

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 18  
Average Utilization: 82.4%  
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	111.0%	2,297	1,894	97.5%	72.9%	Improvement Needed
Distribution Center B	Dallas, TX	96.1%	1,805	1,583	97.4%	82.7%	Optimized
Distribution Center C	Atlanta, GA	49.5%	2,195	1,740	96.6%	89.2%	Optimized
Distribution Center D	Los Angeles, CA	107.2%	1,886	3,932	96.7%	85.4%	Optimized
Distribution Center E	Newark, NJ	66.2%	1,387	1,501	97.9%	82.1%	Optimized

### 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