

# 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: 47  
Average Utilization: 80.0%  
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	110.0%	2,450	2,207	98.8%	70.3%	Improvement Needed
Distribution Center B	Dallas, TX	71.4%	2,174	2,181	96.1%	80.8%	Optimized
Distribution Center C	Atlanta, GA	91.0%	1,174	2,644	97.4%	71.8%	Improvement Needed
Distribution Center D	Los Angeles, CA	102.7%	2,171	2,457	97.2%	94.7%	Optimized
Distribution Center E	Newark, NJ	47.4%	1,214	2,235	98.6%	82.4%	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