Laser drilling and cutting machines for green ceramic processing
LM-series

- Fast processing speed
- Suitable for drilling vias or cutting any shape in green ceramic sheets
- Two different laser sources available IR or UV laser
- High precision optics and beam positioning system ensures high accuracy
- Proven mechanics similar to punching machines

Flexible and productive green ceramic processing
Laser green ceramic processing machines are suitable for drilling vias or cutting rectangular or any other shape for cavities in to green ceramic tape. Fast processing speed and no tool wearing, makes laser processing very competitive compare to mechanical punching. Two laser types sources are available. A fiber laser source for general green ceramic processing and a high power UV laser source for most demanding applications. State of the art laser sources, beam positioning systems and optics are installed in order to active defined and long therm repeatable processing results. Proven machine mechanics and tape handling, similar to our mechanical punching machines, makes them very competitive.

Successful laser processing is material sensitive. Drilling or cutting transparent carrier film with mentioned laser sources, is not possible. If required, carrier film suitable for laser processing has to be used.

Green ceramic tapes contains different ceramics and different organic, therefore we recommend to perform laser drilling or cutting test on particular material.

Technical specification:
- Laser beam positioning principle: Scanning head
- Scanning head processing area: 90x90 mm max., recommendable 50x50 mm, custom areas possible
- Total processing area: up to 250x250 mm by moving sheet
- Maximal tape thickness: 254 microns
- Minimal drilling diameter:
  - IR laser: 60 microns
  - UV laser: 30 microns
- Processing speed: 20 to 800 vias/second
  - Processing speed depends on many parameters like: via diameter, tape thickness, process parameters, laser source
- Control: PLC+PC
- App. dimensions: L x W x H: 1,8 m ( 70 inch) x 1,3 m ( 51 inch) x 2,0 m ( 79 inch) (depends on machine version)
- Electricity: according to the customer requirements
- Power: app. 4 to 6 kW
- Compressed air: 0,6 MPa, 100 L/min.
- Vacuum: -0.09 MPa (0.01 MPa absolute), 200 L/min.
- Exhaust: exhaust connection required, 400m3/h min.

Options:
- Tape cleaning after laser processing
- Bar code printer

How to order:

**LM - xxx**

- **Tape handling:**
  - M-manual loading unloading
  - CC-automatic from magazine to magazine
  - RC - from roll to magazine
- **Laser type:**
  - U - UV laser
  - I - IR laser
- **Sheet size:** 4, 6, 8, 10 inch

* Options and other requirements have to be specified separately
* Material testing prior taking decision is recommended