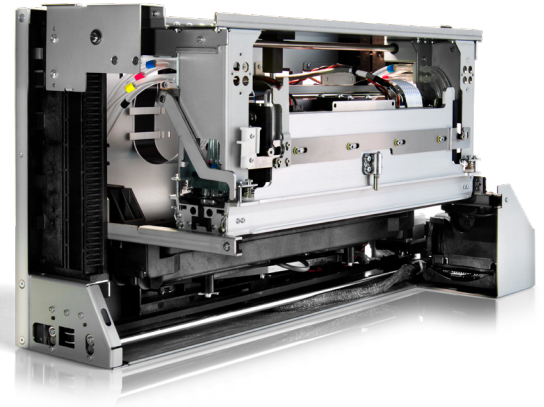


## The DuraFlex Platform

DuraFlex is a third generation pigment-based, flexible and economical modular single-pass print system with multicolor A4 and A3+ printheads that opens new market segments and creates new business opportunities for OEMs. OEMs, converters and brands can build benchtop, light production and wide format solutions that enable printing with market-leading image quality, durability and speed.



### *DuraFlex Printhead*

- A4 and A3+ Printheads
- 2x Nozzle Redundancy
- 1600 x 1600 dpi

### *DuraFlex Module Set*

- Print Module
- Ink Delivery System Module
- Waste Ink Management Module

### *DuraFlex Inks*

- Aqueous Pigment Inks
- Fast Drying Durable Ink
- CMYK

## **Speed.**

With print speeds up to 46 m/min (30 in/sec), DuraFlex can meet the demands of a wide range of cost sensitive print applications while delivering stunning image quality. Unlike other solutions in the market today, DuraFlex's data pipeline was designed to handle complex files without slowing the printing down and impacting the productivity of the print solution.

## **Simplicity.**

DuraFlex technology is not only a printhead, but a flexible set of modules designed for fast integration and ease of use. The modular technology provides OEMs the fastest time to market, lowest development costs and the ultimate flexibility for different media handling and configurations such as a cutsheet, roll-to-roll, or belt-driven applications.

## **Profitability.**

DuraFlex is an economical printing technology with stitching configurations up to 1.2m, providing OEMs with a custom solution for creating a wide range of applications. DuraFlex powered solutions can be competitively priced and the longlife printheads provide TCO advantages over competitive solutions.

## *DuraFlex Applications*



Office &amp; Document



Labels



Mailing &amp; Addressing



Light Production



Wide Format

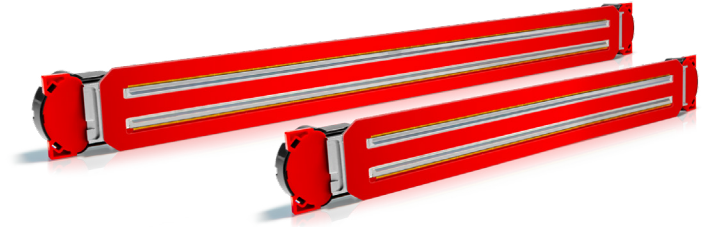


Packaging

## DuraFlex Printheads

### *Designed for Quality & Flexibility*

The DuraFlex printhead leverages Memjet's third generation printhead technology. The user-replaceable printhead has been engineered to deliver increased speed, outstanding image quality and longer life in both A4 and A3+ formats. Multiple A3+ printheads can be stitched together for wide format applications.



### *Printhead Main Features*

1600 x 1600 dpi and a 2.1pL drop size enables market-leading image quality.

A four-color long life printhead with built-in nozzle redundancy assures a compact print system with low intervention rates.

Two printhead widths available - A4 and A3+. Print full-bleed A3 with the A3+ printhead.

Stitch multiple A3+ printheads together for print widths up to 1270 mm (50 in.)

## DuraFlex Inks

### *Long Life & Reliability*

Custom polymers (dispersants), designed for long-life and broad media compatibility, are combined with base colors to produce the pigment dispersion. The particle size is controlled during dispersion to optimize color properties, durability and optimal reliability from the printhead.



### *Print Quality*

DuraFlex inks provide market-leading gamut and image quality with best in class text quality across the widest range of markets and applications.

### *Durability*

DuraFlex inks provide excellent durability performance including resistance to water, light, ozone and abrasion across a wide range of media from plain papers to high quality inkjet glossy substrates.

### *Reliability*

DuraFlex inks are designed for superb reliability with DuraFlex printheads and modules enabling long life ejection and installed life of the DuraFlex printhead.

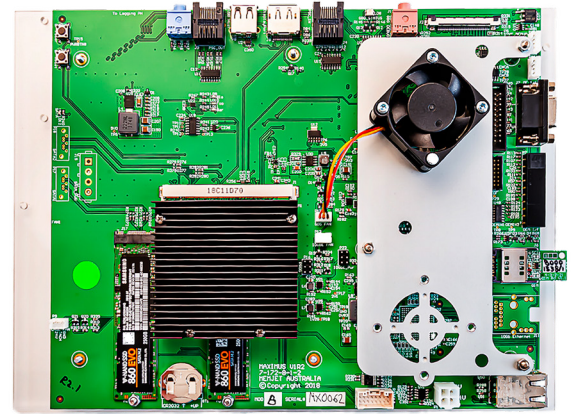
### *Environment*

DuraFlex inks are water based, safer to use and are friendlier to the environment than UV, solvent or liquid toner inks. The formulations do not contain any SVHCs (Substances of Very High Concern per REACH) or toxic metals as regulated for RoHS.

