

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:05:56 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 61  
Average Utilization: 82.6%  
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	90.1%	2,340	2,154	99.1%	61.1%	Improvement Needed
Distribution Center B	Dallas, TX	58.4%	1,562	1,761	96.1%	85.9%	Optimized
Distribution Center C	Atlanta, GA	46.7%	2,287	3,429	98.3%	86.7%	Optimized
Distribution Center D	Los Angeles, CA	59.5%	2,912	3,815	97.8%	88.2%	Optimized
Distribution Center E	Newark, NJ	94.0%	1,482	2,256	97.1%	91.0%	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