

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:59 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 58  
Average Utilization: 79.7%  
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 Status	
Distribution Center A	Chicago, IL	43.6%	1,365	2,274	97.1%	91.6%	Optimized
	Dallas, TX	122.5%	2,261	3,357	96.8%	71.4%	Improvement Needed
Distribution Center B	Atlanta, GA	57.5%	2,763	3,433	98.3%	63.3%	Improvement Needed
Distribution Center D	Los Angeles, CA	62.4%	2,583	3,809	96.4%	84.5%	Optimized
Distribution Center E	Newark, NJ	42.5%	1,586	2,409	95.3%	87.9%	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