

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.

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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.



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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

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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.

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"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.



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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

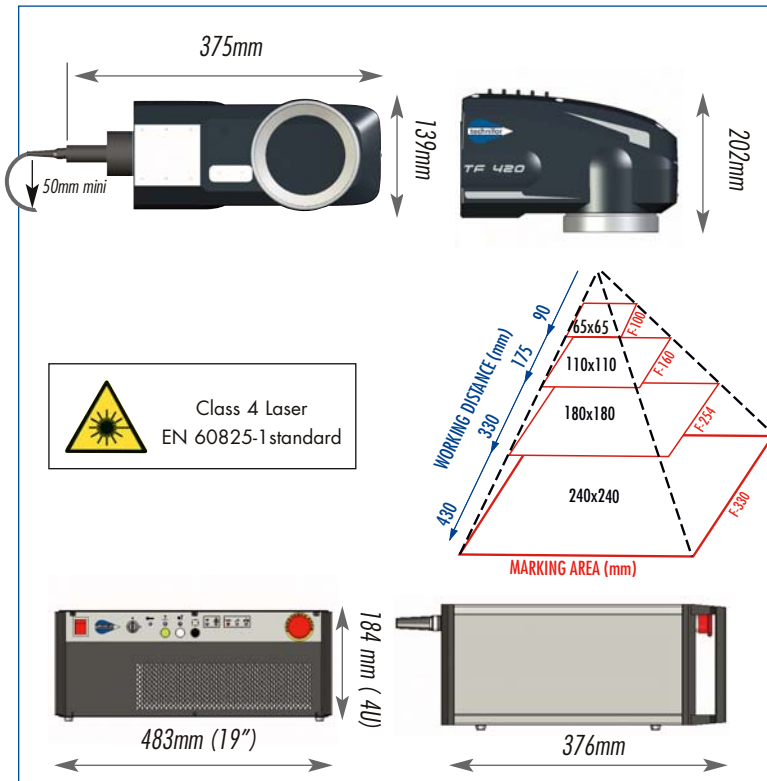
- Fast, cost-effective integration
- Increased productivity
- Reduced maintenance
- Constant marking quality
- Minimized operation costs
- Eliminates additive, tag, label costs
- Intuitive and user-friendly programming


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



 Class 4 Laser
EN 60825-1 standard

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

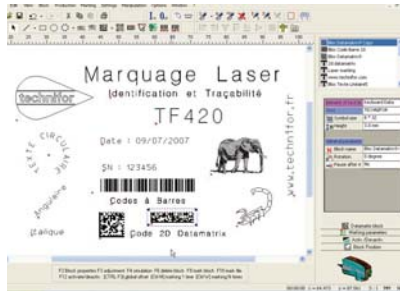
- Class 4 configuration (EN60825-1 standard)
- CDRH US 21 CFR, sub chapter J compliant.

TF 420 T700W marking program

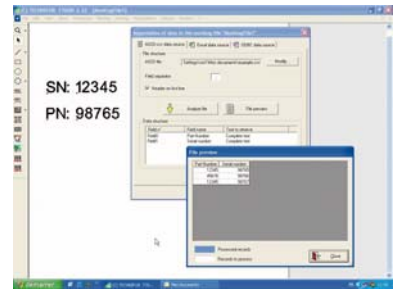


Five clicks and you're marking!

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

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



Difficult surfaces



High speed



Speed and contrast

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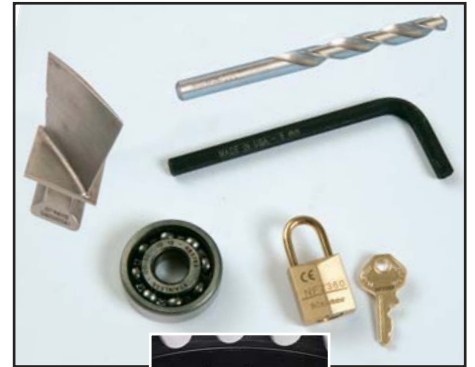
Medical, aerospace, tooling, electrical, corporate gifts...



Surface marking



Large characters and high-speed filling



Engraving



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