

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:03:39 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 46  
Average Utilization: 82.1%  
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	72.9%	1,463	2,252	96.8%	70.5%	Improvement Needed
Distribution Center B	Dallas, TX	83.4%	2,814	3,929	95.2%	91.5%	Optimized
Distribution Center C	Atlanta, GA	59.2%	2,228	2,556	96.3%	84.9%	Optimized
Distribution Center D	Los Angeles, CA	69.3%	1,076	3,437	99.5%	78.4%	Improvement Needed
Distribution Center E	Newark, NJ	51.9%	2,167	2,932	95.1%	85.3%	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