Features and Benefits

Unit-Dose Packaging
Ensures complete traceability of medication from original packaging to the patient.

High-Density Storage
Securely stores up to 51,060 unit doses*, or 145 doses per square foot.

Patented PickRing®
Gives quick visual reference of medication orders for caregivers.

Automatic Medication Returns
Eliminates extra processing steps and waste.

Integrated PillPick System Components:

Package
Canister Workstation
Transfer solid medications from manufacturers’ packaging into tamper-proof PillPick Canisters. Canisters are encoded with medication-specific information, written to a radio frequency tag (RFID) and output to a barcode label. Pharmacists verify medications in canisters before they are packaged.

PillPick Canister Loader
Accepts up to 12 canisters to convey into the packager, replacing the need for operator intervention.

PillPick Packager
Packages, bar codes and labels pills into unit doses, with a unique serial number for automated dispensing and bedside verification.

AutoPhial™ Overwrap Module
Fully integrated module overwraps vials, syringes, ampoules and cups, allowing these items to be bar coded, stored and dispensed automatically, including on a PickRing.

Store
PillPick Robots
Two robots can run simultaneously, allowing for both multitasking and redundancy. One robot loads unit dose bags from the package into the storage unit and then picks unit dose bags for loading onto the PickRing. The second robot receives returned unit dose bags from the Returns window and loads them into the storage unit.

PillPick Storage Unit
The automated, high-density, robotic warehouse that receives, loads, and stores up to 51,060 barcoded doses for instantaneous access of oral solids and vials, cups, ampoules and syringes.

Dispense
PickRing
Each PickRing supplies a 12 or 24-hour supply of barcoded, patient-specific medications on a patented, flexible, plastic ring, labeled for bedside verification. Each PickRing includes a summary label listing each drug.

PillPick and PickRing are registered trademarks of Swisslog AG.

* Indicates maximum capacity, which is not typical for most clients.

PillPick and PickRing are part of an end-to-end, integrated solution of Swisslog equipment and software that controls and manages medication from wholesaler to patient. Swisslog solutions for medication packaging, storage and dispensing were inspired by the need for safer medication distribution practices:

- Improve legacy automation for medication packaging, storage and dispensing
- Reduce the risk of dispensing and administering the wrong medication
- Create a more efficient pharmacy workflow

PillPick is used in hospitals to reduce medication errors, improve patient safety and increase pharmacy efficiency.
PillPick is the only pharmacy automation system that can provide unit-dose packaging, storage and dispensing—making it a completely automated solution, from manufacturers’ packaging to patient-specific dispensing.

PillPick allows pharmacies to increase picking, packaging and dispensing efficiency, eliminate medication errors and improve patient safety.

PillPick is highly accurate and provides our nurses with the barcoded medications they can verify the “five rights” at the bedside. PillPick is an important part of our efforts to establish a safe medication-use system.”

- Robert Begliomini, Administrator, Pharmacy Services, Lehigh Valley Health Network

“[PillPick] increases our efficiency, turnaround time and ultimately, patient safety because medications are not handled by humans and come out of the robot on ready-to-dispense rings, which are verified by barcode.”

- David Hitchcock, Pharmacy Supervisor, North Kansas City Hospital

Advantages

- Fully Automated — from manufacturers’ packaging to patient-specific dispensing
- Advanced Design — two robots support task redundancy and productivity
- Overwrap Module — automates unit-dose packaging and bar coding of bulky containers and non-solids for improved control and traceability

Pharmacy to Nursing

1. Pharmacist checks medication canisters
2. Technician loads pill canisters or other drug typologies
3. PillPick picks and packages pills or other drug typologies
4. Dispenser breaks duplicate or incorrect medications
5. Transfers patient doses to storage
6. Receives order
7. Picks and verifies unit doses
8. Assembles PickRing
9. Dispenses PickRing
10. Technician transfers PickRing to patient floor

Pharmacy Workflow Efficiency Gains

- Completely automates the dispensing process
- Prevents and tracks returned medications and credits patient accounts
- Eliminates the need for secondary pharmacist check
- Reduces waste due to expired drugs

Nursing to Patient

1. Locate PickRing and bring to patient
2. Verify patient bar code
3. Administer medications
4. Return unused medications to pharmacy

Nursing Workflow Efficiency Gains

- Keeps nurse at the patient’s bedside
- Can separate patient medication on ring in order of administration time
- Minimizes missing doses

* Where allowed by State Board of Pharmacy
### Features and Benefits

**AutoPhial™ Overwrap Module**  
Booster pharmacy efficiency by automating the unit-dose packaging of vials, cups, ampoules and syringes.

**High-Density Storage**  
Securely stores up to 51,060 unit doses*, or 145 doses per square foot.

**Patented PickRing®**  
Gives quick visual reference of medication orders for caregivers.

**Automatic Medication Returns**  
Eliminates extra processing steps and reduces waste.

**Smart Technology**  
Fully automates packaging, storage and dispensing steps for complete medication management.

**Barcode Verification**  
Eliminates opportunities for medication errors during packaging and dispensing.

**Discrete Packaging and Dispensing Modules**  
Support simultaneous processing and improve productivity.

**Archive Process**  
Stores images of all medications packaged through the system for future verification.

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### Integrated PillPick System Components:

**Package**

- **Canister Workstation**  
  Transfer solid medications from manufacturers’ packaging into tamper-proof PillPick Canisters. Canisters are encoded with medication-specific information, written to a radio frequency tag (RFID) and output to a barcode label. Pharmacists verify medications in canisters before they are packaged.

- **PillPick Canister Loader**  
  Accepts up to 12 canisters to convey into the packager, reducing the need for operator intervention.

