# Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller
Date: 8/3/2025, 8:06:57 AM
Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5
Total Robots: 45
Average Utilization: 81.0%
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 | 54.8% | 1,135 | 3,267 | 97.8% | 94.4% | Optimized |
| Distribution Center B | Dallas, TX | 45.9% | 1,826 | 1,861 | 95.5% | 87.9% | Optimized |
| Distribution Center C | Atlanta, GA | 55.2% | 2,074 | 2,725 | 96.0% | 68.6% | Improvement Needed |
| Distribution Center D | Los Angeles, CA | 56.5% | 1,475 | 1,532 | 96.1% | 61.5% | Improvement Needed |
| Distribution Center E | Newark, NJ | 54.4% | 1,722 | 1,650 | 97.7% | 92.5% | 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