

**BELL-MARK**

# FlexPrint

**In-Line Flexographic Printers**

**For Horizontal Form/Fill/Seal machines**



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The FlexPrint line of In-Line Flexographic printers offer the highest quality printing on Tyvek, paper and film with patented geared “s” wrap design for pinpoint registration.

An open cavity Doctor Blade maintains ink viscosity with no evaporation, allows printing of finer type and bar codes, reduces odors and eliminates cost and maintenance of fountain rolls.

FlexPrint’s unique mag-align magnetic back plate system allows for quick plate changes, accurate placement, and eliminates costly spare print cylinders and machine down time.

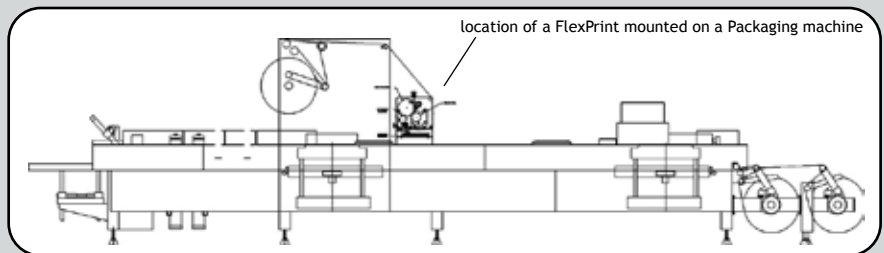
An open cavity InkWell is standard equipment, and provides a no mess, maintenance free method for press ready ink and daily cleanup.

## HOW THE FLEXPRINT OPERATES

### THEORY OF OPERATION

In Flexographic printing, a flexible printing plate is mounted to a plate (print) cylinder. This plate is then rotated into contact with an engraved inking roll (anilox) which deposits a film of ink onto the printing plate. The printing plate is then rotated into contact with the print media (web) depositing ink, during which, the web is supported by the impression roll.

The FlexPrint is normally mounted on the loading bed of the packaging machine, close to the sealing die section. The print media enters the top of the printer, and then internal idler rolls direct the web through the printing sections of the printer.



### SEQUENCE OF OPERATION

From the “Theory of Operation” you can see that a full printing cycle involves first inking of the plate, and then the printing of the image. All of this must occur during one complete index cycle of the packaging machine. Since the FlexPrint prints the image during the “move” portion of the cycle, it is imperative that the plate movement is exactly synchronized with the web movement.

### FLEXPRINT COMPONENTS

#### Servo Drive Systems

The precise print registration of the FlexPrint is best accomplished using a Servo Drive System to assist the plate cylinder. Both the Servo FlexPrint, and the FlexPrint II utilize Emerson Axima motion controllers, and the Emerson E-Series Digital Servo Motors.

#### Doctor Blade

A Doctor Blade eliminates foaming with water based inks, and maintains viscosity control for consistent ink laydown. The Doctor Blade also allows the ability to print finer type, and small graphics detail.

#### Ink Management

Bell-Mark provides a Ink Cartridge for quick color change and improved ink management. For the FlexPrint II, we offer an Enclosed Doctor Blade, and 2 color pumping system. (Ink Cartridge & InkWell pictured on next page)



# WHICH FLEXPRINT IS RIGHT FOR YOU?



## Servo Drive FlexPrint

The Digital Servo Drive Flex-Print provides high resolution single color printing on Tyvek®, paper and all polyfilms. The use of a Servo Drive allows the FlexPrint to operate at high cycle speeds without adding stress to package seals. Because there is less stress on package seals, the use of more affordable web materials can greatly impact your bottom line.



## Two Color FlexPrint II

The FlexPrint II is the first Flexographic printing system which provides high resolution TWO color printing on Tyvek®, paper and all poly films. Two color In-line printing eliminates the need for a second printer, and reduces the cost of preprinted materials. The FlexPrint II utilizes servomotors to control the ink and printing process.



## FlexPrint mini

The FlexPrint mini is the smallest in-line Flexographic printing system which provides high resolution single color printing on Tyvek®, paper and all poly films. The new FlexPrint mini is designed to operate just like our other FlexPrint models, only it is about half the size. That means more room for your operators, robotic loading equipment, or accessories on your packaging line.

\* see reverse for detailed specifications

## INK MANAGEMENT

Bell-Mark provides an Ink Cartridge and InkWell as a standard inking method for our FlexPrints.

The Ink Cartridge method utilizes a 16 oz. (473 mL) disposable cartridge which provides quick changeovers, and decreased machine downtime when compared to previous methods of ink management.

The InkWell unit is comprised of an open cavity, and a Doctor Blade which deliver precise metering and consistent ink laydown on all packaging substrates. The InkWell is equipped with quick disconnect nodes which allow the unit to be removed and cleaned in minutes.



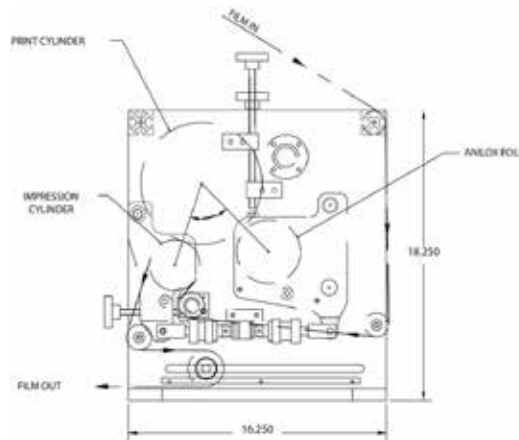
# PRINTER SPECIFICATIONS

	Servo Driven FlexPrint	FlexPrint II	FlexPrint mini
Max. print area across web:	24" (610 mm) *	24" (610 mm) *	24" (610 mm) *
Max. print machine direction:	27" (686 mm) on all models	17" (432 mm) on all models	9" (229 mm) on all models
Speed:	22 cycles per minute	15 cycles per minute	22 cycles per minute
Printing elements:	Mag back print plate	Mag back print plate	Mag back print plate
Power:	Servo drive: 110 or 230 vac 1.ph/60 hz -fused 15 amp 10 amp cont. max.	Servo drive: 110 or 230 vac 1.ph/60 hz -fused 15 amp 10 amp cont. max.	Servo drive: 230 vac 1.ph/60 hz -fused 15 amp 10 amp cont. max.
Air:	10 cfm @ 60 psi	10 cfm @ 60 psi	10 cfm @ 60 psi
Signal:	24 volt dc	24 volt dc	24 volt dc
Mounting:	bed or top mount on hood	bed or top mount on hood	bed or top mount on hood
Weight:	Approx. 300 lbs. (136 kg)	Approx. 600 lbs. (272 kg)	Approx. 200 lbs. (91 kg)

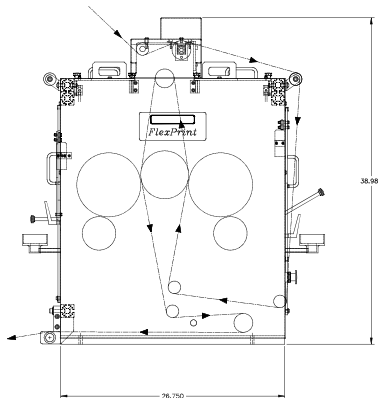
\* Each FlexPrint is available for varying web widths - 360 mm, 460 mm, 610 mm.  
Specifications and technical information are subject to change without notice.

## DIMENSIONAL DRAWINGS

### FlexPrint / FlexPrint Servo



### FlexPrint II



### FlexPrint mini

