

Maximize your expectation of laser micro- and nano material processing

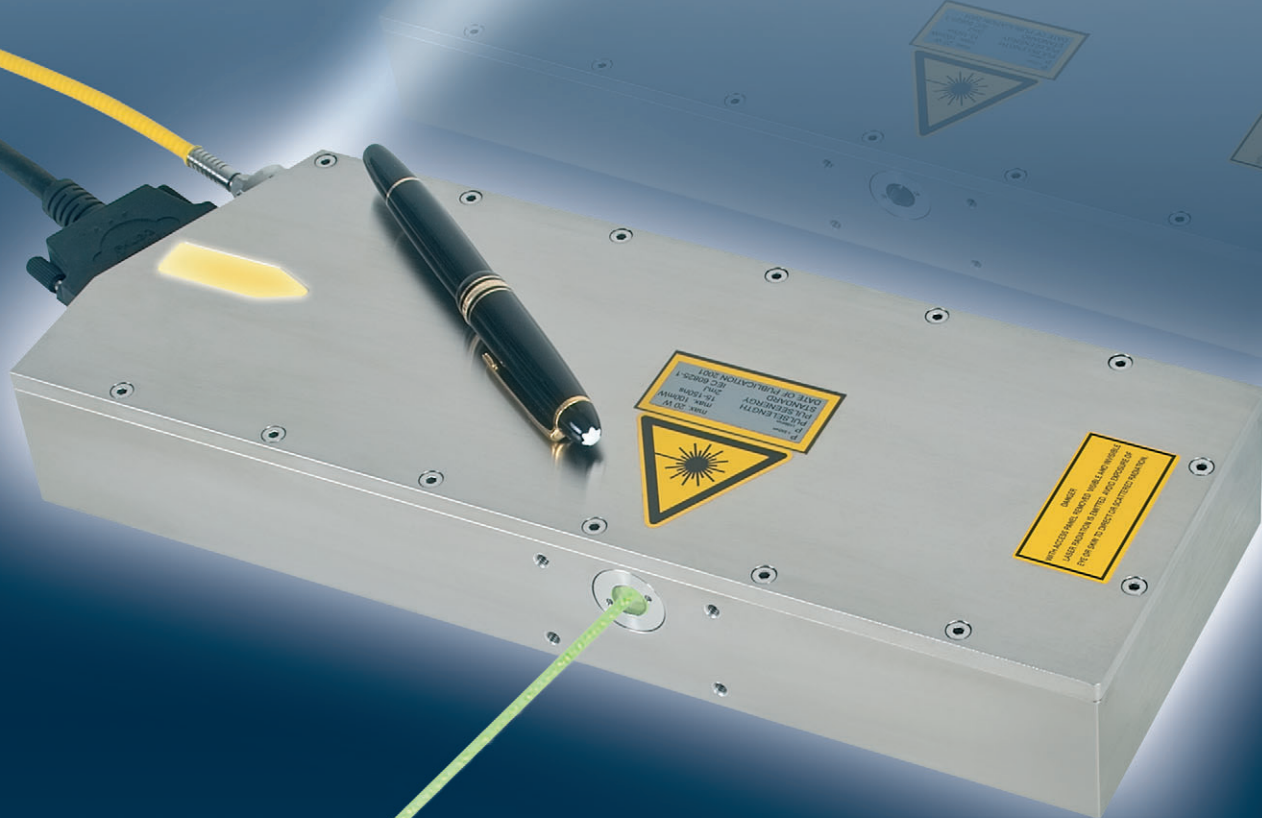
BLADE⁵³²

ULTIMATE GREEN LASER POWER

DPSS · Q-SWITCHED · ENTIRELY AIR-COOLED

Spectacular performance - experience a superior laser tool

- up to 30 watt, q-switched, single-mode ($M^2 < 1,2$) / 532 nm (green), linear polarised
- unmatched miniaturised footprint as fully air-cooled version or optional as water-cooled cleanroom model
- the innovative resonator design generates ultra-high peak pulses while eliminating first pulses
- a unique technique of modulation enables you to modulate every single pulse in the pulse-train
- steady focal distance and spot shape, no matter which power and frequency level is used
- diode-exchange can be done easily on site by yourself as authorized customer
- the rugged, permanently aligned and hermetically sealed laser-head ensures hands-off operation in access of 100.000 hours
- ~55 kW @ 30 kHz (YVO₄532_14VSP)
- already including scanhead controller, marking software, etc.: Just attach scanhead and beam-expander and directly start marking!



