

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:04:35 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 43  
Average Utilization: 73.1%  
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 Status	
Distribution Center A	Chicago, IL	123.6%	1,969	3,011	99.4%	94.7%	Optimized
	Dallas, TX	64.3%	1,939	2,832	98.8%	71.3%	Improvement Needed
Distribution Center B	Atlanta, GA	62.7%	1,454	2,947	99.1%	66.2%	Improvement Needed
Distribution Center D	Los Angeles, CA	77.5%	2,510	1,631	97.1%	65.6%	Improvement Needed
Distribution Center E	Newark, NJ	79.3%	2,071	3,284	96.1%	67.6%	Improvement Needed

## 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