

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:03:24 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 33  
Average Utilization: 74.0%  
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	128.9%	1,969	2,782	95.7%	94.9%	Optimized
	Dallas, TX	41.4%	2,106	2,731	97.0%	81.3%	Optimized
	Atlanta, GA	62.5%	2,556	3,236	95.0%	72.1%	Improvement Needed
Distribution Center B	Los Angeles, CA	104.0%	1,822	3,695	99.2%	61.0%	Improvement Needed
Distribution Center C	Newark, NJ	114.7%	1,884	3,480	99.2%	60.5%	Improvement Needed

## Optimization Opportunities

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

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