

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:05:03 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 55  
Average Utilization: 74.2%  
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	66.9%	1,193	2,738	99.0%	77.1%	Improvement Needed
Distribution Center B	Dallas, TX	64.2%	2,646	1,927	98.4%	68.3%	Improvement Needed
Distribution Center C	Atlanta, GA	47.4%	1,989	1,874	95.0%	74.5%	Improvement Needed
Distribution Center D	Los Angeles, CA	57.0%	1,744	1,528	99.3%	61.1%	Improvement Needed
Distribution Center E	Newark, NJ	105.2%	1,346	3,607	99.0%	90.0%	Optimized

## 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