Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller
Date: 8/3/2025, 8:01:20 AM
Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 77
Average Utilization: 85.0%
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	108.2%	1,938	3,039	98.5%	92.2%	Optimized
Distribution Center B	Dallas, TX	58.9%	2,389	1,738	99.4%	78.2%	Improvement Needed
Distribution Center C	Atlanta, GA	67.0%	1,651	2,228	97.0%	93.9%	Optimized
Distribution Center D	Los Angeles, CA	81.7%	1,581	1,687	96.7%	92.7%	Optimized
Distribution Center E	Newark, NJ	44.9%	1,260	2,675	97.4%	68.1%	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