

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:23 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 45  
Average Utilization: 77.0%  
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	51.0%	1,274	3,377	97.7%	62.5%	Improvement Needed
Distribution Center B	Dallas, TX	111.1%	1,936	3,509	99.1%	87.8%	Optimized
Distribution Center C	Atlanta, GA	73.3%	2,146	2,674	99.0%	63.1%	Improvement Needed
Distribution Center D	Los Angeles, CA	39.3%	1,113	3,844	99.0%	81.4%	Optimized
Distribution Center E	Newark, NJ	71.7%	1,216	2,006	97.1%	90.4%	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