- **PillPick Packager**  
  Packages, bar codes and labels pills into unit doses, with a unique serial number for automated dispensing and bedside verification.

- **AutoPhial™ Overwrap Module**  
  Fully integrated module overwraps vials, syringes, ampoules and cups, allowing these items to be bar coded, stored and dispensed automatically, including on a PickRing.

**Store**

- **PillPick Robots**  
  Two robots can run simultaneously, allowing for both multi-tasking and redundancy. One robot loads unit dose bags from the package into the storage unit and then picks unit dose bags for loading onto the PickRing. The second robot returns returned unit dose bags from the Returns window and loads them into the storage unit.

- **PillPick Storage Unit**  
  The automated, high-density, robotic warehouse that receives, loads, and stores up to 51,060 barcoded unit doses including a combination of oral solids, vials, cups, ampoules and syringes.

**Dispense**

- **PickRing**  
  Each PickRing supplies a 12 or 24-hour supply of barcoded, patient-specific medications on a patented, flexible, plastic ring, labeled for bedside verification. Each PickRing includes a summary label listing each drug.

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* Indicates maximum capacity, which is not typical for most clients.

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[1] Source: Nebraska Medical Center case study data

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**AutoPhial™ Overwrap Module**

- Securely stores up to 51,060 unit doses, or 145 doses per square foot.

**PillPick Canister Loader**

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PillPick is the only pharmacy automation system that can provide unit-dose packaging, storage and dispensing — making it completely automated from manufacturers' packaging to patient-specific dispensing. PillPick allows pharmacies to increase picking, packaging and dispensing efficiency, eliminate medication errors and improve patient safety.

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Advantages
- Fully Automated — from manufacturers' packaging to patient-specific dispensing
- Advanced Design — two robots support task redundancy and productivity
- Overwrap Module — automates unit-dose packaging and bar coding of bulky containers and non-solids for improved control and traceability

Pharmacy to Nursing

1. Pharmacist checks medication canisters
2. Technician loads pill canisters or other drug typologies
3. PillPick picks and packages pills or other drug typologies
4. Dispense broken, duplicate or incorrect medications
5. Technician transfers PickRing to patient floor
6. Technician returns doses to storage
7. Picks and verifies unit doses
8. Assembles PickRing
9. Dispenses PickRing
10. Receives order
11. Picks and verifies unit doses
12. Assembles PickRing
13. Dispenses PickRing
14. Returns order

Pharmacy Workflow Efficiency Gains
- Completely automates the dispensing process
- Promotes and ensures returned medications and credits patient accounts
- Eliminates the need for secondary pharmacist check
- Reduces waste due to expired drugs

Nursing to Patient

1. Locate PickRing and bring to patient
2. Verify patient bar code
3. Administer medications
4. Return unused medications to pharmacy
5. Places medication to pharmacy

Nursing Workflow Efficiency Gains
- Keeps nurse at the patient’s bedside
- Can separate patient medication on ring in order of administration time
- Minimizes missing doses

* Where allowed by State Board of Pharmacy
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Pharmacy to Nursing

1. Pharmacist checks medication canisters
2. Technician loads pill canisters or other drug typologies
3. PillPick picks and packages pills or other drug typologies
4. Discards broken, duplicate or incorrect medications
5. Transfers doses to storage
6. Receives order
7. Picks and verifies unit doses
8. Assembles PickRing
9. Dispenses PickRing
10. Technician transfers PickRing to patient floor

Pharmacy Workflow Efficiency Gains

- Completely automates the dispensing process
- Priorizes and sorts returned medications and credits patient accounts
- Eliminates the need for secondary pharmacist check
- Reduces waste due to expired drugs

Nursing to Patient

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HEALTHCARE SOLUTIONS

PillPick® Automated Packaging and Dispensing System

**Features and Benefits**

**Unit-Dose Packaging**
Ensures complete traceability of medication from original packaging to the patient.

**High-Density Storage**
Securely stores up to 51,060 unit doses*, or 145 doses per square foot.

**Patented PickRing®**
Gives quick visual reference of medication orders for caregivers.

**Automatic Medication Returns**
Eliminates extra processing steps and waste.

**AutoPhial™ Overwrap Module**
Boosts pharmacy efficiency by automating the unit-dose packaging of vials, cups, ampoules and syringes.

**Barcode Verification**
Eliminates opportunity for medication errors during packaging and dispensing.

**Discrete Packaging and Dispensing**
Supports streamlined, error-free medication dispensing.

**Archival Process**
Stores images of all medications packaged through the system for future verification.

**Integrated PillPick System Components:**

- **Package**
  - **Canister Workstation**
    - Transfer solid medications from manufacturers’ packaging into tamper-proof PillPick Canisters. Canisters are encoded with medication-specific information, written to a radio frequency tag (RFID) and output to a barcode label. Pharmacists verify medications in canisters before they are packaged.
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    - Two robots can run simultaneously, allowing for both multi-tasking and redundancy. One robot loads unit dose bags from the package into the storage unit and then picks unit dose bags for loading onto the PickRing. The second robot monitors returned unit dose bags from the Return window and loads them into the storage unit.
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1 Source: Nebraska Medical Center case study data

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**Smart Technology**
Full automated packaging, storage and dispensing steps for complete medication management.

**AutoPhial™ Overwrap Module**
Boosts pharmacy efficiency by automating the unit-dose packaging of vials, cups, ampoules and syringes.

**Uline-Door Packaging**
Ensures complete traceability of medication from original packaging to the patient.

**Secure Medication Loading**
Verification replaces pharmacist check upon dispensing, reducing workload by as much as 50%.

**Automatic Medication Returns**
Eliminates extra processing steps and waste.

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