



## DPL Nobilis Marker 5 W

The DPL Nobilis Marker from the Business Diode series is a diode laser that operates at a wavelength of 532 nm. Its relatively small spot diameter means that the heat-affected zone in the material is limited.

### Properties

The DPL Nobilis Marker's small laser beam diameter allows extremely fine markings to be achieved. This laser is particularly well suited to the high-contrast marking of plastics. But it can also produce precise markings in just a short amount of time on gold, copper and other highly reflective materials. The integrated thermoelectric air cooler enables the system to run for longer without the need for laborious maintenance work.

This system is a laser safety class 4 solution. To upgrade the system to laser safety class 1, all ACI's laser systems can be purchased in conjunction with various protective casings. This means that these laser systems can be used either as manual workstations or as integration components in an automated system.

### 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  
 Workstation Classic  
 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  
 Laser extraction systems  
 Laser safety  
 Magic Mark  
 Contour Tool  
 Data Import plugin  
 FoilStar plugin  
 GS1-Generator  
 OCR Plugin  
 Ruler Scale plugin

Laser type	Nd:YVO4, second-harmonic generation
Mode of operation	Pulsed
Wavelength	532 nm
Laser power (max.)	5 W
Beam quality	$M^2 < 1.2$
Peak pulse power	Up to 6 kW
Pulse energy	Up to 50 $\mu$ J
Number of pulse waveforms/pulse widths that can be set	8-25 ns



Pulse repetition frequency	60-300 kHz		
Laser class	4, optionally 1		
F-theta lens (choose from options)	100	160	240
Size of marking area	50 x 50 mm	100 x 100 mm	160 x 160 mm
Typical working distance	136 mm	210 mm	305 mm
Power consumption	Max. 220 W		
Dimensions (l x w x h)	740 x 201 x 233 mm		
Weight	20 kg		
Mains connection	85-264 V AC/6 A/50-60 Hz		
PC interface	USB 2.0		
Interlock connection	Two-circuit interlock, SD-ready		
Laser-control interface for	External emission indicator light, ready signal, 8 inputs/outputs that can be allocated for any use, optional connections for encoders		
Functional safety in accordance with DIN EN ISO 13849-1	PLe		
Laser marking software	Magic Mark V3		

