

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:06:01 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 20  
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	84.8%	2,615	2,516	97.3%	73.8%	Improvement Needed
Distribution Center B	Dallas, TX	93.8%	1,695	2,428	97.0%	71.9%	Improvement Needed
Distribution Center C	Atlanta, GA	66.2%	1,638	3,928	98.5%	67.6%	Improvement Needed
Distribution Center D	Los Angeles, CA	38.3%	1,157	3,426	95.3%	66.9%	Improvement Needed
Distribution Center E	Newark, NJ	54.1%	2,483	1,838	96.1%	92.1%	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