



THE
WORLDS LEADING
ROBOTIC PALLETIZER

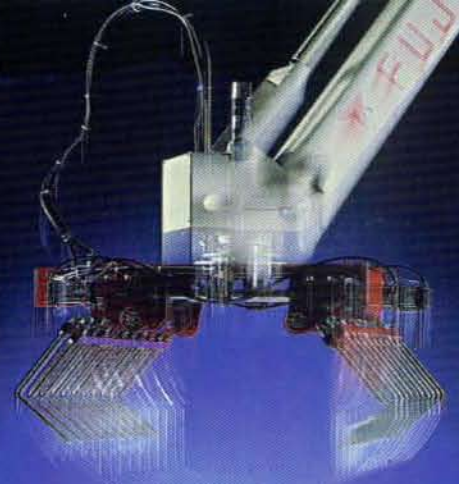


FUJI-ACE

 **FUJI ROBOTICS**

FUJI-ACE

HIGH PERFORMANCE
USER FRIENDLY
LOW ENERGY CONSUMPTION



Over 7000 robotic palletizer installations world wide

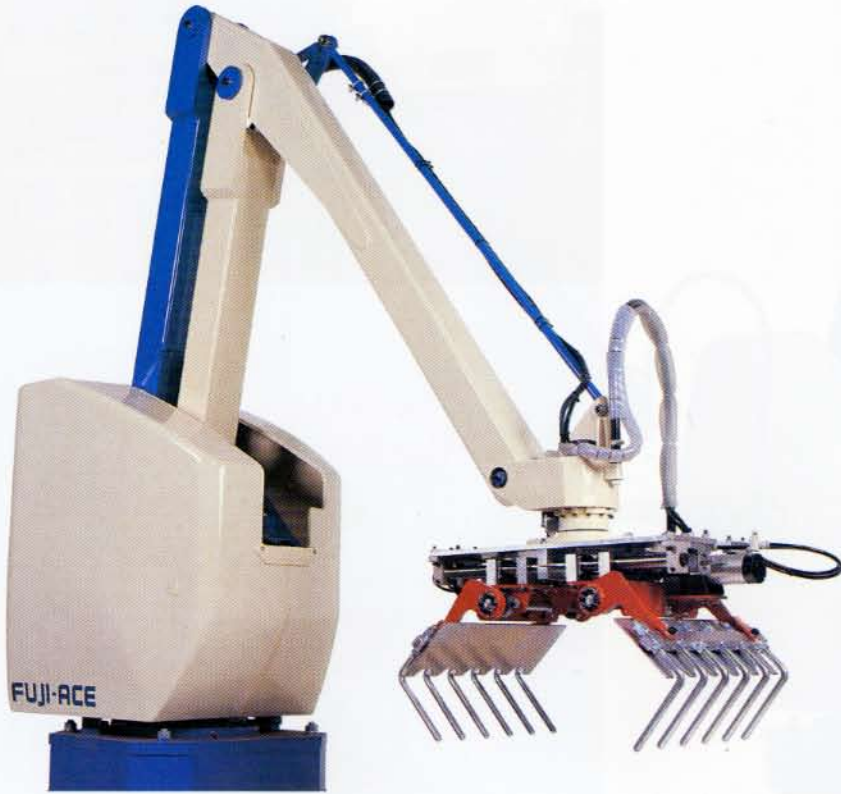
FEATURES

- Ultra quiet operation.
- Unique linear guides designed specifically for palletizing (Exclusive to Fuji Ace)
- Polycarbonate cover to reduce weight
- EC Series (ENERGY CONSERVATION) designed to save energy and resources
- Simple, compact and durable design
- Easy touch screen operation
- Unrivalled in bag, case, pail, drum, shrink-wrapped pack and bottle applications

 **FUJI ACE**

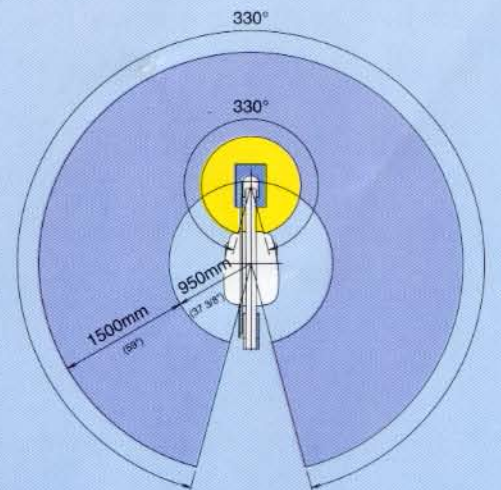
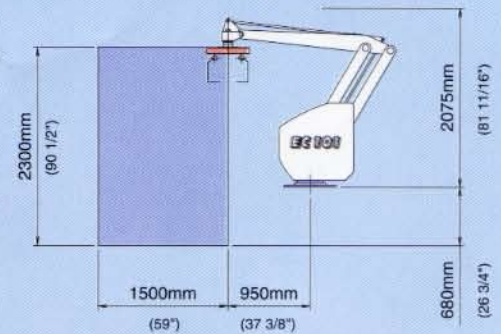
EC-61, 101

