

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:06:56 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 52  
Average Utilization: 79.7%  
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	49.3%	1,417	3,589	96.8%	73.9%	Improvement Needed
Distribution Center B	Dallas, TX	116.0%	1,013	2,530	99.1%	81.1%	Optimized
Distribution Center C	Atlanta, GA	64.7%	2,393	2,927	95.9%	69.8%	Improvement Needed
Distribution Center D	Los Angeles, CA	88.8%	2,883	2,994	95.4%	87.3%	Optimized
Distribution Center E	Newark, NJ	62.4%	1,692	2,525	99.4%	86.6%	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