Z-LASER
An Exaktera Company

# Product catalog for Positioning Lasers

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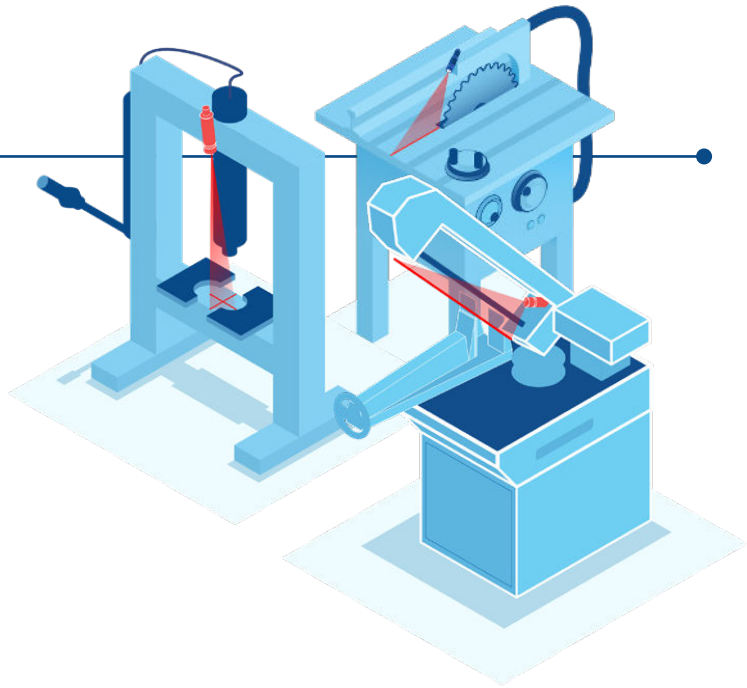
# Positioning lasers
## light the way

Positioning laser – the term has caught on over the years and it's what everyone is talking about when it comes to the innovative aid for positioning material in manual or semi-automated manufacturing processes.



## Ideal for your field of work

Line lasers visualize the cutting path in all cutting processes across all industries.

Cross lasers make it easier to position labels or mark where holes need to be drilled.

Dot lasers show where to sew on a button or help to align machine parts over long distances.

## Work more quickly and efficiently

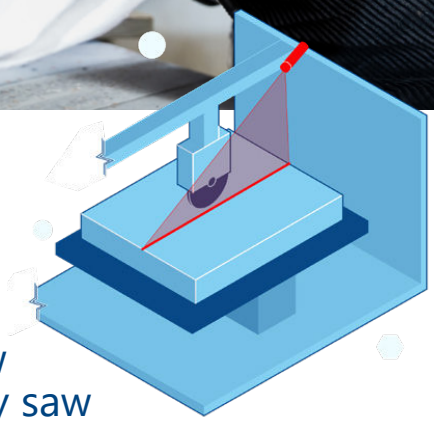
These are just a few examples – there are no limits to possible uses. Positioning lasers help you to achieve optimum results by saving time and material. Positioning lasers don't do the work for you but they allow you to see better, decide faster and act more precisely.

The following pages give you several examples of applications from different sectors.

# Lasers for the stone industry

Heavy, valuable, and sensitive materials such as natural stone need to be processed with the utmost care. Cutting mistakes cause significant additional costs.

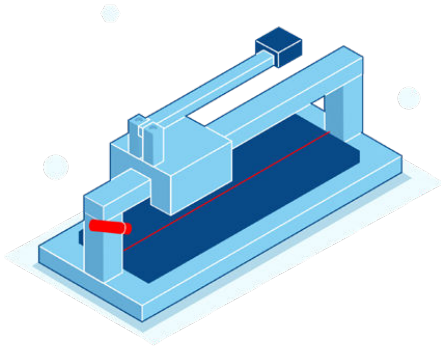
The modern stonemasonry business would be unimaginable today without line lasers as positioning aids.



## Bridge saw & masonry saw

The laser line marks the cutting edge of the diamond disc. The cut can be optimally aligned on the cutting table with this line. The laser can be fitted either on the bridge or on the support.

In this way it either moves with the bridge in the y-direction or tilts with the support, e.g. for mitre cuts.



## Tile cutter

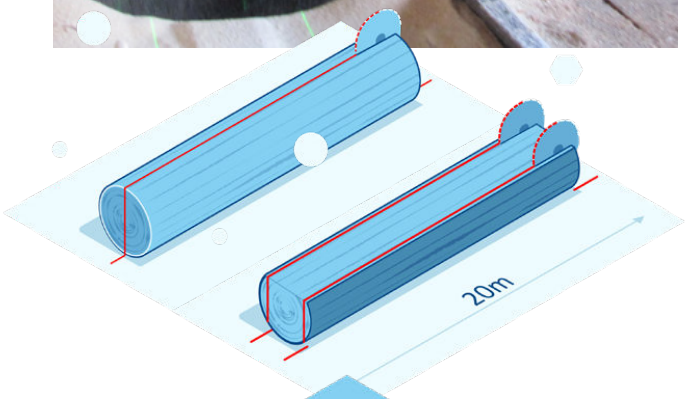
Mobile tile cutters are generally used for natural stone or ceramic tiles – with a battery-operated line laser, of course (see page 16).

