

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:05:29 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 42  
Average Utilization: 78.3%  
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	106.0%	2,067	2,280	97.4%	61.2%	Improvement Needed
Distribution Center B	Dallas, TX	70.8%	2,133	3,590	95.5%	84.4%	Optimized
Distribution Center C	Atlanta, GA	59.1%	2,119	3,751	97.0%	61.7%	Improvement Needed
Distribution Center D	Los Angeles, CA	65.5%	1,746	2,182	97.6%	92.6%	Optimized
Distribution Center E	Newark, NJ	53.3%	1,838	3,657	97.2%	91.7%	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