Warehouse Automation Analytics

Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller

Date: 8/3/2025, 8:02:23 AM Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 48

Average Utilization: 81.0% 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 Chicago, IL | | 1,360 | 2,676 | 97.6% | 91.7% | Optimized |
| Center A Distribution Dallas, TX | | 1,736 | 1,652 | 98.6% | 81.2% | Optimized |
| Center B Distribution Atlanta, GA Center C | 31.6% | 2,742 | 2,568 | 99.0% | 71.0% | Improvemen t Needed |
| Distribution Los | 93.0% | 1,175 | 2,771 | 95.6% | 85.9% | Optimized |
| Center D Angeles, CA Distribution Newark, NJ Center E | ¹ 91.5% | 1,565 | 3,946 | 95.7% | 75.3% | Improvemen t Needed |

Optimiz ation O pportun ities

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

picking system to improve accuracy to 99.8%

• Upgra de WMS integration for real-time inventory visibility

• Add au tomated sortation system for small package handling

• Imple ment predictive analytics for demand-based staffing

• Consid er AS/RS system for highvelocity SKUs