

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:03:29 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 41  
Average Utilization: 72.0%  
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	60.1%	2,315	3,349	95.4%	79.3%	Improvement Needed
Distribution Center B	Dallas, TX	61.1%	1,233	2,641	96.9%	60.4%	Improvement Needed
Distribution Center C	Atlanta, GA	35.2%	1,327	2,241	97.7%	82.5%	Optimized
Distribution Center D	Los Angeles, CA	68.2%	2,205	1,500	97.7%	60.2%	Improvement Needed
Distribution Center E	Newark, NJ	83.6%	2,712	1,878	96.7%	77.6%	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