

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:01:06 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 52  
Average Utilization: 73.2%  
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	47.2%	2,493	1,685	99.2%	66.0%	Improvement Needed
Distribution Center B	Dallas, TX	118.1%	1,009	2,598	99.2%	70.2%	Improvement Needed
Distribution Center C	Atlanta, GA	52.5%	2,984	2,543	96.0%	84.5%	Optimized
Distribution Center D	Los Angeles, CA	56.1%	1,720	2,820	97.8%	72.8%	Improvement Needed
Distribution Center E	Newark, NJ	95.6%	2,634	3,838	95.2%	72.3%	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