Boxed Bot Series

ROBOTIC PALLETIZER
Boxed Bot Series
Robotic Palletizer

Cost and space saving automated palletizing solutions

The Boxed Bot Series palletizing solution is available as a modular or skid-based solution with additional options available to produce countless solution possibilities.

Modular engineering allows for quality control and complete flexibility in machine “design for your application. No costly customization is required to meet your requirements. The space-saving skid-based robotic palletizer features a footprint starting at just 8’x10’ to fit into a standard truck.

Boxed Bot palletizers feature a long-reach robot that provides higher stack patterns, which better maximize tractor-trailer loading for more efficient shipping.

ISO DRAWINGS

A. VENTURI VACUUM GRIPPER
Vacuum style gripper with foam pad can handle corrugate cases, slip sheets and pallets. Distributed vacuum over a larger area than a vacuum cup system ensures the tops of the cases remain flat during transport.

B. ACTIVATED ROLLER BELT (ARB) CONVEYOR
Ensures cases are registered to the correct location prior to picking without the use of clamps or other devices and selectively turns cases when required to form a pick pattern.

C. SLIP SHEET STATION
Slip sheet dispenser reduces labor required to completely automate the pallet building process in your operation. Optional feature on both modular and skid based systems.

D. HMI
Full system control, including pallet pattern selection and QBox pallet building via AB PanelView HMI.

E. PALLET RACK (SHOWN)/DISPENSER
Basic style accommodates 12 GMA or chep pallets, more is possible. Option to use a pallet dispenser instead pallet rack.

BOXED BOT SERIES COMES STANDARD WITH QBOX CUSTOM PALLET BUILDING SOFTWARE

Build your own patterns with easy to use QBox software. It even accounts for label out or in orientations. Saves time and money since a service programmer is not needed.
**PRODUCT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Modular</th>
<th>Skid Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footprint</td>
<td>Application dependent</td>
<td>8’x10’ (approx)</td>
</tr>
<tr>
<td>Robot*</td>
<td>Fanuc M-710iC</td>
<td></td>
</tr>
<tr>
<td>Payload*</td>
<td>60lbs</td>
<td></td>
</tr>
<tr>
<td>Pallet Height**</td>
<td>96in</td>
<td></td>
</tr>
<tr>
<td>Speed</td>
<td>up to 40 units/min.</td>
<td></td>
</tr>
<tr>
<td>Tool*</td>
<td>Venturi style vacuum gripper</td>
<td></td>
</tr>
<tr>
<td>Magazine Capacity</td>
<td>Compatible with all types</td>
<td></td>
</tr>
<tr>
<td>Pallets</td>
<td>Standard GMA/CHEP 4-way</td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>230VAC/60 Hz/3 Ph, 460VAC/60 Hz/3 Ph, 575 VAC/60 Hz/3 Ph</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>304 Stainless Steel or Mild Steel Options Available</td>
<td></td>
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</table>

* Application dependant  **Overheight options available

**Air Supply**

- 80psi @ 16 scfm minimum, clean dry air filtered to 5µm with a dew point of 40°F or lower

<table>
<thead>
<tr>
<th>Infeed Conveyor Height</th>
<th>Application dependent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outfeed Conveyor Height</td>
<td>Application dependent</td>
</tr>
<tr>
<td>HMI</td>
<td>10” HMI</td>
</tr>
<tr>
<td>PLC</td>
<td>Allen-Bradley CompactLogix PLC</td>
</tr>
<tr>
<td>Panel</td>
<td>NEMA12</td>
</tr>
<tr>
<td>Panel Free Space</td>
<td>20%</td>
</tr>
<tr>
<td>Safety Circuit</td>
<td>CAT3</td>
</tr>
<tr>
<td>Startup &amp; Training</td>
<td>One service tech for two days included to test first product (travel &amp; expenses not included)</td>
</tr>
<tr>
<td>Pallet Patterns &amp; Recipes</td>
<td>Unlimited!</td>
</tr>
</tbody>
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**STANDARD FEATURES**

- Intuitive HMI end-user interface with an average of just 10 minutes of training needed on the HMI without need for an external computer.
- QBox pallet building software allows operators to design and produce exact pallet patterns, as many patterns as you want without service programmer onsite to perform task.
- Ideal for RSC, HSC, bags, blocks, pails, dunnage and more.
- CAT3 safety comes standard to meet specific customer safety requirements.
- Customer support at machine start-up includes operator training.
- Variety of tool and layer forming options for specific applications.
- Easily disassembled, moved, and redeployed as needs change.

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**OPTIONAL MODIFICATIONS**

- Case management (bump turn)
- Adaptive case height modifications
- Case stop gates for case gapping
- Case collation
- Slipsheet station
- Specialized EOAT for specific applications
- UL/CSA/ESA special inspections
- Orion stretch wrapper
- Custom layouts available
- Outfeed pallet conveyors
- Product weight verification
- Code scanning
- All stainless steel base construction
- Qleen-Line conveyor system

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**FOR MORE INFORMATION:**

(608) 325-5850 • Questindustrial.com
Quest is a full-service robotic integrator that specializes in automation solutions across food, beverage, plastics, metal, and other industries needing to optimize floor space, expand operations with accuracy and consistency, and improve overall production line flexibility and efficiency. Many of our packaging solutions meet industry-specific requirements with specialized tooling, software, and protective coatings designed for dairy, produce, and other markets. Our unique robotic solutions include applications in pick and place, cup filling, knife cutting, vacuum sealing, case erecting, tray forming, palletizing, vision and verification systems, and much more, including bundling multiple application technologies into a single robotic packaging cell.