

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller  
Date: 8/3/2025, 8:07:16 AM  
Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 26  
Average Utilization: 72.9%  
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	86.2%	2,909	3,005	96.6%	62.3%	Improvement Needed
Distribution Center B	Dallas, TX	112.2%	1,342	2,794	98.4%	76.9%	Improvement Needed
Distribution Center C	Atlanta, GA	80.3%	2,305	3,990	97.5%	79.9%	Improvement Needed
Distribution Center D	Los Angeles, CA	31.0%	2,973	3,999	99.0%	76.3%	Improvement Needed
Distribution Center E	Newark, NJ	67.9%	1,028	2,911	95.1%	68.9%	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