

# Z-LASER

## POSITIONING LASERS

- » Wavelength 404nm - 700nm (red, green, blue)
- » Output power up to 80mW
- » Long line length
- » Highest precision
- » Focusable or with fixed focus
- » Robust housings

Wood  
Stone  
Textile  
Metal  
Automotive  
Medicine



***With more than 25 years of experience, Z-LASER is THE leading provider of lasers and laser-based systems to a wide variety of industries across the world.***

### Application Samples:

Tire building  
Patient positioning  
Saw guidance  
Drilling  
Rung boring  
Pressing  
Paper cutting  
Tile cutting  
Glass cutting / drilling  
Edger  
Cutting table  
Stiching  
Screen printing  
etc.

We focus on quality, custom laser systems for demanding applications.

A variety of colours (red, green and blue) and projections (point, line, cross, etc.) are possible. Our goal is to achieve the best quality.

We think customer-oriented. You as a customer profit from the advantages of a modular system: You can configure your suitable model for your special requirements (e.g. projection optic, line length, colour, focusability, output power and housing size). At **Z-LASER**, experts from research, development and production are working together hand in hand. Shorter distances between these departments guarantee the latest, most modern technology. More than 25 years of experience are on your side.

## ZA



- ☐ Laser for battery power with line, point or cross projection
- ☐ 1.5V AA battery or 1.2V rechargeable battery (patented)
- ☐ Magnetic On/Off-Switch
- ☐ Dimensions: Ø 20 x 108mm
- ☐ Output power / Wavelength: 1-5mW / 635nm (red)

## ZD



- ☐ Universal mini laser module with line, point or cross projection
- ☐ Supply voltage: 3-6 VDC, optional 24VDC
- ☐ Dimensions: Ø 11x52mm
- ☐ Output power / Wavelength: 1 - 15 mW / 635 nm or <5mW / 650nm (red)

## ZM12



- Compact laser with wide variety of laser diodes and optics
- Supply voltage: 5-30VDC with connector or 4-6VDC with integrated cable
- TTL modulation up to 100kHz optional
- Simple, external hand focusing mechanism
- Dimensions: Ø M12 thread with optic head 15mm x [50-80mm]
- Output power / Wavelength: 1-40mW / 635-980nm (red - infrared)

## ZM18



- Compact laser with wide variety of laser diodes and optics
- Supply voltage: 5-30VDC with connector or 4-6VDC with integrated cable
- Analogue and concurrent TTL modulation up to 2MHz optional
- Protection class IP67, water and dust resistant
- Simple, external hand focusing mechanism
- Dimensions: Ø M18 thread with optic head 20mm x [76-138mm]
- Output power / Wavelength: 1-120mW / 404-980nm (red, green, blue & IR)

## ZPT-F



- Asymmetric line optic for maximum line length
- Laser with active temperature control (useable from -25 to +50°C)
- Highly failure resistant, integrated wide range power supply 90-265VAC
- Free focusable (tool adjustable)
- Dimensions: Ø 40x280mm
- Output power / Wavelength: 1-80 mW / 635nm (red)

## ZR



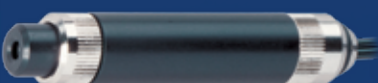
- Asymmetric line optic for maximum line length
- Highly failure resistant, integrated wide range power supply 90-265 VAC
- Dimensions : Ø 40x201mm
- Output power / Wavelength: 1-40 mW / 635nm (red)

## ZRG-F



- Green laser with asymmetric line optic for maximum line length
- Highly failure resistant, integrated wide range power supply 90-265 VAC
- Free focusable (tool adjustable)
- Cooling ribs for optimal heat dissipation
- Dimensions: Ø 40x329mm
- Output power / Wavelength: 1-40 mW / 532nm (green)

## ZT



- Laser with exchangeable optics: dot, line, line-point, small cross, large cross
- Supply voltage: 3.5-5.5VDC
- Adjustable light intensity
- Dimensions: Ø 14x69 mm
- Output power / Wavelength: 1-10 mW / 635nm or 650nm (red)



# Features

## Power



## Robust housing



Because of a highly robust housing, our lasers are suitable for industrial environments.

