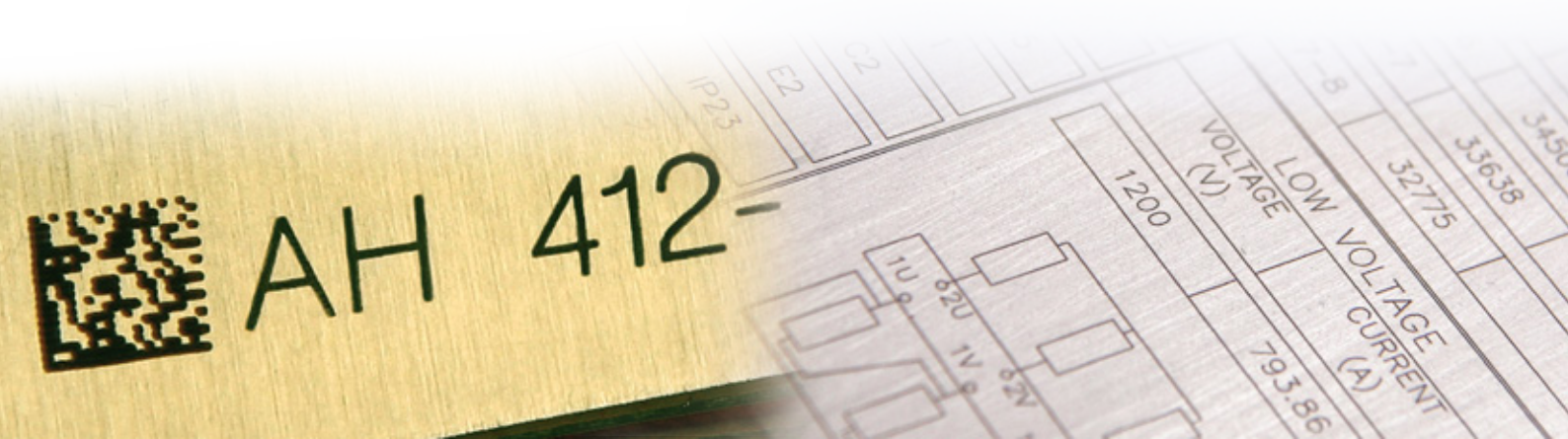




YAG laser marking

QUALITY / EFFICIENCY



TD 412

Laser



High quality

Versatile

Sharp, precise marking

Performance



User benefits

- Value-added mark
- Versatility and flexibility
- High quality permanent mark
- Easy-to-use
- Worldwide support

YAG laser marking solution to identify permanently any component

PRECISE

Advantages of the TD412 Laser

The diode end-pumping technology generates an exceptional beam quality: the perfect round spot (Gaussian type) creates thin marking lines.

Very high peak power: the strong interaction between laser and material generates a high contrast marking result.

Very short pulse duration: with a very small heat affected zone (no thermal shock), it avoids deformation of thin and fragile materials and is ideal for plastics (no burn mark).

High quality permanent mark

The high resolution galvanometric scan head gives accurate, repeatable results.

The focus spot is extremely fine: marks are clean and without any burrs.

Because the beam is delivered with high pulse repetition rates, the power remains stable for fast marking and maximized throughput with consistent quality.

VERSATILE

Identification of any part

Wide frequency range: fine-tune settings to adapt the result to the need and to the material marked

Surface, deep, contrasting, shaded marks, each specific effect is possible on most materials: steel, titanium, plastics, ceramics...

Combining high peak power and high beam quality, the TD412 is particularly efficient on plastics and allows to mark highly reflective materials (brass, gold, silver, polished stainless steel...).

Easy to use

Marking and traceability dedicated software: intuitive graphic interface, simulation mode... the operator takes control of T700W in a few clicks.

Integrated aiming diode: part positioning is fast and easy.

Performance electronics and connectivity: link with PC, PLC, code readers or independent mode

INDUSTRIAL AND RELIABLE

Designed to last

Head in robust, yet lightweight aluminium: conceived for ease of integration even in intensive, industrial use

Self-cooled: air-cooled with integrated fans (no water chiller required)

Safe: armored optical fiber, integrated safety shutter

Maximum up-time

Minimized optical and mechanical elements improves marking consistency and reduces maintenance.

