

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:01:33 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 58  
Average Utilization: 69.9%  
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	68.0%	2,971	3,809	99.1%	68.5%	Improvement Needed
Distribution Center B	Dallas, TX	66.6%	2,340	1,647	95.6%	66.8%	Improvement Needed
Distribution Center C	Atlanta, GA	60.6%	1,692	1,841	96.1%	88.8%	Optimized
Distribution Center D	Los Angeles, CA	63.1%	1,450	1,959	98.4%	63.1%	Improvement Needed
Distribution Center E	Newark, NJ	68.1%	1,041	3,377	99.3%	62.6%	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