

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:04:12 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 44  
Average Utilization: 79.2%  
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	56.2%	1,957	3,763	98.7%	64.7%	Improvement Needed
Distribution Center B	Dallas, TX	106.3%	1,324	2,267	99.5%	88.7%	Optimized
Distribution Center C	Atlanta, GA	71.3%	1,909	3,397	95.6%	63.2%	Improvement Needed
Distribution Center D	Los Angeles, CA	59.1%	1,672	2,310	95.5%	90.7%	Optimized
Distribution Center E	Newark, NJ	57.5%	2,771	2,385	98.1%	88.7%	Optimized

### Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Implement voice-

picking  
system to  
improve  
accuracy to  
99.8%

- Upgrade WMS integration for real-time inventory visibility

- Add automated sortation system for small package handling

- Implement predictive analytics for demand-based staffing

- Consider AS/RS system for high-velocity SKUs