FloWrap™
Automated Mailer System
A high-speed system for customized and ready to ship packages

FLEXIBLE PROTECTION FAST

A powerful solution for the high-volume, high-demand e-commerce market the FloWrap™ Automated Mailer System creates ready-to-ship, custom-sized polybag packages at a rate of up to 30 packs per minute (or more) – significantly faster than manual operations and faster than any other available automated packaging systems.

MAXIMUM EFFICENCY, MINIMAL LABOR COST

The FloWrap™ Automated Mailer System allows orders to move faster and with less time and labor required for sorting, label application, scanning, or manual packing.

The horizontal, in-line system integrates easily and elegantly into existing packaging lines which may include other time-saving automated features that can weigh, manifest, validate and sort packages.

The only manual task required is place the product on the conveyor with a barcode visible, and the system will do the rest – including identifying unlabeled or out of sequence orders.

RIGHT-SIZED, SUSTAINABLE RESULTS

Automatically to the length and height of each order and cutting and sealing the material to fit.

The resulting package is fully-scanned, labeled, manifested, validated package that's ready for expedient shipment without an inch of wasted material or void space.

Right-sized packaging leads to reduced freight costs and a lower total carbon footprint.

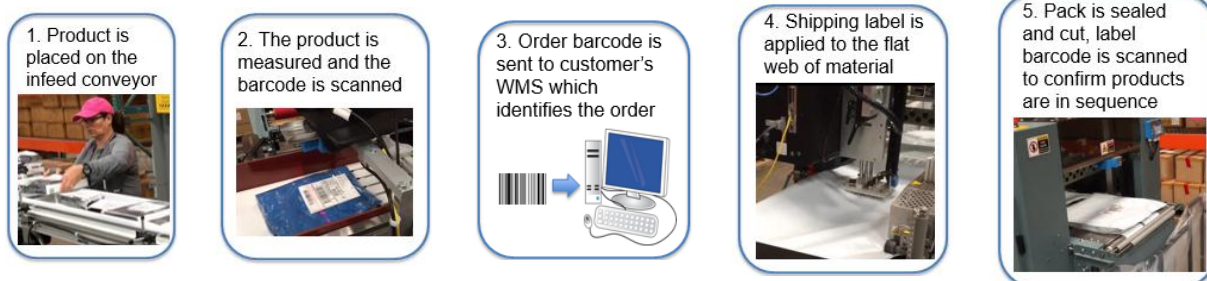### IDEAL INDUSTRIES

- E-Commerce
- Apparel

The **FloWrap™ Automated Mailer system** provides flexible, economic package protection for durable items. Simply place the product on the infeed conveyor with a barcode visible, and the system will do the rest. The barcode is scanned, either from the product or a packing slip, and is communicated to the customer's WMS, which finds the order, then sends the label information to the printer applicator. The printer applies the shipping label to the flat web of material over the corresponding product.

The length and height of the product is automatically detected as it is drawn into the system. The FloWrap™ system produces a finished pack with the appropriate length of material to wrap the product. Integrated safety features on the safety gate/shear cutter detect if a product or foreign object is within the cutter before it is activated. A secondary barcode scanner scans the completed pack to guarantee the packs are in sequence.

