

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:01:06 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 56  
Average Utilization: 73.5%  
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	67.1%	2,367	1,955	95.3%	69.7%	Improvement Needed
Distribution Center B	Dallas, TX	49.9%	2,288	3,110	95.8%	68.6%	Improvement Needed
Distribution Center C	Atlanta, GA	75.2%	2,350	2,605	98.8%	92.1%	Optimized
Distribution Center D	Los Angeles, CA	83.8%	1,400	2,854	96.2%	63.7%	Improvement Needed
Distribution Center E	Newark, NJ	72.9%	2,733	2,971	98.7%	73.5%	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