

Resources for Robotic Technology:

- www.robotics.org—Home of the Robotic Industries Association.
- www.motioncontrolonline.org - Motion Control Association.
- www.fujirobotics.com - Manufacturer of Robotic Palletizers.
- Modern Materials Handling Magazine—Recent Article on Palletizers. http://www.mmh.com/view/packaging_focus_on_palletizer_products/packaging
- www.IFR.org - International Federation of Robotics



Watch a video demonstrating a Fuji Robotic Palletizer in a warehouse application at www.YouTube.com/abelwomack1.

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Rev 1-11



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Automated Technology ⇒ Robots are here!



In a recent article, the use of robots in warehouses was predicted to double in 2011. In this first of 3 newsletters dedicated to innovations in automated technology, Abel Womack looks at the reasons for this explosive growth and explains how robotics usage can lead to increased productivity and lower costs.

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Robotics - Advances in Technology make Robots an Affordable and Sensible Choice

In the January 2011 edition of DC Velocity magazine Steve Banker of ARC Advisory Services predicted that the use of robotics in the warehouse would double in 2011.

What changes are fueling that kind of growth? To answer that question, we reviewed the latest improvements in robotic technology and looked at how warehouse operations can benefit by applying robotic solutions to solve their challenges.

In the last decade, improvements in software and technology have made robots an affordable and sensible choice. Traditionally, palletizing and depalletizing functions have been completed manually, which often resulted in employee injuries and damaged products. A robotic solution can now offer significant cost savings as well as reductions in product damage. Employee safety and order accuracy are also increased, resulting in ROI with reduced workplace injuries and fewer costs for shipping incorrect orders.

Robotic Solution Advantages:

- Robots are capable of building multi item pallets, placing each item carefully for optimum shipping density and load stability.
- Robots have been engineered with precise software to ensure minimal product damage.
- Different end effectors are now available to handle diverse products such as bags, pails, totes, crates, and boxes.
- Increased stability of pallet loads so that when a pallet is delivered and the stretchwrap removed, the items on the pallet are stable and the pallet load does not collapse.
- Increased speed over manual labor and the ability to operate in harsh environments such as freezers, make the use of robots appropriate for many industries.
- Robots have dropped in price, thus making capital expenditures more attractive when measured against operational and cost gains.
- Robotic operations can be quickly modified, allowing managers the flexibility to switch from one product to another with short set up times. Shorter set up times lead to more output and better throughput.

Robotic Palletizers: Their Value Proposition

- **Increased Productivity**
Robots can run for longer periods of time than manual operations.
- **Lower Operational Costs**
due to reductions in product damage and order inaccuracies.
- **Increased Employee Safety**
Operators are no longer required to perform repetitive motions nor work in harsh environments which can lead to injuries.



The Fuji EC-201 robot stacks and destacks totes filled with consumer products.



2 Lane Process for Stacking and Destacking Totes

The totes arrive at the conveyor via lift truck (#1). The totes travel along the conveyor to the robot, which will move them to the opposite conveyor (#2). The robot receives full totes from the warehouse (#3) and stacks them. The robot repositions itself on the other side of the enclosure to access the totes for destacking on the opposite line of conveyor. (#4)

Look for next month's issue on Warehouse Management Software.

Interested in a demo?

Abel Womack has set up a demonstration area in our Lawrence, MA headquarters with a Fuji EC-201 robotic palletizer. We would be happy to demonstrate the EC-201's capabilities with a pallet of your product.

Contact us at (800) 554-2887 or send us an email at solutions@abelwomack.com to set up an appointment.