

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:07:30 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 45  
Average Utilization: 69.5%  
Throughput Increase: 34.2%  
Labor Cost Reduction: 28.5%  
ROI Period: 2.3 years

## Warehouse Performance

Warehouse Location		Capacity Used	Inbound/Day	Outbound/Day	Picking Accuracy	Automation Level	Status
Distribution Center A	Chicago, IL	58.1%	1,084	1,507	99.4%	63.4%	Improvement Needed
Distribution Center B	Dallas, TX	84.8%	1,075	3,600	97.5%	72.5%	Improvement Needed
Distribution Center C	Atlanta, GA	63.6%	1,809	2,129	97.7%	65.9%	Improvement Needed
Distribution Center D	Los Angeles, CA	66.9%	2,851	3,817	98.5%	81.2%	Optimized
Distribution Center E	Newark, NJ	73.7%	2,896	1,597	97.3%	64.4%	Improvement Needed

## Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%

- Implement voice-picking system to improve accuracy to 99.8%

- Upgrade WMS integration for real-time inventory visibility

- Add automated sortation system for small package handling

- Implement predictive analytics for demand-based staffing

- Consider AS/RS system for high-velocity SKUs