

TriJetica

Industrial inkjet printhead

Precision jetting for industrial applications

The **TriJetica** range of piezo printheads offer a durable and robust solution for the precise dispensing of functional fluids. Built for production line applications TriJetica heads deliver high productivity with the ability to reliably reproduce droplets. The printheads are built around a stainless steel architecture providing an inert environment compatible with a wide range of fluids. TriJetica printheads deliver proven reliability in industrial environments with systems in the field that have been operational for over 10 years. Each printhead channel has an expected life of approximately 90 billion firings, delivering a life expectancy up to 8 times longer than alternative inkjet technologies.

Key performance parameters

- ▶ Controlled dosing
- ▶ High precision deposition
- ▶ Refurbishable
- ▶ Market leading durability
- ▶ Inert

Target sectors

- ▶ Functional materials
- ▶ Bio dispensing
- ▶ Printed electronics
- ▶ Solar
- ▶ Technical textiles
- ▶ Medical sensors

Typical materials

- ▶ Bio fluids
- ▶ Conductive inks
- ▶ Etch resist inks
- ▶ Textile inks
- ▶ Organic solvents
- ▶ UV solvents



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Market leading durability

TriJetica printheads are fully re-furbishable and have been designed to be disassembled, cleaned and repaired. For production line applications the ability to service installed printheads can offer up to 4x the cost savings when compared to heads that would otherwise need to be replaced. This proposition delivers an attractive return on investment for industrial applications and avoids costly maintenance fees.

Maximum specification flexibility

TriJetica printheads are compatible with a range of fluids and materials. Optional temperature control of printheads enables jetting of fluids with viscosities ranging from 5 – 30cps. Drop sizes ranging from 30 down to 7 pico litres are available to meet application specific requirements. The technology is fully scalable and multiple heads can be stitched together to achieve custom print widths.



TriJetica servicable printhead





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TriJetica printhead range

Operating parameters	256Jet-D7	256Jet-D30	256Jet-D50	256Jet-D80	768Jet-D50	768Jet-D80
Orifices per channels	1	1	1	1	1	1
Typical feature size	<50um	<100um	<200um	>200um	Coating or large area pattern	Coating or large area pattern
Drop size (pl)	7	30	50	80	50	80
Drop size variation with trimming (%)	2%	2%	2%	2%	10%	10%
Nozzle spacing	397 micron					
Addressable channels (jets)	256					
Nominal drop velocity	5 – 8m/sec					
Nozzle arrangement	Two rows of 128					
Crosstalk maximum	5-10%					
Operating temperature range	Up to 70 deg C					
Fluid viscosity range	6 – 14 cps					
Maximum operating frequency	10kHz					
Compatible fluids	Organic solvents; UV curable					
Orifice plate and printhead material	Stainless steel					
Estimated minimum life	Approximately 100 billion firings per jet					
Nozzle line length	100mm					
Length, width, depth	134.6 x 43.2 x 114.3mm					
Weight	800 grams					
Typical film thickness	1-8 microns					
Additional options	Increased printhead inertness for resistance to aggressive fluids					
	Individual channel drive voltage control or integrated drive electronics with four voltage settings					
	Heater to control printhead temperature up to 70 Deg C					

Specification subject to change without notice