

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 71  
Average Utilization: 70.1%  
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	33.6%	2,473	2,627	96.2%	62.0%	Improvement Needed
Distribution Center B	Dallas, TX	62.6%	1,392	1,977	98.4%	69.6%	Improvement Needed
Distribution Center C	Atlanta, GA	104.4%	1,465	3,370	96.9%	84.5%	Optimized
Distribution Center D	Los Angeles, CA	92.3%	1,186	2,666	97.3%	73.2%	Improvement Needed
Distribution Center E	Newark, NJ	80.0%	2,415	3,109	96.8%	61.0%	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