# Lasers for the wood industry

Wood has been the most popular and versatile building material since time immemorial. Machine processing makes it much easier to handle this valuable natural material. Ensure less waste and better product quality with our positioning lasers!

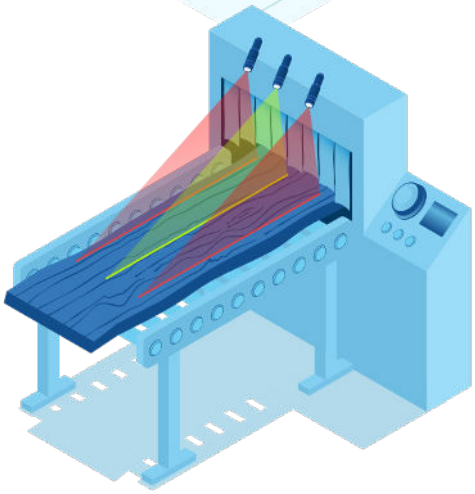
## Gang saw / saw mill

Our line lasers point the way into the saw gate right from the very first processing step, sawing the trunks.



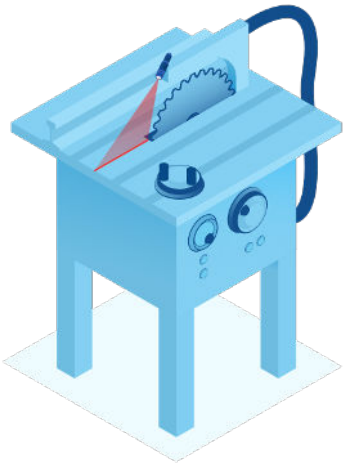

## Edging saw

An effective aid for optimum material use: Using the red or green lines projected onto the board, the operator can set the edging saw to achieve the optimum result for edging and cutting. This saves time and material!



## Panel saw / circular table saw

Indispensable in any workshop – a positioning laser transforms your saw into a universal tool for edging and cutting solid wood or panel material to size.



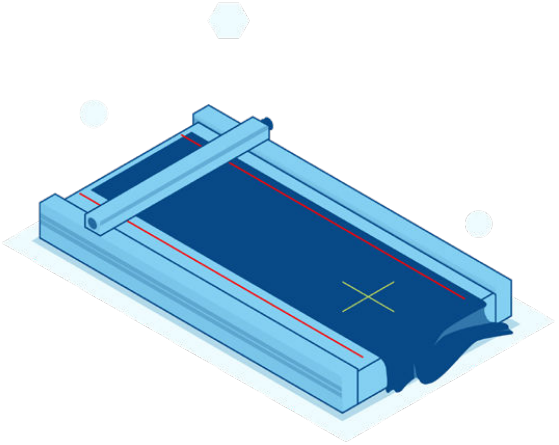

# Lasers for the textile industry

Laser marks in the form of lines or crosses are used when sewing or embroidering, cutting or textile printing.

They replace conventional alignment aids like templates, speeding up the entire manufacturing process. The result

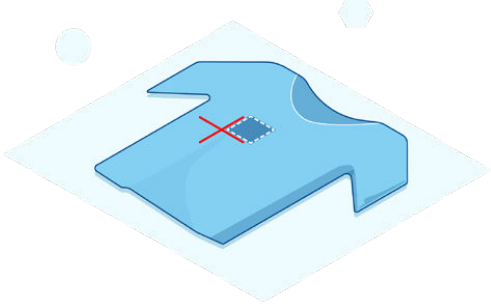
## Cutting room

Use our line lasers as an alignment aid on your lay table. This minimizes waste and ensures pattern consistency. An additional ZRX cross laser helps to position chequered fabrics.



## Textile finishing & printing

Whether you print, embroider, or patch – use our positioning lasers with line, line-dot, cross or dot optics to perfectly align your textiles or finishingmaterials.



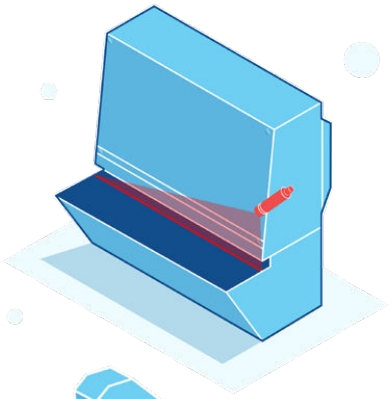
# Lasers for the metal industry

Positioning lasers are a versatile aid for optimizing workflows in the metal processing industry. Whether you're aligning blocks or sawing pipes, cutting or bending sheets – a line laser ensures the right orientation.

## Sheet metal cutter or bending machine

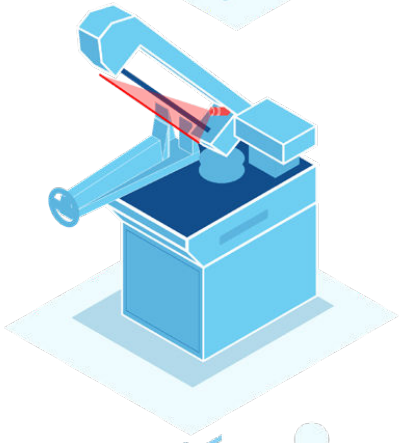
Simulate the cutting path of your cutter on the sheet with a red or green laser line – you'll generate less waste!

Where the punch and die interlock to give your sheet metal the desired shape, a red or green laser line provides orientation.



