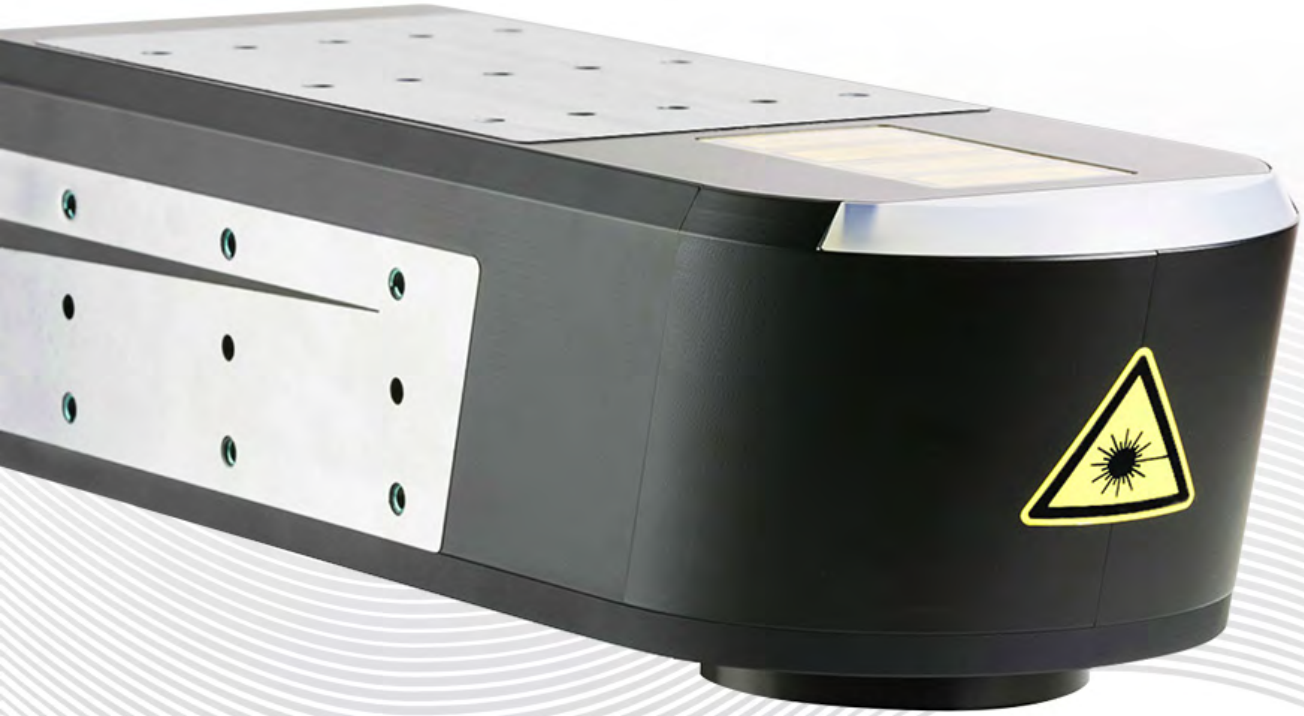
LASER.
MARKING.
SOLUTIONS.

ACI
Laser-Components



DFL Ventus Marker – Industrial Design

Marking laser for industrial environments

DFL Ventus Marker – Industrial Design

Marking laser for industrial environments

This compact laser system has been designed especially for industrial environments and the use in production lines. The stable aluminium housing is protected against dust and spray water and flexible mountable. The laser system is available as 19" built-in unit or tabletop device with various performance levels and beam qualities according to the specific application.