FLOWRAP™ BENEFITS

- **Fast** – system capable of running over 30 packs per minute, depending on product size
- **Reduced Pack Size** – packs are dynamically sized to the product, reducing material usage
- **Increased Throughput** – ship more products with fewer resources
- **Easy to Implement** – horizontal infeed seamlessly integrates into existing packaging lines
- **Operator Friendly** – simply place items on infeed belt; fewer movements for operators leads to less fatigue
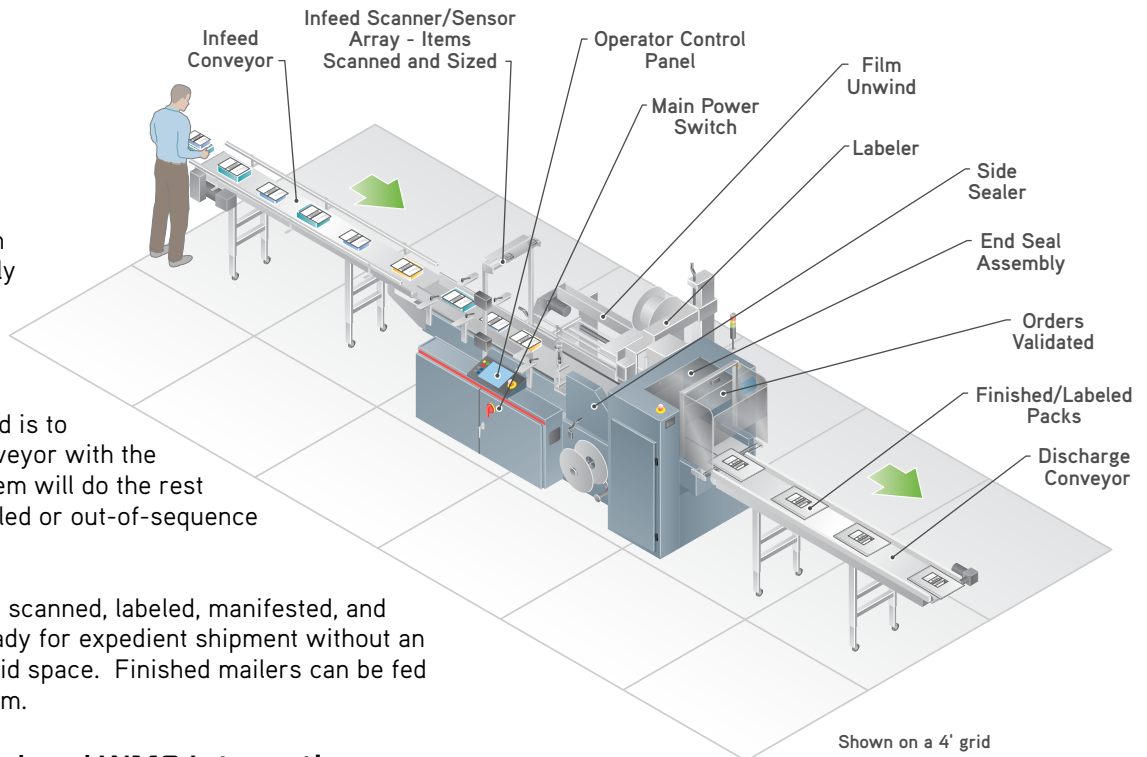- **Durable** – robust industrial design maximizes uptime

HOW IT WORKS

1. Product is placed on the infeed conveyor

2. The product is measured and the barcode is scanned

3. Order barcode is sent to customer's WMS which identifies the order

4. Shipping label is applied to the flat web of material

5. Pack is sealed and cut, label barcode is scanned to confirm products are in sequence

SPECIFICATIONS	
PRODUCT DIMENSIONS	**Min product:** 2" wide x ½" high x 4" long **Max product:** 14" wide x 7" high x infinite length
POWER	230VAC, single-phase, 30 amp service, 60 Hz
AIR	4.5 CFM at 90 PSI max, 60 PSI min – dry and clean

FloWrap®

Automated Mailer System

The **FloWrap® Automated Mailer System** is a powerful solution for the high-volume, high demand e-commerce market. This system creates ready-to-ship right-size mailers at a rate of up to 30 packs per minute.

Infeed Conveyor

Infeed Scanner/Sensor Array - Items Scanned and Sized

Operator Control Panel

Main Power Switch

Film Unwind

Labeler

Side Sealer

End Seal Assembly

Orders Validated

Finished/Labeled Packs

Discharge Conveyor

Shown on a 4' grid

Overview

• The horizontal, in-line system integrates easily and elegantly into existing packaging lines processing orders faster with less labor.

• The only manual task required is to place the product on the conveyor with the barcode visible, and the system will do the rest - including identifying unlabeled or out-of-sequence orders.

• The resulting package is fully scanned, labeled, manifested, and validated. The package is ready for expedient shipment without an inch of wasted material or void space. Finished mailers can be fed into a bin or a sortation system.

Communication Protocol and WMS Integration

Standard System Operation

When orders are loaded onto the infeed belt, the FloWrap® Mailer System will scan any form of inducting document coupled with the order for a barcode through a set of image based scanners. These scanners are omnidirectional and can recognize 1-D, Stacked, 2-D and Postal barcodes. The scan will be stored in the FloWrap® System in string data form for internal tracking purposes. In tandem, it will output the string to the customer's *Warehouse Management System* [WMS] to trigger order manifesting and initiate the printing of a shipping label.

