

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:19 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 73  
Average Utilization: 80.4%  
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	89.6%	1,434	3,198	96.1%	63.8%	Improvement Needed
Distribution Center B	Dallas, TX	48.4%	1,079	3,711	98.7%	90.3%	Optimized
Distribution Center C	Atlanta, GA	99.0%	1,125	2,361	99.2%	91.5%	Optimized
Distribution Center D	Los Angeles, CA	89.1%	2,568	3,927	98.5%	76.6%	Improvement Needed
Distribution Center E	Newark, NJ	82.2%	2,940	3,588	95.7%	79.9%	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