

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 48  
Average Utilization: 80.4%  
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	127.2%	1,187	2,707	99.2%	77.7%	Improvement Needed
Distribution Center B	Dallas, TX	72.6%	1,603	1,704	97.9%	62.1%	Improvement Needed
Distribution Center C	Atlanta, GA	77.4%	2,238	2,470	95.6%	89.2%	Optimized
Distribution Center D	Los Angeles, CA	63.1%	1,376	3,356	97.6%	87.3%	Optimized
Distribution Center E	Newark, NJ	35.1%	2,514	1,795	95.6%	85.5%	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