



Harrier Color and Monochrome Printing System

Company Confidential

September 12, 2025





Target Applications

Secondary Packaging

1D/2D barcodes, graphics, and human readable content



Late-Stage Packaging

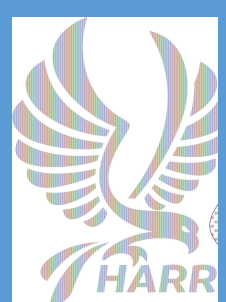
Direct label printing and custom image printing



Mail Addressing

Addresses and barcode printing





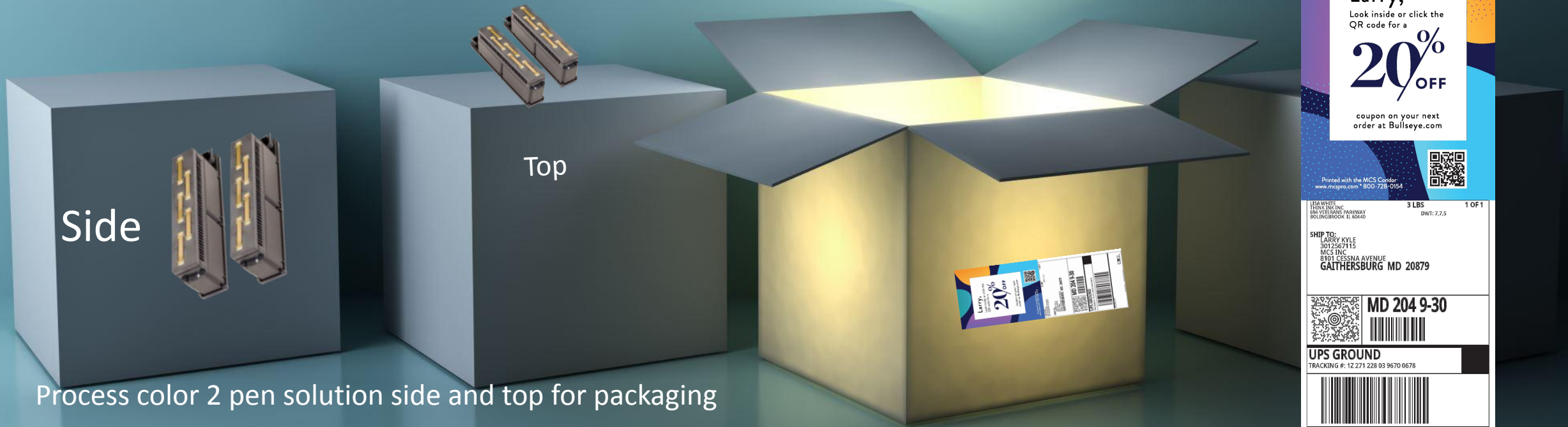
Harrier Technical Specifications (HP 108)

Performance Characteristics	TIJ4.0 (108mm)
Printhead Resolution	1200 DPI
Number of Nozzles	10560 Nozzles, 2400 NPI (Nozzle redundancy/higher ink flux)
Print Speed	Max: 600 ft/min
Operating Frequency	18 KHz (max fluid), 72 KHz (electrical)
Throw Distance	10mm speed/application dependent
Print Width	108mm/4.25"
Vertical Firing	Yes
Horizontal Firing	Yes
Security	Closed system (smart card)
Number of Colors/Inks per Printhead	1 or 2
Bulk Ink Supply	Bulk with internal pressure regulator
Ink Cartridge Capacity	775ml
Ink Type	Aqueous
Color and Mono Printhead with IDS	CMYK/Mono





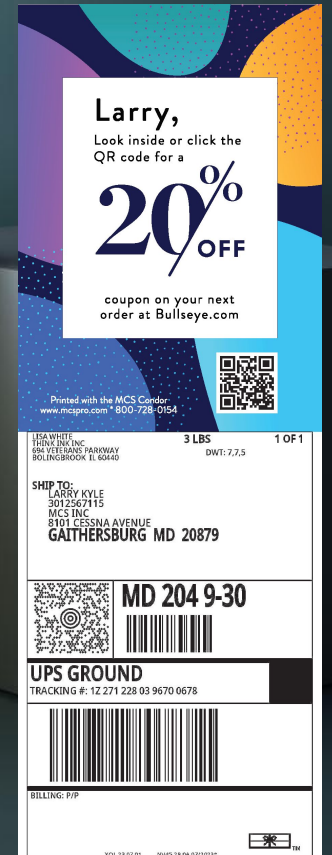
4 ¼"
Down/Side
4 color
250fpm

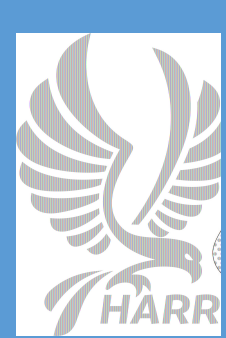


Process color 2 pen solution side and top for packaging

Primary Markets

1. Secondary corrugated boxes and box lines
2. Right size packaging
 - a) Addressing
 - b) Marketing messaging





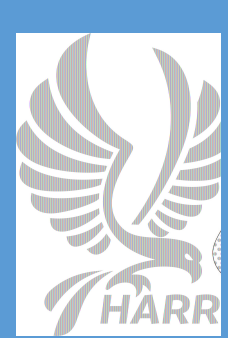
Harrier Printing System (Color/Mono) Benefits

