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EXECUTIVE **SUMMARY**

REVOLUTIONINZING WAREHOUSE EFFICIENCY

In 2025, logistics professionals face unprecedented challenges: rising e-commerce volumes, increasing carrier surcharges, and a 1.2 million worker shortage in U.S. warehouses (BLS 2025)1. Updating item master data—weights, dimensions, and photos—is critical for enabling automation, optimizing ERP/WMS systems, and ensuring accurate shipping. Traditional fixed dimensioning systems are slow, costly, and immobile, costing warehouses money every day they delay modernization. MobileDemand's mobile dimensioning technology offers a transformative solution, delivering workflows that are 3X faster and costs <1/3 compared to fixed systems, as proven by a 2025 study of 70,000 measurements². For a warehouse with 50,000 SKUs needing to update its item master in 6 months, MobileDemand saves \$246,750 compared to fixed systems—\$123,750 in employee costs and \$123,000 in equipment costs—paying for itself in only 2.5 weeks through employee cost & operational savings alone. With 3 issued patents and successful deployments with customers like Grimco³, Veritiv⁴, and Van Meter⁵, alongside ongoing engagements with leading retailers, logistics providers, and distributors, MobileDemand empowers warehouses to streamline item master updates with 70% of measurements completed in under 3 minutes, aligning with Gartner's key warehouse management KPIs (e.g., labor productivity, operation cost).

WHY MOBILE?

The adoption of mobile dimensioning is accelerating, with Zebra Technologies' 2023 Warehousing Vision Study⁶ reporting that 76% of warehouse operators planned to implement mobile dimensioning by 2025, rising to 90% by 2027. This white paper explores mobile dimensioning's role in modern logistics, highlights MobileDemand's proven results for efficient item master updates, and provides actionable insights for CFOs, warehouse leaders, and engineers. Calculate your savings with our ROI calculator https://www.mobiledemand.com/mobiledimensioning-roi-calculator.



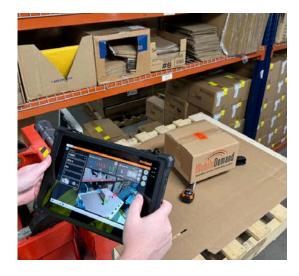












1.2M worker shortage in U.S. warehouses

3X faster workflows with MobileDemand

< 1/3 cost of fixed systems

\$246,750 savings for 50,000 SKUs

70% of measurements in under 3 minutes

THE STATE OF LOGISTICS IN 2025:

CHALLENGES AND OPPORTUNITIES

THOUGHT LEADERSHIP: ADDRESSING INDUSTRY TRENDS

The logistics industry in 2025 is at a tipping point.

E-commerce now accounts for 25% of retail sales (Statista 20257), driving SKU proliferation and increasing pressure on warehouses to maintain accurate item master data—weights, dimensions, and photos—for efficient slotting, automation, and shipping. Carrier surcharges have risen by 10% since 2024, averaging \$15 per (FedEx/UPS 2025⁸), while labor package shortages—projected at 1.2 million warehouse workers (BLS 20251)—exacerbate operational inefficiencies. Fixed dimensioning systems, often costing over \$20,000 per unit, are slow (8.5 minutes per SKU), immobile, and unable to keep pace with modern demands, resulting in ongoing financial losses for warehouses urgently relying on them to update item masters for automation or ERP/WMS integration investments.

EMERGING TRENDS

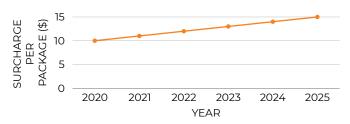
- DHL Logistics Trend Radar 7.0 (2025) predicts computer vision, core to mobile dimensioning, will become standard in logistics, with a market growth from \$9.1B in 2020 to \$41B by 2040 (16% CAGR)⁹.
- **Zebra Technologies (2023)** reports that 76% of warehouse operators planned to adopt mobile dimensioning by 2025, with 90% expected by 2027, reflecting its critical role in addressing e-commerce demands and labor constraints⁶.
- VDC Research (ProMat 2025 Show Report)
 identifies mobile dimensioning as a key focus
 for optimizing workflows and automating
 labor-intensive tasks like item master
 updates, naming MobileDemand as a leading
 provider¹⁰.



