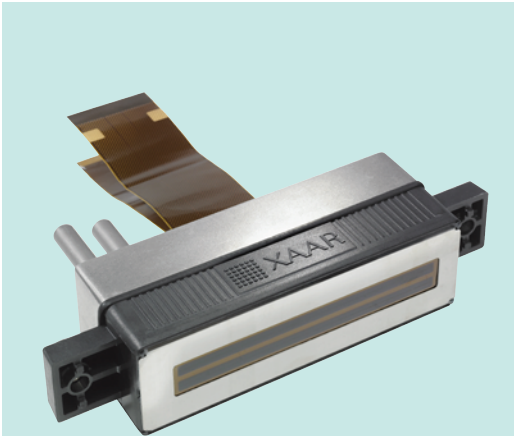


Xaar 1001



XAAR TECHNOLOGY

Xaar is a world leader in the development and manufacture of piezoelectric drop-on-demand inkjet technologies. Its patented shear mode, shared wall technology incorporates low power modulation and unique acoustic waveforms to deliver exceptionally low levels of internal mechanical stress, resulting in an unsurpassed consistency of quality, reliability and printhead life.

APPLICATIONS

Multiple heads, precision mounted on a print bar create an unlimited printing width. Designed for high-speed single-pass applications, the Xaar 1001 forms the core of production printing solutions for commercial print, labels, packaging and textiles. It is also ideal for specialist fluid applications that require the precise, non-contact deposition of functional fluids in the most demanding of industrial environments.

INKS AND FLUIDS

Xaar's unique and patented 'through-flow' system provides an unparalleled level of quality and flexibility. The innovative temperature controlled circulation system gives a thermal consistency that provides exceptional operational latitude for a wide range of fluids and suspensions.



XAAR®

ADVANCED TECHNOLOGY FOR SINGLE PASS PRINTING

The Xaar 1001 combines the most advanced printhead design and manufacturing processes to deliver Xaar's latest inkjet technology platform. Utilising a unique and advanced piezo drop-on-demand technology with Xaar patented TF Technology™ it provides an exceptional leap in quality, reliability and flexibility for a wide range of printing and industrial applications. High quality drop formation and placement accuracy with outstanding operational durability make the Xaar 1001 a highly productive, true single-pass printhead. Xaar's first printhead offering, based on the Hybrid Side-Shooter (HSS) platform is the Xaar 1001/GS6.



UNRIVALLED RELIABILITY

TF Technology™ is a unique and patented design that circulates the movement of fluid through the printhead. Air bubbles or particles that may form or enter the printhead, are quickly moved out of the printhead and captured by an external trap. In other methods of jetting, the only exits for these particles and bubbles is through the nozzles, stopping print and even causing nozzle blockage. The impact of this new design is outstanding jetting reliability and the ability for the Xaar 1001 to self-recover, which combined, virtually eliminates the need for frequent maintenance. The Xaar 1001 is the ideal solution for printing processes where uptime is critical.

OUTSTANDING PRINT PERFORMANCE

The Xaar 1001 printhead performance specification takes the standards in inkjet printing to new heights. Incorporating Xaar’s patented greyscale (variable drop size) technology, superb drop placement accuracy and ultra high-productivity makes HSS the first choice printhead for single-pass print applications.

The TF Technology™ thermal control system eliminates any variations in temperature across the printhead. Controlling temperatures at varying degrees not only provides a wide operating latitude for ink fluid deposition, but it opens the door for the industrial applications that have a requirement to jet metallic, light emitting polymer, bioactive, polyimide and other exotic fluids.

PLUG ‘N’ PRINT

The lightweight compact printhead is designed to be truly “plug and play”. Micro-precision accuracy of nozzle plate ablation in manufacturing means that all printheads have identical nozzle placement positioning. With multiple printheads mounted on a print bar the precision designed mechanical interface ensures fast and accurate relocation of a new replacement printhead with micron accuracy, eliminating the need for alignment or calibration procedures.

APPLICATIONS

Print solutions with Xaar 1001 at the heart make high quality single-pass inkjet printing a commercial reality offering a competitive alternative to existing On-Demand digital presses and processes. HSS performance characteristics are ideally suited for the requirements of On-Demand print applications to deliver cost effective solutions for commercial printing, label production, primary and secondary packaging solutions and textile printing. Industrial applications have unique and varied requirements that so far have been constrained. Leading edge developments in PCB, flat panel display, printed electronics, light emitting polymers and biotech applications can now be enabled by the Xaar 1001.

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SCALABLE AND MODULAR

Scalable and easy-to-use a developer can integrate their own print controller, ink supply system, printhead electronics and software to optimise printhead performance for their bespoke application. Alternatively developers can choose a complete Xaar solution working with Xaar’s state-of-the-art XUSB Drive Electronics unit and the innovative ink supply system (ISS), to provide a complete and integrated scalable solution – enabling developers to bring to market state-of-the-art systems in shorter timelines.

Physical Attributes	Xaar 1001/GS6	Unit
Active nozzles	1000	—
Print swathe width	70.5	mm
Ink inlets/ink outlets	1/1	—
Nozzle pitch	70.5	µm
Nozzle density (nozzles per inch)	360	npi
Drop velocity *	6	m/s
Ink type	Approved range **	—
Printhead weight (dry)	122	g
Dimensions (WxDxH)	130x30x50	mm
Binary mode		
Drop volume *	6	pl
Typical firing frequency *	39	kHz
Greyscale		
Number of grey levels	8	—
Sub drop volume *	6	pl
Drop volume at 8 levels *	42	pl
Typical firing frequency *	6	kHz

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

