

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:23 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 36  
Average Utilization: 71.8%  
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	41.2%	1,134	3,499	96.2%	61.9%	Improvement Needed
Distribution Center B	Dallas, TX	51.3%	2,501	2,046	99.3%	70.2%	Improvement Needed
Distribution Center C	Atlanta, GA	39.6%	2,630	2,860	95.7%	76.6%	Improvement Needed
Distribution Center D	Los Angeles, CA	72.6%	1,587	3,324	96.2%	64.6%	Improvement Needed
Distribution Center E	Newark, NJ	65.1%	1,656	3,245	96.4%	85.8%	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