



## DFL Ventus Marker Business Fibre 20–70 W

The DFL Ventus Marker from the Business Fibre product series is ideal for marking metals. This high-performance fibre laser offers variable pulse widths for challenging applications. Its exceptional beam quality obtains outstanding marking results. All its optical, electronic and mechanical components are integrated in a compact housing. The laser head can be detached as required. The Business Fibre series offers users a choice of power output levels between 20 and 70 W.

### Properties

The fibre laser systems in the Business Fibre product series are suitable for use in time-critical manufacturing processes. They specialise in marking metals. Additionally, these systems can be used to mark plastics, ceramics and laser films. For maximum flexibility, systems in the Business Fibre series allow the user to adjust the pulse waveforms to their requirements. The result is superb, precision marking results that satisfy even the most stringent quality standards. All fibre lasers feature an air cooler. This enables the system to run for longer without the need for laborious maintenance work.

These systems are a laser safety class 4 solution. To upgrade them to laser safety class 1, ACI's laser systems can be purchased in conjunction with a laser station. Depending on the application, the lasers can either be used as an all-in-one solution in one of these manual workstations or they can be integrated into an automated production line.

### Software



The laser system is controlled using our proprietary Magic Mark marking software. This software enables workpieces to be marked with text, graphics, codes (data matrix codes, barcodes), serial numbers and logos. It can also be used to achieve uniform markings around the perimeter of workpieces with rotational symmetry. An intelligent user privilege management system facilitates the creation of different user groups. This way, the laser system can be adjusted to cater for the user's specific requirements. When using the laser system in automated production lines, fully automated operation – including data exchange with various data sources – can be achieved without any difficulties. Optionally, plugins such as the code or script module can be used to add extra functions to the Magic Mark software.

Find out more about software add-ons

**Material**

<b>Metal</b>	
Temper the metal	●
Engrave metal	●
Remove metal	●
<b>Plastic</b>	
Foam plastic	●
Carbonize plastic	○
Engrave plastic	–
<b>Laser foil</b>	
Foil removal	●
Foil color cover	●
<b>Glass</b>	
	–
<b>Ceramics</b>	
	○
<b>Wood, paper, leather</b>	
	–

– not suitable   ○ well suited   ● very suitable

**Compatible manual workstations**

- FoilStar
- RT400
- Workstation Comfort
- Workstation Professional
- Robot-assisted laser station
- Rotary indexing table
- Workstation Professional XXL

**Compatible accessories**

- Fixed-mount reader
- Tool reader
- AOI
- CPM
- Software connections
- Focus shifter
- Laser extraction systems
- Laser safety
- Magic Mark
- AOI plugin
- Contour Tool
- Data Import plugin
- FoilStar plugin
- GS1-Generator
- OCR Plugin
- Ruler Scale plugin
- Z Segmentation plugin



Laser type	Diode-pumped fibre laser (Yb:fibre), MOPA system
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Mode of operation	Pulsed		
Wavelength	1064 ± 5 nm		
Laser power (max.)	20/50/70 W		
Beam quality M <sup>2</sup>	> 1.3 to > 3.7, depending on the system		
Peak pulse power (max.)	9-20 kW, depending on the system		
Pulse energy	0.7-1.3 mJ, depending on the system		
Number of pulse waveforms/pulse widths that can be set	2-40, depending on the system		
Pulse repetition frequency	1 kHz-1 MHz, depending on the system		
Delivery fibre	3 m		
Laser class	4		
F-theta lens (choose from options)	100 mm	163 mm	253 mm
Size of marking area	60 x 60 mm	110 x 110 mm	180 x 180 mm
Focus shift (optional)	± 5 mm	± 14 mm	± 35 mm
Power consumption	600-1000 W, depending on the system		
Laser head weight	8 kg		
Supply unit weight	27 kg		
Laser head dimensions (l x w x h)	595 x 203 x 140 mm		
Supply unit dimensions (l x w x h)	650 x 224 x 460 mm		
Connection	85-264 V AC/10 A/50-60 Hz		
PC interface	USB 2.0		
Interlock connection	Two-circuit interlock, SD-ready		
Laser-control interface for	Ready/malfunction signal, external shutter warning light, 8 digital inputs, 8 digital outputs, differential inputs for marking on the fly		
Functional safety in accordance with DIN EN ISO 13849-1	PLe		
Marking software (included with the product)	Magic Mark V3		

