

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:17 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 66  
Average Utilization: 88.1%  
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	56.4%	2,986	3,949	99.0%	86.9%	Optimized
	Dallas, TX	47.6%	2,704	1,729	99.0%	94.8%	Optimized
Distribution Center B	Atlanta, GA	80.9%	1,855	3,786	99.1%	95.0%	Optimized
Distribution Center C	Los Angeles, CA	97.0%	2,693	3,881	95.9%	73.6%	Improvement Needed
Distribution Center D	Newark, NJ	83.7%	1,175	2,581	99.1%	90.3%	Optimized
Center E							

### 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