Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller
Date: 8/3/2025, 8:00:53 AM
Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 28
Average Utilization: 75.1%
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	41.1%	1,349	2,280	96.2%	79.4%	Improvement Needed
Distribution Center B	Dallas, TX	42.4%	2,758	3,598	96.1%	68.8%	Improvement Needed
Distribution Center C	Atlanta, GA	57.0%	2,127	2,522	98.9%	62.4%	Improvement Needed
Distribution Center D	Los Angeles, CA	39.6%	2,890	1,939	98.5%	85.5%	Optimized
Distribution Center E	Newark, NJ	108.1%	1,442	3,251	95.2%	79.3%	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