Laser Marking Systems
Videojet® 7210/7310

The 7210 and 7310 pulsed fiber laser marking systems deliver versatile, permanent coding with a small footprint and low maintenance.

Small size. High quality marks. Low maintenance. The Videojet 7210 (10 Watt) and 7310 (20 Watt) pulsed fiber lasers are the most compact, versatile and low maintenance solid-state marking systems available.

These laser marking systems are perfect for high contrast color change on plastic materials that CO_2 lasers can engrave, or for ink ablation on plastic films that need precise control of heat to prevent damage caused by continuous wave lasers.

Uptime Advantage

- Ultra-reliable fiber laser source eliminates conventional pump chamber maintenance of Nd:YAG lasers
- High efficiency fiber laser source (less than 300VA) is internally fan cooled, eliminating downtime and maintenance of water coolers or external chillers

Built-in productivity

- Configure exactly the system you need with optional high resolution scan head, a choice of beam orientations and power levels

Code Assurance

- Powerful software lets you create marking messages with automatically updated content (e.g. date, time, shift), symbols, graphics, and foreign languages

Simple usability

- Smallest available standard and high resolution scan heads, with straight-out or right-angle beam exits
- Optional high resolution scan heads offer exceptionally large marking areas, and extra wide mark fields for high speed mark-on-the-fly applications
- No PC required for stand-alone operation saves space and increases reliability

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Marking fields

	6mm marking head SHF60A				10mm marking head SHF100A			
Focal Length	50	100	165	258	100	163	254	420
Max. height/mm	19.5	70.2	115.4	180.5	75.8	142.2	215.5	361.5
Max. width/mm	26	70.2	115.4	180.5	118.7	193.5	301.5	498.5

Marking formats
Standard fonts (Windows® TrueType®/ TTF; PostScript®/ PFA, PFB; Open Type®/ OTF) and individual fonts, such as high-speed or OCR
Machine-readable codes: ID-MATRIX; ECC plain; BAR CODES/ -stacked omnidirectional/ -limited [CCA/B]/ expanded
Graphics/ graphic components, logos, symbols, etc. (dxf, jpg, ai, etc.)
Linear, circular, angular text marking; rotation, reflection, expansion, compression of marking contents
Sequence and serial numbering; Automatic date, layer and time coding, real-time clock; Online coding of individual data (weight, contents, etc.)

Laser source
Ytterbium (Yb) pulsed fiber laser
Power classes 10 and 20 Watt
Central emission wavelength: 1,060 - 1,070nm (1.06 - 1.07µm)

Laser beam deflection
Digital high-speed galvanometer scan

Laser beam orientation
90-degree (standard) and straight-out (option)

Focusing (precision optics):
Focal lengths 6mm marking head: f = 50/ 100/ 165/ 258mm
Focal lengths 10mm marking head: f = 100/ 163/ 254/ 420mm

User interfaces
Integrated keypad
Handheld control unit; configurable in 16 languages (option)
Smart Graph software on PC; configurable in 20 languages (option)

Smart Graph software
Graphics-orientated user interface under Windows® XP/Vista for the intuitive and fast preparation of complete marking jobs on PCs
System configuration
Text/ data/ graphics/ parameter editor
Configurable in 20 languages, e.g. in German, English, Japanese
Easy access to standard CAD and graphics programs thanks to import functions for the most important file formats (dxf, jpg, ai, etc.)
WYSIWYG
Various password-protected security levels

Smart Graph Com software
ActiveX software interface for integration into operation software

Communication
Ethernet (TCP/IP, 100Mbit LAN), RS232, digital I/Os
Inputs for encoders and product detector triggers
I/Os for start, stop, external error, job select, trigger, trigger enable, encoder; system ready, ready to mark, marking, shutter closed, error, bad, good signals and machine/ operator interlocks
Customer-specific solutions

Integration
Direct integration into complex production lines through the laser's scripting interface
Integration via Ethernet and RS232 interface
Highly precise side guided height adjustment via dovetail joint

Electrical requirements
100 - 240 V (autorange), 250 VA, 1 PH, 50/60 Hz

Environmental protection
Supply unit: IP51, air cooled
Laser head: IP54, air cooled

Temperature/humidity range
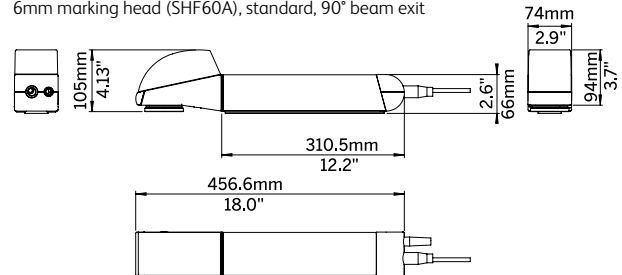5 - 40° C (40 - 105° F)/ 10 - 90 %, non-condensing

Weight
Supply unit – 17kg/ 37lbs.
Marking unit 6mm – 4.4kg/ 9.7lbs.,
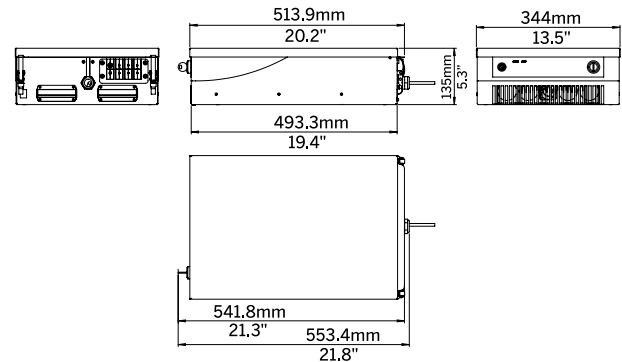Marking unit 10mm – 6kg/ 13lbs.

Applicable certifications
CE

Marking unit dimensions
6mm marking head (SHF60A), standard, 90° beam exit

Supply unit dimensions