

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:08:23 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 42  
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	37.6%	2,657	3,327	98.8%	74.7%	Improvement Needed
Distribution Center B	Dallas, TX	62.1%	1,972	3,193	99.0%	68.1%	Improvement Needed
Distribution Center C	Atlanta, GA	95.1%	1,676	2,342	95.3%	87.4%	Optimized
Distribution Center D	Los Angeles, CA	52.6%	1,222	2,387	99.4%	67.1%	Improvement Needed
Distribution Center E	Newark, NJ	50.2%	2,940	1,663	99.1%	94.3%	Optimized

### Optimization Opportunities

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

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