ROBOTIC PALLETIZERS



The EC-61 and EC-101 Robots offer production rates up to 15 cycles per minute. These units are the most efficient robotic palletizer in their class utilizing only 2.0 KVA, they provide the most economical solutions while meeting moderate production requirements. You will receive “added value” for years to come given the cycle rate to power consumption ratio.

MOVEMENT AREA AND ROBOT DIMENSION



EC-171

ROBOTIC PALLETIZER



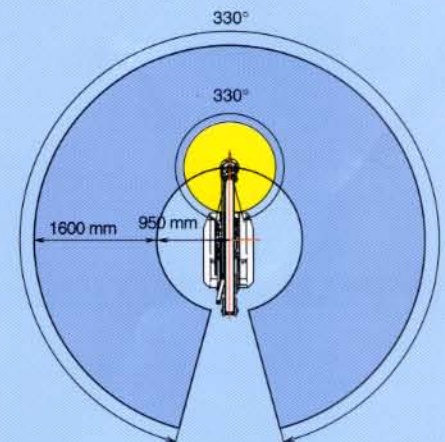
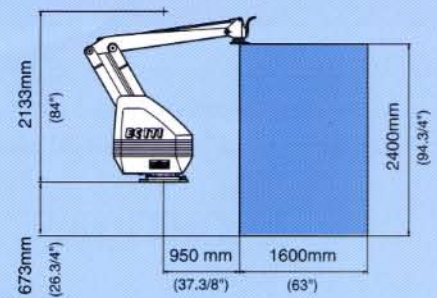
The EC-171 high speed robot is Fuji's most recent model design and development. The EC-171 will operate at speeds up to 25 cycles per minute and implement a collision detection feature as standard. The EC-171 will incorporate the largest working envelope of all our models while maintaining the smallest rotation radius and energy efficiency. This unit will allow you to work in tight space constrictions while accomplishing a very high rate of throughput. Faster rates, tighter work envelope, less energy usage, and more economical. This is truly a fantastic addition to our quality product line.

New Model EC-171

Features

- Most recent model design
- Up to 25 cycles per minute
- Collision detection capability
- Largest working envelop of all the models
- Smallest rotation radius of all the models – excellent for limited floor space
- Extremely energy efficient (3KVA)

MOVEMENT AREA AND ROBOT DIMENSION

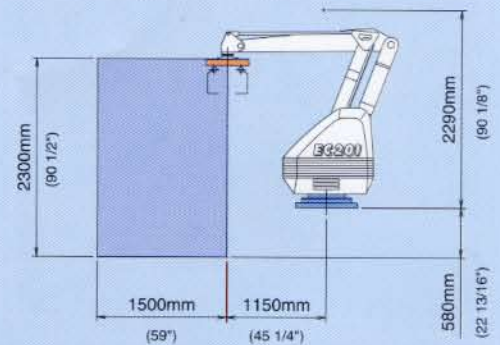


EC-201

ROBOTIC PALLETIZER



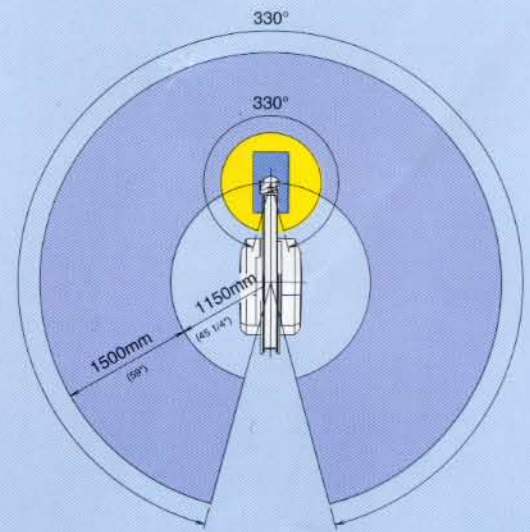
MOVEMENT AREA AND ROBOT DIMENSION



The EC-201 high speed robot is a compilation of years of research and development. This technologically advanced robot offers capacity rates up to 26 cycles per minute and a payload weight of 440 lbs. These points plus other advantages place Fuji as the premier solution to a highly competitive market place.

