

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

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

## Automation Overview

Total Warehouses: 5  
Total Robots: 30  
Average Utilization: 71.4%  
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	71.2%	2,118	3,692	96.3%	75.0%	Improvement Needed
Distribution Center B	Dallas, TX	93.8%	2,643	2,242	99.0%	71.2%	Improvement Needed
Distribution Center C	Atlanta, GA	65.7%	2,417	3,823	95.2%	69.3%	Improvement Needed
Distribution Center D	Los Angeles, CA	74.6%	2,795	1,683	97.3%	81.1%	Optimized
Distribution Center E	Newark, NJ	56.6%	2,367	3,048	98.0%	60.2%	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