

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:00:35 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 36  
Average Utilization: 71.5%  
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	37.9%	2,121	3,808	96.9%	70.9%	Improvement Needed
Distribution Center B	Dallas, TX	85.8%	1,744	2,296	95.3%	62.4%	Improvement Needed
Distribution Center C	Atlanta, GA	51.6%	2,567	2,312	97.4%	69.1%	Improvement Needed
Distribution Center D	Los Angeles, CA	71.0%	1,683	3,729	97.4%	64.7%	Improvement Needed
Distribution Center E	Newark, NJ	58.3%	1,736	3,820	95.2%	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