

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:04:52 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 40  
Average Utilization: 82.4%  
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	67.7%	2,324	1,695	98.4%	91.2%	Optimized
	Dallas, TX	114.1%	2,159	2,737	96.4%	90.4%	Optimized
	Atlanta, GA	80.3%	1,180	3,805	95.8%	88.5%	Optimized
	Los Angeles, CA	61.0%	1,442	2,881	98.1%	65.9%	Improvement Needed
	Newark, NJ	99.5%	1,053	2,508	98.9%	76.3%	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