

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:01:48 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 27  
Average Utilization: 76.3%  
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	110.2%	2,684	1,547	96.1%	65.1%	Improvement Needed
Distribution Center B	Dallas, TX	79.4%	2,907	2,463	98.9%	83.4%	Optimized
Distribution Center C	Atlanta, GA	85.1%	2,834	3,762	98.5%	79.5%	Improvement Needed
Distribution Center D	Los Angeles, CA	59.1%	2,891	3,211	96.0%	92.0%	Optimized
Distribution Center E	Newark, NJ	55.5%	1,767	2,649	99.2%	61.4%	Improvement Needed

## Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Imple

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