

# The Definitive Guide to Dimensional Weight Shipping



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Most parcel shipping carriers have altered their method of calculating the weight – and by extension, the price you pay – of packages you want to ship. In 2014, major shipping carriers announced a dimensional weight pricing model, commonly called DIM, for air and ground shipping services. Since 2015, shipping customers have been charged the greater amount between actual weight and DIM weight.

## What is DIM?

The DIM model is based on a formula which establishes a minimum charge for the cubic space a package occupies.

Dimensional weight price calculations are composed of three fundamental components: the size of the shipping box, the box's actual weight and the object inside the box.

## What is the DIM Price Calculation Formula?

Major commercial shippers use this DIM weight calculation formula to determine the shipping amount customers pay: Height x length x width divided by 166, rounded up.

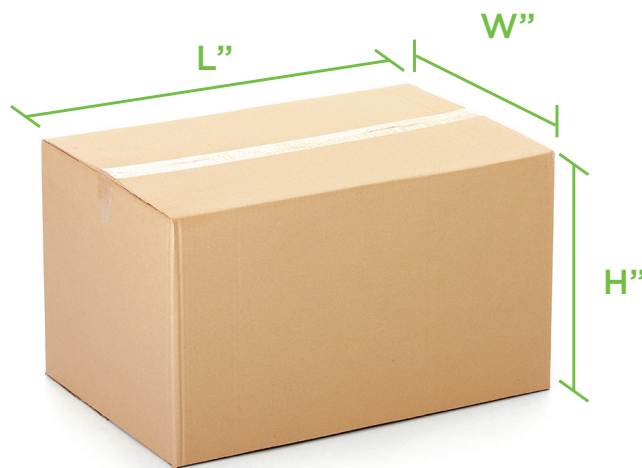
The United States Postal Service® uses this DIM weight formula: Height x length x width divided by 194, rounded up. (The USPS formula applies to Priority Mail® parcels and packages traveling more than 1,000 miles from their point of origin.)

It's no longer economically sound for a shipping customer to place a lightweight item in a large box. If the dimensional weight exceeds the actual weight, the shipping rate will be based on the dimensional weight. In other words, the bigger the box – regardless of the size of its contents – the higher the shipping price. For example, a lampshade's actual weight is three pounds. The dimensions for this lampshade in a box are 15" x 11" x 11". Using the USPS calculation of 15 x 11 x 11 divided by 194, the dimensional weight of this package becomes 10 pounds (9.35 pounds rounded up). That is more than three times the lampshade's actual weight.

## Why Have Shipping Carriers Embraced DIM?

Dimensional weight pricing is a major source of increased revenue for shipping carriers.

Carriers discovered they were delivering boxes that were much larger than required for the efficient delivery of the products they contained. This outsized box phenomenon caused shipping carrier's vehicles to reach their maximum space capacity long before they reached their physical weight capacity. Dimensional pricing financially motivates shipping customers to select the proper sized box for the contents it carries.



Shipping carriers charge shipping customers the greater amount between the actual weight and the dimensional weight of a shipment. That figure is determined by the outside dimensions of a package.

## What is DIM's Effect on Shipping Customers?

The advent of the DIM model has increased most shipping customers' costs and triggered the need to re-evaluate business processes as well as re-engineer packaging processes and shipping services. For instance, packaging procedures may be more laborious because shipping customers must now measure and record the outside box dimensions for each shipment.

In a simplified restatement of the DIM model, shipping customers sending bulky but lightweight packages will pay more than they did before 2015.

### How Have Shipping Customers Reacted to DIM?

The majority of shipping customers have responded to the DIM pricing changes in three distinct, specific and money-saving ways. They changed their packaging and operations procedures, they now comparison-shop among carriers for the best available deals and they switched carriers when good deals surfaced. Shipping customers facing the inevitable DIM model should investigate each option.

### Changing Packaging and Operations Procedures

Shipping customers are monitoring their packaging more closely because shipping carriers have limited the sizes of acceptable boxes. This new attention to packaging considerations is particularly evident in the ecommerce sector. It's economically prudent for shipping customers to match the size of external packaging to the contents boxes contain. The average ecommerce shipping customer uses approximately 65 percent of a box. A lot of space goes to waste.

There are alternative packaging options available. Not every box requires protective packing material. Shipping customers use padded envelopes, airbags and pouches to reduce space, the basis of dimensional weight assessment.