OPPORTUNITIES

Mobile dimensioning addresses these challenges by offering a flexible, cost-effective, and scalable solution for updating item master data. It ensures accurate weights, dimensions, and photos for ERP/WMS updates, automation readiness (e.g., AMRs, conveyors), and efficient slotting, while reducing surcharges through precise measurements. As Gartner (2024) emphasizes, warehouse management KPIs such as space utilization, labor productivity, and throughput velocity are critical for driving excellence in receive/pick/ship processes—areas where mobile dimensioning excels¹¹.

RISING CARRIER SURCHARGES: 2020-2025



Surcharges have increased 50% in 5 years, costing warehouses millions.

THE FUTURE OF WAREHOUSE EFFICIENCY MOBILE DIMENSIONING

Mobile dimensioning redefines how warehouses manage item master data—weights, dimensions, and photos—critical for automation, ERP/WMS integration, and shipping accuracy. Unlike fixed systems, which are tethered to a single location and typically limited to items under 30 inches, mobile dimensioning allows measurements anywhere in the warehouse—even at upper racking levels.

MobileDemand's xDIM solution captures item master data in an average of 2 minutes 4 seconds per SKU, with 70% under 3 minutes (2025 study, 70,000 measurements), delivering a 3X faster process that directly reduces operational costs.



SPACE UTILIZATION:

Measure items at their location, reducing the need for dedicated dimensioning stations and freeing up valuable warehouse space.



LABOR PRODUCTIVITY:

3X faster than fixed systems (2m 4s/SKU vs. 7m 6s), enabling faster item master updates.



THROUGHPUT VELOCITY:

Process 27.9 items/hour on average (mobile) vs. 8.5 (fixed), accelerating workflows for item master updates.

Key Benefits Aligned with Gartner KPIs¹¹

OPERATION COST:

<1/3 the cost of fixed systems (\$1.32/SKU vs. \$6.25/SKU).



OPERATION QUALITY:

0.25-inch accuracy for 70-80% of items, ensuring reliable item master data and reducing surcharges.



SCALABILITY:

2 mobile systems for 50,000 SKUs in 6 months vs. 6 for fixed systems.



The growing adoption of mobile dimensioning—76% by 2025 and 90% by 2027 (Zebra Technologies, 2023°)—underscores its role as the future of warehouse efficiency, enabling operators to meet e-commerce demands and overcome labor constraints with accurate, up-to-date item masters.

MOBILE VS. FIXED DIMENSIONING: A CLEAR ADVANTAGE

Metric	Mobile Dimensioning	Fixed Dimensioning
Speed	2m 4s/SKU	7m 6s/SKU
Cost	\$1.32/SKU	\$6.25/SKU
Flexibility	Anywhere	Stationary
Scalability	2 Systems	6 Systems

PROVEN RESULTS 3X FASTER, <1/3 THE COST

MobileDemand's mobile dimensioning delivers measurable ROI for item master updates, as shown by a 2025 study of 70,000 measurements² and deployments with Grimco³, Veritiv⁴, and Van Meter⁵, aligning with Gartner's warehouse management KPIs. For warehouses enabling automation or ERP/WMS modernization, continuing with a fixed dimensioning system means losing money every day—while MobileDemand's solution pays for itself quickly through significant cost savings and efficiency gains.

SINGLE SYSTEM THROUGHPUT COMPARISON

Metric	Mobile	Fixed
Items/Day	223.2	67.8
Items/Week	1,116	339
Items/Month	4,695	1,426

MobileDemand processes 3X more items, enhancing throughput velocity (Gartner KPIs¹¹).

