



Fiber laser marking

SPEED / CONTRAST / POWER



TF 410

TF 420

TF 430

Laser 

Reliable

Compact

... ≈ the size of a regulation football

Fast



User benefits

- Increase productivity
- Very long lifetime
- Consistent marking quality
- Highly versatile
- Minimize integration costs
- Reduce maintenance

Next-generation fiber laser marking solution

PERFORMANCE

Advantages of the fiber laser

Compact true fiber system: fewer mechanical and optical elements, reduced maintenance

Long-life laser source

Efficient optical elements: low electrical consumption (300 W)

Technifor Laser designed for marking applications

Exceptional pulse properties: high energy density for the entire pulse duration

High intensity beam: more efficient, it provides a high quality mark in a short cycle time.

Identification on any part

3 power ranges available to maximize marking capabilities:

- **TF410:** economical solution, very efficient on plastics, anodized aluminium and for annealing (surface marking) stainless steel.
- **TF420:** versatile, high performance solution used on aluminium, steel, titanium, cast iron. Fast high-contrast marks.
- **TF430:** powerful solution for the most demanding applications in terms of speed and depth of marking. Used for engraving.

INNOVATION

"Ready to integrate" solution

Complete packages for integration or work stations.

Integrated laser aiming diode: simplifies part positioning.

Universal: industrial connectivity for worldwide compatibility and ease of integration

Easy to use

Compact design eases into any manufacturing configuration

Flexible connectivity: PC, PLC, barcode readers or stand-alone

Economical and environmentally respectful

Optimized function: low operating costs

Silent: < 60 dB, no additional sound-proofing required

Direct and permanent marking: no paint, solvents or stickers

"Excels in speed and contrast"

INDUSTRIAL AND RELIABLE

Designed to last

Compact head in robust, yet lightweight aluminium: for ease of integration even in intensive, industrial use

Air-cooled, no high-maintenance water chiller required

Secure: electronic controls and alarms to protect laser

Safe: armored optical fiber, integrated safety shutter

Maximum up-time

Stable power: consistent high quality results

Controls and software dedicated to marking and traceability: management, storage and guarantee of the data to be marked

30 years of Technifor's extensive integration knowledge





Technical characteristics



L	375
w	139
h	202

7 kg

Dimensions in mm

(TIF, 2D, 3D drawings, integration guides... available on request)

	TF410	TF420	TF430
Type	Pulsed Ytterbium fiber laser		
Power	10 W	20 W	30 W
Wavelength	1064 nm		
Laser aiming diode	included		

Interface connector for remote PLC controlled operation

Separate protected industrial I/O

No openings in top/bottom:
- for better protection
- for integration in smaller area



Straight-thru cooling path

16 kg

4U 19"

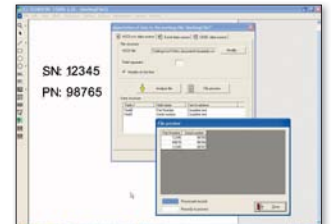
Software

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, BMP format...
- Link to **databases** (ODBC, Excel, ASCII...)
- Generates **log files**
- **Material library** with presets
- Compatible with Windows® 2000, XP, Vista, 7

5 clicks and you're marking!



Environment & power supply

- Consumption: 300 W nominal
- Power supply: 100-240 V, 50-60 Hz
- Operating temperature: +10 to +35°C (+50°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

LaserTop Work station Class 1	Mini-workstation Class 4 with manual or motorized Z axis	CHR height adjustment system	Part rotation device	DataMatrix™ code reader
Mini-workstation Class 1	Automatic nameplate feeder	Second focus diode	Fume extractor	Focal range

Applications

Speed, precision and contrast are the key points of fiber laser marking:

+ Surface marking

Identify each component with text, logo, serial number, graphics, etc.:
cutting tools, plumbing fixtures, cooking appliances, electrical connectors...

+ Engraving

Mark by coating removal or mark on cast, rough surfaces:
ID plates, pistons, plastic casings, engine parts...

+ DataMatrix™, QR codes, barcodes traceability

Accurate and repeatable marks ensure the codes marked will be easily read throughout the process:
gear parts, aerospace components, eartags...

+ Matrix part marking

Mark batches of parts in one pass, and on the smallest surfaces:
medical prostheses and implants, electromagnets,
key and door locking systems, push buttons...

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