

Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller
Date: 8/3/2025, 8:06:43 AM
Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 52
Average Utilization: 86.1%
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 | 38.9% | 2,115 | 2,195 | 96.8% | 88.2% | Optimized |
| | Dallas, TX | 63.8% | 1,634 | 3,592 | 99.4% | 76.9% | Improvement Needed |
| Distribution Center B | Atlanta, GA | 103.2% | 1,133 | 3,124 | 99.0% | 88.6% | Optimized |
| Distribution Center C | Los Angeles, CA | 39.0% | 2,662 | 3,460 | 95.7% | 84.6% | Optimized |
| Distribution Center D | Newark, NJ | 97.2% | 1,456 | 2,482 | 97.4% | 92.3% | Optimized |
| Distribution Center E | | | | | | | |

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