Version as tabletop device with side parts

Properties

- ✓ Functional safety due to PLe according to EN ISO 13849-1
- ✓ Protection class IP64
- ✓ 100% air-cooled
- ✓ Ambient temperature up to 40° C
- ✓ 4 mounting positions
- ✓ 3 m fibre length
- ✓ Low power input
- ✓ Control with external control PC
- ✓ Remote diagnose tool: maintenance option if you need service

Exclusively for Business Fibre models
- ✓ Separability of laser head and supply unit
- ✓ optional fibre length of 5 m
- ✓ Scalable laser output power from 20–100 W

Standard interfaces
- ✓ Wide range input from 80 to 240 V
- ✓ 8 digital inputs and outputs
- ✓ External safety circuit acc. to PLe
- ✓ Communication interface USB 2.0

Optional Features

- ✓ Vision systems for automatic object identification (AOI), camera-supported positioning of markings (CPM) and code reading systems
- ✓ Various object lenses for different marking area sizes

Exclusively for Business Fibre models
- ✓ Fokusshifter: real-time height adjustment for laser marking objects with different component heights
- ✓ Fully integrated control: support of various communication protocols, such as TCP/IP, Industrial Ethernet (Siemens S7-Verbindung)

Available interfaces
- ✓ External USB output (e.g. for camera applications)

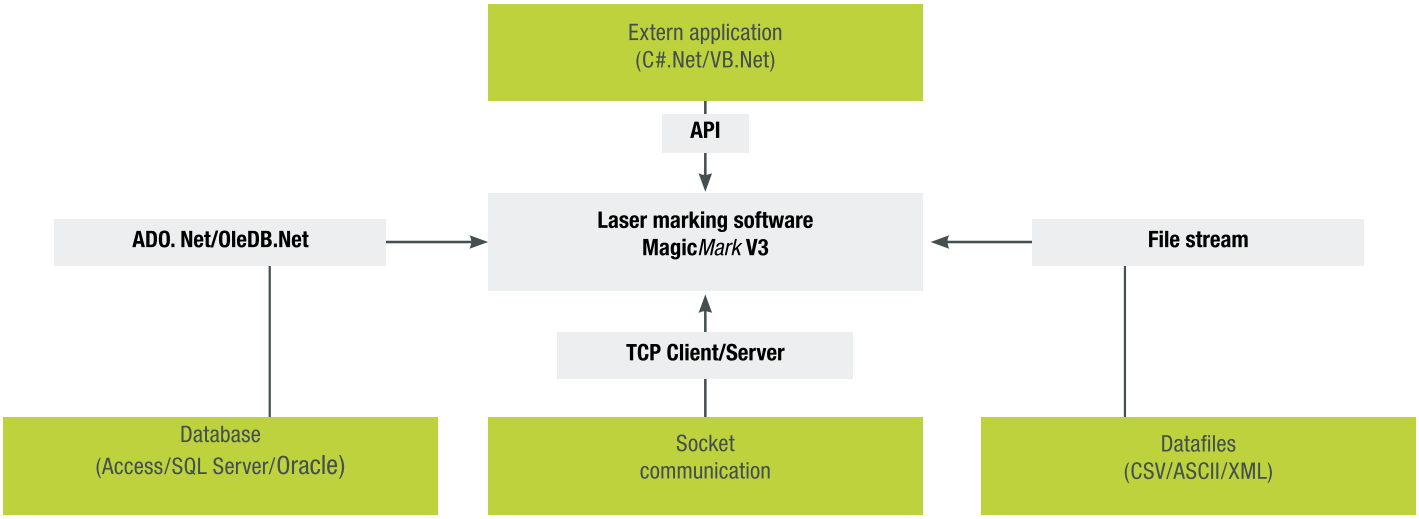
Exclusively for Business Fibre models
- ✓ Encoder input for Marking on-the-fly
- ✓ Serial communication interfaces RS232, RS485
- ✓ Ethernet communication interface (2x)

Software control

The modern software architecture of ACI's laser marking software Magic Mark V3 allows a targeted access to all available functions and control possibilities of the laser system as well as the laser peripherals (WS/DM) etc.