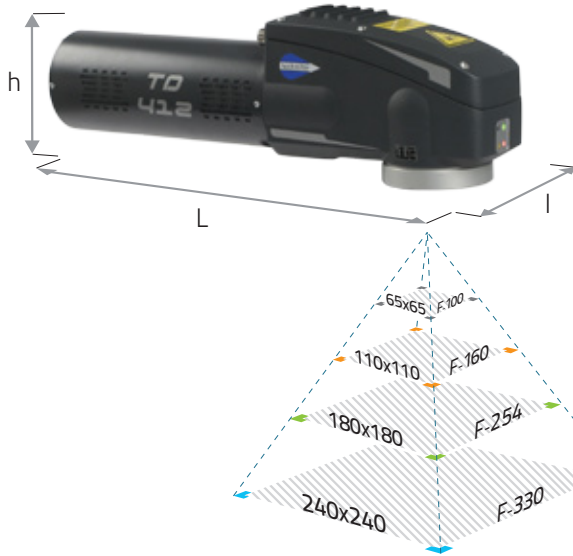
Low operating costs

Optimized function and air flow / temperature regulated by Peltier: **Low consumption** (< 400 W) **Silent:** < 57 dB, no additional sound-proofing required

" The mark of quality "



Technical characteristics



13 kg

L	727
I	139
h	202

Dimensions in mm

TD412 Laser specifications

- Type: diode-pumped Nd:YVO₄ Laser
 - Peak power: >25 kW
 - Energy: 0.3 mJ
 - Power : 12 W
 - M' : < 1.1
 - Wavelength: 1064 nm
 - Frequency range: 5-200 kHz
 - Fiber length: 3 m/5 m/10 m
 - Integrated laser aiming diode
- (TIF, 2D, 3D drawings, integration guides... available on request)



21 kg

5U 19"

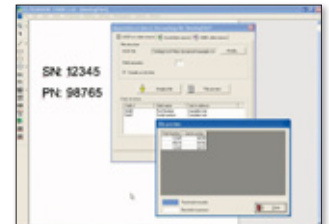


Software



T700W marking program

- **Traceability functions:** serial numbers, variables, date codes, UID syntax...
- Industrial file management: DXF, BMP...
- DataMatrix™, bar codes (39, 128, UPC...), QR codes...
- Logos: PLT, JPG format...
- Link to **databases** (ODBC, Excel, ASCII...)
- Generates **log files**
- **Material library** with presets
- Compatible with Windows® 2000, XP, Vista



Environment & power supply



- Consumption: 400 W nominal
- Power supply: 100-240 V, 50-60 Hz
- Operating temperature: +15 to +35°C (+60°F to +95°F)
- Humidity: < 80 %

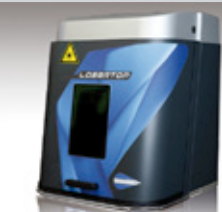


Safety and protection

The machine conforms to the following directives:

- Class 4 configuration (EN 60825-1 standard)
- CDRH US 21 CFR, sub chapter J. compliant
- NF EN 61000-6-2 (EMC)
- Directive 2002/95/EC (RoHS)

Accessories



Work station Class 1



Motorized Z axis



CHR height adjustment system



Part rotation device



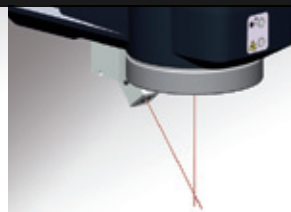
DataMatrix™ code reader



Mini-workstation Class 1



Mini-workstation Class 4



Second focus diode



Fume extractor



Multi-parts support

Applications

Easy-to-use solution to answer highly demanding traceability requests:

+ Surface marking

Titanium prostheses, steel and ceramic cutlery, copper piping parts, stainless steel plumbing fixtures...

+ High speed contrast marking

Electronic components, plastic and aluminium connectors, ABS solenoid valves, remote control and plastic covers...

+ Deep marks

Carbide and steel tools, anodized aluminium optical instruments, ID plates...

+ Versatile marking (various materials, contrasts...)

Brass and steel locks and keys, metallic and plastic promotional items, gold, silver and bronze medals...

Please visit our website to see our full range of Laser, micro-percussion and scribing solutions.

Aerospace

Automotive

Medical

Plumbing

Cutlery

Plastics

Electrics

Electronics

Semi-conductor

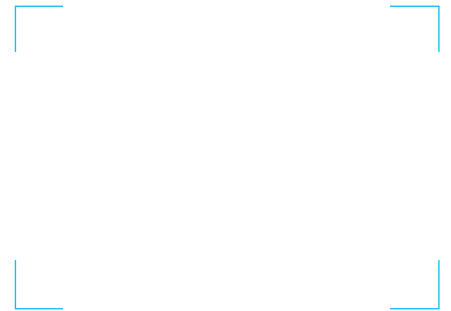
Mechanics

Promotional items

Locks and keys



GravoTech Marking SAS
466, rue des Mercières | 69140 RILLIEUX LA PAPE
Tel : +33 478 558 552 - Fax : +33 478 558 567
tf@technifor.com



www.technifor.com

Technifor is a registered trade mark of GravoTech Marking