

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:09:20 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 50  
Average Utilization: 72.7%  
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	112.8%	1,775	3,265	96.7%	63.1%	Improvement Needed
Distribution Center B	Dallas, TX	127.6%	1,375	3,396	98.1%	89.2%	Optimized
Distribution Center C	Atlanta, GA	79.3%	2,434	2,157	96.7%	61.8%	Improvement Needed
Distribution Center D	Los Angeles, CA	83.3%	1,657	2,481	96.9%	69.9%	Improvement Needed
Distribution Center E	Newark, NJ	53.2%	1,069	2,975	97.3%	79.6%	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