

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:05:50 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 59  
Average Utilization: 82.1%  
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 Status	
Distribution Center A	Chicago, IL	59.6%	1,678	2,983	97.9%	94.5%	Optimized
	Dallas, TX	56.0%	1,110	1,925	97.6%	69.2%	Improvement Needed
Distribution Center B	Atlanta, GA	82.6%	1,450	1,721	96.4%	65.9%	Improvement Needed
Distribution Center D	Los Angeles, CA	63.4%	1,163	2,696	95.3%	93.2%	Optimized
Distribution Center E	Newark, NJ	59.2%	2,817	2,182	97.0%	87.9%	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