



Nova™ 1000

High performance UV laser wire marking module for integration into production lines or existing wire handling equipment



marking

Nova 1000

High performance in-line laser wire marking system

The Nova 1000 in-line unit is a high speed UV laser marker designed for the printing of manufacturer identifications onto wire and cable with laser-markable insulations.

The characteristics of this mark is such that it should be distinct from any subsequent laser marking that may be applied by end users in the process of wire harness manufacture.

Designed for integration into the extrusion line, the material to be marked does not require any treatment (flame / heat / plasma / irradiated) prior to marking. Additionally the system can be incorporated into an external re-wind line with suitable Pay-off and Take-up units.

The Nova 1000 system comprises the laser marking module, a floor standing laser cooling system and an industrial PC with bespoke Windows-based software for simple programming.

The software allows for marking of numbers, letters and symbols to create a repetitive mark along the length of the wire or cable. A software option** can allow incremental marking as well as the ability to mark logos and images*.

UV laser is the accepted international standard for wire marking within the aerospace industry. It allows marking on a wide range of high performance "non-stick" fluoropolymer wires as well as multi core jacketed cable and some coaxial cables. It can also mark fibre optics.

For information on marking specific wire and cable types please contact Spectrum Technologies.

Benefits of UV laser marking:

- High legibility mark
- No pre- or post-treatment of wire
- Permanent under all known operating conditions, including hot hydraulic fluid, fuel, abrasion
- Non-aggressive process - does not affect the integrity of the wire
- Non-contact high-speed marking 'on-the-fly'
- Marks single core wires and jacketed multi core cables, screened and unscreened
- Marks white and some coloured insulations including PTFE (Teflon), ETFE (Tefzel), XLETPE & FEP
- Variable font sizes matched to wire gauge
- No day to day consumables & low direct operating costs

To comply with health and safety requirements, air exhaust must be provided when using this laser processing system. If this is not available in your factory, Spectrum's ACS-5 systems remove all odours, particles and fumes from the laser processing area and return clean air to the room.



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

* Please note that marking speeds and throughput are dependent on a number of factors such as font size, font type, number of characters per ident, spacing between idents, type of character / image.

** Optional items subject to charge



Summary Specification

Model	Nova 1000 In-Line Wire Marking Module	
	Metric/EU	Imperial/US
Print Specification	Character set:	Full ASCII alpha numeric capability includes Spectrum speed optimised fonts. (Other fonts and tape measure mode upon request)
	Mark orientation:	Vertical or Horizontal
	Marking type:	Repetitive marking only
	Maximum characters per mark:	Up to 150 characters Note: increasing the number of characters will result in reduced maximum speed
	Minimum character size for vertical print:	0.6 x 0.6mm (0.02" x 0.02")
	Length of individual mark:	Up to 150mm (6")
Wire Processing Specification	Mark spacing:	Up to 1000mm (40")
	Circular Profile: (Min / Max diameter)	0.8 – 10mm (0.03 – 0.4")
	Flat Profile:	Not possible
Marking Speed* (Alpha-numeric only)	Mark Spacing Accuracy:	+/- 0.5% of measured length
	Single line quality:	105m/min (344 ft/min)
	Standard print quality:	60m/min (200 ft/min)
Wire Handling	Bold print quality:	45m/min (150 ft/min)
	Wire Handling	Passive, unpowered wire guiding system. Spectrum can supply powered wire drive mechanism and encoder for accurate mark spacing and length measurement at additional charge Note: the wire handling system runs from left to right
	Wire Types	All UV laser-markable shielded and unshielded, single and multi-core, jacketed cables.
Control	Control	Industrial standard PC with Windows-based software
	Integration	Unlimited job file saving
Fume Extraction	Integration	Suitable for integration into extrusion or rewind line, pay-off and take-up units
Power Requirements	Fume Extraction	~100m ³ / Hour (~60ft ³ / min) required. Can be provided by Spectrum ACS-5 system
	Power Requirements	220~240V-50Hz 5 Amp, single phase 110~120V-60Hz 10 Amp, single phase
Operating Conditions	Operating Conditions	Ambient temperature 15°C to 30°C (60°F to 86°F) as standard Relative humidity 20% to 80% (non condensing)
	Dimensions L x W x H	1240 x 924 x 2147mm (49 x 36 x 85")
Weight	Weight	Approx. 420 kgs (1256 lbs)
Options**	Options**	<ul style="list-style-type: none"> • Software upgrades for incremental marking; full font capability and/or images and logos • Powered wire drive mechanism and encoder • Spectrum Single Station De-reeler (up to 25kg reels) • Spectrum Single Station Re-reeler (up to 25kg reels) • ACS-5 Air Cleaning System

- All Nova systems are Class 1 laser products for use on open shop floor, unless otherwise stated
- Complies to CAT 3 electrical safety category and all CE marking and FDA regulations
- In-depth technical training courses available from a dedicated training department, on site at customers location or at our in house training facility
- All equipment supported for at least 10 years, guaranteed
- Spare parts stocked in the UK, US & China for same day dispatch
- Round the clock global support network with rapid response to any issues and 24 hour telephone hotline support
- 15 dedicated field service engineers based in 3 continents, and sales and service representatives in over 26 countries
- Optional diagnostic software for remote assistance via internet.
- Maintenance contracts available to keep systems operating at optimum performance

Nova is a trademark of Spectrum Technologies PLC
COPYRIGHT 2014 SPECTRUM TECHNOLOGIES PLC. All rights reserved.
Specification subject to change without prior notice to provide for continuous product improvement.

Europe:
Spectrum Technologies PLC
Western Avenue
Bridgend,
CF31 3RT
UK

T: +44 (0)1656 655437
F: +44 (0)1656 655920

North America:
Spectrum Technologies USA Inc
Fossil Creek Tech Center
3934 Sandshell Drive
Fort Worth, TX, 76137
USA

T: +1 817 232 2373
F: +1 817 232 4354

Asia-Pacific:
Spectrum Technologies Asia Pacific
上海市浦东新区建韵路500号4幢905室
Room 905, Building 4,
500 Jianyun Road, Pudong District,
Shanghai, 201318,
P. R. China

T: +86 021 6052 3365