

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:40 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 40  
Average Utilization: 68.8%  
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	67.7%	1,428	3,866	98.0%	70.0%	Improvement Needed
Distribution Center B	Dallas, TX	37.8%	1,080	2,538	98.9%	73.2%	Improvement Needed
Distribution Center C	Atlanta, GA	78.0%	1,201	3,612	97.1%	65.1%	Improvement Needed
Distribution Center D	Los Angeles, CA	36.2%	1,500	2,283	96.3%	75.3%	Improvement Needed
Distribution Center E	Newark, NJ	68.3%	2,290	3,205	95.6%	60.6%	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