

A Better way for Printing on Form, Fill Sealers



LOWERING COSTS/INCREASING RELIABILITY



The first Form Fill Seal (FFS) machine was patented in 1936 by the Henry Heide Candy Company. Since then, the technology to safely and efficiently package a wide variety of foodstuffs, drinks, pharmaceuticals, personal care products, and any more, has grown exponentially.

This equipment is available in two basic formats – Vertical Form Fill Seal (VFFS), which has the largest market share and Horizontal Form Fill Seal (HFFS). This equipment market is projected to grow from \$15.3 Billion in 2016 to \$19.5 Billion by 2021.

In both machines, comes the requirement to print variable data as the product is being created. Until recently the only options to print on these packages has been either Thermal Transfer, CIJ (Continuous InkJet) or Laser; all come with serious disadvantages in terms of complexity, costs and size limitations.

AN OVERVIEW OF THE TECHNOLOGIES

THERMAL TRANSFER (TTO)

Thermal Transfer uses a ribbon coated with wax or resin, and melts the coating on the ribbon to apply it to the substrate beneath.



Advantages

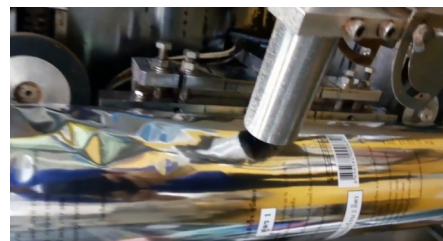
- Eliminate the expense and inconvenience of preprinted labels
- Good barcode scanning

Disadvantages

- High Maintenance
- Complex machine design
- High consumables cost
- Downtime issues when changing rolls

CONTINUOUS INKJET (CIJ)

CIJ works on the principle of jetting a continuous stream of electrostatically charged ink droplets into a gutter that returns it back into the ink supply.



Advantages

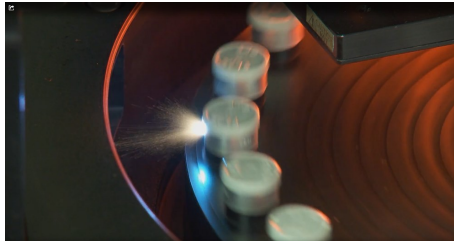
- High Speed Printing
- Small Characters
- Good Throw Distance on Irregular surfaces
- Prints on many substrates

Disadvantages

- High Maintenance
- Complex Fluid System
- Limited Character Height
- Ink Mess

LASER

A high power laser rapidly scans and burns images into the substrate making legible barcodes and characters.



Advantages

- Very Fast printers
- Wide range of character sizes
- No consumable cost

Disadvantages

- Complex service/expensive
- Extractions systems needed
- Footprint is large
- Expensive
- Vision safety

THERMAL INKJET (TIJ)

In TIJ the print cartridges contain a series of tiny chambers, each containing a heater. To eject a droplet from each chamber, a pulse of current is passed through the heating element causing a rapid vaporization of the ink in the chamber to form a bubble, which causes a large pressure increase, propelling a droplet of ink onto the substrate



Advantages

- High resolution Print Quality
- No Ink Mess
- Maximum Reliability
- Low Maintenance
- Easy to Maintain and use
- Prints on many substrates

Disadvantages

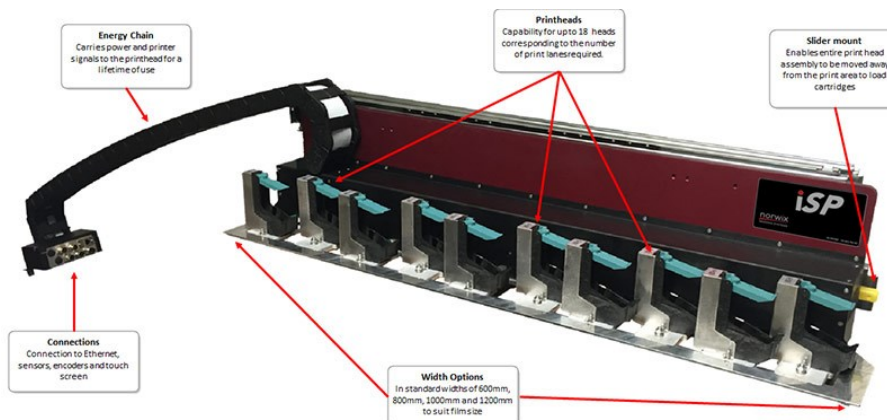
- Throw distance
- Irregular substrates can be a concern

ISP—PERFECT FOR MULTILANE APPLICATIONS

The high resolution ISP printers provide a versatile, cost-effective and solid solution to meet the need for variable data printing in a range of Vertical Form and Fill Sealers (VFFS).