## DuraFlex Data Path

### Memjet High-Speed Data Pipeline

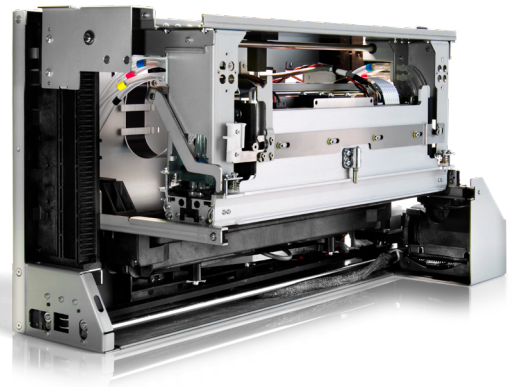
The print data pipeline supports two options. For 1-wide systems, an embedded RIP is included that accepts PDF input and supplies uncompressed dot-level output to the four-color printhead. The second option (designed for N-wide systems) is a print data pipeline that provides high-speed, uncompressed, dot-level control of print data streams generated from an external RIP to the four-color printhead, providing OEMs the flexibility to utilize their existing RIPs and workflows. A custom FPGA is used to drive the pipeline to the printhead, supporting dot-level control of the print data for extraordinary four-color printing speeds up to 46 m/min (30ips).



## DuraFlex Modules

### Powering New Markets & Applications

Memjet's modular technology simplifies the OEM development process. The modular architecture significantly reduces the OEMs' development times and costs, while providing the ultimate flexibility for different media handling and configurations such as cut sheet, roll-to-roll, or belt-driven applications.



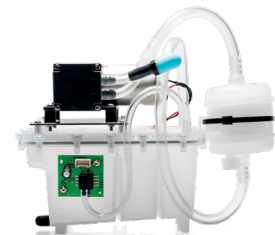
#### Print Module

The Print Module houses the printhead and electronics managing all functions around printing including datapath, printhead maintenance and ink delivery. The above the web maintenance supports cut sheet, roll-to-roll and belt-driven media transports.



#### Ink Delivery System Module

The Ink Delivery System Module draws ink from the bulk ink tanks and channels it to the Print Module for printing. It also filters the ink and provides sufficient storage for hot swap and large job sizes.



#### Waste Ink Management Module

The Waste Ink Management Module extracts waste ink from the Print Module's printhead wiper and printhead cap for disposal in the system waste tank.

## Available Modules/Components

- |                               |   |
|-------------------------------|---|
| • A4 & A3 printheads          | • Aerosol Management Module   |
| • Printhead wiper cartridge   | • Print Engine Supervisor software interface for OEM control                                      |
| • Print Module                | • Basic reference windows 10 print driver that generates PDF files (only for 1-wide applications) |
| • Ink Delivery System Module  | • Host utility that sends PDF files to the DuraFlex printer (only for 1-wide applications)        |
| • Waste Ink Management Module | • Job submission library for use with OEM-supplied RIP (for N-wide applications)                  |

## DuraFlex Printheads

- |                         |  |
|-------------------------|--|
| • Printhead type:       | 4-color, user replaceable  |
| • Print width:          | A4: 222.8 mm (8.77in.)   A3: 324.4 mm (12.77 in.) - Stitch 4 together for 1270 mm (50 in.) |
| • Number of nozzles:    | A4: 112,640   A3+: 163,840   |
| • Nozzle redundancy:    | 2x   |
| • Drop size:            | 2.1pL  |
| • Resolution:           | 1600 x 1600 dpi and 1600 x 954 dpi   |
| • Print speed:          | Up to 46 m/min (30 in/sec, 150 ft/min)   |
| • Pen to paper spacing: | Up to 2.0 mm dependent on application (0.7 mm recommended)                                 |

## DuraFlex Inks

- |                        |   |
|------------------------|---|
| • Ink type:            | Aqueous pigment inks  |
| • Colors:              | CMYK  |
| • Media:               | Compatible with a wide range of uncoated, inkjet treated and inkjet coated matte and glossy substrates  |
| • Available ink tanks: | 500mL, 2L and 10L   |
| • Regulatory:          | DuraFlex inks are free of reactive chemistries, hazardous UV ink components such as 4-methylbenzophenone or benzophenone, phthalate esters, bisphenol-A (BPA), mineral oil aromatic hydrocarbons (MOAH), and contain no SVHC or Prop 65 substances. |

## DuraFlex Datapath

- |                      |  |
|----------------------|--|
| • Pipeline:          | Custom FPGA and embedded software/firmware to RIP PDF files for printing         |
| • Optional Pipeline: | Pipeline for OEM-supplied RIP and dot-level control of print stream to printhead |

## Operating Environment

- |                                       |  |
|---------------------------------------|--|
| • Operating temperature range: 15-35C | • Storage temperature range: -25 to 60C  |
| • Operating humidity range: 20-80%RH  | • Non-operating humidity range: 20-80%RH |

To learn more about Memjet's DuraFlex Technology, contact your Memjet representative or visit [www.memjet.com](http://www.memjet.com)

 **Learn More At**  
[memjet.com/r+d](http://memjet.com/r+d)

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