

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:04:10 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 37  
Average Utilization: 74.5%  
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	111.4%	2,934	3,369	97.4%	73.6%	Improvement Needed
Distribution Center B	Dallas, TX	56.9%	2,709	2,673	96.1%	66.8%	Improvement Needed
Distribution Center C	Atlanta, GA	55.3%	1,493	2,778	98.7%	61.0%	Improvement Needed
Distribution Center D	Los Angeles, CA	61.1%	1,603	3,132	95.9%	93.4%	Optimized
Distribution Center E	Newark, NJ	86.0%	1,279	3,631	95.6%	77.7%	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