



SPECTRUM
TECHNOLOGIES



Sienna™ 500 Series

Laser Wire Stripper

EN

Laser Stripping At Its Finest™

Sienna 500 Series

Rotary Laser Precision for Large-Diameter Cables

The Sienna 500 Series is a specialised rotary-beam laser wire and cable stripping system designed for large-diameter and irregularly shaped cables. Capable of processing wires and cables up to 22 mm diameter, it delivers unequalled, damage-free stripping performance on advanced insulation materials where mechanical methods or conventional laser systems struggle.



Stripped Multiconductor Cables

Benefits

- **Complete 360° Stripping:** Rotary beam technology enables full circumferential stripping of irregular cables.
- **High-Quality, Damage-Free Processing:** The laser reflects from metallic conductors and shields, ensuring clean removal without harming the underlying structure.
- **Exceptional Performance on Tough Materials:** Efficiently strips high-temperature, hard, soft, fibreglass, and fabric-based insulations.
- **Accurate and Repeatable:** Consistent results across diverse wire types and production runs.
- **Single-Step Operation:** Rotary stripping simplifies processes that typically require multiple manual steps.
- **Flexible Strip Patterns:** End strips, windows and complex configurations completed in one operation.

Rotary Beam Precision for Irregular Cables

At the heart of the Sienna 500 Series is its rotary beam system, which rotates around the cable to deliver a clean, complete 360° strip – ideal for large or irregular cables. Careful control of the laser beam power and speed enables customers to establish precise control of the depth of cut, ensuring that the laser beam does not penetrate the shield and damage inner wires.

Engineered for High-Performance Cables

Developed to meet the needs of advanced electrical manufacturing, the Sienna 500 Series excels in removing the complex insulation systems used in modern aerospace, defence and EV power distribution cables. Its ability to strip heavy-gauge single cores, multi-core cables and RF coaxial assemblies, without mechanical contact, ensures conductor integrity and repeatable results, even on high-value or safety-critical wiring.

Programmable and Production-Ready

The Sienna 500 Series supports stored programs for rapid job changeover, ensuring consistent processing across varied production requirements – ideal for high-mix or regulated environments



Multi-core Cables Outer Jacket Strip



Stripped Single Core Wires

Technical Specifications

STANDARD FEATURES

Model	Sienna 510	Sienna 530	
Processing Specifications	Wire size (OD)	1 - 22 mm / 0.039 - 0.87 in	
	Stripping length (max)	200 mm / 7.87 in	
	Accuracy	±0.2 mm / 0.008 in	
	Wire type	Single core, shielded twisted pairs, shielded multi-conductor cables, coaxial cables	
	Insulation material	PTFE, ETFE, PVC, PUR, PI, PET, PE, SI, Fibreglass, Nylon, etc.*	
	Rotation speed (max)	175 rpm	
	Linear slit speed (max)	50 mm/s / 1.97 in/s	
	Strip pattern	End strips, window strips, cross cuts, axial slits, spiral strips	
System Specifications	Laser type and power**	10 W CO ₂ laser	30 W CO ₂ laser
	Beam delivery system	Rotary axis	
	Configuration	Manual insertion	
	Dimensions (W x D x H)	340 x 880 x 520 mm / 13.4 x 34.6 x 20.5 in	
	Weight	48 kg / 106 lbs	68 kg / 150 lbs
Control and Software	Machine control architecture	Microprocessor X/Y motion	
	Interface	PC	
	Communications	RS-232	
	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% - 80%, non-condensing	
	Noise level	65 dB(A)	
Power, Air and Fume Management	Electrical connection	NA: 110 - 120 VAC, 50-60 Hz, 1Φ. EU: 220 - 240 VAC, 50-60 Hz, 1Φ	
	Electrical consumption	300 W	600 W
	Fume extraction	ACS-5 (Optional)***	
Compliance and Standards	Conformity	CE, FDA, FCC, Machinery Directive, Class 1 laser	
	Standards	ISO 9001	

*Non-exhaustive list.

**All Sienna 500 Series lasers are air cooled.

***To comply with health and safety requirements, adequate air extraction must be provided when operating any laser wire stripper. If this is not available in your facility, Spectrum's ACS-5 systems remove all smoke, odours, particles and fumes from the laser stripping area and return clean, filtered air to the room.

ACCESSORIES AND OPTIONS

Power calibration kit

Fume extractor (ACS-5)

Fume extractor replacement filters

Extended warranty

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.

Excellence in Electronics Manufacturing

Electronics production demands fast, precise and reliable wire processing to keep pace with increasing product complexity and miniaturisation. Spectrum Technologies' laser systems provide the accuracy, repeatability and efficiency required by leading manufacturers in consumer electronics, industrial devices and emerging technology sectors. In addition to insulation removal, our laser marking solutions support clear source and destination coding at wire ends – helping operators work faster, reduce errors and maintain the highest manufacturing standards.

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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