

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:07:38 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 53  
Average Utilization: 77.0%  
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 Status	
Distribution Center A	Chicago, IL	71.2%	1,038	2,768	97.4%	92.1%	Optimized
	Dallas, TX	52.9%	1,334	3,437	95.2%	62.1%	Improvement Needed
Distribution Center B	Atlanta, GA	85.0%	1,368	1,896	96.3%	73.8%	Improvement Needed
Distribution Center D	Los Angeles, CA	99.5%	1,505	2,145	98.6%	94.6%	Optimized
Distribution Center E	Newark, NJ	104.1%	2,878	3,911	99.0%	62.4%	Improvement Needed

## Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Implement AI-driven inventory tracking in Warehouse 1

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