Full modules consist of 240 boxes and four high-capacity drawers for larger items. Workstation modules combine a computer, barcode scanner, four access drawers and up to 196 boxes. Systems are configured from the following options:

**Modules**

- **Workstations**
  Supports additional workstations for simultaneous system access on the same or opposite side of the BoxPicker System.

- **Ambient Modules**
  Store unit dose and bulk medications that do not require special handling or temperature control.

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  Eliminate the need for separate pharmacy refrigerators by storing temperature-sensitive items in a refrigerated half module.

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- **Fully Refrigerated Model**
  Replace standard pharmacy refrigerators.

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**Customized for Your Facility**

Each pharmacy’s needs are different. BoxPicker allows you to customize its configuration to meet your requirements. As your pharmacy needs evolve, you can expand your system by adding modules, rather than having to invest in another piece of equipment.

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**Cleanroom Access:**

- **BoxPicker** supports USP <797> compliance by providing a secure pass-through to anterooms. A positive-pressure airflow ensures the integrity of anteroom and cleanroom environments. By installing a workstation on the opposite side of the BoxPicker, pharmacies can:
  - Increase efficiency by enabling staff to retrieve compounding supplies and medications without having to leave the cleanroom environment.
  - Load the BoxPicker on the pharmacy side and retrieve products directly in the anteroom.
  - Eliminate the need to gown up and enter the cleanroom to deliver inventory.

---

**Features and Benefits**

- **Robotic Crane**
  Provides 3 to 1 pick rate compared to vertical carousels.

- **Smart Technology**
  Fully automates storage and retrieval steps.

- **High-Density Shifting**
  Requires no floor reinforcement, decreasing project costs.

- **Emergency Support**
  Provides fully accessible inventory in the event of a power failure.

- **Barcode Verification**
  Scan-in and scan-out technology increases safety at dispense.

- **Configurable Workstations**
  Allows for workstations on both sides or direct anteroom access to reduce extra steps.

- **Multiple Workstations**
  Allows for secure, simultaneous operations.

- **Touchscreen Interface**
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- **Secure Operator Access**
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**Source:**

Kasbekar, Nishaminy, BS, PharmD, FASHP. “PillPick and BoxPicker from Swisslog” Pharmacy Purchasing & Products Vol. 10 No. 7 July 2013

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**Printed on paper containing post-consumer recovered fiber.**
BoxPicker™ Automated Pharmacy Storage System

BoxPicker is part of an end-to-end integrated solution of Swisslog equipment and software that controls and manages medication from wholesaler to patient.

BoxPicker provides pharmacies with secure, high-density storage of medications - controlling access, improving pharmacy workflow efficiency, and regulating the picking protocols.

The high-performance system virtually eliminates the need for static shelving and is a robotic replacement for vertical carousels, refrigerated drug storage and narcotic vaults.

BoxPicker fully automates medication storage and retrieval, which not only eliminates picking errors and improves safety at dispense, but also creates a more efficient pharmacy workflow - allowing the pharmacy staff to focus on revenue generating tasks and spend less time locating, picking and verifying medications.

Advantages

<table>
<thead>
<tr>
<th>Fully Automated</th>
</tr>
</thead>
<tbody>
<tr>
<td>All items are brought to a single operator station for retrieval</td>
</tr>
<tr>
<td>Multiple workstations allow for simultaneous operations, improving efficiency</td>
</tr>
<tr>
<td>Users have no exposure to internal moving parts, increasing safety of pharmacy staff</td>
</tr>
<tr>
<td>Single source for storing packaged, bulk medications and supplies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Modular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allows for easy expansion options as pharmacy needs change and grow</td>
</tr>
<tr>
<td>Versatile configurations provide a greater return on your investment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guaranteed Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited access, scan in and scan out technology decreases opportunity for error</td>
</tr>
<tr>
<td>Password-protected operator access ensures inventory control and audit capabilities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requires No Floor Reinforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal weight distribution, rarely requiring additional reinforcement</td>
</tr>
</tbody>
</table>

The security of a single dispensing and loading point provides peace of mind regarding access and accountability. The BoxPicker has allowed our storeroom staff to focus more on critical service issues and improve our efficiencies around managing stock.

While the technician scans one product out, BoxPicker is already retrieving the next medication box to be dispensed.

BoxPicker is part of an end-to-end integrated solution of Swisslog equipment and software that controls and manages medication from wholesaler to patient.

BoxPicker has allowed our storeroom staff to focus more on critical service issues and improve our efficiencies around managing stock.

How It Works

Designed to eliminate the need for both static shelving and standard carousels, BoxPicker allows you to focus on clinical tasks and spend less time locating, picking and verifying medications. BoxPicker is the ultimate pharmacy storage solution.