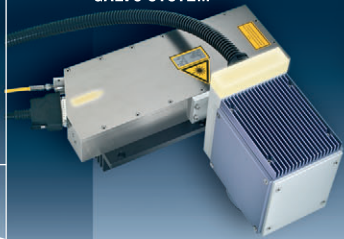
MADE IN GERMANY

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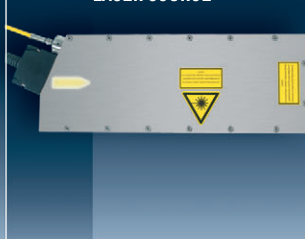


**COMPACT
LASER
SOLUTIONS**

HIGH - RESOLUTION
GALVO SYSTEM



OEM -
LASER SOURCE



HIGH SPEED
GALVO SYSTEM



BLADE⁵³²

The BLADE series stands for powerful laser processing without compromises. No matter what kind of application has to be handled: marking, scribing, cutting, engraving and even deep-engraving into all different kinds of materials will result in an overall convincing finish. With the BLADE series you work on glass, diamonds, ceramic, gold, copper, brass, plastics and synthetic compounds, just to mention some materials.

The BLADE series is your choice, when a maximum versatility is required. In contrast to most of the conventional lasers including fibre-laser-concepts the BLADE series offers various unbeatable advantages to achieve an extraordinary wide spectrum of applications.

Thanks to the innovative resonator design, the BLADE series generates an ultra-high peak pulse output while eliminating first pulses. This characteristic combined with the exceptional beam-quality and its very short pulse width suits perfectly for surface-ablation and –structuring, micro-drilling and enables you to achieve excellent quality.

The BLADE series features impressive pulse repetition frequencies of up to 500 kHz! Its unique modulation design enables you to modulate the laser-beam from single-shot to maximum pulse repetition rates without affecting the focal distance and the spot shape.

When comparing the BLADE series to common lasers including fibre-laser-concepts you will experience the difference: Besides the fact that the compactness of our lasersystems is unbeaten, you will easily notice with how much passion and accuracy our lasers are built in a proven quality.

The BLADE laser systems can be easily integrated and interfaced into high-through-put production lines as well as installed in class 1 laser safety workstations.

Due to the high efficiency of our lasersystems as well as to the fact, that the laser diodes in our systems are generally operated well below their maximum rated output, we achieve a diode lifetime of more than 100.000 hours. This fact results in lowest cost of ownership. If a diode change should one day be necessary, this is not a problem at all: The convenient configuration of the laser diode inside the power-supply enables you to easily exchange the diode without affecting the laser head.

Discover fascinating new opportunities with a fantastic lasersystem **made in Germany.**

Technical Data

BLADE - VS Series (visible spectrum)

	YV0.532_6	YV0.532_12	YV0.532_20	YV0.532_30	YV0.532_8VSP	YV0.532_14VSP	YV0.532_12CW
Laser Class	4	4	4	4	4	4	4
Mode of Operation	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	CW
CW-Mode Outputpower [W]							12
Average Outputpower [W]	6.5	12	20	30	8	14	
Wavelength [nm]	532	532	532	532	532	532	532
Beam-Mode	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀
M ²	<1.2	<1.3	<1.3	<1.3	<1.3	<1.2	<1.2
Polarisation	Linear 100:1						
Pulse Energy	1.00mJ@1kHz 0.90mJ@6kHz 0.60mJ@10kHz 0.25mJ@20kHz	0.7mJ@16kHz 0.6mJ@20kHz	1.1mJ@12kHz 0.5mJ@40kHz 0.15mJ@100kHz 0.05mJ@200kHz	0.6mJ@50kHz 0.33mJ@100kHz	0.45mJ@10kHz 0.2mJ@40kHz	0.42mJ@20kHz (~7ns) 0.38mJ@30kHz (~8ns) 0.28mJ@50kHz (~12ns)	
Minimal Pulse Width	ca. 14ns	ca. 30-35ns	ca. 25ns	ca. 20ns	6ns@7kHz	ca. 6ns	
Repetition Rate	1Hz-200kHz	1Hz-100kHz	12kHz-300kHz optional 1Hz-200kHz	30kHz-300kHz optional 1Hz-200kHz	1Hz-300kHz	1Hz-500kHz	
Peak Power							
Cooling	Entirely Air-Cooled						
Cooling System	Thermo Electric Cooling						
Electrical Ratings	110V / 230 VAC						
Typical Power Consumption	max. 700W / typ. 380W	max. 700W / typ. 380W	max. 700W / typ. 380W	max. 700W / typ. 380W	max. 700W / typ. 380W	max. 700W / typ. 380W	max. 700W / typ. 380W
Laser Head in mm (WxHxD)	325 x 160 x 134 (with cooling fan)	325 x 160 x 134 (with cooling fan)	325 x 160mm x 134 (with cooling fan)	325 x 160 x 134 (with cooling fan)	325 x 160 x 134 (with cooling fan)	325 x 160 x 134 (with cooling fan)	325 x 160 x 134 (with cooling fan)
Weight Laser Head	6.5kg	6.5kg	6.5kg	6.5kg	6.5kg	6.5kg	6.5kg
Control Unit in mm (WxHxD)	350 x 350 x 140	350 x 350 x 140	350 x 350 x 140	350 x 350 x 140	350 x 350 x 140	350 x 350 x 140m	350 x 350 x 140
Weight Control Unit	16kg	16kg	16kg	16kg	16kg	16kg	16kg

We reserve the right to make technical modifications without prior notice. Errors and omissions excepted. 10% tolerances for measured values.