

XAAR Nitrox eX

The Xaar Nitrox eX printhead is specifically designed for coating new generation batteries for electric vehicles, energy storage and other uses.

This printhead enables better coatings, superior production performance and an industrial reliability.

Print better coatings

Improve new generation battery coatings for a safer, more durable and overall better performance. The Xaar Nitrox eX printhead can print coatings which outperform traditional solutions, ensuring more robust and reliable protection against the impact from heat generated during the battery charging process, as well as protecting against wear and tear.

- Thanks to Xaar's Ultra High Viscosity Technology battery manufacturers can jet advanced functional fluids with viscosities of up to 100 cPs
- This unique technology enables fluid manufacturers to develop formulations that can deliver improved UV coatings performance, including mechanical robustness and dielectric strength
- In addition the Xaar Nitrox eX has been specifically optimised to use the viscous and challenging fluids required for coating new generation batteries
- Ultra High Viscosity Technology combined with the 1000 nozzles makes it possible to jet extra thick coatings for more durability and overall better coating performance.

Superior production performance

Improve battery production performance and throughput whilst achieving coatings with a uniform layer thickness with the Xaar Nitrox eX printheads.

- The Xaar Nitrox eX prints thick coatings evenly in a single pass, improving production efficiency
- Thanks to Xaar's unique TF Technology, the Xaar Nitrox eX prints extremely reliably and on all battery shapes, even on the battery sides and corners. This eliminates the time-consuming need to reposition the battery during the production process
- The Xaar Nitrox eX printhead's narrow architecture allows printing on cylindrical surfaces and in any physical orientation
- Xaar AcuChp Technology provides uniform drop volume, enhancing drop uniformity both within and between printheads. Together with High Laydown Technology, this delivers the coating layers with a uniform thickness required by battery manufacturers
- With High Laydown technology the Xaar Nitrox eX can deposit large quantities of coating fluids in a single pass, also delivering increased production throughput.

Unmatched industrial reliability

Improve return on investment whilst optimising productivity by reducing costly production interruptions. The Xaar Nitrox eX printhead delivers exceptional reliability for demanding applications such as printing coatings, avoiding unnecessary downtime and ensuring consistent and uninterrupted operation.

- TF Technology ink recirculation keeps nozzles clear of unwanted particles and air bubbles, preventing sedimentation even when using heavily pigmented inks. This significantly improves reliability, even in the most demanding production environments, reducing the risk of downtime and maintaining a high level of performance
- SureFlow self-cleaning technology enables users to clear and prevent nozzle blockages without removing the printhead, minimizing mechanical interruptions and maximizing operational print time.

Xaar Nitrox eX

Applications

Coatings for cylindrical
new generation batteries

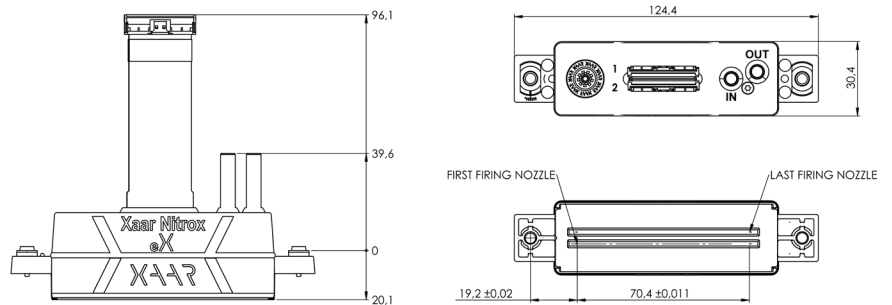
Approved fluids

UV coating fluids



Product configurator

Xaar Nitrox eX		
Features		
TF Technology		•
Xaar AcuChp		•
XaarDOT		•
XaarGuard		•
SureFlow		•
In-line filter		•
Optional extra		
Customisation		•
Serviceable		•
Materials robustness		
UV battery coatings		•
Performance		
Drop sizes (pl)	12	40
Maximum frequency up to (kHz)	36	24
Maximum productivity (g/ m ²) @1.3g/ cm ³	22	42
High Laydown (g/ m ²)	120	N/A
Alignment capability		
X-Datum to 1st printing nozzle (µm)		±20
1st to last printing nozzle (µm)		±11
Centre line to 1st row parallelism (µm)	±50	±100
Dimensions		
Printhead dimensions (mm)		



Head Office / Europe
+ 44 1223 423 663
info@xaar.com

Asia
+86 755 23309293
info@xaar.com

USA
americas@xaar.com

Learn more at
www.xaar.com

