

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:06:42 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 51  
Average Utilization: 76.6%  
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	86.3%	2,354	3,748	96.0%	83.1%	Optimized
	Dallas, TX	62.5%	2,316	2,079	95.1%	71.7%	Improvement Needed
Distribution Center B	Atlanta, GA	75.6%	1,460	2,104	96.8%	80.9%	Optimized
Distribution Center C	Los Angeles, CA	63.2%	2,281	2,710	95.4%	81.0%	Optimized
Distribution Center D	Newark, NJ	73.1%	2,245	3,144	96.7%	66.3%	Improvement Needed
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