

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:05:11 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 66  
Average Utilization: 75.2%  
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	34.6%	1,293	2,589	95.9%	69.6%	Improvement Needed
Distribution Center B	Dallas, TX	49.3%	1,047	3,541	95.7%	73.1%	Improvement Needed
Distribution Center C	Atlanta, GA	103.6%	1,317	2,364	98.5%	75.5%	Improvement Needed
Distribution Center D	Los Angeles, CA	50.8%	2,924	2,415	99.1%	72.6%	Improvement Needed
Distribution Center E	Newark, NJ	41.3%	2,285	3,539	98.5%	85.0%	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