

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:00:35 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 55  
Average Utilization: 72.5%  
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	59.0%	2,433	2,882	99.0%	62.8%	Improvement Needed
Distribution Center B	Dallas, TX	45.3%	2,702	2,155	98.7%	62.4%	Improvement Needed
Distribution Center C	Atlanta, GA	101.8%	1,029	2,958	96.7%	93.1%	Optimized
Distribution Center D	Los Angeles, CA	64.8%	2,296	2,052	96.1%	65.8%	Improvement Needed
Distribution Center E	Newark, NJ	64.8%	2,166	3,559	99.3%	78.6%	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