

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:13 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 21  
Average Utilization: 76.5%  
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	53.5%	1,139	1,790	98.3%	75.9%	Improvement Needed
Distribution Center B	Dallas, TX	105.2%	2,125	3,594	95.8%	76.5%	Improvement Needed
Distribution Center C	Atlanta, GA	78.5%	1,633	3,562	98.9%	77.3%	Improvement Needed
Distribution Center D	Los Angeles, CA	56.7%	1,899	3,657	97.2%	89.5%	Optimized
Distribution Center E	Newark, NJ	69.9%	2,050	3,425	98.6%	63.1%	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