## Band saw & hacksaw

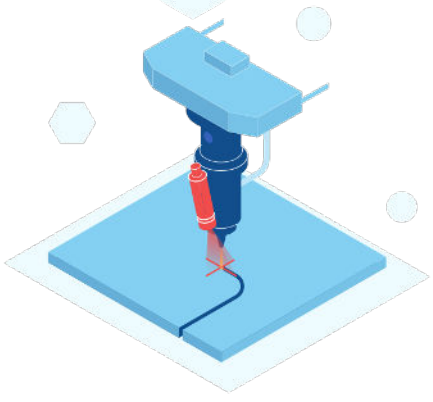
This saw is used in every metalworking shop to quickly cut small workpieces, or to cut bar stock to length - a line laser can also be used here for clamping.



## Flame or waterjet cutter

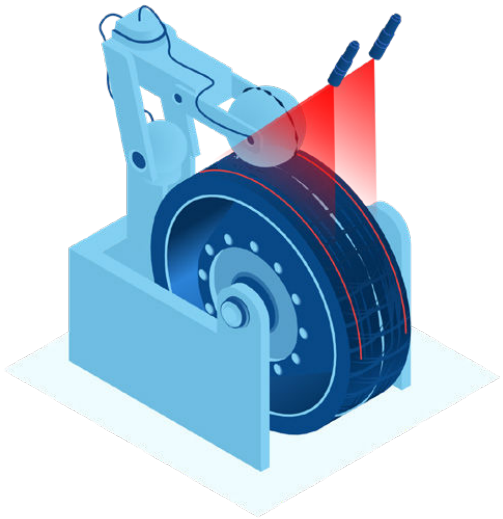
A positioning laser simplifies the setting of the machine zero point on flame and waterjet cutting systems.

The laser indicates the position at which the machine starts the cut. This enables the operator to position the material precisely. You achieve a significantly faster machine setup time and - less scrap



# Lasers for the tire industry

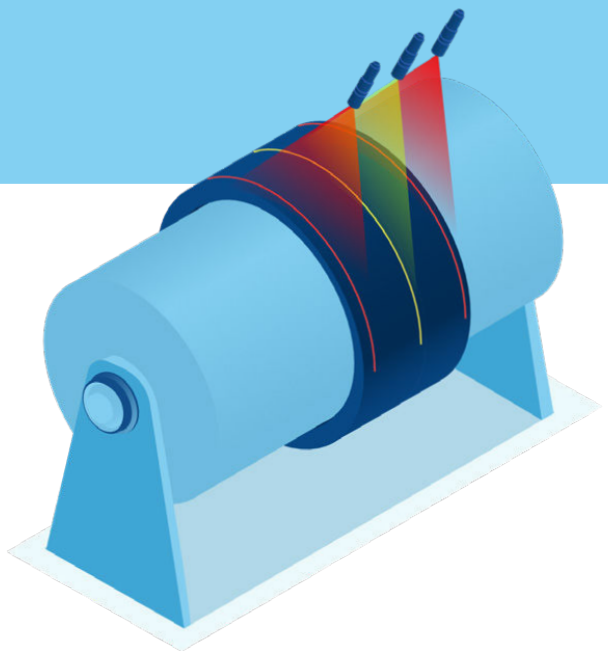
Car tires in all sizes and variants are by far the most heavily used parts of a vehicle. Maximum precision is of great importance in production, which still requires a lot of manual work. This is the only way to ensure a permanently stable and safe product.



## Tire building machine

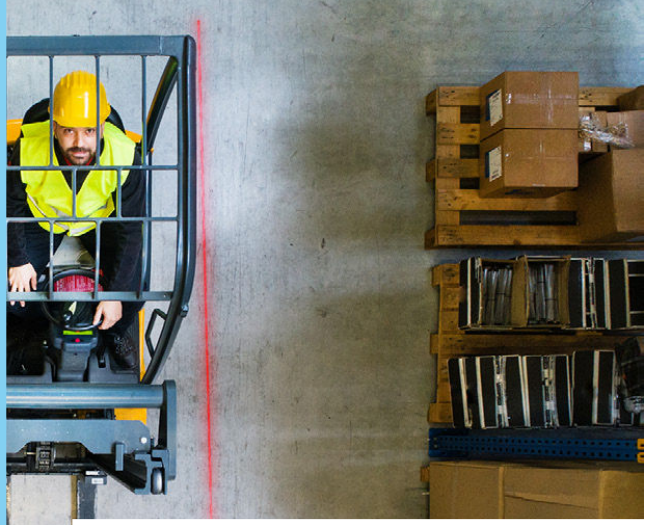
The production process involves placing rubber layers of different thicknesses and widths onto a vulcanizing drum. Line lasers show the right position of the individual layer here. Typically, three lasers are used:

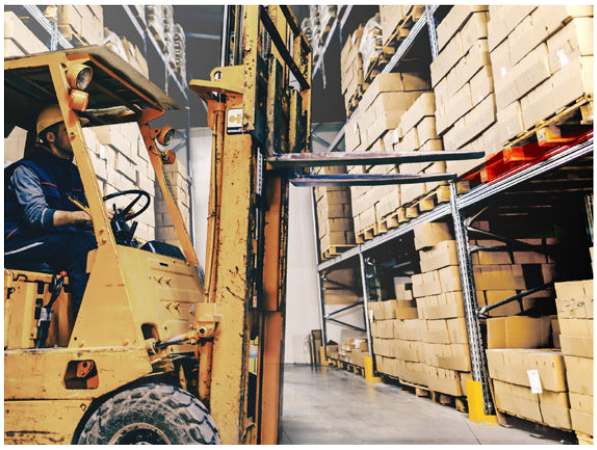
One line laser shows the precise middle line; another two parallel lines, which are moved in opposite directions depending on the required tire width, show the intended positions of the individual layers. Green laser lines offer the advantage of considerably better visibility, particularly on black rubber.