**Your benefit:**

*Dust & water resistant, longer lifetime!*

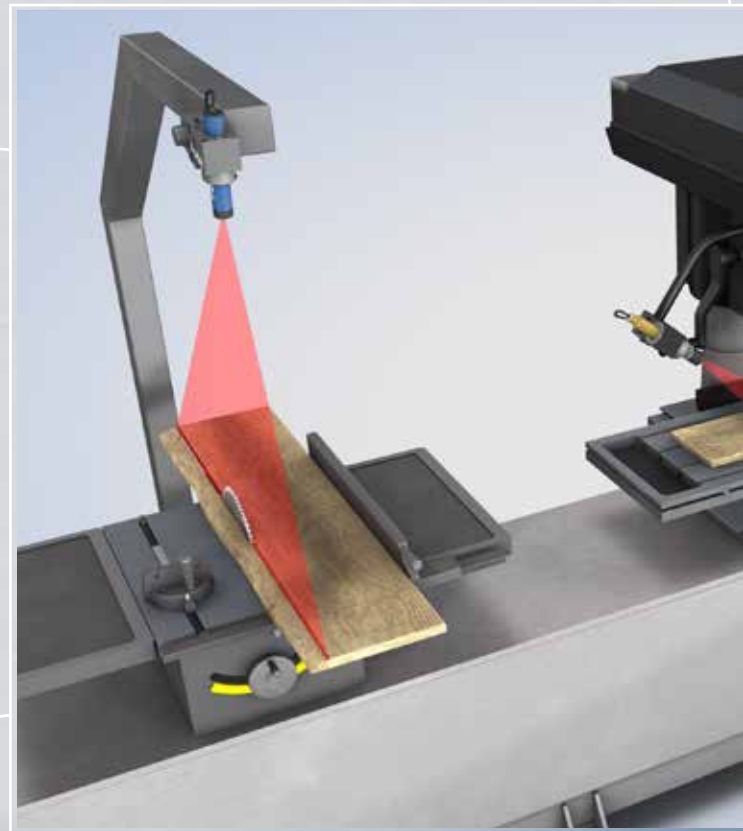
## Wavelength



Our lasers have wavelengths from 404nm (violet) to 980nm (infrared).

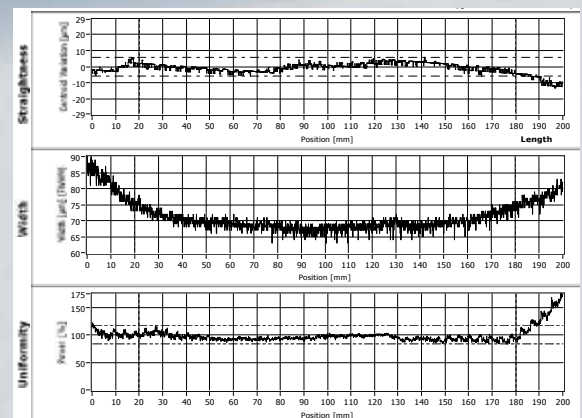
**Your benefit:**

*Optimal wavelength or excellent visibility!*



## Measurement of line straightness

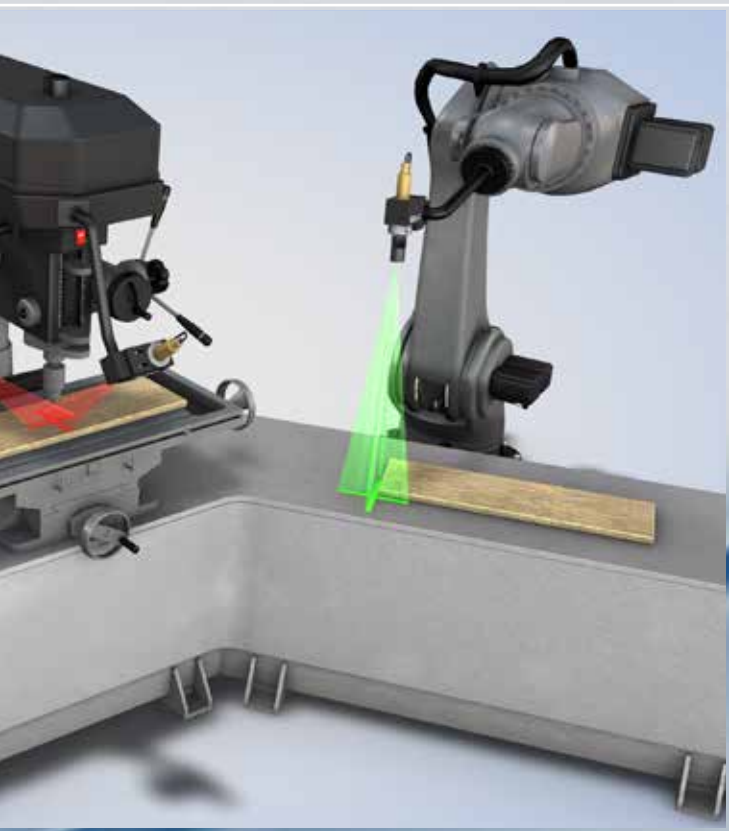
A test site was specifically developed for high-precision measurements of our laser lines. Parameters such as line straightness, line thickness or homogeneity distribution can be detected quickly with very high accuracy. All calculated values are uploaded into a database and can be provided simultaneously as protocol to clients.



Power ranges from  
1mW to 80mW.

**Your benefit:**

*Optimal performance  
adjusted to your demand!*



### Line straightness



Our lasers are able to project very straight lines with less deviation.

**Your benefit:**

*More reliable projections reduce  
cutting waste!*

### Focusable



With our line lasers, you have the ability to determine the precise focus manually.

