

Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller
Date: 8/3/2025, 8:07:54 AM
Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 55
Average Utilization: 65.8%
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 | 110.4% | 1,888 | 2,748 | 96.6% | 66.9% | Improvement Needed |
| Distribution Center B | Dallas, TX | 65.5% | 2,321 | 3,889 | 99.1% | 62.2% | Improvement Needed |
| Distribution Center C | Atlanta, GA | 118.9% | 1,142 | 3,498 | 95.0% | 67.0% | Improvement Needed |
| Distribution Center D | Los Angeles, CA | 60.8% | 1,032 | 3,616 | 99.2% | 68.2% | Improvement Needed |
| Distribution Center E | Newark, NJ | 99.9% | 1,349 | 2,893 | 97.5% | 64.6% | 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