Every day, logistics professionals focus on three main variables: where, when, and how much. This is because every business that ships products requires the ability to accurately determine how long it will take for a shipment to reach its destination, and how much it will cost. Changes are about to impact this quotient. Owing to a new pricing approach from FedEx and UPS a metric called “dimensional weight” will affect rates significantly. No longer limited to physical weight, dimensional weight now includes the amount of space that a package consumes. The reason for this is that when fully loaded, trucks and aircraft were reaching their volume capacity sooner than their weight capacity, thus reducing the revenue potential for each vehicle. Starting this year, UPS and FedEx will both use dimensional weight measurements, making this rate change one of the biggest in the history of both carriers.

Clearly, this new metric will result in higher costs for many businesses that ship their goods. In the past, dimensional weight was only applied when packages exceeded three cubic feet, so not every shipper had to be concerned about the relative size of their parcel. In the interest of saving time and maximizing resources, some companies don’t bother recording both the dimensions of the packages as well as the weight. The recent change means both UPS and FedEx will begin subjecting all ground and air packages to dimensional weight regulations. With the new pricing paradigm, manufacturers and retailers may have trouble properly calculating their shipping costs, which can make forecasting difficult.

How will the new pricing policy affect shipping costs?

Clearly, the packages that will be most impacted by these new shipping rates are the ones that take up a large amount of volume but are not very heavy: bedding, outerwear, diapers, etc. - anything that has a high loft-to-weight ratio will be affected. Who will absorb these increased costs, and the impact on supply chain logistics has not yet been determined. One thing is certain; high shipping costs are already linked to abandoned online shopping carts, and retailers are increasingly hesitant to increase shipping prices at the risk of alienating price-sensitive customers. Manufacturers face the same pressure.

Out-of-the-box thinking: Rethink how you fill the box

Light weight, high-volume products will suffer the greatest impact of dimensional weight pricing. However, there is an obvious solution that is elegant in its simplicity: reduce or eliminate the volume-stealing air contained in bulky, soft products. By significantly reducing the loft of individual products, shipping boxes may be packed more densely, thus facilitating a larger product-per-box count. A great example is the down-filled parka. Goose down is renown for achieving great heat-retaining loft...
within a garment. But a down parka owing to this specialized filling is bulky. If the garment could be reduced to half or even one third of its original loft, the impact of dimensional weight packaging could be mitigated in a significant way. Remove the parka from its shipping bag, shake it a few times to renew the resilient down and the garment is ready for the retail rack.

Eliminating or at least reducing the volume of a product can be accomplished in a couple of ways – both of which utilize heat sealed poly bags.

Many products lend themselves to vacuum packaging. The most versatile method of vacuum packaging is through the use of a nozzle-style machine. Designed for horizontal or vertical use, vacuum sealers range in sealing lengths from 12” to over 120”, and are available in a variety of configurations from tabletop to floor standing units. Nozzle-style vacuum packaging is relatively uncomplicated. A filled bag or pouch is placed between a set of sealing jaws, and over vacuum nozzles that extend between the jaws. The jaws grip the bag while air is evacuated through the nozzles by means of a vacuum pump or venturi system. At the end of the vacuum cycle the nozzles retract from the bag, and the sealing cycle begins. Once sealed, the jaws release the finished bag. Most machines enable the operator to vacuum seal one or two bags per cycle - depending upon the product size and bag specifications.

A simple yet highly effective “low-tech” approach is through the use of a compression sealer. In many instances, compression or “air expeller” sealers are an alternative to vacuum packaging for reducing product volume. The compression sealer presses the filled bag between a support table and a pneumatically operated pusher or compression plate. The air is forced out of the bag and the product is compressed. With the pusher plate holding the product in its compressed state, the sealing jaws close and the bag is sealed. As in vacuum sealing, compressed products maintain a consistent packaged shape - even if the product is not rigid. Compression machines are ideal for foam products, pillows, blankets and other soft but bulky items to retain the basic product shape, minimize packing space and ultimately reduce shipping costs.

It is still too early to tell how the majority of shippers will react to the new changes. No doubt, some large-volume shippers may succeed in negotiating special deals with UPS and FedEx; other companies may resort to searching for a logistics company with more favorable rates. But in any case, a strategy of product size reduction can be an effective tool in mitigating the affects of dimensional weight pricing.

Comments or questions may be sent to: communications@pacmachinery.com

“Effective January 1, 2015, FedEx Ground will apply dimensional weight pricing to all shipments. FedEx Ground dimensional weight pricing with FedEx Express by applying it to all packages.”