

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:00:55 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 33  
Average Utilization: 74.5%  
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	52.5%	1,965	2,002	98.5%	80.0%	Improvement Needed
Distribution Center B	Dallas, TX	109.3%	2,516	3,349	96.3%	79.5%	Improvement Needed
Distribution Center C	Atlanta, GA	38.3%	1,243	2,775	99.3%	64.7%	Improvement Needed
Distribution Center D	Los Angeles, CA	107.6%	1,627	1,632	98.5%	67.2%	Improvement Needed
Distribution Center E	Newark, NJ	70.1%	2,220	3,393	95.4%	81.1%	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