The exact alignment of a laser (projection) is particularly important. We recommend the precision supports developed by Z-LASER in cooperation with leading tire manufacturers for this.

Find more information on this on page 24.



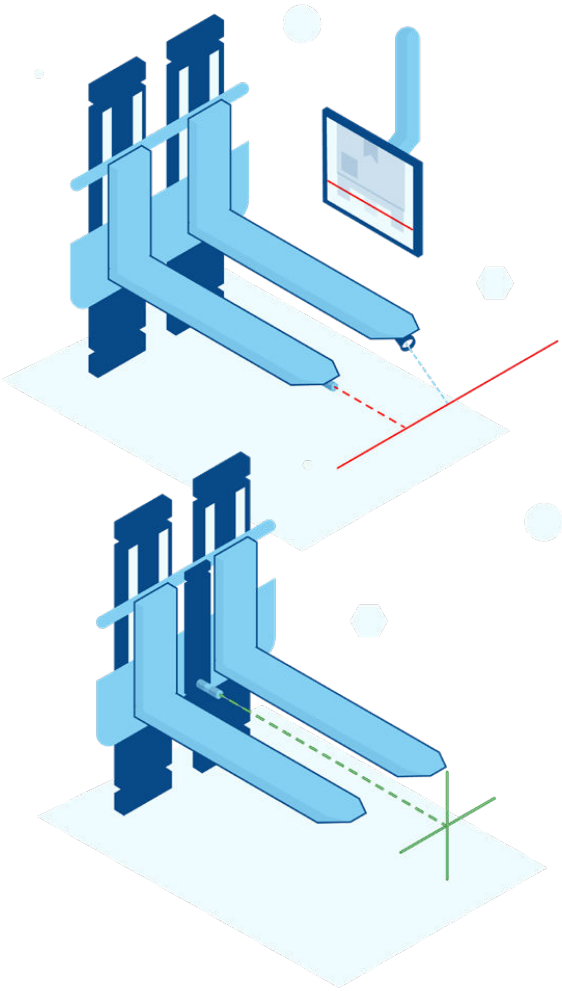


# Lasers for industrial trucks

Placing Euro-pallets in the top bays of high-rack warehouses is a real challenge for any forklift driver. Line or cross lasers provide highly visible orientation for positioning the forks, allowing precise and safe stacking.

## The line laser drives with you

The solution is realized by mounting a line laser in a fork: a horizontal red or green line is projected forward onto the pallet. A camera is installed in the second fork which conveys the line onto a monitor in the driver's cab. This is particularly helpful with high loads that block the view of the forks.



## Visualization via cross laser

An alternative technical solution is to install a cross laser, preferably green, between the forks near the adjusting gear. The additional vertical line makes it easier to aim for the middle of a pallet.

