Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller
Date: 8/3/2025, 8:03:37 AM
Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 69
Average Utilization: 72.7%
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	56.0%	1,132	2,111	95.8%	77.5%	Improvement Needed
Distribution Center B	Dallas, TX	45.5%	1,097	2,373	96.5%	70.2%	Improvement Needed
Distribution Center C	Atlanta, GA	116.5%	1,187	3,795	99.1%	60.4%	Improvement Needed
Distribution Center D	Los Angeles, CA	106.5%	1,444	1,931	95.2%	71.7%	Improvement Needed
Distribution Center E	Newark, NJ	86.8%	1,818	3,431	96.3%	83.4%	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