

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:08:31 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 52  
Average Utilization: 72.3%  
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	43.9%	2,487	3,086	95.4%	87.9%	Optimized
	Dallas, TX	77.6%	2,473	2,002	96.2%	60.7%	Improvement Needed
Distribution Center B	Atlanta, GA	56.4%	2,618	3,298	95.7%	85.2%	Optimized
Distribution Center C	Los Angeles, CA	96.0%	2,614	3,932	98.2%	64.4%	Improvement Needed
	Newark, NJ	86.1%	2,421	3,634	97.4%	63.1%	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