Efficiency (Gartner KPIs: Labor Productivity, Throughput Velocity¹¹):

3X Faster

Mobile dimensioning processes items at an average of 29.2 items/hour (small: 34.3, medium: 26.7, large: 20), compared to fixed systems at 8.5 items/hour (small: 10, medium: 8.6, large: 6) (2025 study)².

Average Time per SKU

2 minutes 4 seconds/SKU, with 70% under 3 minutes, 44% under 2 minutes (small: 1m 45s, medium: 2m 15s, large: 3m).

Scalability

2 systems (2 employees) vs. 6 systems (6 employees) for 50,000 SKUs in 6 months.

Note: Time per SKU measures the total employee time required to complete item master updates—weights, dimensions, and photos—for each SKU, from start to finish. For MobileDemand's mobile dimensioning, this reflects a single employee capturing data at the item's location, averaging 2 minutes 4 seconds per SKU, as validated by a 2025 study of 70,000 measurements². For fixed systems, Time per SKU must include all involved employees, such as those operating the station and others retrieving or returning items, often requiring 7 minutes 6 seconds or more. Competitors' claims of subsecond acquisition times typically exclude these critical workflow steps, understating true operational time.

SCALABILITY FOR ITEM MASTER UPDATES

# of Systems	Mobile SKUs/Week	Fixed SKUs/Week	Mobile SKUs/Month	Fixed SKUs/Month
5 Systems	5,580	1,695	23,475	7,130
10 Systems	11,160	3,390	46,950	14,260
25 Systems	27,900	8,475	117,375	35,650
50 Systems	55,800	16,950	234,750	71,300

MobileDemand scales efficiently for any warehouse size.

COST STAVINGS (GARTNER KPIs: OPERATION COST¹¹):

- <1/3 the cost: \$1.32/SKU vs. \$6.25/SKU for 50,000 SKUs (ROI Calculator). Total: \$65,750 (mobile) vs. \$312,500 (fixed).
- Surcharge savings: Accurate item master data saves \$150,000/year for 10,000 mismeasured packages at \$15 each, improving operation quality (Gartner KPIs).



PROVEN RESULTS: 50,000 SKU EXAMPLE

EXAMPLE: A COMPELLING FINANCIAL DECISION FOR ITEM MASTER UPDATES

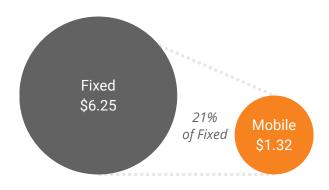
For a warehouse updating item master data for 50,000 SKUs in 6 months to enable automation or ERP/WMS modernization, fixed dimensioning systems incur daily losses due to their slow, costly workflows. MobileDemand's xDIM solution saves \$246,750— \$123,750 in employee costs and \$123,000 in equipment costs—delivering a total cost of just \$65,750. With a 3X faster process (2 minutes 4 seconds/SKU vs. 7 minutes 6 seconds) and lower cost (\$1.32/SKU vs. \$6.25), xDIM pays for itself in only 2.5 weeks, driven by significant operational savings.

Beyond dimensioning, xDIM's Windows tablet doubles as a versatile workstation, supporting tasks like inventory management or reporting when not in use, further accelerating ROI. This rapid payback and multifunctionality make mobile dimensioning an undeniable choice for urgent item master projects. Calculate savings todav your at https://www.mobiledemand.com/mobile-dimensioningroi-calculator and join the 90% of warehouse operators adopting mobile dimensioning by 2027 (Zebra Technologies, 20236).

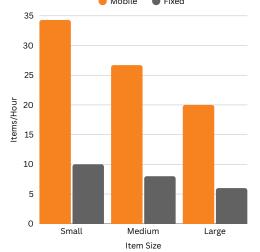
SPACE UTILIZATION (GARTNER KPI):

By enabling measurements anywhere in the warehouse, MobileDemand eliminates the need for dedicated dimensioning stations, freeing up space for other operations. For Grimco, this resulted in a 20% improvement in space utilization (case study estimate).