Note: The barcode scanned on the inducting document must be duplicated on the shipping label for verification purposes.

Note: This barcode must be unique in type and length to any other barcodes on either the inducting document or shipping label.
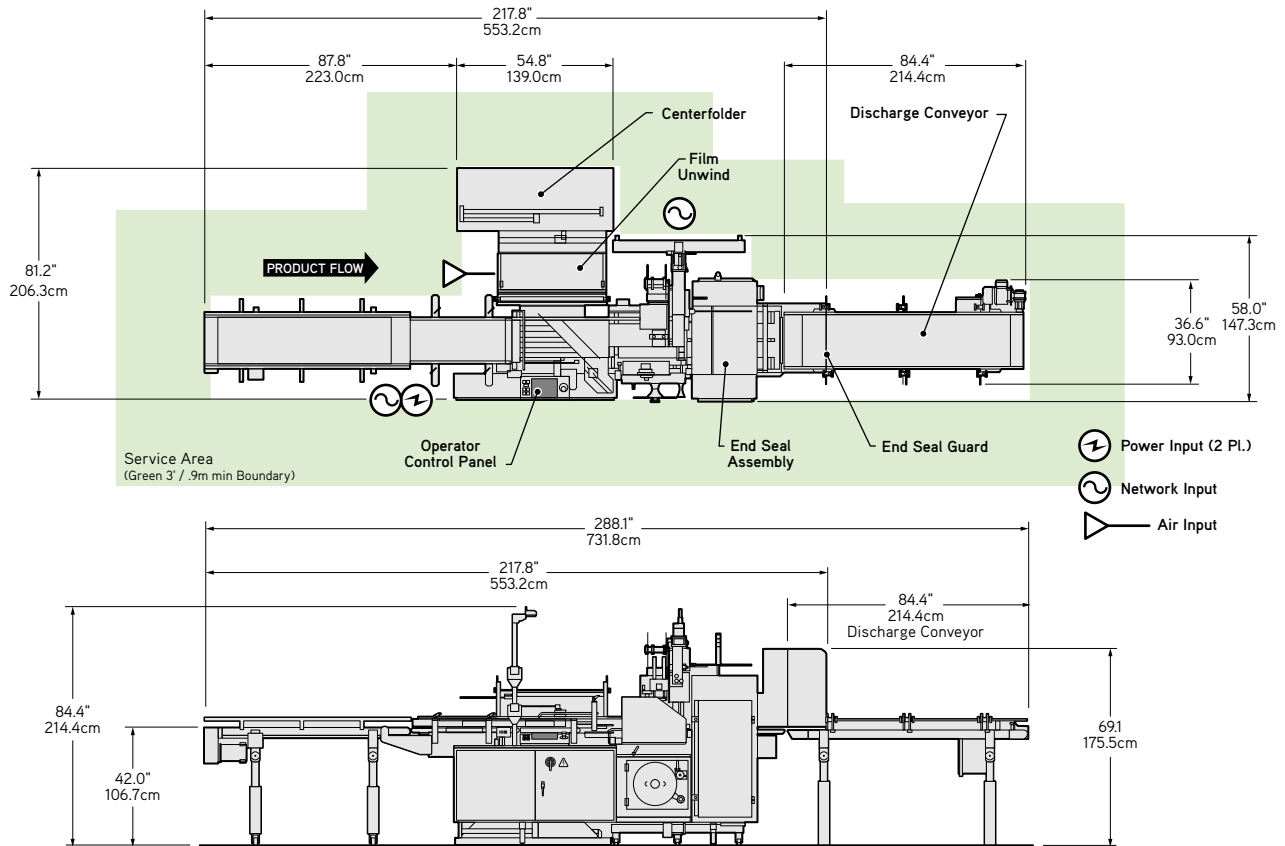
The FloWrap® Mailer System's standard label applicator utilizes a Zebra ZE500-4, 203 dpi print engine. It accepts ZPL strings through TCP/IP (most common) or it can be setup to print through a USB connection. Go to *Zebra.com.* for support information.