<table>
<thead>
<tr>
<th>LOADING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A technician logs into the operator station and selects the Load option</td>
</tr>
<tr>
<td>A technician scans the medication to be loaded and enters the quantity and expiration date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISPENSING</th>
</tr>
</thead>
<tbody>
<tr>
<td>The technician logs into the operator station and selects an order received through an interface with the hospital’s information system or the ADC vendor</td>
</tr>
<tr>
<td>BoxPicker picks only the correct medication box and places it in an access drawer at the operator station</td>
</tr>
</tbody>
</table>

In the first six months of using PillPick and BoxPicker, we have been able to decrease our inventory overhead by $350,000 and missing doses by 40% due to a change in the presentation to nursing. Furthermore, our cart fill can now be completed within four hours and our ADC fills take about an hour each. We are far more confident in the safety of our medication distribution and our pharmacists also have more time to spend in patient care.

Once the medication has been scanned and confirmed, the inventory quantity is updated in the system.

1 Dave Webster, RPh, MSBA. Associate Director Pharmacy Operations, University of Rochester Medical Center

2 Nishaminy Kasbekar, BS, PharmD, FASHP. Penn Presbyterian Medical Center

Once the medication has been scanned and confirmed, the inventory quantity is updated in the system. When the tech has both the box from the ADC vendor and the product ready for verification, the technician then picks the medication from the box and places it in the assigned location.
Features and Benefits

- **Robotic Crane:** Provides 3 to 1 pick rate compared to vertical carousels.
- **Barcode Verification:** Scan in and scan out technology increases safety at dispense.
- **Movable Design:** Accommodates ambient, refrigerated and narcotic storage requirements.
- **Configurable Workstations:** Allows for workstations on both sides or direct anteroom access to reduce extra steps.
- **Multiple Workstations:** Allows for secure, simultaneous operations.
- **Touchscreen Interface:** Simplifies user access and information retrieval.
- **Secure Operator Access:** Password-protection ensures inventory control and audit capabilities.

Customized for Your Facility

Each pharmacy’s needs are different. BoxPicker allows you to customize its configuration to meet your requirements. As your pharmacy needs evolve, you can expand your system by adding modules, rather than having to invest in another piece of equipment.

Modules

- **Full Modules:** Consists of 240 boxes and four high-capacity drawers for larger items. Workstation modules combine a computer, barcode scanner, four access drawers and up to 196 boxes. Systems are configured from the following options:
  - **Workstations:** Supports additional workstations for simultaneous system access on the same or opposite side of the BoxPicker System.
  - **Ambient Modules:** Store unit dose and bulk medications that do not require special handling or temperature control.
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Cleanroom Access:

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Source: Swisslog Healthcare Solutions

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The high-performance system entirely obviates the need for static shelving and is a robotic replacement for vertical carousels, refrigerated drug storage and narcotic vaults.

BoxPicker fully automates medication storage and retrieval, which not only eliminates picking errors and increases safety at dispense, but also retains a more efficient pharmacy workflow allowing the pharmacy staff to focus on routine picking tasks and spend less time locating, picking and verifying medications.

Advantages

Fully Automated
- All items are brought to a single operator station for retrieval and verification
- Multiple workstations allow for simultaneous operations, improving efficiency
- Users have no exposure to internal moving parts, increasing safety of pharmacy staff
- Single source for storing packaged, bulk medications and supplies

Modular
- Allows for easy expansion options as pharmacy needs change and grow
- Versatile configurations provide a greater return on your investment

Guaranteed Control
- Limited access, scan in and scan out technology decreases opportunity for error
- Password-protected operator access ensures inventory control and audit capabilities

Requires No Floor Reinforcement
- Equal weight distribution, rarely requiring additional reinforcement

How It Works

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How It Works

**DISPENSING**

- A technician logs into the operator station and selects an order received through an interface with the hospital’s information system or the ADC vendor
- BoxPicker pops open the assigned drawer and displays an appropriate medication box based on space availability
- A technician then picks the corresponding medications from the box and places them in the assigned location
- Once the box has arrived, a green light indicates the drawer is unlocked and can be opened
- A technician then picks the corresponding medications from the box and verifies the product has been verified and confirmed

**LOADING**

- A technician logs into the operator station and selects a load option
- A technician uses the medication to be loaded and enters the quantity and expiration date
- A technician loads the medication to be picked into the predetermined box and places the box in an access drawer at the operator station

**AUXILIARY**

- EDL/PillPicker retrieves the desired drug and places it in an access drawer at the operator station
- Once the box has arrived, a green light indicates the drawer is unlocked and can be opened

Nishaminy Kasbekar, BS, PharmD, FASHP. Penn Presbyterian Medical Center

Dave Webster, RPh, MSBA. Associate Director Pharmacy Operations, University of Rochester Medical Center

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