< 1/3 THE COST: MOBILE VS FIXED **COST PER SKU**



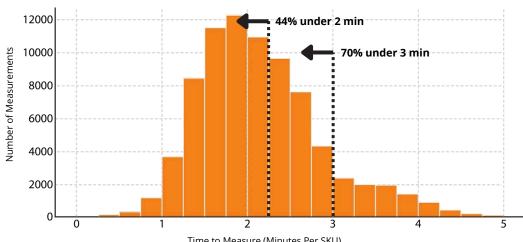
3X FASTER WORKFLOW: MOBILE VS. FIXED Mobile Fixed



MobileDemand reduces operation costs by nearly 80% (Gartner KPIs¹¹).

MobileDemand enhances throughput velocity (Gartner KPIs¹¹).





Time to Measure (Minutes Per SKU)

TECHNOLOGICAL INNOVATION

MOBILEDEMAND'S PATENTED ADVANTAGE

MobileDemand leads the industry with 3 issued patents (10,268,892, 10,559,086, 11,669,988) for mobile dimensioning technology, ensuring unmatched accuracy, integration, and portability for updating item master data. The xDIM solution combines Al-driven computer vision, lightweight hardware (Windows tablets, iOS iPhone/iPad), and seamless backend integration via webhooks API—capabilities that align with the industry's move toward automation, as noted by Zebra Technologies (2023), where 90% of operators plan to adopt mobile dimensioning by 20276.

Key Innovations:

- Accuracy (Gartner KPIs: Operation Quality¹¹): 0.25 inches for 70-80% of items, ensuring reliable item master data.
- Photo Capabilities: Background removal and custom filenames (e.g., SKU #105530-92839), enhancing picking verification and dispute resolution with item master photos.
- Scalability: Only 2 systems needed for 50,000 SKUs in 6 months vs. 6 for fixed systems, supporting efficient space utilization (Gartner KPIs).

Unlike competitors like CubiScan or QubeVu, MobileDemand offers a fully mobile, end-to-end solution with consumer-grade devices iPhone/iPad Pro with LiDAR), as noted by VDC Research (ProMat 2025¹⁰), making it ideal for rapid item master updates.

XDIM WORKFLOW: STREAMLINED ITEM MASTER **UPDATES**

SCAN ITEM

MEASURE DIMENSIONS/WEIGHT

CAPTURE PHOTO

SYNC VIA API



REAL-WORLD **CASE STUDY**



Grimco, a national wholesale sign supply manufacturer with 60+ locations specializing in signage materials and equipment (https://www.grimco.com)3, adopted MobileDemand's xDIM to streamline item master updates—weights, dimensions, and photos—for ERP integration.

GRIMCO'S RESULTS: 78% FASTER



master updates (Gartner KPIs¹¹).

Results: For the initial goal of 8,000 SKUs, xDIM reduced item master update time from 7 minutes 6 seconds to approximately 1 minute 30 seconds per SKU—a 78% improvement—enhancing picking verification and catalog accuracy with background-removed photos (e.g., filenamed SKU #105530-92839.jpg).

- Efficiency (Gartner KPIs: Labor Productivity, Throughput Velocity): Increased item master update time by 4.7X (1 minute 30 seconds vs. 7 minutes 6 seconds), improving throughput velocity to 40 items/hour on average.
- Cost Savings (Gartner KPIs: Operation Cost): Saved \$21,000 in operational costs (\$7,000 vs. \$28,000 for fixed systems) for 8,000 SKUs.
- Space Utilization (Gartner KPIs): Improved by 20% by eliminating dedicated dimensioning stations (estimate).
- Unplanned Benefits: Item master photos with background removal (e.g., SKU #4801105-86373) improved picking verification and catalog use.
- Future Plans: Using xDIM for pallets and 3PL/LTL outbound, tying item master photos to shipments for dispute resolution.

