

# SIENNA™ 500 series

Rotary axis laser wire stripping system for large gauge wires and cables used in aerospace and military electronics applications.



stripping

# SIENNA

## Laser wire strippers

Compact Laser Wire Stripping Systems offering unequalled damage-free, high quality wire stripping.

**The SIENNA 500** series has been developed to provide the highest quality and most reliable method of removing today's high technology wire insulations from large gauge wires without damage to the conductors.

The machine is compact and portable giving it great mobility within the manufacturing environment.

Its ability to strip heavy gauge single core wires, multi-core and coaxial cables makes it particularly suitable for aerospace and defence electronics, power and RF electronics, automotive and battery cable stripping applications.

The unique rotary process enables easy stripping of large gauge and irregularly shaped cables. As well as making a complete 360 degree rotary strip, the SIENNA 500 can also be programmed to make a longitudinal strip to facilitate removal of the insulation. The system can also make a separate second 'window' strip to expose the shield on cables where a connection to the connector back shell or a solder sleeve is required.

The system contains the laser, optical system, control electronics, power supplies, and mechanical components. Air exhaust, if not available on site, can be provided by the optional self-contained ACS-4 air cleaning system. (See opposite page for details).

### Features

- Small, compact and portable. Fits on a standard workbench.
- Unique rotary laser beam delivery system
- Cross cut and slit function
- Window cut function
- Single step operation
- Program store capability for different wire type parameters

Laser wire stripping has been developed to meet the exacting needs of many modern day industries. The laser process offers substantial operational and productivity benefits over outdated mechanical, chemical and hot wire thermal techniques. Precise control of the laser cut location, size and depth minimise the possibility of end product defects. This results in higher yield, lower cost and increased product reliability.

### The SIENNA 510

Consists of a 10w laser suitable for most wire types.

### The SIENNA 530

High Power (30w) version for large gauge wires or tougher insulation types.

### Wire Guide Option

- Rotary selection guide for 1.5mm - 7mm
- Optional user selectable individual guide for wire sizes from 0.5mm - 25mm



**Typical applications**

SIENNA laser wire strippers have been developed to meet the requirements of many modern day industries. Typical uses of the SIENNA 500 series are as follows:

- **Aerospace**  
Wire harness manufacturing.
- **Locomotives and Rolling Stock**  
Track cabling and internal wiring harnesses.
- **Military and Defence electronics**  
Cable assemblies, signal cabling.
- **Automotive**  
Stripping battery cables.

For further discussion on uses & applications of the SIENNA 500 series, we would be happy for you to contact us.

**ACS-4 (Air Cleaning Systems)**

The optional ACS-4 will remove smoke and debris from the laser stripping area, filter it, and return clean air to the room. It is a small compact unit with a power requirement of 3 amps that can be located anywhere near the SIENNA 500, and contains a removable multistage filter which removes:

- Particulates
- Smoke
- Odours
- Halogens and toxic gases



**SIENNA 510**

Multicore cable with foil shield



Endstriped fireglass wire



Single core endstrip



Window in multicore cable



Window in coaxial cable



**SIENNA 530**

End striped 15mm OD cable



quality, accuracy and performance

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# SIENNA 500 series

## Summary specification

Laser	<ul style="list-style-type: none"> <li>Reliable sealed infra-red laser</li> <li>Class 1 laser product for use on open shop floor</li> </ul>
Control	<ul style="list-style-type: none"> <li>System controlled by Micro-processing System with easy to use operator control panel</li> </ul>
Wire size	<ul style="list-style-type: none"> <li>Wire and cable to 25mm (1"), depending on which guide selected.</li> <li>Strip lengths up to 200mm (7.5")</li> </ul>
Wire configuration	<ul style="list-style-type: none"> <li>Single core wire</li> <li>Twisted pairs</li> <li>Multi-conductor</li> <li>Coaxial cable</li> </ul>
Types of insulation	<p>Teflon® (PTFE), Tefzel® (ETFE), Polyimide Kapton®. Other hard, soft or high temperature insulations.</p> <p>Processing speed varies with the choice of insulation.</p> <p>Please contact Spectrum Technologies to discuss your particular application and requirement</p> <p>® Registered Trademarks of DuPont</p>

## Mechanical specifications

<b>SIENNA 510</b>	<b>10 Watt CO2 laser</b>
<b>SIENNA 530</b>	<b>30 Watt CO2 laser</b>
Dimensions:	12" Wide x 20" High x 30" Long (305 x 510 x 760mm)
Weight:	SIENNA 510 - 110 Lbs (45 Kg) (Approx.) SIENNA 530 - 120 Lbs (50 Kg) (Approx.)

## Facility requirements

SIENNA 500	110 - 120 Vac, 50/60 Hz 3 Amp. 1 phase 220 - 240 Vac, 50/60 Hz 1.5 Amp. 1 phase
Support	<ul style="list-style-type: none"> <li>Full warranty cover, labour and materials</li> <li>Maintenance contracts available</li> </ul>
Optional extras	<ul style="list-style-type: none"> <li>Air cleaning system</li> <li>User defined wire guide - sizes from 0 to 25mm diameter</li> </ul>

## Customer support

Spectrum Technologies operates an international support service covering 6 continents. Our commitment is total customer support.

- Worldwide customer support from a dedicated team of Field Service Engineers or by fully trained Service Agents
- Technical helpline operating across the global clock
- Operational training for Production and Technical personnel carried out at installation
- Full technical training available at either customer facility or one of our own sites
- Maintenance contracts are available to keep systems operating at optimum performance
- All SIENNA systems are installed by factory trained Engineers or by fully trained Service Agents

## Wire Samples

If you would like to see the results of laser wire stripping on your own materials we will be pleased to process samples and return them to you for inspection.

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