

Applications

a SOLUTION for each APPLICATION

TF 410 - TF 420

Automotive, mechanical, plumbing, ID plates...



Difficult surfaces



High speed



Speed and contrast

TF 410 - TF 420

Medical, aerospace, tooling, electronics, electrical, corporate gifts...



Surface marking



Large characters and high-speed filling



Engraving



A MARK WHICH DEFIES TIME

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Technifor is a registered trade mark of GravoTech Marking



TF 410 - TF 420

Fiber lasers for marking applications



TF410

TF420

Fiber laser range
Industrial solution

...≈ the size of
a sheet of paper!

A next-generation fiber laser range

MARKING

Extremely compact unit for optimal performance and reliability

High performance and reliability

- **Powerful:** exceptional marking speeds: up to 2,5 m/sec.
- **Long-life laser source:** reduces maintenance
- Minimized optical elements: **improves reliability and marking consistency**



Flexible and accurate

- Marks a **wide range of materials:** metals, plastics, ceramics...
- Marks **difficult materials and surfaces:** aluminum casting, rough materials, steel, stainless steel, titanium...
- **Fiber laser technology:** high quality beam
- Simplify part positioning: laser aiming diode



Example of integration on the motorized Z-axis and X/Y table

Compact and robust

- **Compact head** in robust, yet lightweight aluminum
- Adapts to small spaces and can be **integrated in different orientations**
- Electronic controls and alarms to **protect laser**
- Designed for intensive, heavy duty industrial operation



Can be integrated in any position.

INDUSTRIAL SOLUTION

Traceability-oriented

"Ready-to-integrate solution"

- **Complete pack:** head, UC, cords, software, glasses, user's manuals, etc.
- Range of accessories
- Flexible connectivity
- **Benefits from 30 years of proven** Technifor know-how



Reduced operation costs

- **Low electrical consumption**
- Air-cooled: no external cooling unit
- **Silent:** <60 dB, no additional sound-proofing required
- Can operate without a PC: flash memory for file storage
- **Easy to use and maintain:** reduced training costs



Integration in an electrical cabinet

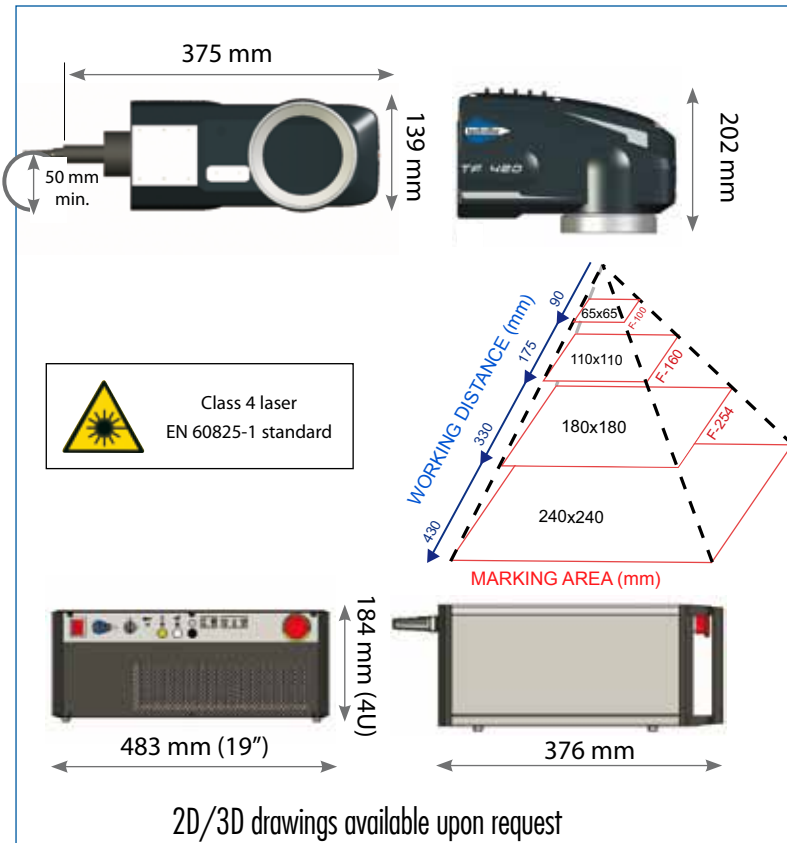
Product Highlights:

- 2 solutions available:
 - TF410: 10 W
 - TF420: 20 W
- Increased productivity
- Reduced maintenance
- Constant marking quality
- Minimized operation costs
- Eliminates additive, tag, label costs

Universal programming

- **Command instructions** for programming with a PC or PLC
- **Input/Output controls** for interface with PLC
- **Reception and external data marking** (bar code reader, PC, PLC), **file merge**

TECHNICAL SPECIFICATIONS



Laser specifications TF410/TF420

- Type: Ytterbium fiber laser
- Power: 10 W/20 W
- Wavelength: 1064 nm
- Frequency range: 20-100 kHz
- Fiber length: 5 m/3 m

Weight

- Head: 7 kg
- Control unit: 18 kg

Environment & power

- Power: 100-240 V, 50-60 Hz
- Consumption: 300 W nominal
- Operating temperature: 10 - 35°C
- Humidity: < 80 %

Safety and protection

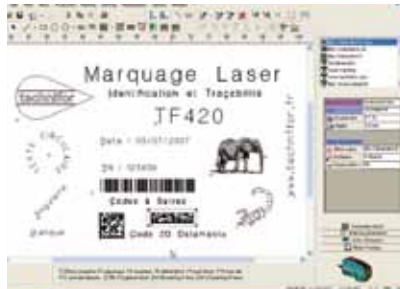
- Class 4 configuration (EN60825-1 standard)
- CDRH US 21 CFR, sub chapter J. compliant

T700W marking program



Five clicks and you're marking!

Bundled with the laser, an efficient, user-friendly program with intuitive graphic interface:



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



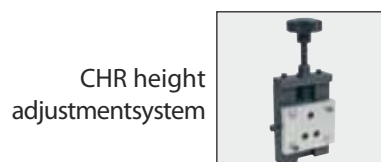
Options and accessories



Work station Class 1



Motorized Z-axis



CHR height adjustment system



Rotary marking device DMC11



Mini-workstation Class 1 with part loading drawer



Mini-workstation Class 4



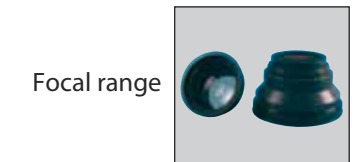
Mounting plate for column



Data Matrix™ code reader



Fume extractor



Focal range