

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

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Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 77  
Average Utilization: 77.8%  
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     | 127.8%        | 1,935       | 2,767        | 96.7%            | 71.8%            | Improvement Needed |
| Distribution Center B | Dallas, TX      | 65.2%         | 2,947       | 3,059        | 99.5%            | 73.1%            | Improvement Needed |
| Distribution Center C | Atlanta, GA     | 51.4%         | 1,831       | 2,864        | 99.4%            | 89.0%            | Optimized          |
| Distribution Center D | Los Angeles, CA | 49.1%         | 1,010       | 3,760        | 97.0%            | 78.8%            | Improvement Needed |
| Distribution Center E | Newark, NJ      | 50.6%         | 2,501       | 2,390        | 99.4%            | 76.4%            | 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