

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:01:22 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 50  
Average Utilization: 84.2%  
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	42.4%	1,806	2,610	98.1%	80.1%	Optimized
	Dallas, TX	94.6%	1,273	3,947	95.1%	95.0%	Optimized
	Atlanta, GA	50.1%	1,955	1,881	95.5%	85.1%	Optimized
	Los Angeles, CA	58.3%	1,210	3,955	99.5%	93.1%	Optimized
	Newark, NJ	44.5%	2,864	3,696	96.8%	67.8%	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