

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:03:57 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 36  
Average Utilization: 87.3%  
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	50.9%	2,125	3,784	96.8%	83.8%	Optimized
	Dallas, TX	72.8%	1,165	3,156	97.9%	87.6%	Optimized
	Atlanta, GA	111.6%	2,381	2,520	97.1%	88.3%	Optimized
	Los Angeles, CA	104.3%	2,974	1,616	96.4%	91.4%	Optimized
	Newark, NJ	102.9%	2,002	2,455	95.4%	85.2%	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