

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:03:05 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 57  
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	61.2%	2,605	2,616	97.7%	82.1%	Optimized
	Dallas, TX	83.2%	2,946	1,765	97.8%	70.0%	Improvement Needed
Distribution Center B	Atlanta, GA	67.8%	1,652	2,829	98.6%	76.5%	Improvement Needed
Distribution Center D	Los Angeles, CA	48.7%	1,649	2,237	97.4%	66.7%	Improvement Needed
Distribution Center E	Newark, NJ	36.5%	1,599	3,414	99.0%	70.8%	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