



Ultra-Marathon inkjet microarrayer



...powered by inkjet technology

Microarraying for all your application needs



Finally, reliable, automated high throughput microarray printing available to meet your ultimate production needs. Put the right tool at your fingertips with the Arrayjet Ultra-Marathon inkjet microarrayer.

Designed for high scale microarray printing in core microarray or commercial facilities, **Ultra-Marathon** produces microarrays on 1 to 1000 slides. Print from up to 48 sample plates in a single, fully automated, print run using the Microplate Stacker Module.



Ultra-Marathon reliably handles ultra low volumes of biological samples including DNA and protein; choose to print on a wide range of slide substrates in the array format that suits your application needs.

Applying non-contact inkjet fluidics and unique piezo-electric technology, **Ultra-Marathon** provides heat-free microarraying and accurate, picolitre dispensing of samples of varying viscosities.



Leaving you free to confidently produce high quality microarrays at production scale capacities...

- Antibody Profiling
- Array CGH
- Biomarker Identification
- Carbohydrate Arrays
- Cell Transfection
- Gene Expression
- Kinase Substrate Screening
- Protein-Protein Interactions
- Reverse Phase Arrays



Put the right technology in...

High Capacity

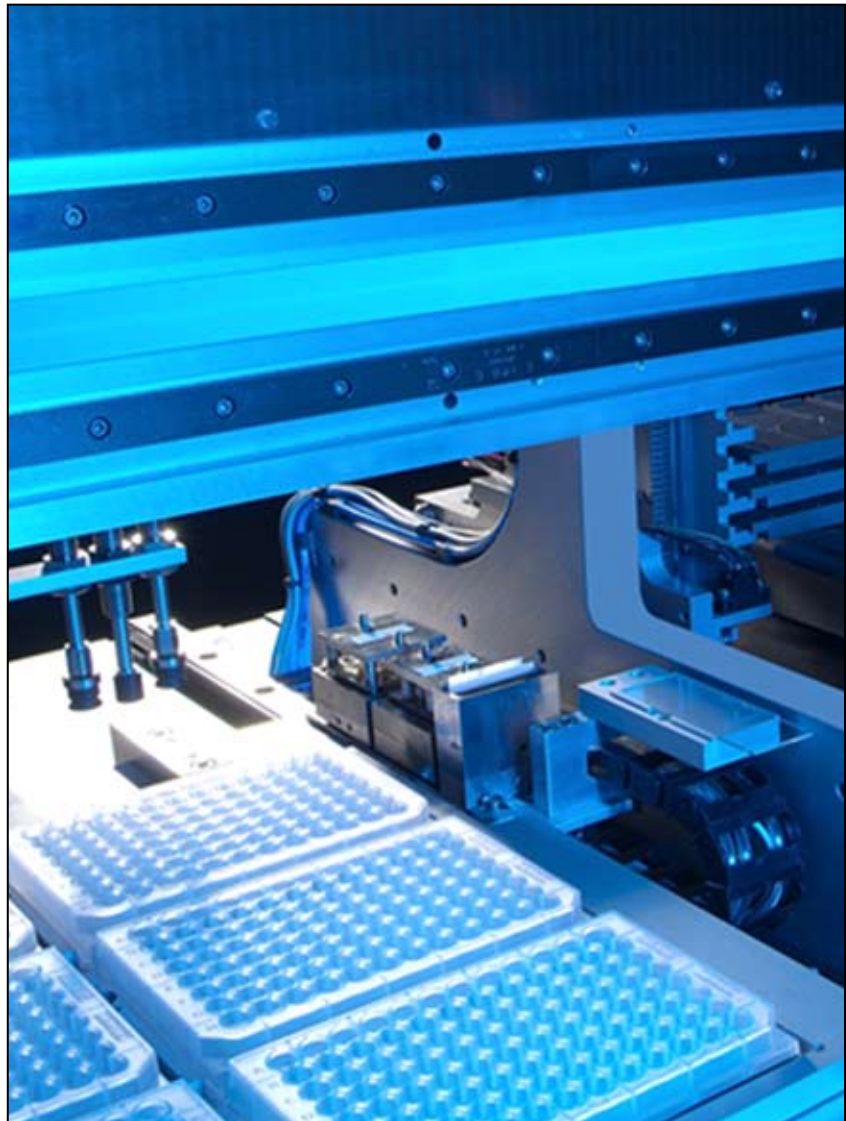
- Automatically print 1000 slides from 6 or more sample plates
- Compact floor or bench mounted option

