

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:44 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 36  
Average Utilization: 84.9%  
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	86.7%	2,130	3,735	98.7%	76.8%	Improvement Needed
Distribution Center B	Dallas, TX	69.9%	2,436	2,738	95.6%	91.4%	Optimized
Distribution Center C	Atlanta, GA	60.9%	1,398	3,624	98.4%	77.9%	Improvement Needed
Distribution Center D	Los Angeles, CA	56.3%	2,749	2,423	97.2%	92.3%	Optimized
Distribution Center E	Newark, NJ	36.1%	2,097	2,342	97.1%	86.0%	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