

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:03:31 AM  
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 34  
Average Utilization: 75.5%  
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	53.3%	2,490	2,219	95.8%	67.6%	Improvement Needed
Distribution Center B	Dallas, TX	72.2%	2,110	2,395	98.0%	91.2%	Optimized
Distribution Center C	Atlanta, GA	48.5%	2,289	3,178	97.6%	71.3%	Improvement Needed
Distribution Center D	Los Angeles, CA	39.8%	1,662	3,372	99.4%	64.6%	Improvement Needed
Distribution Center E	Newark, NJ	46.5%	2,351	1,635	99.5%	83.0%	Optimized

## Optimization Opportunities

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

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