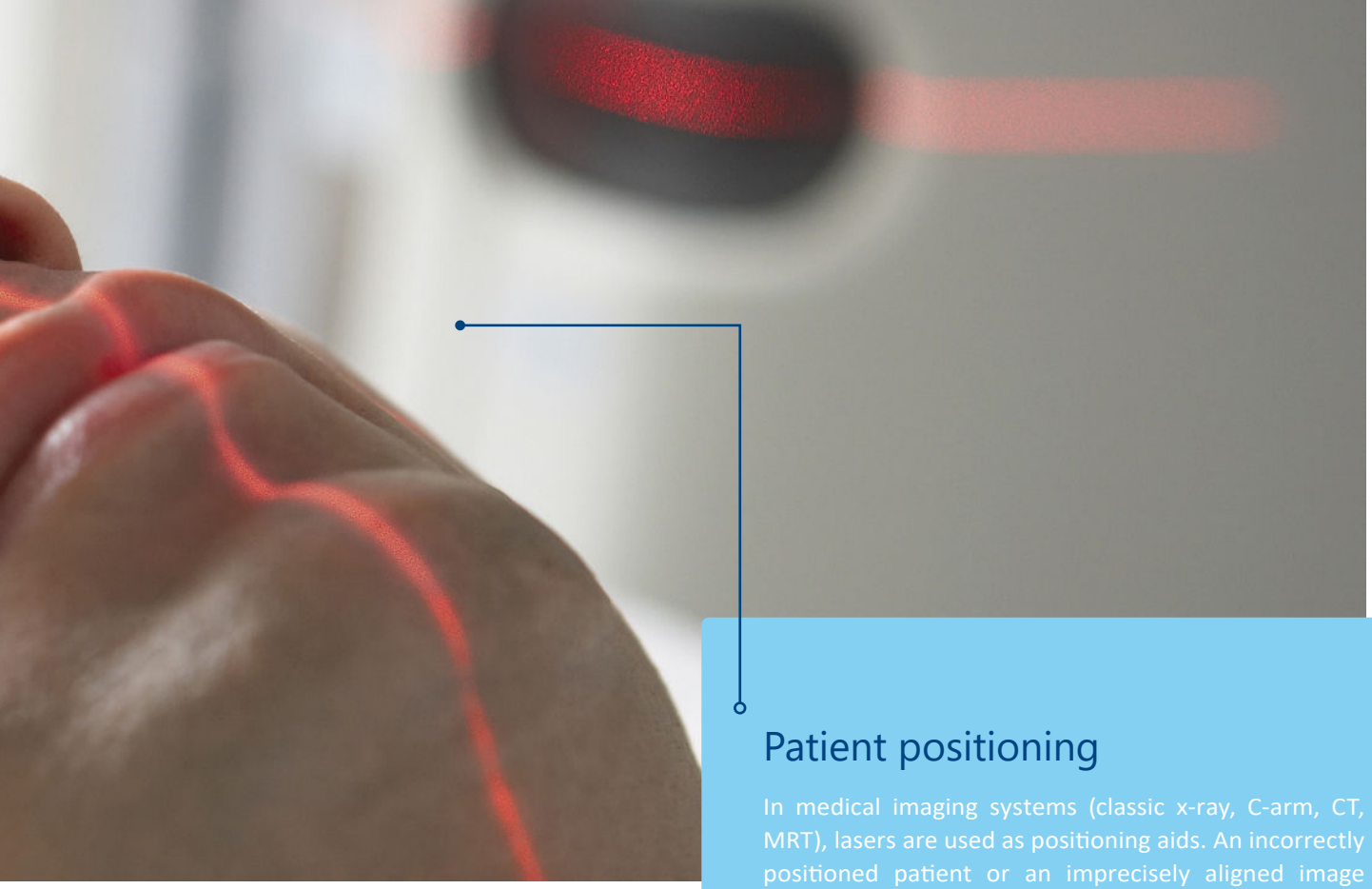
# Lasers for medicine

Today's world of medicine operates at a level that can justifiably be described as high-tech medicine. Whether in diagnostic measures or curative treatments directly on the patient – we all benefit from the accomplishments of modern medical science and technology.

The central focus is on the individual, their health and safety. In many medical engineering applications today, lasers are also used; reliability, precision, and the highest quality of the individual components are key here. Z-LASER has been developing and producing laser modules for reputable manufacturers and different applications for over 35 years – here are some examples:

## Pilot laser in the laser scalpel

Laser scalpels are used for many kinds of surgical procedures today. They make it possible to operate in difficult-to-access areas, without causing excessive tissue damage. However, these precision instruments work with a laser in the invisible IR (= infrared) spectrum. To enable the surgeons to see where they are cutting, pilot lasers are used. This is a laser that is coupled into the beam path of the laser scalpel and marks the target with a bright red dot.

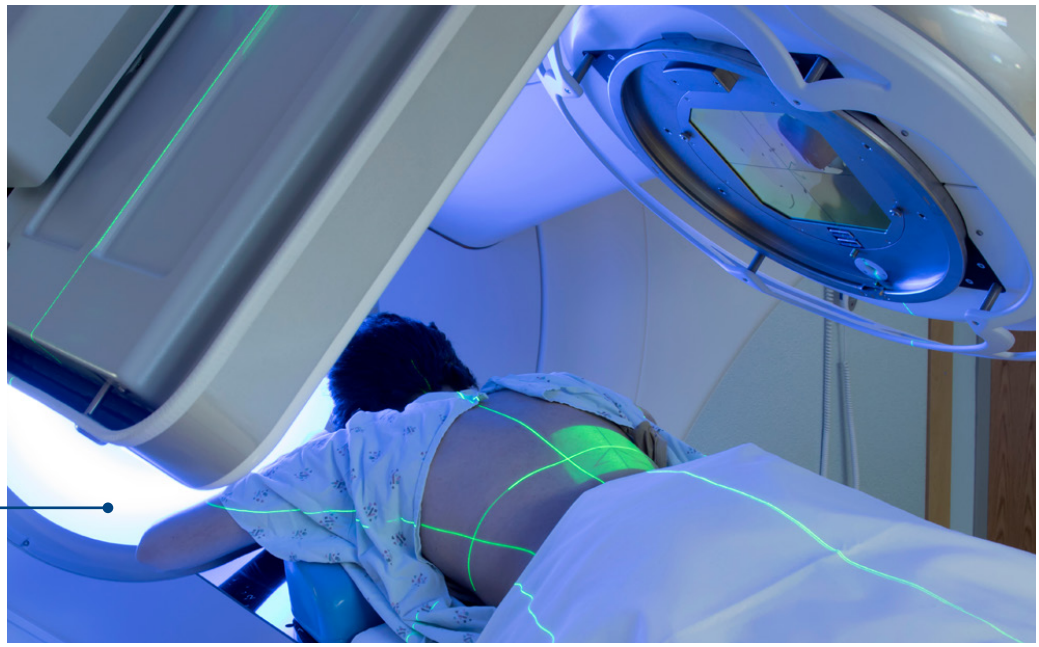


## Patient positioning

In medical imaging systems (classic x-ray, C-arm, CT, MRT), lasers are used as positioning aids. An incorrectly positioned patient or an imprecisely aligned image intensifier may lead to blurred imaging and will not provide the necessary diagnostic results. Laser lines or crosses as optical support help to prevent such errors.

