

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:07:11 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 43  
Average Utilization: 80.0%  
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	63.5%	2,997	3,918	97.2%	90.2%	Optimized
	Dallas, TX	38.1%	1,053	1,957	95.2%	72.7%	Improvement Needed
Distribution Center B	Atlanta, GA	40.5%	2,699	2,785	96.4%	85.2%	Optimized
Distribution Center C	Los Angeles, CA	61.8%	2,196	3,376	98.8%	86.2%	Optimized
Distribution Center D	Newark, NJ	95.2%	1,189	1,556	97.0%	65.7%	Improvement Needed
Distribution Center E							

## 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