

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:07 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 41  
Average Utilization: 81.9%  
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	78.5%	1,379	2,164	98.0%	92.1%	Optimized
	Dallas, TX	108.7%	2,084	3,815	98.8%	69.5%	Improvement Needed
Distribution Center B	Atlanta, GA	73.8%	2,033	1,779	95.9%	71.4%	Improvement Needed
Distribution Center C	Los Angeles, CA	36.9%	2,363	3,878	95.6%	85.8%	Optimized
Distribution Center D	Newark, NJ	53.4%	1,190	1,567	97.4%	90.9%	Optimized
Distribution Center E							

## 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