AUTOMATION EDUCATION SERIES

Automation Discovery Guide

What warehouse automation can do for a beer & beverage distributor

Automation is one of the most talked-about topics in beer and beverage distribution, and the conversation is moving fast. BIECC created this guide to help distributors approach warehouse automation with confidence: what the technology actually is, in plain language, and how to start the conversation. It is a resource for every distributor who wants to stay current, whether automation is on the roadmap this year or simply on the radar.

- **18 automation technologies, explained in plain language**
- **One page to sketch your operation**
- **Ten questions worth bringing to a first vendor conversation**
- **BIECC members who offer automation solutions**

HOW TO USE THIS GUIDE

Use it in any order, and fill in as much or as little as you like. Estimates are fine; they are the same rough numbers providers work from every day.

1 THE TECHNOLOGY, IN PLAIN LANGUAGE

A note on names: providers package and name these technologies differently. Two companies can sell the same idea under different names, and the same name can describe two very different systems. Treat these as translations for your first conversations, not as rigid categories.

Voice & wearable picking

A headset or wearable guides each pick, hands-free, in place of paper pick sheets or RF gun screens.

You may also hear: *voice-directed picking, pick-by-voice, RF picking*

Pick-to-light

Lights on the rack show the selector what to grab and how many. Typically used in high-velocity pick areas.

You may also hear: *put-to-light, light-directed picking*

Goods-to-person

Instead of a picker walking to the product, the product is brought to a station where a person does the picking.

You may also hear: *GTP, shuttle pick stations, each-picking systems*

Goods-to-robot

The same idea with the picking done by a machine: product is brought to a robotic cell that picks cases and assembles orders.

You may also hear: *robotic case picking, robotic picking cells*

Robotic palletizing

Robot arms or gantries that stack cases onto pallets.

You may also hear: *palletizers, automated pallet building*

Mixed-case palletizing

Building one pallet from many different SKUs, stacked in a sequence that works for the route or the account. A different problem from stacking a single SKU.

You may also hear: *mixed-SKU palletizing, route pallet building, rainbow pallets*

Layer picking & depalletizing

Machines that pick whole layers of cases at a time, or break inbound pallets down into individual cases.

You may also hear: *layer handling, automated depal*

Pallet wrapping & end-of-line

Machinery that wraps finished pallets in place of hand wrapping, often alongside pallet dispensers and print-and-apply labeling.

You may also hear: *stretch wrappers, wrap cells, end-of-line automation*

Conveyance & sortation

Belts and sorters move cases between work zones and split them out by route or order.

You may also hear: *conveyor systems, sorters, case flow*

Autonomous mobile robots

Robots that drive pallets or carts across the floor on their own, navigating without wires or rails.

You may also hear: *AMRs, AGVs, autonomous pallet transport*

1 THE TECHNOLOGY, CONTINUED

VNA & autonomous forklifts

Lift trucks that work very narrow aisles just a few feet wide, increasingly running without a driver. Racking packs tighter, so the same building holds more product.

You may also hear: *VNA trucks, turret trucks, automated forklifts, driverless pallet handling*

Dock & trailer automation

Systems that load or unload trailers mechanically, or speed up dock turnaround.

You may also hear: *automated truck loading and unloading, trailer loading systems*

Dense storage & retrieval

Stores product in a fraction of the footprint, with automated retrieval. Dense case storage handles individual cases; dense pallet storage handles full pallets.

You may also hear: *ASRS, shuttle systems, high-density storage, cube storage*

Automated replenishment

Moves product from reserve storage to pick locations automatically, keeping pick faces stocked without a forklift trip.

You may also hear: *auto-replen, reserve-to-pick automation*

Warehouse software

The layer that directs the work and keeps systems talking: a WMS runs inventory and orders, WES and WCS run equipment and task flow.

You may also hear: *execution software, controls, analytics, orchestration*

Vision verification

Cameras verify the order, identify variances, and create a digital record before the truck leaves the dock.

You may also hear: *machine vision, SKU verification, scan tunnels, load validation*

Integrated warehouse automation

Several of these systems working together as one, anywhere from two connected modules up to receiving-through-loading.

You may also hear: *full-warehouse automation, end-to-end systems*

Modular & phased automation

Two related ideas. Modular: the system is built from self-contained units, so one section or workflow can be automated on its own. Phased: implementation happens in steps over time. Providers combine the two in different ways.

You may also hear: *phased deployment, scalable systems, brownfield retrofit*

2 YOUR OPERATION AT A GLANCE

A little information goes a long way in a first conversation with a provider. A rough sketch is plenty.

Company / facility

Annual case volume (approx.)

Average cases per day / peak day

Active SKU count

Order mix: pallet / layer / case (rough %)

Routes or orders per day

Shifts, operating days, seasonality

Warehouse square footage / clear height

ERP or route accounting system; WMS if any

Automation already in place, if any

Hardest part of the operation today

Where the business is headed next

3 REASONS TO CONSIDER AUTOMATION

Check whatever rings true for your operation, or anything you are curious about.

- ☐ Labor availability and cost
- ☐ Throughput and growth capacity
- ☐ Storage space
- ☐ Picking accuracy
- ☐ SKU & product expansion
- ☐ Safety and ergonomics
- ☐ On-time route departure
- ☐ Staying in the current building
- ☐ Phasing investment over time
- ☐ Acquisitions or territory expansion

4 FOR YOUR FIRST CONVERSATION

Ten open-ended questions to ask any provider.

1. What would this look like in our building?
2. What have you installed for distributors our size, and what would we see if we visited one?
3. If we automated one part of our operation first, where would you start, and why there?
4. What stays manual, and how are exceptions handled?
5. How does it connect to our route accounting and warehouse systems?
6. What does support look like after go-live?
7. What is a typical timeline from first site visit to up and running?
8. What ROI timeline should we expect, and what drives it?
9. How would installation affect current operations, and what downtime should we plan for?
10. How would the solution expand as our volume and SKU count grow?

5 BIECC MEMBERS WHO OFFER AUTOMATION SOLUTIONS

While increasing its focus on warehouse automation education, the BIECC has been fortunate to work with a number of vendors who have expertise in the area. BIECC members who specialize in automation solutions include:

- [ ] **Block One Automation**
- [ ] **Cirrus Tech Inc.**
- [ ] **Hy-Tek Intralogistics**
- [ ] **KPI Solutions**
- [ ] **Rehrig Pacific Company**
- [ ] **Symbotic**
- [ ] **Toyota Automated Logistics**

Listed alphabetically.

TALK TO YOUR RAS PROVIDER

The BIECC also recommends discussing any potential automation installation with your existing route accounting (RAS) provider to ensure the solution will integrate with their systems.

NOTES

WANT TO LEARN MORE? CONNECT WITH BIECC

Throughout the year the BIECC conducts virtual and in-person education programs on a variety of topics. Visit **biecc.org** to access resources intended to help distributors navigate new and emerging technologies in the industry. For more information about the BIECC, or if you are interested in becoming a member, please contact Dave Christman at **dchristman@nbwa.org**.