Major shipping carriers have package testing labs that simulate the environment that packages travel through. The lab option, offered to certain customers for free or for a nominal fee, is an ideal way to determine the optimal packaging for specific box content. That determination can possibly reduce or avoid dimensional weight charges.

In addition, shipping customers are using new technology in their operations. One new device gaining popularity is a dimensional weight scanner. Dimensional weight scanners analyze the area around a package to determine if the package will be subject to DIM charges.

It's worth noting that dimensional weight can affect some non-box shipments. Books, pamphlets or other contents that fit into envelopes and parcels can be DIM targets. Carriers use scanning technology to measure all angles of those shipments, essentially creating a virtual box which could be priced at DIM levels.

Knowledge and understanding about the new relationship among packaging options, DIM and shipping prices varies greatly among shipping customers. One study conducted by Sealed Air Corporation and Harris Poll Interactive<sup>1</sup> showed:

- 66 percent of shipping customers polled believe packaging tells them how much a retailer cares about them.
- 58 percent of shipping customers polled say their relationship with a retailer would be affected if they received a damaged or broken order.
  - Almost two in five (38 percent) say they would consider purchasing from a competitor before purchasing from the retailer again.
  - One in five (20 percent) says he or she would never use that retailer again.
- 48 percent of shipping customers polled feel packaging reflects the value of the shipment; the better the packaging, the better the product inside.

This last point is especially true for 59 percent of millennials, compared with 48 percent of the larger audience surveyed.<sup>2</sup>



<sup>1</sup> The Sealed Air Product Care 2014 Packaging for e-Commerce Success Survey, conducted by Harris Poll, November 2014

<sup>2</sup> "Attack the Data, not the Divisor," Brittany Beecroft, Director of AFS Parcel Pricing, Parcel Media, March 2015

### Controlling Shipping Process Costs

There are several easy-to-implement packaging and operations changes that can help control shipping process costs.

Instruct employees to weigh and measure every package with scales, tape measures and technology-based tools. These small behavioral changes can help reduce shipping prices.

Stop using manual airway bills. This simple operational adjustment eliminates possible mistakes employees who are not aware of dimensional weight pricing may make.

Consider return shipment packaging. As online shopping continues to grow, most retail consumers carefully scrutinize ecommerce shipping policies and pay special attention to merchandise returns policies. Statistics show that 20 to 25 percent of all shipments are returns; potentially a significant drain on the ecommerce revenue stream.

Shipping customers who pay for those returns should be concerned that consumers use appropriate packaging because shipping carriers may charge list rates. Returning earrings in a shoebox, for example, could be costly.

### Comparison-Shopping Among Shipping Carriers

Major carriers offer a variety of services, different options within those levels and varying customer-friendly policies. Shipping customers must become familiar with all the options available when selecting a carrier.

There are also regional carriers to consider. They also offer a variety of pricing options, rates and policies that may be more favorable than those from major carriers.

### Utilizing Different Services

There are at least three other shipping carrier options that shipping customers should research:

- **Multi-weight and hundredweight services** – Lesser-known parcel carrier services that allow a shipping customer to pay, contractually and per-pound, for shipments going to the same ZIP Code™ or location
- **The LTL (less than a truckload) option** – Prices are set predicated on the actual weight of the shipped content being less than 2,250 pounds. These shipments typically are shrink-wrapped, placed on pallets and loaded on trucks as single unit. Shipments weighing more than 2,250 pounds become FTLs, full truckloads.
- **The Zone Skip option** – Shipping customers fill a truck with small parcel shipments and move them across the country in bulk. As the truck gets closer to the desired delivery zone, the packages are unloaded and shipped conventionally from that near-point to maximize savings.



### Evaluate Your Current Process and Discover How DIM Changes Affect You

These tips will help you prepare for DIM pricing that major shipping carriers now utilize.

- Measure the outside dimensions of your packaging. Remember, the bigger the box, the higher the shipping price.
- Audit your invoices to monitor and analyze the financial and operation affect of DIM pricing.
- Implement technology, packaging and hardware tools to manage the changes DIM presents.
- Educate others in your organization about DIM. Set-up beneficial business procedures to ensure that shipments travel in appropriately sized boxes.
- Evaluate the cost of returns.
- Shop among shipping carriers for the best available deals. Ask you current shipping carrier for pricing options.

### Conclusion

DIM is solidly ensconced in the current shipping equation. The DIM requirements can be confusing – at first – but there are opportunities to save money.

Many shipping customers are in a good position to realize cost savings simply by reviewing their current shipping practices with their carriers to determine the best available deal.



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