## Radiation therapy

Modern radiation therapy now belongs to the standard repertoire of treatment methods for tumor diseases. In order to irradiate as exactly and gently as possible, laser-assisted positioning of the beam source is an invaluable aid.



# Products

## Laser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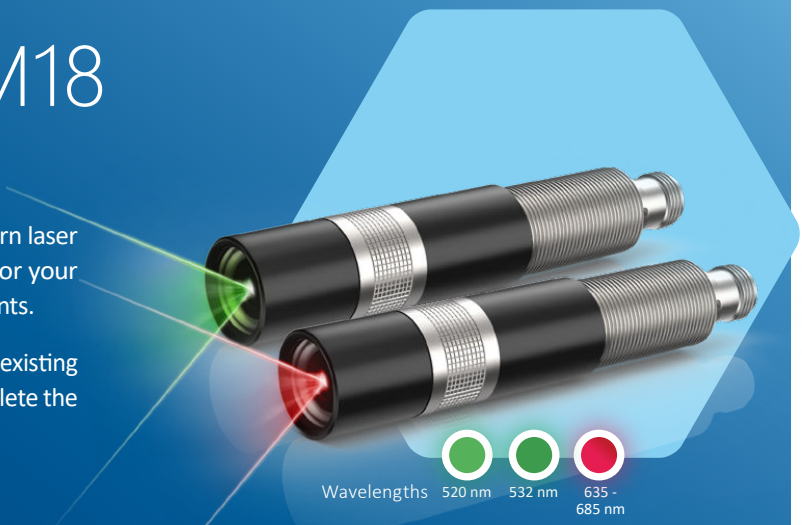
# Product family ZM18
## The perfect allrounder

The products of the ZM18 series set the standard for modern laser modules for industrial use. You can select the right laser for your positioning application from more than 1,000 different variants.

The compact, sensor-like design enables easy integration into existing machines or systems. Easy-to-operate focussing optics complete the product. It's the perfect allrounder!




- Manual or fixed focus
- TTL modulation up to 500 kHz
- Analog intensity control
- Optical output power up to 120 mW
- Wavelengths from 520 - 685 nm
- Industrial standard
- IP67

## System specifications

| | | | | | |
|---|---|---|---|---|---|
| Wavelength | nm | 520 | 532 | 635, 640 | 640-685 |
| Wavelength tolerance | nm (typical) | -5 / +10 | ± 1 | ±10 | ±10 |
| Wavelength drift | nm / K (typical) | 0,06 | 0,06 | 0,25 | 0,25 |
| Output power | mW | ≤40 | ≤40 | ≤120 | ≤120 |
| Electronic versions | | B3 | B | B | S3 |
| Pointing Stability | µrad / °C | <15 | | | |
| Long-term power stability (24h) | % | ±3 over operating temperature range | | | |

### Electrical specifications

| | | | | | |
|---|---|---|---|---|---|
| Operating voltage | VDC | 5 - 30 | 5 - 30 | 5 - 30 | 5 - 30 |
| Operating current (max. at 25°C) | mA | <300 | <300 | <400 | <400 |
| Protection | | Over temperature protection and LED pre-failure indicator, reverse polarity and transient protection (ESD, burst & surge) | | | |
| Electrical isolation | | Potential-free housing | | | |
| Connection | | 4-pin M12 plug | | | |
| Power consumption | W | <2,7 | <2,7 | <2 | <2 |

### Optical specifications

| | | |
|---|---|---|
| Fan angles [1] | ° Degrees | 10, 20, 30, 45, 60, 75, 90 (homogeneous lines)<br>5, 10, 15, 20, 30, 90 (Gaussian line profile)<br>20, 30, 110 (raster lens for homogeneous line profile) |
| Line straightness [2] | % (of line length) | <0,05 |
| Line uniformity [3] | % (typical) | <25 |
| Dot | | Point elliptical, point circular |
| DOE | | Multi line, crosses, grids, circle with dot, etc. |
| Focus range | mm | 100 up to 10.000<br>(or customized fixed focus available); ZM18-B-532 > 200 |

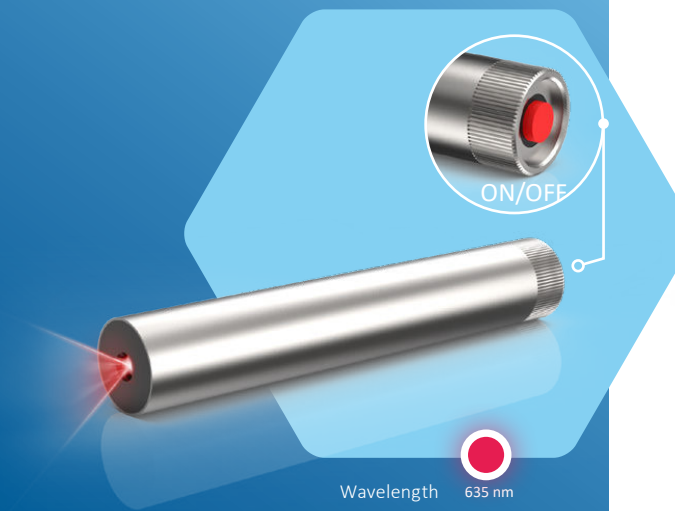
### Environmental conditions

| | | | |
|---|---|---|---|
| Operating temperature [1] | °C \| °F | -10 to +50 | 14 to +122 |
| Storage temperature | °C \| °F | -40 to +85 | -40 to +185 |

# ZAT
## autonomous and flexible

The battery-powered ZAT has been successfully used in the Belt Aligner Set for years and is a high-quality alternative to the previous bestseller ZA: the laser is built into a stable metal housing and the power source (AA battery or rechargeable battery) is located directly under the screw cap. A small button at the end of the housing is used for turning the laser ON and OFF.

