

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:05:17 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 48  
Average Utilization: 73.3%  
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	88.3%	1,187	2,221	97.1%	84.6%	Optimized
	Dallas, TX	108.6%	1,815	1,821	98.1%	65.2%	Improvement Needed
Distribution Center B	Atlanta, GA	55.8%	1,480	1,928	95.5%	86.6%	Optimized
Distribution Center C	Los Angeles, CA	55.1%	2,324	1,802	97.2%	64.7%	Improvement Needed
Distribution Center D	Newark, NJ	71.2%	1,358	2,184	95.2%	65.4%	Improvement Needed

## Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Implement predictive maintenance for conveyor systems

ment voice-  
picking  
system to  
improve  
accuracy to  
99.8%

- Upgra  
de WMS  
integration  
for real-time  
inventory  
visibility

- Add au  
tomated  
sortation  
system for  
small  
package  
handling

- Imple  
ment  
predictive  
analytics for  
demand-  
based  
staffing

- Consid  
er AS/RS  
system for  
high-  
velocity  
SKUs