

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:06:46 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 38  
Average Utilization: 78.8%  
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	69.7%	1,516	1,685	98.0%	74.0%	Improvement Needed
Distribution Center B	Dallas, TX	83.6%	2,000	2,262	99.3%	75.3%	Improvement Needed
Distribution Center C	Atlanta, GA	87.6%	2,559	3,526	96.9%	78.7%	Improvement Needed
Distribution Center D	Los Angeles, CA	67.0%	1,992	3,527	99.2%	71.3%	Improvement Needed
Distribution Center E	Newark, NJ	72.0%	2,313	2,926	99.5%	94.8%	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