

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:06:20 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 30  
Average Utilization: 77.7%  
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	69.8%	2,855	1,558	98.0%	64.2%	Improvement Needed
Distribution Center B	Dallas, TX	71.0%	2,264	2,356	98.3%	89.1%	Optimized
Distribution Center C	Atlanta, GA	70.0%	1,856	2,587	98.6%	86.5%	Optimized
Distribution Center D	Los Angeles, CA	85.1%	1,875	3,787	99.1%	87.9%	Optimized
Distribution Center E	Newark, NJ	82.9%	2,444	2,520	98.6%	60.7%	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