Designed to be highly configurable allowing for multiple print lanes to be coded without shuttling print heads or expensive laser systems. The unit can be bolted into almost any VFFS machine, regardless of seal type whether pillow, gusseted, block, or doyp. Longitudinal and horizontal printing can be accommodated with ease

No unreliable and expensive shuttling system, no complex ribbons to change. With a small footprint, a modular design and with no moving parts to consider, this print solution gives maximum uptime with almost no maintenance and comes with a true Lifetime Warranty on all parts.



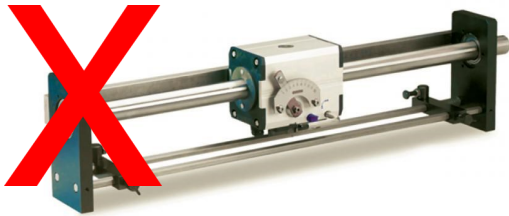
SMALLER FOOTPRINT

There is no complex mounting system to consider, and an incredibly small footprint designed to fit into any new or existing VFFS machine with ease. Just put it anywhere on your web and you are ready to go!



NO SHUTTLING SYSTEM

When you need multiple print lanes, a shuttling system has traditionally been the only way to achieve this. However, this limits the print direction perpendicular to the web) and adds another set of moving parts which add to the potential unreliability of the system.



NO MESS, NO MAINTENANCE

Unlike other print solutions the iSP is inherently clean, utilizing HP based TIJ technology. The ink is sealed within cartridges and is sprayed only when required.

- No maintenance contracts required at all
- Print area is always mess-free
- No VOC's as part of the ink delivery system



LIFETIME WARRANTY

A guarantee of reliability is what your business needs today. And a company to stand behind its words. Norwix does just this by offering a genuine Lifetime Warranty on its hardware. If there is ever a problem, we will replace it free of charges for the Lifetime of that product whether 1 year or 20 years from now.



LOWER OPERATING COSTS

With TIJ based print heads from Norwix, you use only the ink you print. No overuse of ribbons in TTO print systems and no messy and smelly CIJ printers venting solvents into your plant. And certainly much less expensive than complex Laser based systems.

- Reduced consumable costs – 500,000 prints per cartridge for expiry dates
- No maintenance costs at all
- Up to 5 times lower hardware cost than other print technologies



ZERO STARTUP TIME

Turn the machine on and put in the cartridge (a 20 second job to load up a multiple lane VFFS) and you are instantly producing. And with no complex training required, it couldn't be simpler to get started every shift, every day.



SIMPLE INTEGRATION

Utilizing industrial touch screen User Interfaces, the software has solid, dependable functionality with a proven ability to rapidly integrate into external systems. from databases to other equipment on the packaging line.

- Seamless integration in FFS equipment
- Simple print template design
- Effective management and operational software



.UNO/.UNO PLUS—PERFECT FOR POUCHES

The .UNO Plus packaging printer’s all-in-one print heads and screen give you a simple, yet incredibly powerful way to print in single lane scenarios or up to 4 separate lanes, making them ideal for VFFS Applications


Using Norwix’s proven and highly reliable print solutions based on Hewlett-Packard technology, the .UNO Plus packaging printer is the ideal product for serialization, barcodes and human-readable printing, in a small, yet easily integrated format

The .UNO solutions are the lowest costs to buy, install and operate on the market, yet giving stunning and reliable performance every print, every day.



LOWEST OPERATING COSTS

The following gives a solid estimation on estimates how many prints you can get from a single cartridge, based on what you are printing. For more information, contact your Norwix sales representative

Font size	Example	Print Resolution	No images per cartridge
9 pt	JAN 07 2017 08:15	300 x 300	580,000
10 pt	LOT 66G7 EXP 07 JAN 2017	300 x 300	260,000
12 pt	USE BY 07 JAN 2017 7D 5766	300 x 300	185,000
18 pt	JAN 07 17 H7788857	300 x 300	104,000
N/A	 (01) 012345678901231 (10) HJS649 (17) 28 02 2015 (21) 923Z845Y716W	300 x 300	73,000

