

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

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Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 57  
Average Utilization: 68.4%  
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     | 105.8%        | 1,966       | 2,650        | 95.2%            | 77.0%            | Improvement Needed |
| Distribution Center B | Dallas, TX      | 42.2%         | 1,456       | 1,932        | 95.4%            | 60.6%            | Improvement Needed |
| Distribution Center C | Atlanta, GA     | 57.6%         | 2,563       | 3,732        | 98.6%            | 75.2%            | Improvement Needed |
| Distribution Center D | Los Angeles, CA | 99.5%         | 2,436       | 3,043        | 98.4%            | 66.4%            | Improvement Needed |
| Distribution Center E | Newark, NJ      | 57.3%         | 1,539       | 1,526        | 99.3%            | 62.6%            | 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