

Need **FAST FOCUS** for your high power laser?

ZWOBBEL®

- Particularly **dynamic focusing** for high-power 12 kW lasers
- 550g **light** and **compact** (100 mm x 100 mm x 60 mm)
- Up to 60 % faster cutting at the best cut quality

Innovation potential and applications

Dynamic beam shaping places special demands on hardware. Our Zwobbel®-Technology allows beam wobbling in the z-direction with frequencies up to 3000 Hz. Laser cutting has high potential for dynamic beam shaping applications. Here, burr-free cuts and speed advantages of up to 60 % can be achieved without increasing the laser power. The Zwobbel®-Technology is the tool to generate the best cutting quality at maximum speed and laser power! The profitability of laser cutting machines can thus be increased. Our Zwobbel® can also enable new innovative processes in laser welding, glass processing and additive manufacturing.

Installation options

Our Zwobbel®-Technology comes as a ready to use solution with all the necessary electronics, which can be set up at a distance of up to ten meters. An analog signal input (e.g. 0-10 V) is used to control the focus position.

Flange mounting with dowel pins is used for precision installation but 3-inch COTS mounts can also be used. Fluidic cooling ensures high-performance durability and consistent system performance up to 12 kW continuous wave.

Your Advantages

High focusing speeds in the smallest installation space with simultaneous performance stability are the advantages of Zwobbel®-Technology. It is used as a 90° deflection mirror and in combination with a focusing lens of your choice, you can flexibly adjust the focusing in the z-direction. The module is available for wavelengths UV, IR and CO₂ - other wave-lengths are available on request.

Please note, that we recommend specific optical setups of laser cutting heads for the best dynamic beam shaping performance.



Facts & Specifications

Zwobbel® will be delivered as a set of

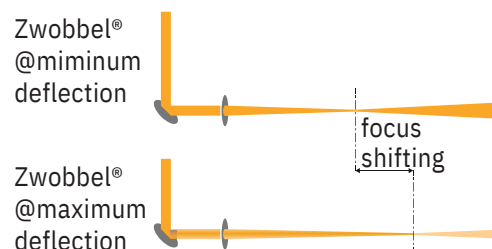
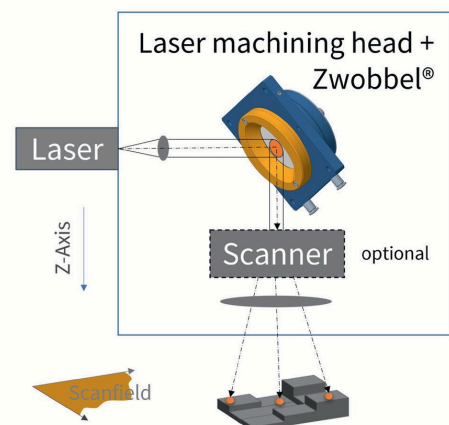
- » Zwobbel® (opto-mechanic)
- » ZwobbelCon (controller)
- » ZwobbelDrive (voltage supply)

Technical specification Zwobbel®1020

- » 90° application
- » Aperture: 10 mm up to 20 mm
- » Wavelength 1020 nm – 1080 nm
- » Analog interface (e.g. 0-10 V)
- » 15 mm focus stroke in 2ms *
- » Oscillating focus freely selectable between 0 Hz and 3000 Hz
- » High power up to 12 kW+ CW
- » 20 kW+ system ready for testing

On request

- » Zwobbel® for UV lasers
- » Zwobbel® for CO2-Applications



Contact us now!

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Up to 60 % **faster**
laser cutting and
higher machining
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