The ZAT is particularly flexible for use in the wood, stone and metal industries. . For example, the ZAT can be easily attached to a mitre saw, a rung drilling machine or a tile cutter and can really be used flexibly.




- Different optics available (line, dot, cross)
- Power supply via AA battery or rechargeable battery
- Convenient ON/OFF button
- Robust metal housing

## System specifications

| | | |
|---|---|---|
| Wavelength | nm | 635 |
| Power output | mW | 1 - 5 |

### Electrical specifications

| | | |
|---|---|---|
| Supply voltage | VDC | 1.5 battery AA or 1.2 rechargeable |
| ZAT button | | On/off switch at the end of the housing |

### Optical specifications

| | | |
|---|---|---|
| Line | | Gaussian line with 90° fan angle |
| Dot | | Elliptical |
| DOE | | Cross |
| Focus | mm | (2000) Fixed focus |
| Laser class | | 1M, 2, 2M |

### Environmental conditions

| | | |
|---|---|---|
| Ambient temperature | °C | -10 to +40 |
| Storage temperature | °C | -10 to +50 |

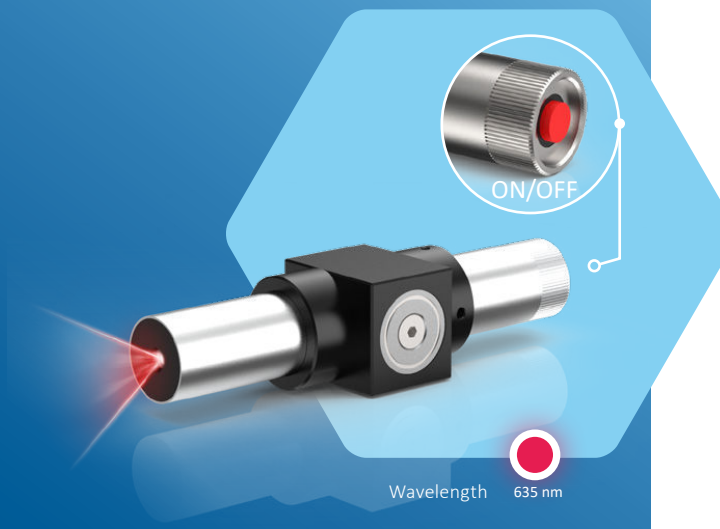
### Mechanical specifications

| | | |
|---|---|---|
| Length | mm | 124 |
| Diameter Ø | mm | 20 |
| Weight | g | 162 |
| Material | | Nickel-plated brass |
| Protection class | | IP40 |

# Z5A Belt-Aligner

## Laser-based alignment tool for belt drives

The Belt Aligner is a tool that has proven its worth a thousand times over for aligning drive wheels. It is based on a line laser from the ZAT series. It sits neatly and perfectly aligned in a specially designed mounting block. The red laser line runs exactly parallel to the magnetic contact surface. With the help of target markers, drive wheels and impellers can be safely aligned in an idle state.




- Battery or rechargeable battery operation with polarity protection
- On/off switch
- Exactly calibrated red line
- 5 mW power output
- Strong magnetic mount (100 N)
- Protection class IP40
- FDA approval and CE certificate

## System specifications

| | | |
|---|---|---|
| Wavelength | nm | 635 |
| Power output | mW | 5 |
| Laser class | (typical) | 1M (EN60825-1) |
| Projection type | | Standard line, 90° fan angle |
| Line width (in focus at 2,000 mm) | mm | 1 |
| Line height (above reference surface) | mm | 19 |
| Focus | | (2000) Fixed focus |
| Boresight error | mrad | 0.5 |

### Electrical specifications

| | | |
|---|---|---|
| Supply voltage | VDC | 1.5 battery AA or 1.2 rechargeable |
| Connection | h | Battery operated, service time: 15 to 20 |
| Modulation | | No |

### Technical specifications

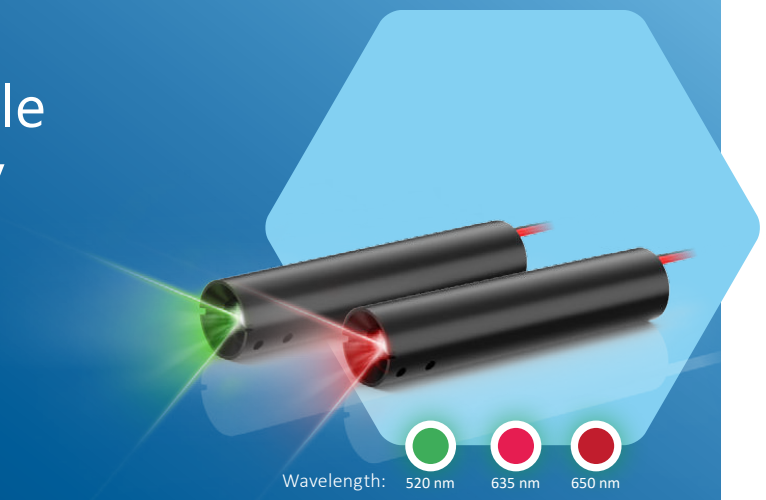
| | | |
|---|---|---|
| Dimensions of laser module | (L x Ø) mm | 124 x 20 |
| Dimensions of magnetic mount | (L x W x H) mm | 49 x 27 x 32.5 |
| Material of housing / magnetic mount | | Nickel-plated brass / aluminum, black anodized |
| Diameter of magnetic surface | mm | 20 |
| Weight | g | 250 incl. magnetic mount |
| Protection class | | IP40 |

