

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:01:27 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 42  
Average Utilization: 71.3%  
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	51.2%	2,439	2,502	99.2%	71.0%	Improvement Needed
Distribution Center B	Dallas, TX	53.1%	1,543	3,612	97.3%	67.0%	Improvement Needed
Distribution Center C	Atlanta, GA	77.4%	2,023	1,576	98.9%	66.8%	Improvement Needed
Distribution Center D	Los Angeles, CA	115.5%	2,349	1,830	96.4%	61.7%	Improvement Needed
Distribution Center E	Newark, NJ	89.3%	1,685	3,222	98.0%	90.2%	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