# **Warehouse Automation Analytics**

## Performance metrics and automation optimization insights

Generated by: Vanguard Warehouse Controller

Date: 8/3/2025, 8:06:17 AM Use Case: warehouse-automation

#### **Automation Overview**

Total Warehouses: 5
Total Robots: 46

Average Utilization: 73.0% Throughput Increase: 34.2% Labor Cost Reduction: 28.5%

ROI Period: 2.3 years

## **Warehouse Performance**

| Warehouse Location                     |                    | Capacity<br>Used | Inbound/<br>Day | Outbound/<br>Day | Picking<br>Accuracy | Automation Status<br>Level |                        |
|--|--------------------|------------------|-----------------|------------------|---------------------|----------------------------|------------------------|
| Distribution (                         | Chicago, IL        | 58.9%            | 2,015           | 3,688            | 99.2%               | 81.0%                      | Optimized              |
| Center A<br>Distribution I<br>Center B | Dallas, TX         | 44.3%            | 1,545           | 3,816            | 96.2%               | 70.4%                      | Improvemen t Needed    |
| Distribution / Center C                | Atlanta, GA        | 46.5%            | 2,967           | 2,489            | 97.5%               | 65.4%                      | Improvemen t Needed    |
| Distribution I<br>Center D             | Los<br>Angeles, CA | 109.6%           | 2,421           | 3,481            | 96.1%               | 77.7%                      | Improvemen t Needed    |
| Distribution I Center E                | Newark, NJ         | 34.0%            | 2,287           | 2,238            | 96.4%               | 70.5%                      | Improvemen<br>t Needed |

# Optimiz ation O pportun ities

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

- Imple ment voicepicking 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