

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:06:11 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 72  
Average Utilization: 80.2%  
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	66.9%	2,865	3,372	97.2%	83.4%	Optimized
	Dallas, TX	98.7%	2,593	3,951	96.8%	89.1%	Optimized
Distribution Center B	Atlanta, GA	42.0%	2,209	2,014	96.3%	70.9%	Improvement Needed
Distribution Center C	Los Angeles, CA	34.5%	1,194	2,290	98.8%	62.6%	Improvement Needed
Distribution Center D	Newark, NJ	109.1%	1,605	2,565	97.0%	94.8%	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