Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller
Date: 8/3/2025, 8:01:12 AM
Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 54
Average Utilization: 80.8%
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	67.4%	2,369	3,583	95.8%	79.1%	Improvement Needed
Distribution Center B	Dallas, TX	44.1%	1,874	3,434	97.9%	85.8%	Optimized
Distribution Center C	Atlanta, GA	97.2%	1,067	2,573	96.1%	71.8%	Improvement Needed
Distribution Center D	Los Angeles, CA	91.2%	2,654	1,740	97.5%	82.1%	Optimized
Distribution Center E	Newark, NJ	62.5%	2,132	3,821	97.5%	85.2%	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