

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:01:06 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 44  
Average Utilization: 78.3%  
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	85.2%	1,784	3,934	95.9%	69.5%	Improvement Needed
Distribution Center B	Dallas, TX	74.2%	2,432	2,040	96.8%	66.1%	Improvement Needed
Distribution Center C	Atlanta, GA	51.5%	2,623	1,937	98.2%	86.8%	Optimized
Distribution Center D	Los Angeles, CA	91.6%	1,091	3,834	99.3%	91.7%	Optimized
Distribution Center E	Newark, NJ	48.3%	2,231	2,342	97.9%	77.4%	Improvement Needed

### Optimization Opportunities

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