REAL-WORLD CUSTOMER INSIGHTS

Customer Spotlight: Veritiv

Veritiv, a leading distributor of packaging, facility solutions, and print products with 80 warehouses, enhances supply chain operations through inventory management and VMI programs (https://www.veritiv.com)⁴. Using xDIM, Veritiv updated 35,000 SKUs at 2 minutes/SKU, capturing weights, dimensions, and photos for ERP/WMS integration, aligning with labor productivity and operation quality KPIs¹¹.

Customer Spotlight: VAN METER



Van Meter, a wholesale industrial and electrical supplier serving contractors across 15 Midwest locations (https://www.vanmeterinc.com)⁵, leverages xDIM for medium and small electrical parts at under 2 minutes/SKU. Background-removed photos (e.g., SKU #4801105-86373) enhance picking verification, improving operation quality and throughput velocity¹¹.

Ongoing Engagements: MobileDemand is currently engaging with leading retailers, logistics providers, and distributors, to explore how mobile dimensioning can streamline their item master updates for automation and ERP/WMS integration. We are working on additional case studies to showcase these results, with more insights to be shared soon, building on active deployments like Grimco³, Veritiv⁴ and Van Meter⁵.

REAL CUSTOMER CAPTURES: ENHANCED ITEM MASTER DATA









MobileDemand improves picking and catalog use (Gartner KPIs11).

TAILORED BENEFITS FOR **DECISION-MAKERS**



FINANCIAL IMPACT: WHY CFOs CHOOSE MOBILE DIMENSIONING

For CFOs, MobileDemand offers a financially sound decision with immediate returns, especially for urgent item master updates:

- Immediate ROI (Gartner KPIs: Operation Cost): For a warehouse with 50,000 SKUs needing to update its item master in 6 months, continuing with a fixed dimensioning system means losing money every day. MobileDemand saves \$246,750 compared to fixed systems—\$123,750 in employee costs and \$123,000 in equipment costs. At a total cost of \$65,750 for mobile dimensioning (50,000 SKUs at \$1.30/SKU), the system pays for itself in just 2.5 weeks through employee cost savings alone, thanks to a minimum 3X faster process.
- **Surcharge Savings:** Saves \$150,000/annually for 10,000 packages at \$15 each, improving operation quality (Gartner KPIs)⁸.
- **Delayed Capital Projects:** Efficient slotting (20% space utilization improvement) delays facility expansions, saving millions, as CBRE (Zebra, 2023) ² notes a \$1.5 trillion ecommerce rise requires 1.5 billion square feet of new space by 2025.



OPERATIONAL EFFICIENCY: SOLVING LABOR SHORTAGES

Warehouse leaders benefit from:

- Labor Savings (Gartner KPIs: Labor Productivity): For 50,000 SKUs in 6 months, mobile dimensioning requires 2 employees vs. a minimum of 6 for fixed systems, saving \$123,750 in labor costs.
- **Employee Satisfaction:** Modern iOS/Windows devices improve morale, aligning with Zebra (2023)⁶ findings that 92% of associates say technology makes warehouses more attractive.
- **Operational Benefits:** Accurate item master data reduces surcharges (\$150,000/year), optimizes slotting (20% space utilization improvement), and handles SKU proliferation/e-commerce demands¹², as 82% of operators plan to increase SKUs by 2027 (Zebra, 2023)⁶.



TECHNICAL EXCELLENCE: PROCESS OPTIMIZATION

Industrial engineers, process control and quality assurance professionals gain:

- Efficient Process (Gartner KPIs: Throughput Velocity, Labor Productivity): 2m 4s/SKU, 70% under 3m (70,000 measurements)², enabling rapid item master updates.
- Accuracy (Gartner KPIs: Operation Quality): 0.25 inches for 70-80% of items, 0.5 inches for LFT/NTEP, ensuring reliable item master data.
- **Scalability (Gartner KPIs: Space Utilization):** Only 2 systems needed for 50,000 SKUs in 6 months vs. 6 for fixed systems, supporting efficient space utilization.

