SPECTRUM TECHNOLOGIES

NovaJet™

Inkjet Wire Marking & Processing System For Complex Wire Harness Manufacturing

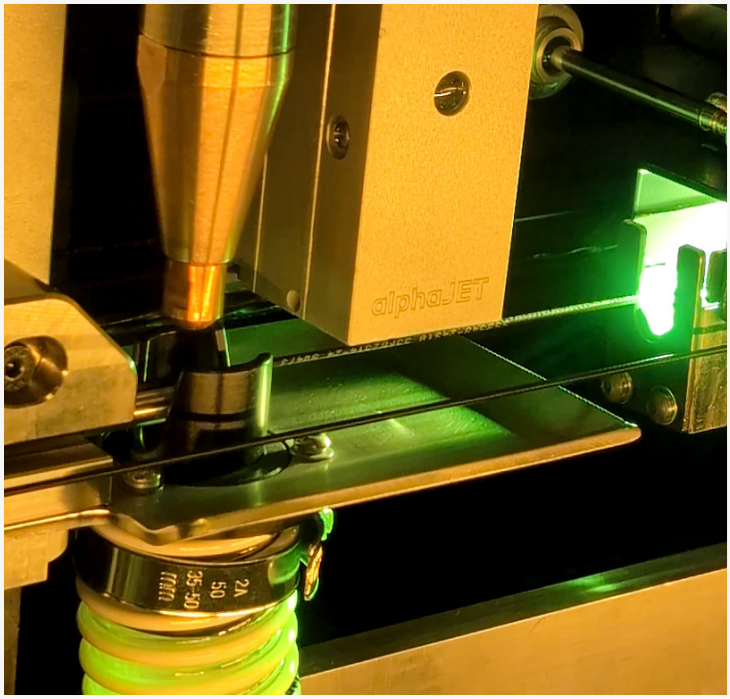
EN

The Mark of Excellence™

NovaJet

Smart Wire Processing for Modern Manufacturing

The NovaJet is a state-of-the-art inkjet based wire mark, measure and cut system engineered for precision processing of non-laser markable wire and cable. Designed specifically for aerospace and other demanding industries, every subsystem and component has been carefully engineered and specified to maximise system performance and reliability.



NovaJet Internal Processing Area

Benefits

- **Superb Mark Quality:** Plasma pretreatment combined with UV curing ensures permanent, legible marking, meeting key aerospace standards (SS7333, SAE ARP5607B).
- **High Throughput:** High speed wire marking maximises system productivity.
- **Maximum Productivity:** The automated system can be preloaded with up to 32 different wires and cables, enabling rapid changeover to maximize uptime and productivity in complex harness manufacturing, allowing manufacturers to efficiently group wires into complete harness assemblies.
- **Controlled Power Protection:** Optional UPS ensures safe shutdown and prevents data loss or service interruptions in the event of electrical power loss.
- **Maximum Reliability:** Designed for long-term operation with minimal running costs.

High-Speed, Precise Marking

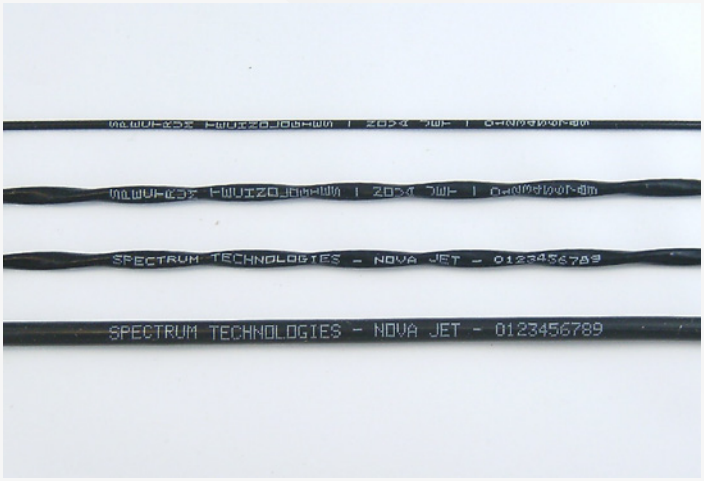
NovaJet is engineered for fast, accurate, and repeatable inkjet marking of Filterline wires, delivering high-quality, legible marks that meet aerospace and Mil-Spec standards. The plasma and UV curing systems ensure marks are applied permanently while operating at speeds up to 30 m/min (~ 100 ft/min) to maintain consistent mark quality and maximising throughput.

