

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:05:41 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 41  
Average Utilization: 73.1%  
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	65.9%	2,291	3,752	98.0%	68.5%	Improvement Needed
Distribution Center B	Dallas, TX	72.6%	1,005	3,773	97.0%	75.3%	Improvement Needed
Distribution Center C	Atlanta, GA	53.5%	1,625	2,254	97.5%	67.9%	Improvement Needed
Distribution Center D	Los Angeles, CA	114.3%	2,596	3,210	95.4%	65.6%	Improvement Needed
Distribution Center E	Newark, NJ	55.3%	1,612	1,715	98.8%	88.2%	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