Uptime and Productivity

- Wide swath and eliminates the need for stitching (108mm/4.25")
- Higher print speed and high resolutions with consistent print quality
- Better throw distance up to 10mm with large text and 7mm with small text

Ease of Use

- Low user intervention
- Easily replaceable printheads
- Simplified touchscreen display and operating software



Harrier Printing System (Color/Mono) Benefits

Smart Servicing Solution

- Leverages printhead micro-recirculation to resolve decap issues
- Significantly reduces the need for pen maintenance while provide extended decap times

Sustainability

- Water-based inks with low VOC emissions
- Direct package prints where boxes can be recycled directly

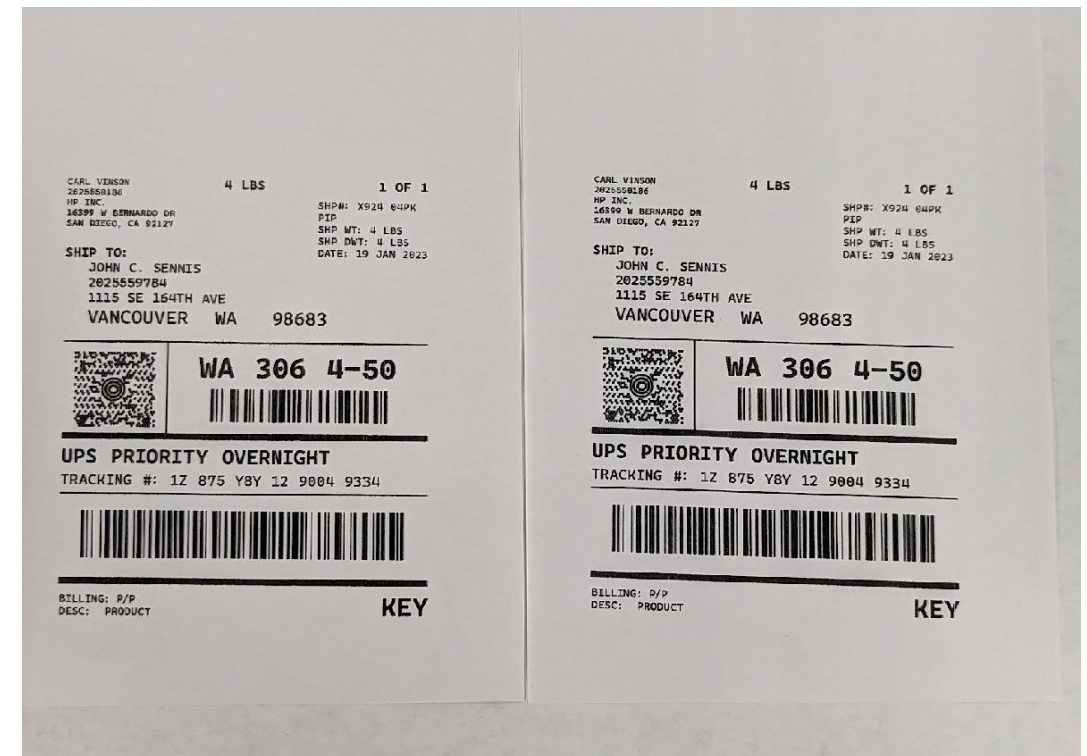
Total Cost of Operation

- Lower upfront and running costs
- Lower printhead replacement costs



Harrier Printing System (HP Smart Servicing)

- The Harrier solution will use a new printhead architecture that incorporates HP's patented micro-recirculation technology. This technology replaces half of the nozzles with pumps, while maintaining 1200 nozzles per inch per slot. (2 slots per printhead)
- These pumps are used before starting to print to recover any missing nozzles that have dried out
- The pumping is triggered by the OEM after a pause/delay in printing but performed by the HP driver PCA



Initial Print

Print 48 hours later



Harrier Portfolio (Color and Mono)

Harrier Process Color	Harrier Mono	Availability
22mm/0.875"	22mm/0.875"	Q2'26
44mm/1.75"	44mm/1.75"	Q2'26
108mm/4.25"	108mm/4.25"	Now
216mm/8.50"	216mm/8.50"	Now
324mm/12.75"	324mm/12.75"	Q1'26





Intelligent Packaging Standards and Processes





Array Technologies Intelligent Solutions For the Packaging Industry

