

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:01:27 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 71  
Average Utilization: 83.1%  
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	78.7%	2,440	2,518	96.4%	93.0%	Optimized
	Dallas, TX	60.2%	1,293	3,692	97.8%	93.8%	Optimized
	Atlanta, GA	63.6%	1,152	1,745	97.8%	70.9%	Improvement Needed
Distribution Center B	Los Angeles, CA	84.7%	2,568	2,170	99.2%	72.6%	Improvement Needed
Distribution Center C	Newark, NJ	69.8%	2,947	2,428	97.0%	85.0%	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