

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:07:20 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 37  
Average Utilization: 84.9%  
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	97.5%	1,481	2,627	95.3%	78.0%	Improvement Needed
Distribution Center B	Dallas, TX	59.7%	1,561	2,502	99.4%	87.4%	Optimized
Distribution Center C	Atlanta, GA	95.3%	2,176	2,520	97.9%	74.7%	Improvement Needed
Distribution Center D	Los Angeles, CA	49.9%	1,698	2,197	98.8%	91.1%	Optimized
Distribution Center E	Newark, NJ	81.9%	1,286	2,838	96.1%	93.2%	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