**Your benefit:**

*Laser is flexibly adaptable to  
the working distance!*

## Long Lines

For special applications long and highly visible line can be advantageous. For this purpose we can provide laser projections of up to 40m length with low loss of beam quality.

### Optics

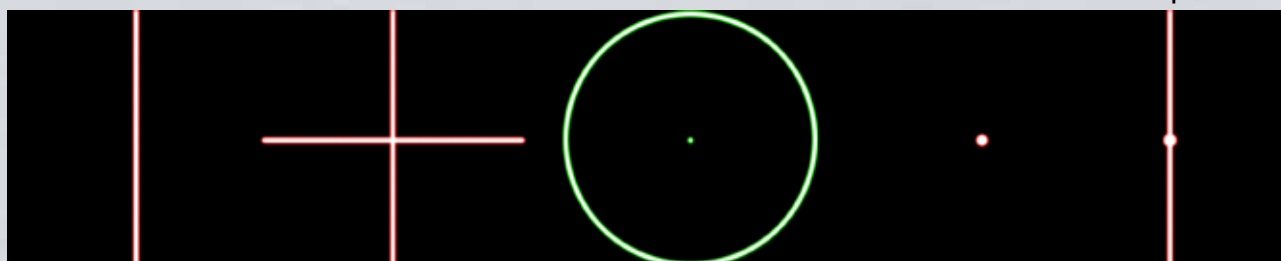
Line

Cross

Circle

Dot

Line-point



# Wood

30 years ago, **Z-LASER** began its activities in the timber industry. At that time laser were mainly used for positioning in sawmills. Today our lasers are especially designed for applications, in which the exact alignment of material and machine determines the work steps. Thus our products are ideal for applications where a saw line is displayed. Material and saw are aligned in order to achieve an optimal usage of the material and minimal waste. The lasers can be used in environments ranging from -10°C to + 40°C. Lasers in combination with brackets offered by **Z-LASER** are easy to install and align precisely on the machines or saws.

## Advantages:

- ☐ Secure working for machine operator
- ☐ Quality control

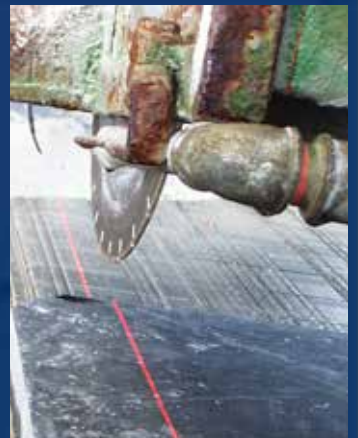


# Stone

All variations of bridge saws have proven to be indispensable in the stone processing industry when it comes to cutting stone blocks or slabs. Gaining wide adoption is the use of red and green positioning lasers to simulate the cutting line in advance thus making the positioning process easier as well as more accurate. The lasers are mounted either in the bridge area or on the support and project a highly visible line onto the machine table.

## Advantages:

- ☐ Optimal material exploitation
- ☐ Higher frequency
- ☐ Cost reduction



# Metal

Laser projections are a practical tool to speed up workflows in the metal processing industry. They can be used for example for a precise and faster alignment of work pieces such as large metal plates. Additionally, laser projections can display different processes like cutting, sawing, pressing can be displayed by machines

## Advantages:

- ☐ Reduction of the setting times
- ☐ Optimal material exploitation
- ☐ Increase in work quality





# Textile

Laser positioning is successfully used in sewing and embroidery applications, as well as in cutting and printing operations. They simplify work processes, accelerate the whole production process, improve product quality and replace classic alignment tools. It is important to know that a laser installation does not bring along a change in the production facilities, since it can be easily integrated into the existing work processes. Consequently including laser in this processes does not require changes in the machine settings or long-lasting training of the staff.

## Advantages:

- ☐ Reduction of the setting times
- ☐ Increase in work quality
- ☐ Cost reduction



# Tire

**Z-LASER** has supplied worldwide leading tire manufacturers for years with positioning lasers and accessories. Highest line straightness (which is confirmed via certificate), is required along with industrial products with the lowest possible laser class and precision brackets with which laser lines can be aligned quickly and accurately. In the tire industry, green lasers are preferred for best possible visibility on dark materials (such as black rubber) or in bright environments. In addition to the tire building machines, our products are used for various other applications in the tire industry. We are constantly developing new customised products for specific applications.

## Advantages:

- ☐ Reduction of the setting times
- ☐ Quality control



# Medical

Class 1 laser modules are typically used for precise patient positioning in X-ray or magnetic resonance tomography. **Z-LASER** supplies such manufacturers of tomography with customised laser modules.

In mobile X-ray equipment, a laser cross visualizes the axis of the X-ray and marks the exact point of X-ray. Thanks to this, the patient benefits from a minimised ray dose.

For this type of X-ray systems, **Z-LASER** develops integrated and retrofit solutions. Depending on the application, the laser is either integrated in the image intensifier or in together with the X-ray sources.