Performance

- Automated print head test protocol for print head QC
- Low inter-nozzle CV's
- Reliable X-Y positional accuracy
- Highly uniform spot morphology

“The morphology of the spotted features is consistently good”

*Dr Margaret Hughes
- University of Liverpool*



Speed and precision

- X-Y axis high resolution positioning for array reproducibility and accurate printing relative to slide features
- Print head addresses each slide in less than 0.2 seconds
- Accurate spot placement
- Flexible slide formats

Flexibility

- 96/384 well sample plates printed to multiple slide substrates
- Replicate printing (duplicate, triplicate sample sets/slide)
- Overlay printing
- on the fly or in subsequent runs
- Create customised layouts with Array Multiplier™



Sample Tracking and Data Output

- Multiple input file formats and industry standard .GAL and .CSV output files
- Flexible input/output file merging

Simple Set-up

- Easy set-up and maintenance via automated protocols
- Removable carriers for easy slide/plate loading
- Pause function for on-line plate replenishment
- Automatic user prompts (e.g. add more sample plates)
- Control array printing parameters via user friendly windows interface

Reliability

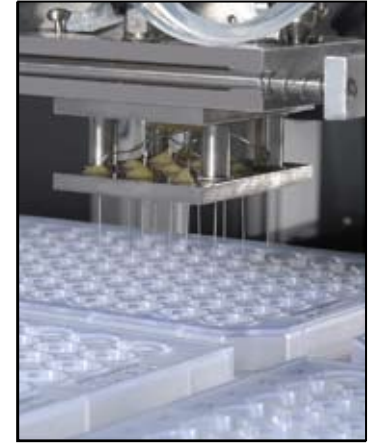
- Industrial standard print head technology
- Automatic maintenance protocols for JetSpyder™ and print head fluidics
- Designed for unattended operation
- Automated pre-run print head test protocol

“We have significantly reduced the time taken to print our arrays, plus set-up is fast and easy”

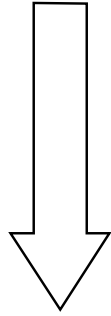
*Alison Downing
- ARK-Genomics, Roslin Institute*

...Get the right results out

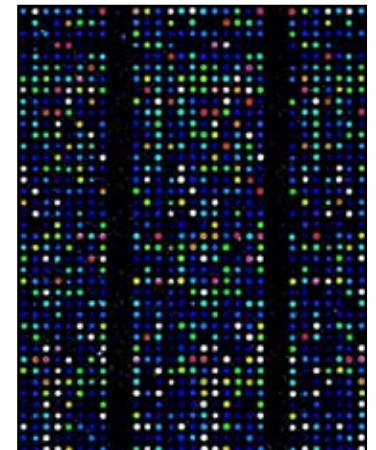
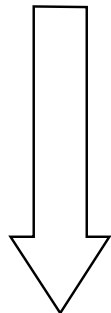
Innovative Arrayjet Technology



JetSpyder™ sampler for rapid sample loading:
12 or 32 samples simultaneously loaded from a microtitre plate.



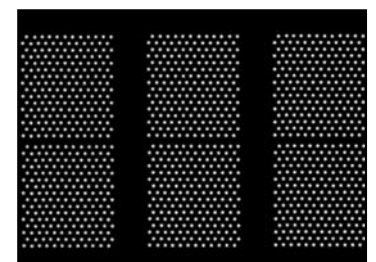
Piezoelectric inkjet print head:
Flexible and ultra-fast array production. Deliver volumes in the pico/nanolitre range. No heat or charge transfer to samples.



High quality spotting capability:
Precise drop positioning. Spot multiple drops to same spot position. Overlay entire arrays.

Reliable, walk-away production...

- Automatically print up to 1000 slides
- Customise layouts with Array Multiplier™
- Spot to multiple slide/surface chemistries
- Easily track samples post-array





Technical specification:

Microtitre plate options	96/384 well	Drop volume	100 picolitres (100pL)
Minimum well volume	5-10 microlitres (5-10 μ L)	Dimensions HxWxD	0.91 x 1.56 x 0.89m (Bench) (35.8 x 61.4 x 35.0in) 1.70 x 1.56 x 0.89m (Floor) (66.9 x 61.4 x 35.0in)
Slide dimensions	25 x 75mm (1 x 3in)	Weight	400kg (885lbs)
Spot density*	44,000 plus per slide	Power	230Vac; 50/60Hz (110Vac; 50/60Hz)
No. Sample plates	up to 192	No. Slides	1 - 1000

For research purposes only

*Dependent on buffer and surface chemistry

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