

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:09:29 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 27  
Average Utilization: 72.0%  
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	66.1%	1,256	3,048	97.6%	70.3%	Improvement Needed
Distribution Center B	Dallas, TX	65.0%	2,855	3,492	95.4%	91.5%	Optimized
Distribution Center C	Atlanta, GA	115.5%	2,791	2,042	98.8%	69.0%	Improvement Needed
Distribution Center D	Los Angeles, CA	95.3%	1,197	2,127	98.8%	63.6%	Improvement Needed
Distribution Center E	Newark, NJ	62.6%	1,398	2,759	96.3%	65.5%	Improvement Needed

## 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