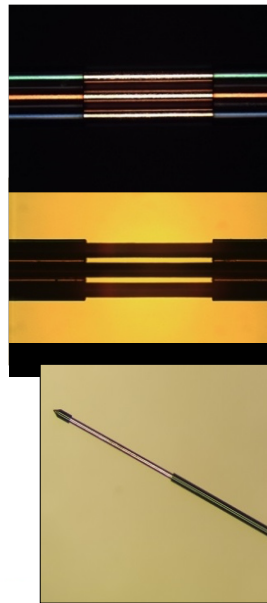




# Echo 360

## fine-wire, UV laser stripper



A turnkey workstation from the A-thermal laser experts. Throughput equal to multiple mechanical & chemical stripping stations. Residue-free ablation of most polymers and other coating materials. No handling or wire rotation needed for perfect results every time.

Nothing strips fine-wire like a UV laser. with few exceptions, and none do it better than the **Optec Echo 360** with its deep UV, 248 nm or 193 nm output, air-cooled, small format EXCIMER laser.

The Echo 360 is fast, versatile and safe. Optec's intuitive Process Pro™ software control makes it easy to operate, with minimal instruction and rapid change over to different wire gauges.

The Echo 360 serves aerospace, MEMS, automotive, consumer electronics, telecom and medical devices, including cardiac rhythm, neuro, electro-physiology and many other demanding applications.

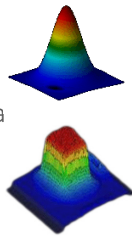
- Strip 360° without rotating the wire
- Down to 60 AWG
- Non-contact, no damage to the core
- Residue-free & oxidation-free
- No chemicals or hazardous waste
- More than 2X faster than UV YAG lasers
- Single, bifilar, trifilar, quadfilar
- Wire separation & cutting options
- All wire types, including magnetic
- Reel-to-reel & reel-to-cut & singles
- Compact, self-contained, mobile
- Color touch-screen display
- 1B+ shots without factory service



Conventional lasers, such as a 355 nm YAG, have a focused, Gaussian beam that scans the insulator using the highest intensity 'point' of the beam. This makes it difficult to regulate the amount of energy needed to strip the coating without changing the surface of the metal conductor.

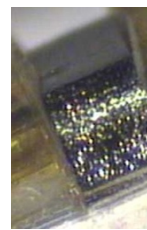
The Echo 360's flat-top beam ablates a large area of the coating evenly by means of aperture imaging and ECHO technology. This gives total control over the stripping process when transitioning from coating to core, along with sharper edges. One can also ablate 'windows' in ribbon cables.

The deep-UV, excimer light is absorbed more readily by most insulating materials than 266 and 355 nm YAG lasers, and just enough energy is absorbed by the conductor to yield a residue-free surface for post-process soldering, welding, bonding or crimping.

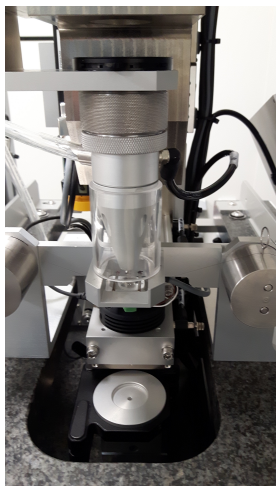


## The Echo 360 the best tool for the task:

- A flat-top, imaged beam for uniform ablation
- Deep UV wavelength, no residue
- 360° simultaneous stripping
- No scanner, no wire rotation



Polymer  
removal  
40 µm wire



Optec's proprietary ECHO beam delivery system (BDU) irradiates the wire uniformly from all sides, stripping a sub-micron layer of the insulator material away with each pulse of the laser. It's high-speed, non-contact ablation make ECHO 360 the preferred choice for fine-wires.

### YOUR RETURN ON INVESTMENT

- Improve quality, yield & throughput
- Innovate and protect IP
- Bring outsourced laser stripping in-house

**Proof of concept samples provided upon request.**

Air-cooled, small-format, excimer laser

248 nm or 193 nm wavelength

Aperture imaged, flat-top beam

Purged beam path

Coaxial, live video microscope

Shield gas assist and debris removal

≤ 1 mm Ø static, > 1 mm dynamic stripping

60 AWG to 32 AWG \* wire diameters

Spool-to-spool & spool-to-cut fixturing

Compact, self-contained, mobile cart

Class 1, interlocked, safety enclosure

- For larger size wires, and other configurations including fully automated production systems, YAG and TEA CO<sub>2</sub> models, contact Optec.