Our commitment to improving palletizing technology has been the cornerstone of our business for nearly 40 years and this sharply focused mission helped define many advantages that come with our superior design.

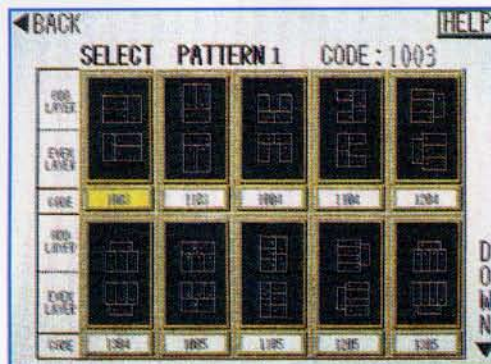
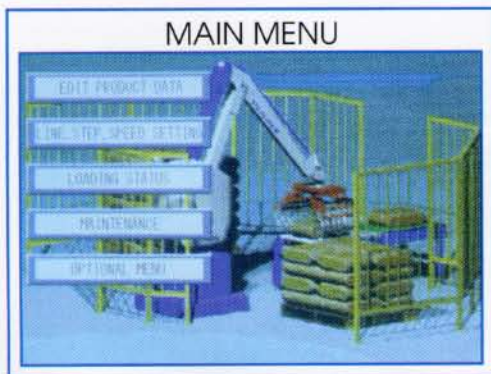
This new generation robot provides an ultra quiet operation, improved efficiencies, and maximum flexibility that accompany "high speed" palletizing technology.



CUTTING EDGE CONTROL PACKAGE

Every Fuji Robot comes with a touch screen control complete with:

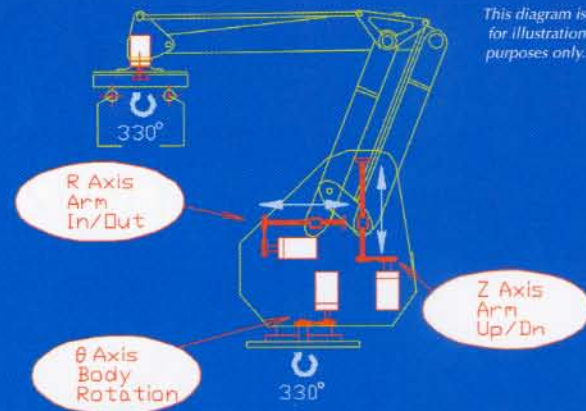
- Preprogrammed pallet patterns embedded in the touch screen to meet your exact specifications
- 60 programmable memory recipes. Once utilized, recipes can be switched within seconds
- Onboard automatic lubrication schedule system
- Onboard diagnostics designed to identify errors instantaneously
- Onboard error history log
- Inventory monitoring that corresponds with specific recipes



- High level programming software offering complete onboard control and recipe editing without the need of a laptop computer
- Real time I/O monitoring

TEACHING PENDANT

Every Fuji Robot comes with a "user friendly" teaching pendant.



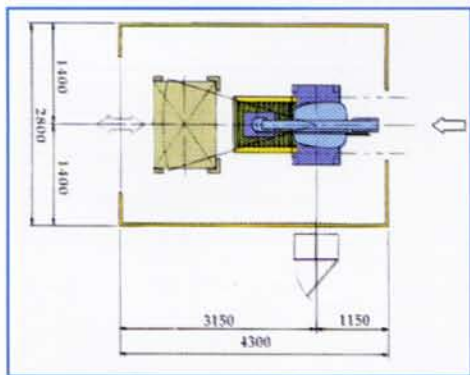
THE MECHANICAL ADVANTAGE

- Fuji offers a unique linear track design unlike any other articulated robot in the industry. This mechanical design contributes to decreased power consumption by 50%, and in some cases, by 200% while achieving up to 1600 cycles per hour.
- The articulated arm movement is driven by the combination of a servo motor, timing belt, recirculating linear guide bearings, and two hardened steel ball screws. By using a 5 to 1 (Z axis) or 6 to 1 (R axis) movement ratio, the robot can operate faster and more efficiently than standard industrial robots.
- The robot pivots (theta axis) on a high density cross roller thrust bearing designed for years of trouble free operation in harsh environments.



