



Harrier Color and Monochrome Printing System

Company Confidential

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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

Side

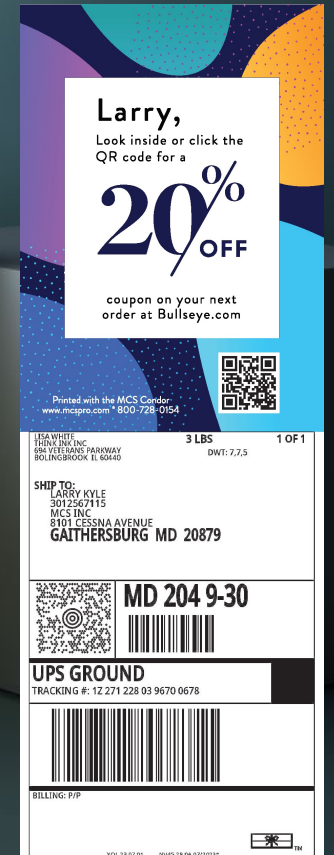


Top



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

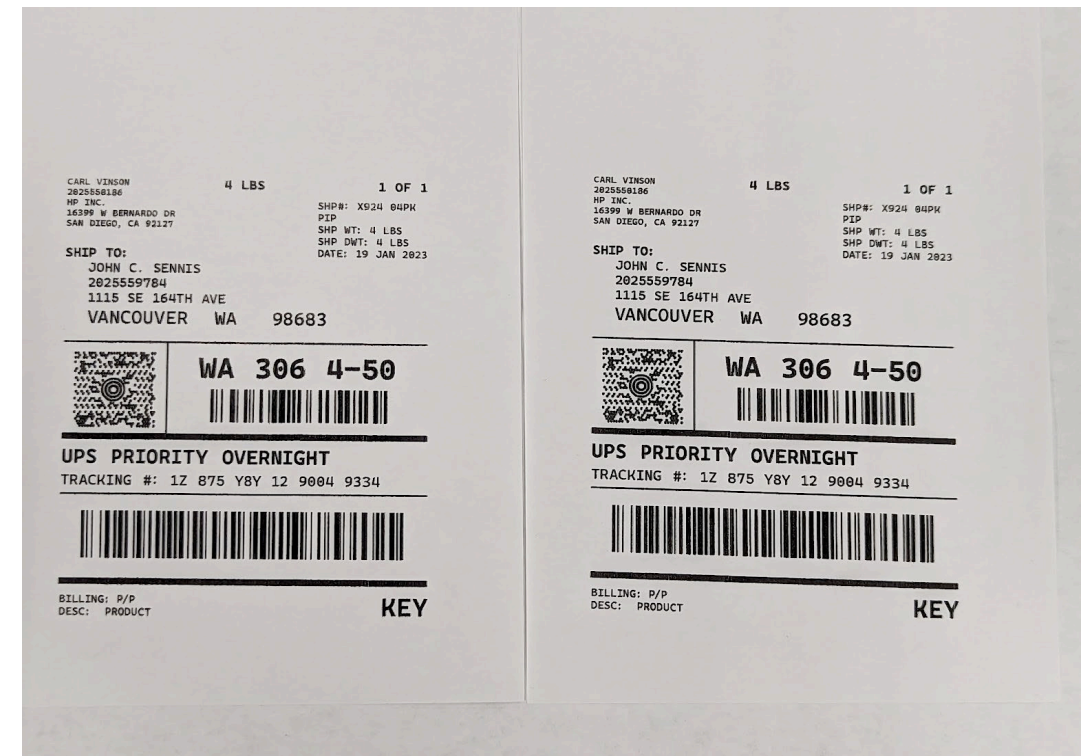
Total Cost of Operation

- 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

