTERFACE

An important aspect when building a complete MOD-PAL palletizing system is the controls integration, and this is an area where we excel. Our entire system has the customer in mind to have fewer HMI control touch points, easy-to-use operator interface, visual factory concepts, and simplified maintenance and troubleshooting.

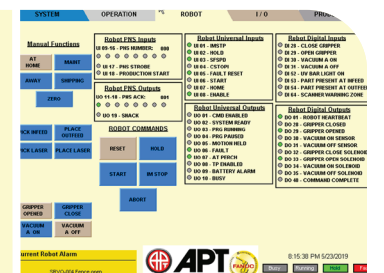
**SYSTEM** - These screens are used for general machine setup. A majority of the functions available on the systems require security requirements to access them. Several functions on the System HMI screens include: VFD frequency setup; Recipe Management System, Inspection Limits, I/O Link Setup, Login, and System Security Settings.



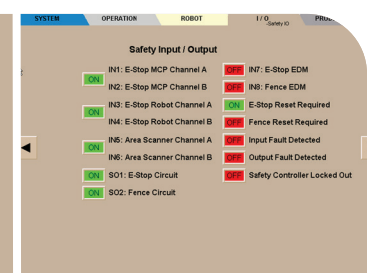
**OPERATION** - These screens are used for general machine operation and functionality. 3D model images are used to aid with the intuitiveness and ease of use. Status Indicators, Mode Control, and Manual Operations, along with Operational and Fault Messages are displayed on these screens.



**ROBOT** - This screen displays all communication and I/O interface between the system PLC and robot. Users may also manually control the functions of the robot and call a specific robot program to run from this screen.



**I/O** - On this screen users can see all I/O within the system, its present status on/off to run diagnostics and aid in troubleshooting.



**PRODUCTION** - From these screens the user can view and capture production data to be used for business analytics. Recipe management and the production scheduler allow the users to edit the parameters and schedule all products the system can run.





# FANUC



March 2024

Contact APT  
for more information about  
automation solutions



[aptmfg.com](http://aptmfg.com)  
419-542-6681