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Mercury-4E

The Mercury-4E is an extended version of our highly popular Mercury-4 laser wire stripper. It remains a relatively compact bench-top unit, but provides a processing area of 2.75" (70mm) x 4" (100 mm) to allow a greater quantity of cables to be processed at one time.

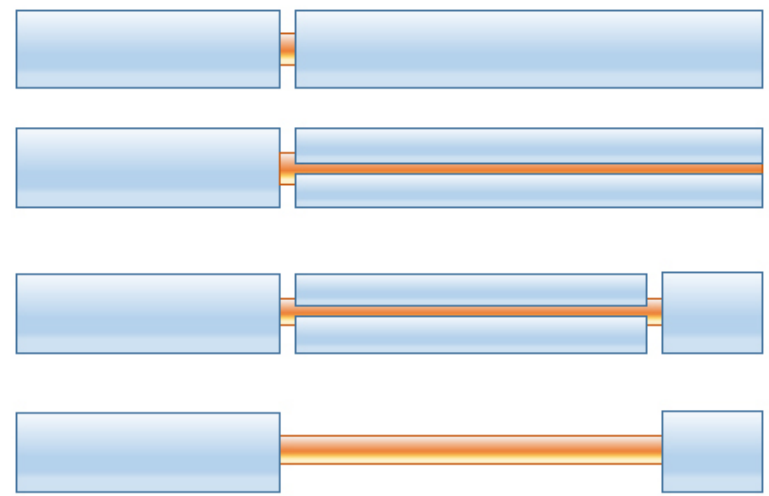


Features include:

- Compact size: bench-top unit that can be used from a seated position with space for other tools and parts.
- Flexibility: strips single conductor, coax and ribbons; 50 AWG to 6 AWG (0.0010 mm² to 16 mm²).
- Clean and precise: featuring double-sided galvo-scanner technology to allow nick-free stripping, with +/- 0.004" (0.102mm) repeatability for the best quality every time.
- Rapid results: up to 80" (2000 mm) per second stripping speed.
- Dual (X & Y) axis motion – therefore handles all strip types: cross-cut, windows and area ablation; and any shapes: curves and hatched areas, not just straight lines.
- Automation: in-line stripping operation also available.
- Quality checking: in-built camera allows the whole process to be monitored.
- Ease of use: operator selects via touchscreen the desired stripping program from the pre-programmed library and all parameters (strip lengths, laser power and speed, etc) are automatically set.
- Energy efficient: runs from a standard 115 / 230 V electrical supply with no compressed air requirement.

+ APPLICATION

The Mercury-4E dual axis optics allows flexible wire stripping:



From top to bottom:

- cross-cut: laser separates the slug of insulation - Operator pulls off as a second operation
- slit: laser makes a cross cut but also slits along the insulation to aid peeling off a long length. Especially used for cable jackets
- window: like a slit, but two cross cuts are made to allow a window section of insulation to be removed - used especially for accessing the shield of a cable for attaching to the shield
- area ablation: the laser passes back and forth over the wire multiple times to completely vaporize an area of insulation.

The Mercury-4E strips wires and shielded cable ranging in size from 0.001" to 0.24" (0.025 mm to 6 mm) outer diameter.

The Mercury-4E is suited to:

- removing jackets from shielded multi-conductor cables
- removing jackets and dielectrics from high performance microwave cables
- cutting aluminized mylar foils of twin-ax cables
- removing bonded insulations.

The laser is strongly absorbed by the wire/cable insulation causing it to melt or vaporize. By stripping from both sides automatically a slug of insulation can be separated from the main wire/cable. Full vaporization can be achieved by passing the laser spot over the wire multiple times at high speed in a hatch pattern. For bonded materials this may be the best method for insulation removal. In the case of shielded cables, the shield needs to be reasonably complete (>80% coverage) in order to protect the inner wire insulation whilst laser cutting the outer jacket.

All polymer insulations can be cut with the Mercury-4E laser. The amount of melt, vaporization or chemical decomposition depends on the exact polymers used. Below is a non-exhaustive list of materials that can be stripped:

- Fluoropolymers, such as PTFE, ETFE, PFA
- Polyethylene

- Nylon
- Silicone
- PVC
- Rubber
- Mylar
- Fiberglass
- Polyurethane
- Polyester

+ SPECS

Technical Data

Min. Outer Cable Diameter	0.025 mm (0.001")
Max. Outer Cable Diameter	6 mm (0.24")
Stripping Length Increments	0.1 mm (0.01")
Strip types	Cross cuts, slits, windows, area ablation
Max. Stripping Length	100 mm (4")
Speed	Up to 2000 mm/s (80"/s)
Cable Loading	Either single cable port or using a fixture plate for holding complex cables
Dimensions (L x W x H)	712 x 356 x 866 mm (28 x 14 x 34")

Enquiries and Sales

To find out more about the Mercury-4E Wire Stripping Machine or your exact requirements, please get in touch with one of our experts today.

CALL US ON: +44(0) 144 384 1738

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