CALCULATE YOUR SAVINGS TRY OUR ROI CALCULATOR

Calculator Input Your Warehouse Details Total Number of SKUs Hourly Employee Burden Cost (\$/hour) **Desired Time to Completion (Months)** 50000 30 SKU Breakdown (%) Small Items (%) Large Items (%) Medium Items (%) 30 Fixed Dimensioning Time per Item (Minutes) up to 10 minutes of employee time per SKU. You may enter your experience **Equipment Costs (\$)** Mobile Hardware Cost Fixed Hardware Cost Fixed Shipping/Assembly Cost 4500 1500 20000 2500 We've input the cost per system for the mobile hardware and the annual software subscription per system. You may enter the cost of the fixed dimensioning system as well as the shipping, installation, and assembly cost. **Calculate Your Personalized ROI Report** Please enter your details below to view your personalized ROI report. You'll also be able to download it in PDF version

ROI CALCULATOR

Quantify your benefits with MobileDemand's ROI calculator:

1. REPORT

Input SKUs and costs for personalized savings.

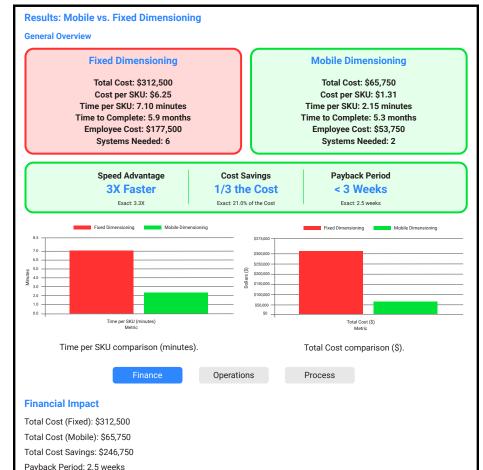
2. PDF

Share results with your team.

3. CONSULTATION

Discuss with our experts.

Results



Ready to see your potential ROI?

With MobileDemand's ROI calculator, you can quickly estimate cost savings and efficiency gains tailored to your operation. Simply enter your SKU count and cost data to generate a personalized report. Download a shareable PDF and connect with our experts for a deeper analysis.

CONCLUSION AND **NEXT STEPS**

Mobile dimensioning is the future of logistics, delivering 3X faster workflows, <1/3 the cost, and unmatched flexibility for updating item master data—results that align with Gartner's warehouse management KPIs¹¹ for space utilization, labor productivity, operation cost, operation quality, and throughput velocity. For warehouses needing to update item masters to enable automation or ERP/WMS integration, continuing with fixed systems means losing money daily, while MobileDemand's solution pays for itself in as little as 2 ½ weeks through employee cost savings alone.

Backed by a 2025 study of 70,000 measurements, 3 issued patents, and real-world success with customers like Grimco, alongside ongoing engagements with leading retailers, logistics providers, and distributors, MobileDemand empowers warehouses to overcome 2025 challenges—labor shortages, surcharges, and e-commerce demands—with accurate weights, dimensions, and photos in their item masters.

Industry trends support this shift, with Zebra Technologies (2023) reporting 90% of operators planning to adopt mobile dimensioning by 2027, alongside validations from DHL and VDC Research. Now is the time to act.



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STEP 2 Request a Demo

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Search xPIM on App Store (iOS) or Googe Play (Android)

STEP 4
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2025

ABOUT MOBILEDEMAND

MobileDemand is a leader in mobile dimensioning technology, engaging with leading retailers, logistics providers, and distributors to address their item master update needs. With 3 issued patents and a commitment to innovation, we empower logistics professionals to achieve efficiency, cost savings, and operational excellence through accurate item master updates.

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