

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:08:18 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 48  
Average Utilization: 74.3%  
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	80.2%	2,658	1,620	96.7%	73.2%	Improvement Needed
Distribution Center B	Dallas, TX	44.5%	2,876	2,339	96.5%	91.1%	Optimized
Distribution Center C	Atlanta, GA	43.8%	2,649	2,337	97.4%	79.3%	Improvement Needed
Distribution Center D	Los Angeles, CA	50.8%	2,490	3,841	97.1%	63.6%	Improvement Needed
Distribution Center E	Newark, NJ	43.9%	1,761	2,508	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