Internal programming
VB.Net [Winwrap Basic]
integrated in Magic Mark V3

External programming
C#.Net [MS Visual Studio]
Access to class library



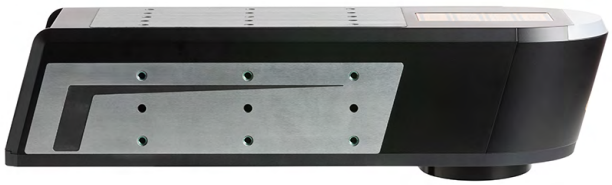
- ✓ Software package included
- ✓ Predefined parameter sets
- ✓ Easy function extension through plugins

DFL Ventus Marker – Industrial Design

Business Fibre

Technical Data

Laser type	Diode-pumped fibre laser (Q-switched)
Laser power	20–100 W (customizable to requirements of application)
Beam quality	1,3 ≤ M^2 ≤ 3,7 (depending on system)
Wave length	1064 ± 5 nm
Peak power	9 kW–10 kW (depending on system)
Pulse energy	0,7–1,3 mJ (depending on system)
Number of adjustable pulse forms/-lengths	25–40
Pulse repetition rate	1 kHz–4 MHz
Transport fibre	3 m , optional 5 m
Laser class	4, optional 1
Size of marking area	optionally with 60 x 60 mm/ 110 x 110 mm/ 180 x 180 mm
Power consumption	600–1000 W (depending on system)
Connected load	85–264 VAC/ 10 A/ 50–60 Hz
Weight laser head/ supply unit	7/ 25 kg
Dimensions supply unit (L x W x H)	Tabletop device: 580 x 488 x 187 mm/ 19" rack: 580 x 483 x 157 mm
Dimensions laser head (L x W x H)	464 x 149 x 107 mm
Interfaces	USB 2.0, SPS-Interface, 4 Inputs / 4 Outputs
Functional safety acc. to DIN EN ISO 13849-1	PLe



Laser head

Supply unit | 19"-built-in device (without side parts)

DFL Ventus Marker – Industrial Design

Economy Fibre

Technical Data

Laser type	Diode-pumped fibre laser (Q-switched)			
Laser power	10 W	20 W	30 W	50 W
Beam quality	1064 ± 4 nm			
Wave length	$M^2 \leq 1,6$		$M^2 \leq 1,8$	
Peak power	6,25 kW	12,5 kW		
Pulse energy	0,5 mJ	1 mJ		
Pulse repetition rate	20 –80 kHz		30 –80 kHz	50 –80 kHz
Pulse lengths (depending on frequency)	80 ... 120 nsec		80 ... 140 nsec	100 ... 140 nsec
Transport fibre	3 m			
Laser class	4, optional 1			
Size of marking area	optional 60 x 60 mm/ 110 x 110 mm/ 180 x 180 mm			
Power consumption	200 W	250 W	300 W	400 W
Connected load	85–264 VAC/10 A/ 50–60 Hz			
Weight laser head	7 kg			
Weight supply unit	25 kg			
Dimensions supply unit (L x W x H)	464 x 149 x 107 mm			
Dimensions laser head (L x W x H)	580 x 483 x 157 mm			
Interfaces	USB 2.0, SPS-Interface, 4 Inputs / 4 Outputs			
Functional safety acc. to DIN EN ISO 13849-1	PLe			

Advantages and applications of the Economy Fibre model

- ✓ reliable, robust and cost-efficient fibre laser system
- ✓ ideal for laser marking of metals and plastics, especially on stainless steel deep black marking results
- ✓ Laser marking software Magic Mark V3 optionally extendable with plugins and additional modules
- ✓ Compliance with the guidelines and safety standards for functional safety acc. DIN EN ISO 13849-1

