



Fiber laser marking

SPEED / CONTRAST / POWER

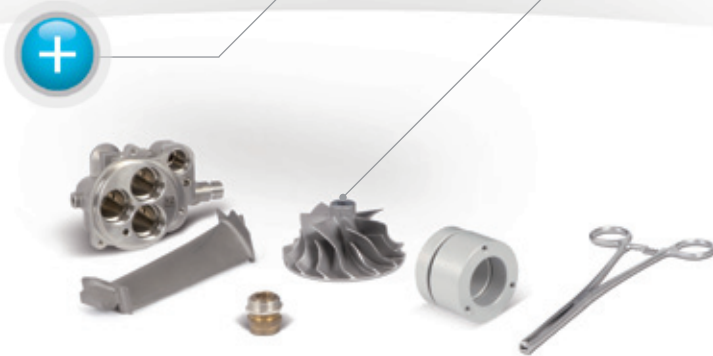


TF 410

TF 420

TF 430



Reliable
Compact
...≈ the size of a sheet of paper!
Fast


User benefits

- Increased productivity
- Very long lifetime
- Consistent marking quality
- Highly versatile
- Minimized integration costs
- Reduced 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 of any part

Available in 3 power ranges 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 pack, in integrable version or in work station

Integrated **laser aiming diode:** simplifies part positioning.

Universal: industrial connectivity for worldwide compatibility and ease of integration

Easy to use

Extremely **compact**, it can be **integrated** in **different orientations**.

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: conceived 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

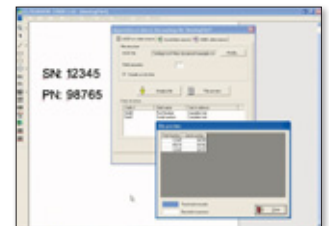
4U 19"

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 %

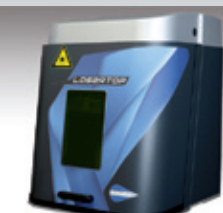


Safety and protection

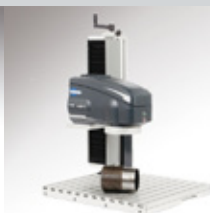
The machine conforms to the following directives:

- 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



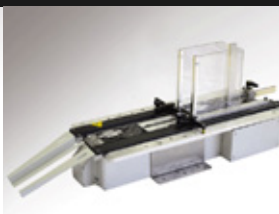
Part rotation device



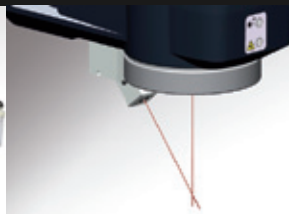
DataMatrix™ code reader



Mini-workstation Class 1



Automatic nameplate feeder



Second focus diode



Fume extractor



Focal range

Applications

Speed, precision and contrast are the key points of the 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 that the codes marked will be easily read throughout the process:
gear parts, aerospace components, eartags...

+ Matrix part marking

Mark batches of parts in one go and on the tiniest surfaces:
medical prostheses and implants, electromagnets,
keys and door locking systems, push buttons...

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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

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