

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:00:36 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 47  
Average Utilization: 75.9%  
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	90.6%	2,217	3,872	98.7%	88.4%	Optimized
	Dallas, TX	49.3%	1,851	3,346	99.0%	80.5%	Optimized
	Atlanta, GA	40.4%	2,601	3,196	97.2%	66.5%	Improvement Needed
Distribution Center B							
Distribution Center C	Los Angeles, CA	64.6%	1,895	2,206	97.1%	60.7%	Improvement Needed
	Newark, NJ	104.8%	1,204	3,734	96.1%	83.2%	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