

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:02:32 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 25  
Average Utilization: 67.1%  
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	57.6%	2,342	2,981	97.3%	64.6%	Improvement Needed
Distribution Center B	Dallas, TX	102.8%	1,531	1,927	97.4%	61.6%	Improvement Needed
Distribution Center C	Atlanta, GA	102.3%	1,829	2,488	98.7%	62.6%	Improvement Needed
Distribution Center D	Los Angeles, CA	93.8%	2,337	2,274	98.9%	80.9%	Optimized
Distribution Center E	Newark, NJ	70.0%	1,737	1,823	96.0%	65.8%	Improvement Needed

### 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