

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:08:47 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 43  
Average Utilization: 72.3%  
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	46.8%	2,307	3,393	96.4%	94.3%	Optimized
	Dallas, TX	56.9%	2,423	3,817	96.9%	72.2%	Improvement Needed
Distribution Center B	Atlanta, GA	67.9%	2,488	3,895	95.5%	71.0%	Improvement Needed
Distribution Center D	Los Angeles, CA	38.1%	2,862	2,605	98.5%	63.0%	Improvement Needed
Distribution Center E	Newark, NJ	118.1%	1,604	3,215	97.9%	61.2%	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