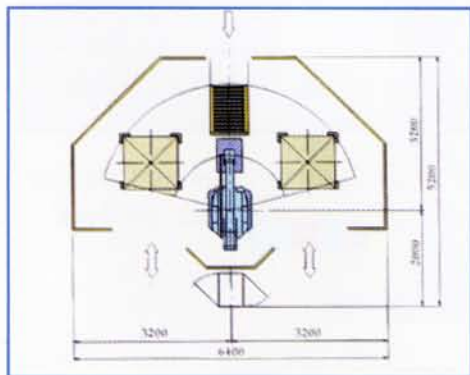
SENSIBLE LAYOUT SOLUTIONS

Fuji knows every layout may not fit an exact mold. Because of this, we understand the need for total flexibility and innovative thinking to meet or exceed our customer needs. We have provided a few standard layouts that may assist in the beginning phases of your layout design.



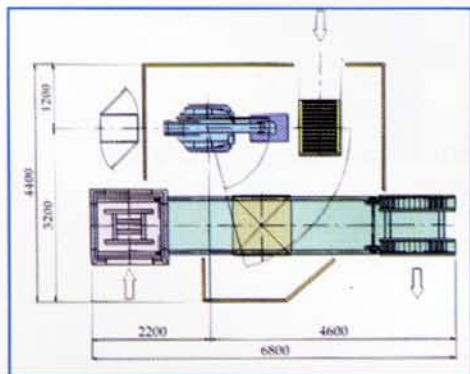
2-1 Layout

The product flows below the robot body. This compact layout provides minimum space usage and works well in narrow spaces.



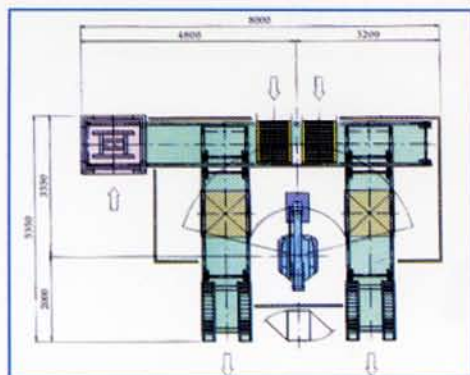
2-2 Layout

The product is palletized on two pallet locations. This design allows three pallets to be stacked on the floor on each side. This will minimize change over time.



3-1 Layout

For high speed applications, we decrease the pallet removal time by using a pallet conveyor to automatically transfer pallets while maintaining nonstop production.



3-LW Layout

One pallet magazine delivers empty pallets automatically onto two individual stacking lines simultaneously.

EXPERIENCE COUNTS

With over 7000 robot palletizers sold, Fuji is unmatched in "palletizing" technology. We understand how end effectors play an intricate role in successful robotic palletizing applications. Given this critical point, we have spent years developing and refining high quality and cost effective end effectors. Below is just a small sample of our end effector designs:

Hand Grippers To Suit Your Requirements



Box End Effector



Can End Effector



Bag Depalletize



Box Depalletize



Bag End Effector



Box End Effector



Book End Effector



Bag End Effector

FUJI ACE TECHNICAL SPECIFICATIONS

Model	EC-61	EC-101	EC-171	EC-201	
Mechanism	Articulated Robot				
Action Mode	Cylindrical				
Weight Capacity (including hand)	90kg (198 lbs)	120kg (264 lbs)	110kg (242 lbs)	200kg (440 lbs)	
Palletizing Capacity (cycles/ hour)	600c/hr	1000c/hr	1500c/hr	1600c/hr	
Degree of Freedom	Standard 4 Axes (up to 5 Axes)				
Operational Space	- Z Axis (vert.)	2300mm (90 1/2")	2300mm (90 1/2")	2400mm (94 3/4")	2300mm (90 1/2")
	- R Axis (long.)	1500mm (59")	1500mm (59")	1600mm (63 1/8")	1500mm (59")
	- θ Axis (turn)	330°			
	- α Axis (wrist)	330°			
Hand Gripper	Clamp, Fork, Vacuum, Custom Designed				
Memory	400 Programmable Recipes Standard				
Teaching Method	Teaching Playback/ Teaching Support				
Power (200/220v 3PH 50/60Hz)	1.9KVA	2KVA	3KVA	6.5KVA	
Main Body Weight (without hand)	700kg (1544 lbs)	800kg (1764 lbs)	750kg (1654 lbs)	1150kg (2536 lbs)	

NOTE: Specifications are subject to change without notice. Capacities as stated above are the maximum that may be achieved by the robot under ideal conditions. Capacity rates can be significantly effected by layouts, product types, and can only be confirmed after a detailed analysis of an application.

OPTIONS

- Cold environment upgrade
- Harsh environment upgrade
- Memory program expansion
- Auto reject function
- Simultaneous multi-size product handling (5th axis)
- Slipsheet placement
- Pallet placement



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