Standard interfaces (3) - customer chosen

• *Serial Port/232*
  This is connected directly to a local PC or thin client. The customer's WMS would identify strings through the designated com port.
• *Wedgelink USB Adapter*
  This converts serial data to keyboard strokes + one carriage return. This would be pointed at an input field on a open session running on a local PC or thin client. (most popular)
• *Startech Serial to TCP/IP Adapter*
  Sealed Air would designate a unique IP address for a socket connection on the customer's server

Shipping labels are queued by the Zebra printer until the FloWrap® Mailer System triggers the label application. After the label is applied, the product and packaging travel through the jaw and are sealed and separated into individual packs. Before each pack exits the system, the shipping label on the exterior of the pack is verified via a discharge scanner by matching the duplicated barcode image to the original scan. This action guarantees that the packs are labeled correctly.

FloWrap®

General Specifications

System Size
Main (LxHxW); Weight:
218" x 85" x 82"; 3,100 lb / 5,538mm x 2,159mm x 2,083mm; 1,407kg
Main w/ Discharge Conveyor (LxHxW); Weight:
288" x 85" x 82"; 3,500 lb / 7,316mm x 2,159mm x 2,083mm; 1,588kg

Electrical Requirements
230VAC, 30A, 50/60Hz, 1Ø, L6-30R Cordcap
[208VAC 1Ø, 400VAC 3Ø+N, 460V 1Ø options available]

Air Requirements
4.5 CFM @ 90 psi, clean and dry
127.4 LPM @ 7 bar, clean and dry
½" ID hose, ¼" NPT female connection

Communication Interface
RS-232, Wedgelink USB, Startech Serial to TCP/IP
Zebra Net 10/100 Print Server

Product Size
Min (WxHxL): 2" x ½" x 4" / 51mm x 13mm x 102mm
Max (WxHxL): 14" x 7" x 84" / 356mm x 178mm x 2,134mm
Weight: 2 ounces to 20 pounds / 0.06kg to 9.07kg

Standard Conveyor Sizes
Infeed (WxLxH): 16" x 6' x 42" [adj] / 407mm x 1,829mm x 1,067mm
Discharge (WxLxH): 20" x 7' x 42" [adj] / 508mm x 2,134mm x 1,067mm

Single Wound Film Size [2500'L / 762m]
Standard Width: 32", 36", 39", 42" / 813mm, 915mm, 991mm, 1,067mm
Custom Width: min 24" +1" increments up to 42" max
Custom Width: min 610mm + 25mm increments up to 1,067mm max

1-800-648-9093
SealedAir.com/product-care

Custom Printed Film
Repeating 1-3 Color [non-metallic PMS]
Max: 85% coverage
Min: 8pt font

PLC
AB Micrologix 1400

HMI
Pro-face GP4000

I/O
Dry Contact

Product Sensing
Clear Detection Photoelectric

Bar Code Readers
Omnidirectional and configurable image based

Bar Codes
1D Codes: Code 128 [GS1-128], Code 39, Code 32, Code 93, Codabar
and all standard 1 dimensional symbologies
2D Codes: Data Matrix, QR Code, Micro QR, Maxicode, Aztec
Postal Codes: Royal Mail, Japan Post, Planet, Postnet and others

Printing Methods
Direct-thermal or thermal transfer

Print Speed
Up to 12.0" / 30mm per second

Print Resolution
Up to 300 dpi

Label Sizes
Min (WxL): 0.625" x 0.625" / 16mm x 16mm
Max (WxL): 6.0" x 6.0" / 153mm x 153mm

Tamp Pad Size
4"x4", 4"x6", 6"x4", 6"x6", 4"x8"
102mm x 102mm, 102mm x 153mm, 153mm x 102mm,
153mm x 153mm, 102mm x 204mm
Label Roll Size: 3" Core x 12" max OD / 77mm Core x 305mm max OD

Labels
Non-perforated, die-cut, waste removed with 0.125" / 3mm min
separation between labels in running direction and 0.125" / 3 mm
max backing web over label width.

Print Characters
Selection of fonts, including OCR-A & B representation

Configuration Offerings
Required Infeed Length and Type
Optional Discharge Length and Type
[Min of 7' / 178mm controllable discharge conveyor must be
provided]

Accessories
Easy Open Tear Strip
Peel and Seal Tape Applicator
Coding Printer / 50 mm, color ribbon
Double Roll Centerfolder

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