Enhanced Productivity and Reliability

Designed for maximum uptime, the NovaJet can run continuously with minimal intervention. Its advanced design ensures reliable operation under standard factory conditions, while an optional UPS provides controlled shutdown in the event of power loss, protecting the ink module and system PC from damage or data loss.

Flexible and Scalable

NovaJet offers full customisation options, from manual to fully automated configurations. With innovative features like multi-station dereeling and ASL wire loading, the system can handle up to 32 wires, giving customers the flexibility to scale up production while maintaining maximum efficiency.



Marked 55FB Black Filter Line Wire

Technical Specifications

STANDARD FEATURES

Processing Specifications	Wire size (OD)	Up to 6.35 mm / 0.25 in
	Wire guage	24 - 10 AWG
	Wire marking speed (max)	30 m/min / 98 ft/min
	Wire type	55FB Black filter line wire (AS 85485)*
	Font sizes and orienatation	See font size table below
	Mark spacing	10 - 1000 mm / 0.394 - 39.4 in
	Cable length (min)	152.4 mm / 6.0 in
System Specifications	Configuration	In-line processing
	Dimensions (W x D x H)	1550 x 2230 x 2076 mm / 61.0 x 87.8 x 81.7 in
	Weight	Manual: 1100 kg / 2425 lbs Automatic: 1200 kg / 2646 lbs
Control and Software	Machine control architecture	Windows based control software
	Interface	Height-adjustable HMI touchscreen
	Communications	Ethernet
	Program configuration	Spectrum Technologies bespoke program
	Program recipes	Comma separated value files (.CSV), manual input
Environmental and Operational Conditions	Operating temperature	+15°C to +30°C / +59°F to +86°F
	Operating humidity	20% to 80%, non condensing
	Noise level	77 dB(A)
Power, Air and Fume Management	Electrical connection	EU: 415 VAC, 50-60 Hz, 3Φ. NA: 480 VAC, 60 Hz, 3Φ
	Electrical consumption	EU/US: 15 kVA
	Compressed air	7 bar (80 psi)
	Fume extraction	934.5 m³/hr (550 cfm peak) / 550 ft³/min, 7" static pressure head**
Compliance and Standards	Conformity	CE, Machinery Directive
	Standards	ISO 9001, Sikorsky SS7333, SAE ARP5607B

FONT SIZES

Font	Metric (mm)	Imperial (in)	Dot Matrix
Horiz. (L)	2.1 x 1.9	0.083 x 0.075	9x6
Horiz. (M)	2.0 x 1.8	0.079 x 0.071	7x5
Horiz. (S)	1.2 x 1.5	0.047 x 0.059	5x5
Verti. (S)	1.9 x 1.0	0.075 x 0.039	5x5

ACCESSORIES AND OPTIONS

Transformer
Single or multi-station dereelers (up to 32 station)
Wire Automatic Select & Load (ASL) module
Rereelers
Stackers
Extended warranty

*Other wires depending on validation testing.

**A 150 mm (6”) aperture is provided for connecting to factory extraction systems. A suitable LEV system should be used capable of handling 934.5 m³/hr (550 cfm peak) 550 ft³/min @ 7” static pressure head, including means to filter NO, NO_2, NO_x and O_3.

About Spectrum Technologies

Company Overview

Spectrum Technologies has been at the forefront of laser wire processing technology for over 35 years, developing and applying leading edge technology to provide solutions to problems in advanced manufacturing.

Founded in 1989 as a spin-out from BAE Systems' Advanced Technology Centre, the Company pioneered and commercialised UV laser wire marking within the aerospace industry – a process that has since become the global industry standard for identifying aerospace wire and cable. Spectrum has been independently owned since the management buyout in 1994.

Today, Spectrum Technologies is recognised as the world leader in the design and manufacture of specialised laser-based wire processing equipment. Its solutions are widely used in the production of complex wire harnesses and assemblies across aerospace, defence, medical, rail, automotive, and other critical industries.

Setting the Aerospace Standard Since 1989

We pioneered the use of UV laser wire marking in the late 1980s, as the safest possible method of identifying aircraft wire and cable. This process is now accepted as the global aerespace industry standard, and Spectrum is the world market leader in this field, trusted by leading aircraft OEMs and suppliers worldwide. Today the global fleet of civil and military aircraft relies on our technology for the precise, permanent and safe marking and identification of the electrical wiring system.

To discuss any of your requirements please contact us at sales@spectrumtech.com or on +44 (0)1656 655 437.

Scan for more information

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