

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:03:49 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 41  
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 Status		
Distribution Center A	Chicago, IL	55.6%	1,761	3,726	97.8%	92.7%	Optimized	
	Dallas, TX	91.0%	1,055	2,932	97.8%	75.8%	Improvement Needed	
Distribution Center B		Atlanta, GA	68.5%	2,865	1,655	95.6%	62.5%	Improvement Needed
Distribution Center D	Los Angeles, CA	72.9%	1,658	3,924	98.9%	76.2%	Improvement Needed	
Distribution Center E	Newark, NJ	96.1%	1,240	3,986	98.8%	72.2%	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