

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:05:20 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 34  
Average Utilization: 73.0%  
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	83.2%	2,996	3,718	96.1%	67.7%	Improvement Needed
Distribution Center B	Dallas, TX	68.2%	2,545	3,375	96.4%	61.9%	Improvement Needed
Distribution Center C	Atlanta, GA	82.8%	2,848	2,888	95.9%	87.4%	Optimized
Distribution Center D	Los Angeles, CA	103.1%	1,495	2,150	99.1%	78.8%	Improvement Needed
Distribution Center E	Newark, NJ	43.4%	1,615	2,625	99.1%	68.9%	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