

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:00:41 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 36  
Average Utilization: 85.3%  
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	54.7%	1,899	3,058	96.9%	94.3%	Optimized
	Dallas, TX	78.9%	1,346	3,185	96.4%	77.5%	Improvement Needed
Distribution Center B	Atlanta, GA	34.4%	2,841	1,742	97.6%	93.4%	Optimized
Distribution Center C	Los Angeles, CA	54.1%	2,986	2,208	95.5%	76.0%	Improvement Needed
	Newark, NJ	92.5%	2,562	2,750	98.1%	85.5%	Optimized
Distribution Center D							
Distribution 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