

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:07:44 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 76  
Average Utilization: 77.7%  
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	79.0%	2,483	3,648	95.7%	64.8%	Improvement Needed
Distribution Center B	Dallas, TX	68.1%	2,767	3,452	96.6%	91.6%	Optimized
Distribution Center C	Atlanta, GA	56.2%	2,231	2,968	96.7%	66.3%	Improvement Needed
Distribution Center D	Los Angeles, CA	54.6%	2,958	1,699	98.2%	80.7%	Optimized
Distribution Center E	Newark, NJ	51.0%	1,204	3,459	98.9%	85.1%	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