

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:00:33 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 64  
Average Utilization: 70.5%  
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	58.7%	1,967	2,622	96.1%	85.6%	Optimized
	Dallas, TX	34.0%	1,215	2,891	99.1%	72.4%	Improvement Needed
Distribution Center B	Atlanta, GA	56.9%	2,015	2,964	96.3%	63.2%	Improvement Needed
Distribution Center D	Los Angeles, CA	84.3%	2,152	1,810	95.1%	67.1%	Improvement Needed
Distribution Center E	Newark, NJ	91.5%	2,862	1,818	96.3%	64.1%	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