

TF 420

Fiber Laser for Marking Applications



TF420

A powerful &
compact solution



A MARK WHICH DEFIES TIME

≈ the size of a sheet of paper!

TF420: next-generation fiber laser

MARKING

Extremely compact unit for optimal performance and reliability.

TF 420

High performance and reliability

- **Powerful:** exceptional marking speeds: up to 2.5 M/sec.
- **Long-life diode** (average of 100,000h): reduces maintenance.
- **Minimized optical elements:** improves reliability and marking consistency.



TF 420

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

TF 420

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.

TF 420

"Ready-to-integrate" solution

- **Complete pack:** Head, UC, cords, software, glasses, user's manual, etc.
- Range of accessories.
- Flexible connectivity.
- Benefits from **25 years** of Technifor know-how.



TF 420

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

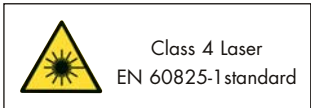
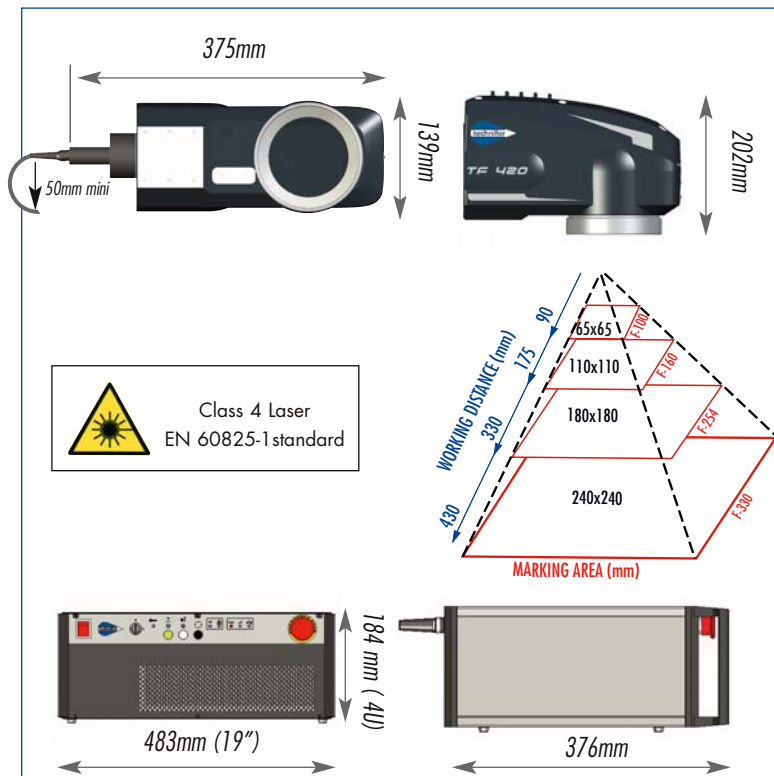
- Fast, cost-effective integration
- Increased productivity
- Reduced maintenance
- Constant marking quality
- Minimized operation costs
- Eliminates additive, tag, label costs
- Intuitive and user-friendly programming

TF 420

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 Characteristics



2D/3D drawings available upon request.

Laser Specifications

- Type: Ytterbium fiber laser
- Power: 20W
- Wavelength: 1064nm
- Frequency range: 20 - 100 kHz
- Fiber length: 2.8m

Weight

- TF420 head: 7kg
- UC420 control unit: 18kg

Environment & power

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

Safety & Protection

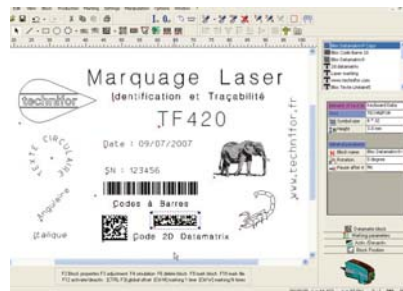
- Class 4 configuration (EN60825-1 standard)
- CDRH US 21 CFR, sub chapter J compliant.

TF 420 T700W marking program

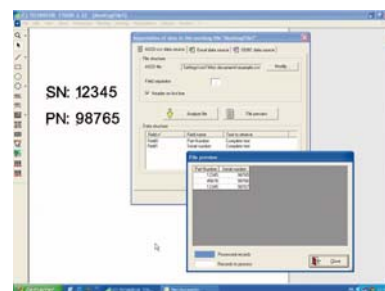


Five clicks and you're marking!

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



- **Traceability functions:** serial numbers, variables, date codes, UID syntax...
- Bar codes 39, 128, UPC...; DataMatrix™, QR codes...
- Link to databases (ODBC, Excel, ASCII...).
- Generate historical files.
- **Material library** with presets.
- Compatible with: ®Windows 2000, XP, ®Windows Vista



Options and accessories



Work Station Class 1



Mini-Work station Class 1 with part loading drawer



Motorized Z-axis



Mini-Work station Class 4

CHR height adjustment system



Mounting plate for column



Fume extractor



Rotary marking device DMC11



Data Matrix™ code reader



Focal range



Applications

A SOLUTION
for each APPLICATION

TF 420

Automotive, mechanical, electronics, plumbing, ID plates...



Difficult surfaces



High speed



Speed and contrast

TF 420

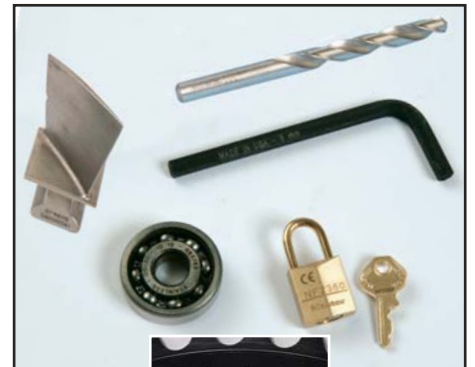
Medical, aerospace, tooling, electrical, corporate gifts...



Surface marking



Large characters and high-speed filling



Engraving



Technifor SAS

114, quai du Rhône - F-01708 MIRIBEL Cedex
Tel. +33 (0)4 78 55 85 85 - Fax +33 (0)4 78 55 22 94

E-Mail : tf.dvfrance@technifor.com

www.technifor.com