

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 44  
Average Utilization: 88.0%  
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	102.5%	2,221	3,165	97.0%	93.8%	Optimized
	Dallas, TX	86.0%	1,024	2,584	99.1%	67.9%	Improvement Needed
Distribution Center B	Atlanta, GA	64.7%	1,669	2,945	97.1%	94.3%	Optimized
Distribution Center C	Los Angeles, CA	51.6%	2,569	2,877	98.6%	93.9%	Optimized
Distribution Center D	Newark, NJ	103.9%	1,554	2,214	98.5%	90.2%	Optimized
Distribution Center E							

### 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