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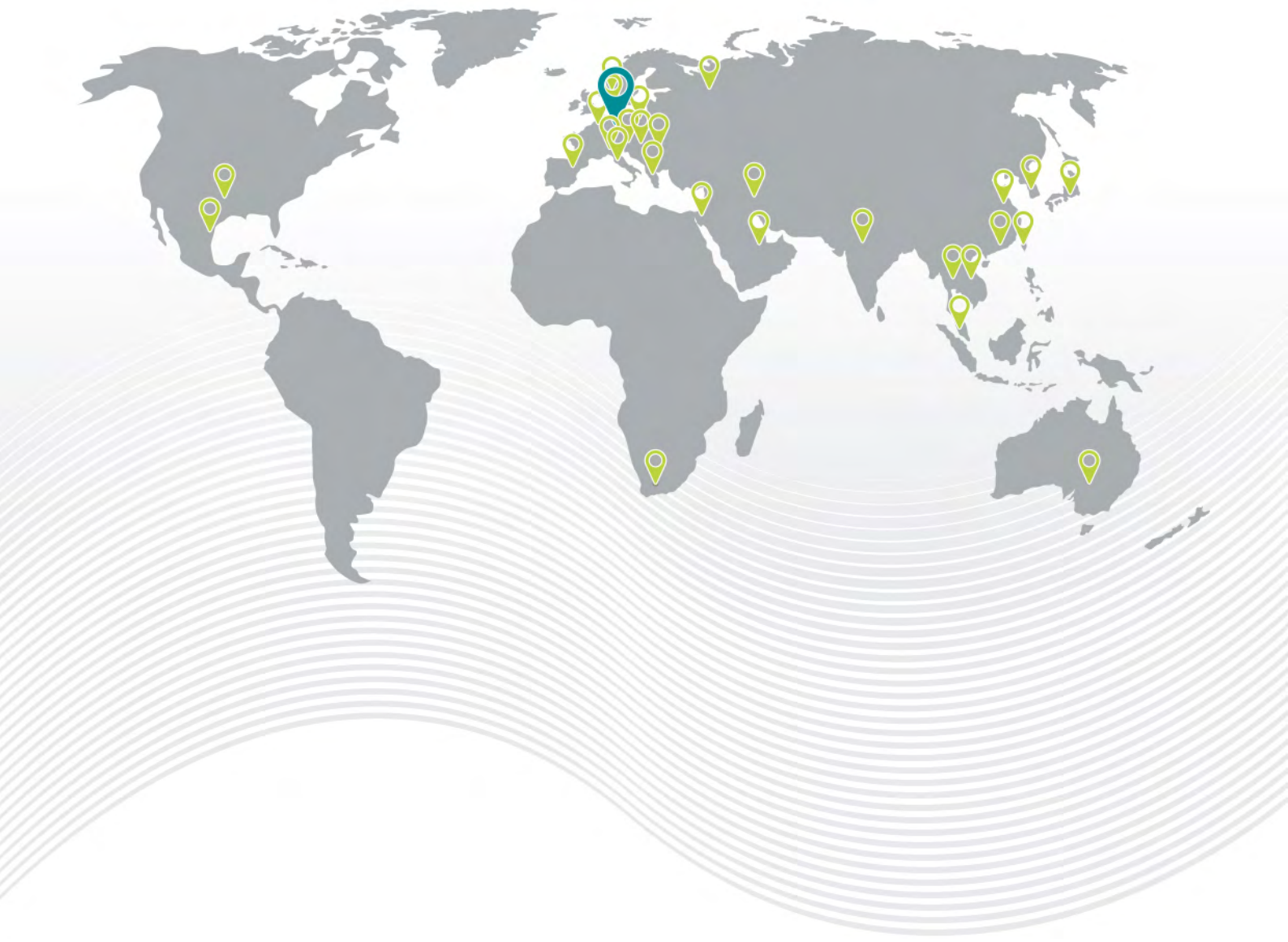

Your contact person

We guarantee you a customized overall solution perfectly suitable for your special application requirements. For a detailed, extensive consultation, please get in touch with our sales team:

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