

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:04:12 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 51  
Average Utilization: 83.1%  
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	66.8%	1,608	3,430	96.4%	89.1%	Optimized
	Dallas, TX	51.2%	1,185	2,153	98.4%	94.9%	Optimized
Distribution Center B	Atlanta, GA	85.7%	2,852	1,635	96.0%	78.3%	Improvement Needed
Distribution Center C	Los Angeles, CA	100.7%	2,363	2,246	98.6%	80.8%	Optimized
Distribution Center D	Newark, NJ	70.3%	2,762	3,749	99.1%	72.5%	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