

Xaar 5601



Xaar 5601

Lowering TCO
Outstanding print quality
Unparalleled usability

Setting new standards in digital inkjet printing

Set new standards in digital inkjet printing with the innovative Xaar 5601. This printhead delivers market-leading **total cost of ownership, outstanding print quality at high speed** and **unparalleled usability**.

The Xaar 5601 is an exceptional performer, making it ideal for printing textiles, laminates, packaging, labels and commercial print as well as many other applications. The design and the Silicon MEMS manufacturing processes used in the production of this printhead challenge digital inkjet machine integration costs, allowing OEMs to address new markets and new opportunities, accelerating the analogue-to-digital conversion in major commercial and industrial print applications.

With a heritage of developing pioneering inkjet technologies, Xaar has invested heavily in R&D and market research in order to bring a step change in digital printing capability to market. This very high-resolution high-productivity Thin Film Piezo Silicon MEMS printhead has over 5600 nozzles and is capable of jetting up to 9 litres of fluid per hour. Xaar's innovative **AcuDrp Technology** offers complete control over greyscale drop ejection for perfect image uniformity. In addition, the Xaar 5601 printhead incorporates TF Technology to maximise production uptime, print quality and printhead lifetime. The unique Z profile of the Xaar 5601 makes fitting multiple printheads closely together possible and ensures an exceptionally compact print zone; this improves colour registration and reduces the costs associated with accurate media control.



Textiles



Commercial



Packaging



Labels



Laminates



XAAR[®]

Xaar 5601



Lowering total cost of ownership

Drive down the total cost of ownership for your printing solutions with the Xaar 5601, which is packed full of technologies and features. Mechanical design is made simple and integration costs are minimised by using the Xaar 5601 and its dedicated drive electronics.

- The Xaar 5601 delivers best-in-class cost-effectiveness for high productivity
 - 5680 nozzles which jet at a speed in excess of 100,000 drops per second
 - 9 litres of fluid jetted per hour at line speeds of just over 2 metres per second
- Compared to other printheads in the same class, fewer printheads are required for each print bar due to the 116 mm print swathe width; this, in turn, means that fewer electrical, fluidic and mounting connections are required
- Demands on the media transport system are reduced because the print zone is compact, made possible by the unique Z profile of the Xaar 5601. Print swathes overlap easily without increasing the depth of the printhead array. Additional colour bars can be mounted closer together while maintaining a compact print zone.

Outstanding print quality

Deliver best-in-class print quality with the Xaar 5601, which uses both new and industry proven technologies to deliver an apparent resolution greater than 2440 dpi at high levels of productivity.

- The Xaar 5601 produces exceptionally high quality digital print at high speed
 - 1200 nozzles per inch, 8 greyscale levels and a 3 pL drop volume
 - The Z profile enables a compact print zone which maximises drop to drop registration while minimising time for media expansion between print bars
- AcuDrp Technology ensures high quality image reproduction by minimising banding and colour density variations
 - Dynamic drop tuning for each nozzle in the printhead helps to minimise drop variation across the printhead and between printheads
- TF Technology uniform droplet production supports high image quality
 - Ink recirculation maintains temperature uniformly across the printhead which ensures uniform ink viscosity in all of the nozzles, irrespective of printing duty.

Unparalleled usability

Reduce operator effort and production downtime with the Xaar 5601. The printhead's Plug and Print features ensure printhead installation and replacement by an operator is quick and easy.

- The design of the Xaar 5601 ensures a flawless stitch between printheads with no mechanical alignment after printhead installation. The nozzle arrangements at the ends of the printheads and the special datum features provide an advantageous nozzle overlap that can be easily configured by software
- The mounting features on the printhead enable a robust but simple solution to accurately and quickly secure printheads in place with minimal mechanical cost
- Printhead maintenance intervals are minimised and production uptime is maximised with Xaar's TF Technology which ensures unrivalled reliability
 - TF Technology enables fluids in the printhead to flow directly past the back of the nozzle during drop ejection, at very high flow rates. This keeps the nozzles continuously supplied with fresh ink, the printhead operational and the nozzles firing.

Physical attributes Xaar 5601

Active nozzles	5680
Print swathe width	116 mm
Number of rows	4
Colours	1 or 2
Nozzle pitch (interleaved)	21 µm
Nozzle density	1200 npi
Drop velocity	Up to 10 m/s
Ink type*	Aqueous, UV
Drop volume*	3 to 21 pL
Number of grey levels*	8
Typical firing frequency*	100 kHz (binary)
Dimensions (WxDxH)	141x45x69 mm
Printhead weight (dry)	320 g

* Ink and application dependent

