

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:04 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 69  
Average Utilization: 70.9%  
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 Level	Status
Distribution Center A	Chicago, IL	54.7%	2,119	2,368	97.9%	60.1%	Improvement Needed
Distribution Center B	Dallas, TX	64.7%	1,117	3,804	96.4%	60.6%	Improvement Needed
Distribution Center C	Atlanta, GA	33.6%	1,776	1,914	97.7%	68.6%	Improvement Needed
Distribution Center D	Los Angeles, CA	62.5%	1,411	3,902	95.7%	92.0%	Optimized
Distribution Center E	Newark, NJ	49.0%	1,476	3,726	95.8%	73.3%	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