

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

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Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 59  
Average Utilization: 73.5%  
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     | 137.1%        | 1,306       | 1,957        | 97.4%            | 76.9%            | Improvement Needed |
| Distribution Center B | Dallas, TX      | 36.2%         | 1,134       | 2,138        | 98.6%            | 67.8%            | Improvement Needed |
| Distribution Center C | Atlanta, GA     | 47.1%         | 1,395       | 1,670        | 98.5%            | 72.3%            | Improvement Needed |
| Distribution Center D | Los Angeles, CA | 55.9%         | 2,882       | 2,098        | 98.9%            | 82.4%            | Optimized          |
| Distribution Center E | Newark, NJ      | 55.5%         | 2,365       | 3,998        | 97.8%            | 68.1%            | 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