

Xaar 318 Series



APPLICATIONS

Xaar 318 series printheads deliver extremely small droplets, precisely placed to produce photographic image quality for graphics printers as well as meeting the exacting demands from a broad range of specialist industrial printing applications.

In combination with UV ink, these printheads offer compatibility with an extensive range of porous and non-porous substrates, making them an ideal choice for wide-format graphics, POS signage, primary packaging, ID cards, printed circuit boards and CDs.

Both 318 series printheads are designed for easy integration into either fixed head or scanning applications. This ease of integration is a key factor in enabling OEM's to get new printers to market in the shortest possible time.

INKS AND FLUIDS

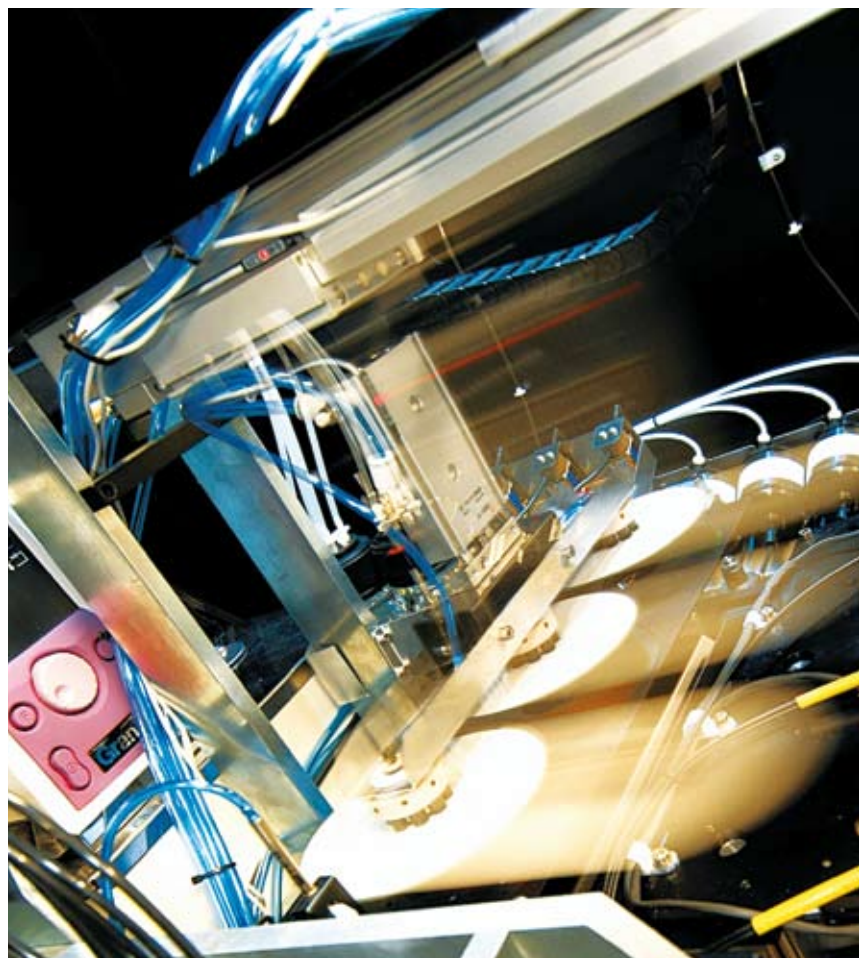
The Xaar 318/CA2 and 318/CA4 are optimised to work with an extensive range of UV and oil-based inks for the graphics markets.

Xaar's 318 series 'greyscale' printheads eject drops of variable volume delivering optimal ink usage.

PHOTO IMAGE QUALITY WITHOUT COMPROMISE

This highly versatile range of piezoelectric printheads incorporates Xaar's patented shear mode, shared wall technology. Low power modulation and unique acoustic waveforms combine to deliver exceptionally low levels of internal mechanical stress, resulting in consistency of quality, reliability, and longer printhead life.

Xaar's 318 series "greyscale" printheads eject drops of variable volume. These are formed by producing sub-droplets at a much higher frequency and in groups.



XAAR[®]

XAAR'S UNIQUE GREYSCALE TECHNOLOGY

Conventional “binary” printheads eject ink drops of fixed volume (typically in the range 20–80pl). Xaar’s 318 series “greyscale” printheads eject drops of variable volume. These are formed by producing sub-droplets (typically in the range 3–6pl) at a much higher frequency and in groups. The number of droplets per group is variable according to the printhead specification (number of greyscale levels).

What is the benefit? Image quality. By varying the dot size on the substrate, “greyscale” printheads simulate a much higher resolution than their physical nozzle spacing and firing frequency would normally allow. This produces the smooth colour tints and gradations you would normally expect to see in photographic images printed on high-end equipment printing light cyan and light magenta.

No longer can DPI (dots per inch) alone be used as the industry measure for print quality. With Xaar’s “greyscale” technology you get more for less – more satisfied customers, less ink consumption.

Physical Attributes	Xaar 318/CA2	Xaar 318/CA4	Unit
Active nozzles	318	318	—
Print swathe width	53.6	53.6	mm
Nozzle pitch	169	169	µm
Nozzle density (nozzles per inch)	150	150	npi
Drop velocity *	9–11	9–11	m/s
Printhead weight (dry)	134	136	g
Dimensions (WxDxH)	85x75x25	85x70x23	mm
Ink type	Approved range **	Approved range **	—
Greyscale			
Number of grey levels	8	Std 8, Max 16	—
Sub drop volume *	6	6	pl
Drop volume at 8 levels *	42	42	pl
Typical firing frequency *	4.8	6.2	kHz

* Dependent on ink used and system integration.
 ** A wide range of approved fluids are available.



Xaar 318/CA4



Xaar 318/CA2

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