Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller
Date: 8/3/2025, 8:02:26 AM
Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 56
Average Utilization: 74.7%
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	65.5%	2,174	2,604	99.1%	60.9%	Improvement Needed
Distribution Center B	Dallas, TX	73.6%	1,481	2,508	95.4%	62.4%	Improvement Needed
Distribution Center C	Atlanta, GA	81.2%	2,823	3,501	99.5%	83.9%	Optimized
Distribution Center D	Los Angeles, CA	79.1%	1,848	2,798	96.2%	88.2%	Optimized
Distribution Center E	Newark, NJ	53.9%	2,483	2,818	98.9%	78.1%	Improvement Needed

Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Imple

ment 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