

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:04:57 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 57  
Average Utilization: 74.0%  
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	59.7%	1,815	3,898	96.8%	67.1%	Improvement Needed
Distribution Center B	Dallas, TX	79.6%	1,566	2,642	97.9%	76.5%	Improvement Needed
Distribution Center C	Atlanta, GA	77.8%	2,520	3,642	99.3%	62.0%	Improvement Needed
Distribution Center D	Los Angeles, CA	76.0%	2,209	2,479	97.1%	78.1%	Improvement Needed
Distribution Center E	Newark, NJ	64.6%	2,792	2,641	95.3%	86.4%	Optimized

## 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