Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller
Date: 8/3/2025, 8:05:19 AM
Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 42
Average Utilization: 80.4%
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	69.9%	2,671	2,693	99.2%	82.7%	Optimized
Distribution Center B	Dallas, TX	80.8%	2,907	3,180	96.4%	94.1%	Optimized
Distribution Center C	Atlanta, GA	84.6%	1,156	2,269	98.2%	64.1%	Improvement Needed
Distribution Center D	Los Angeles, CA	54.5%	1,630	3,665	98.3%	88.2%	Optimized
Distribution Center E	Newark, NJ	36.3%	2,111	3,273	97.0%	72.6%	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