

CartonWrap

Dynamic Packaging System

Automatically box and label ready-to-ship goods at up to 15 boxes per minute without manual labor at reduced shipping costs

The Bell and Howell™ CartonWrap™ system dynamically creates ready-to-ship packages for the eCommerce fulfillment market. The system automates boxing and labelling—two of the most time-consuming aspects of eCommerce fulfillment, and processes up to 15 boxes per minute—all without manual labor.

Also, CartonWrap sizes the box to its contents, thus significantly reducing shipping costs. Sizing will become even more related to cost for bulky and lightweight items as major U.S. couriers such as FedEx and UPS move to dimensional pricing.

With CartonWrap, after ready-to-package goods enter the system, the order is automatically identified and dimensioned. From this information the system dynamically creates a custom-sized corrugated carton that wraps around the item, and then seals the carton and labels it for shipping.

This wrapping technology also greatly reduces the need for extra padding materials to fill empty space and enables more products to be boxed into a single CartonWrap package.

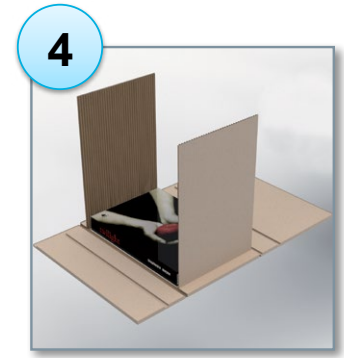
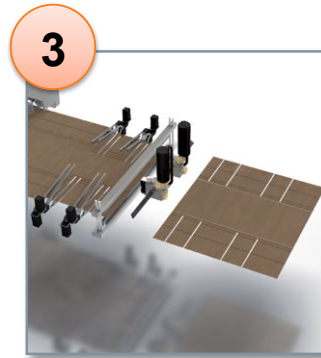
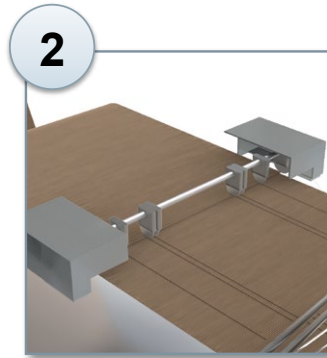
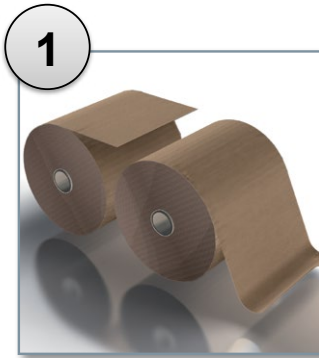
The automated box-forming technology features a dynamic creasing and cutting system, a transversal cutting blade and hotmelt glue guns that apply glue to the die cut. Virtually all associated logistical data can be applied to the carton dynamically including product barcode lookup, document attachment, labeling, ink-jet printing and product weighing.

KEY FEATURES

- » Boxes are created to fit the volume of the contents, maximizing space to reduce shipping costs
- » Less warehousing of materials; store only corrugated reels
- » Reduce or eliminate filler materials
- » Green solution—less environmental impact
- » Increases throughput and efficiency through automation
- » Reduces costly manual labor

Scan the QR code with your smartphone to watch a video about this system





Two unwinders (optional) are recommended to reduce downtime associated with changing reels increasing overall productivity of the system.

Box size is determined through management software and can be determined in several ways:

- » By barcode readers
- » By an automatic product dimensioning system
- » By customer database files

This information is used to feed the precise length of material required for the box from the reel unwinder. The corrugated cardboard is processed by the creasing and dynamic cutting system, creating a blank to be formed. The creasing and trimming system is controlled by multi-axis servo system that allows for both high precision and high speed.

The cutting module is comprised of 8 trimming segments to create all the panels and flaps of the box.

Using optional feeders in the machine outlet, documents can be added to the box—e.g., marketing materials, invoices, return instructions—prior to the closing and labelling processes.

FROM AN 800 MM REEL THE FOLLOWING BOX SIZES CAN BE FORMED:

- » 9.4" x 5.9" x 1" (240 x 150 x 30 mm) up to 17.7" x 13.7" x 3.1" (450 x 350 x 80 mm)
- » 13.7" x 13.7" x 5.9" (350 x 350 x 150 mm)

FROM A 1,200 MM REEL THE FOLLOWING BOX SIZES CAN BE FORMED:

- » 9.4" x 5.9" x 7.8" (240 x 150 x 200 mm) up to 23" x 13.7" x 7.8" (600 x 350 x 200 mm)
- » 11.8" x 5.9" x 1.1" (300 x 150 x 30 mm)

The automatic gluing system applies glue spots by means of hotmelt glue guns along the perimeter of the blank. The use of hotmelt glue allows immediate and long-lasting sealing.

The transversal cutting blade does the final cut of the reel, getting thereby fully shaped carton blank.

The first automatic forming station closes the side flaps and forms the product containment center flaps.

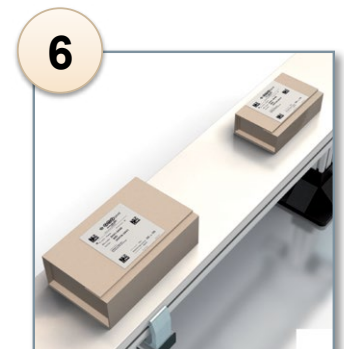
The forming module is self-adjusting according to each individual box being formed.

The semi-formed box is conveyed to the product deposit station, the size of the product having been previously detected by the software.



The semi-formed box containing the product is conveyed at 90° to allow the upper flaps to be closed and the box to be finished.

Prior to closing the upper flaps, it is possible to add additional documents, such as marketing materials, invoices, return instructions, etc., through the use of optional feeders.



The completed package can also be optionally labeled according to shipping requirements and conveyed to a final palletizing area.



➤ For more information, visit: bellhowell.net

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