

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:36 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 65  
Average Utilization: 79.8%  
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	91.9%	1,370	2,937	95.8%	89.1%	Optimized
	Dallas, TX	89.3%	2,817	3,269	99.3%	91.3%	Optimized
Distribution Center B	Atlanta, GA	63.7%	2,970	2,402	99.0%	85.6%	Optimized
Distribution Center C	Los Angeles, CA	98.2%	1,115	2,223	97.0%	65.9%	Improvement Needed
Distribution Center D	Newark, NJ	47.6%	1,766	1,789	95.3%	67.1%	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