



■ Key technical features

- Precision 360° circumferential grooving of MI cable
- Wide processing range from Ø0.25 mm to approximately Ø8 mm
- 100 W fibre laser for fast and repeatable processing
- Automatic process parameters based on cable diameter and sheath material
- Reduced risk of conductor damage and MgO contamination
- Suitable for stainless steel, Inconel and other high-temperature alloys
- Compact tabletop design for easy production integration
- Fully enclosed Class 1 laser system
- No shielding gas required

■ Laser grooving unit LG-500

The LG-500 is a laser grooving machine for mineral insulated (MI) cable. The machine has been developed to automate cable preparation for thermocouples, RTDs and other MI cable assemblies.

Instead of mechanically stripping the cable or cutting completely through the sheath, the LG-500 uses a 100 W fibre laser to create a precise 360° circumferential groove around the cable sheath. This creates a controlled breaking line, allowing the cable tip to be removed quickly and consistently while reducing the risk of conductor damage.

The machine is equipped with intelligent process control, which ensures:

- Precise and repeatable laser grooving
- Controlled groove depth and positioning
- Fast processing within a few seconds
- Reduced risk of conductor damage
- Protection of the MgO insulation
- Automatic laser parameter selection based on cable diameter and sheath material
- Processing of MI cable from Ø0.25 mm to approximately Ø8 mm

TECHNICAL SPECIFICATIONS

Supported cable diameter	0.25 mm - 8 mm
Grooving time	1-3 seconds
Grooving method	Laser technology
Clamping	Pneumatic clamping mechanism
Extraction unit	External
Dimensions	400x600x450 mm (LxWxH)
Weight	60 kg
Power voltage	230V/50Hz
Machine control	Touch-screen LCD
Communication port	USB
Safety certification	CE

■ Typical applications

The LG-500 is suitable for MI cable preparation in a wide variety of temperature sensor manufacturing applications, including:

- Thermocouple manufacturing
- RTD manufacturing
- High-temperature thermocouple cable
- Specialist MI cable assemblies
- Preparation for ultrasonic stripping



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