

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:01:16 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 71  
Average Utilization: 75.1%  
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	58.7%	1,953	2,514	96.9%	69.3%	Improvement Needed
Distribution Center B	Dallas, TX	121.2%	2,865	3,321	95.9%	80.5%	Optimized
Distribution Center C	Atlanta, GA	67.4%	1,898	2,695	98.1%	73.4%	Improvement Needed
Distribution Center D	Los Angeles, CA	98.6%	2,720	3,607	96.3%	88.4%	Optimized
Distribution Center E	Newark, NJ	131.6%	2,861	2,551	96.3%	64.0%	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