### Environmental conditions

| | | |
|---|---|---|
| Ambient temperature (passive cooling) | °C | -10 to +40 |
| Storage temperature | °C | -10 to +50 |
| Humidity (max.) | | <80 %, non-condensing |

# ZD
# Universal mini laser module
# With outstanding visibility

The proven small laser modules of the ZD series have been used as positioning lasers in the wood, stone, textile or metal industry for over 20 years. With a diameter of just 11 mm, it fits almost anywhere and offers outstanding optical performance – with a power output of up to 15 mW (red), or even 40 mW (green)! It's a mini-laser with real power.




- Universal mini laser module with line, dot or cross projection
- Optical power output of up to 15 mW
- Wavelength 650 nm (red), 635 nm (red), or 520 nm (green)
- Electrically isolated housing
- 3-6 VDC, 24 VDC or 5-24 VDC supply voltage with polarity protection

## System specifications

| | | | | |
|---|---|---|---|---|
| Wavelength | nm | 520 | 635 | 650 |
| Power output | mW | 1-10 | 1-15 | 1-5 |
| Operating mode | | APC with current limitation | | |

### Electrical specifications

| | | | | |
|---|---|---|---|---|
| Supply voltage | VDC | 5-24 | 3-6 / 24 | 3-6 |
| Protection | | Polarity and transient protection (ESD, burst) | | |
| Electrical isolation | | Potential-free housing | | |
| Connection | | 2 m cable with Texas plug,<br>Option: Cable up to 2 m with open stranded wires | | |

### Optical specifications

| | | |
|---|---|---|
| Lines | | Gaussian line 90° (alternatively homogeneous 30°) |
| Dot | | Elliptical, circular |
| DOE | | Crosses, multilines, grids, etc. |
| Adjustable focus | | No |

### Environmental conditions

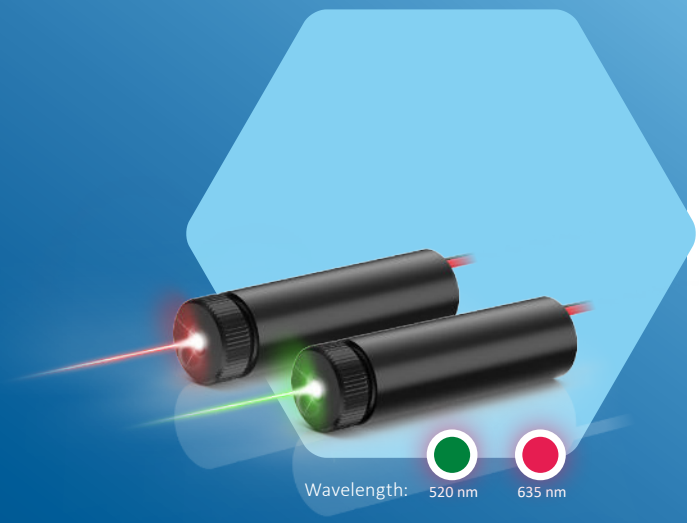
| | | |
|---|---|---|
| Ambient temperature | °C | -10 to +40 |
| Storage temperature | °C | -20 to +70 |
| Humidity | % | <90 %, non-condensing |

### Mechanical specifications

| | | |
|---|---|---|
| Weight | g | 35 |
| Length | mm | 51 |
| Head diameter Ø | mm | 11 |
| Material | | Brass, black chrome-plated |
| Protection class | | IP40<br>IP30 for dot laser |

# ZF-pe-F
## Small focusable dot laser

This mini-dot laser with a diameter of just 11 mm is perfect for all positioning applications where you want a bright, smaller, or larger laser spot – the focusing optic makes it possible!




- Wavelength 635 nm (red) or 520 nm (green)
- Universally applicable mini-pointer
- Optical power output of 1 mW to 5 mW
- Manual focusing optic
- Electrically isolated housing
- 3-6 VDC or 5-24 VDC supply voltage with polarity protection

## System specifications

| | | | |
|---|---|---|---|
| Wavelength | nm | 520 | 635 |
| Power output | mW | 1-5 | 1-5 |
| Operating mode | | APC with current limitation | |

### Electrical specifications

| | | | |
|---|---|---|---|
| Supply voltage | VDC | 5-24 | 3-6 |
| Protection | | Polarity and transient protection (ESD, burst) | |
| Electrical isolation | | Potential-free housing | |
| Connection | | 2 m cable with Texas plug,<br>Option: Cable up to 2 m with open stranded wires | |

### Optical specifications

| | | |
|---|---|---|
| Dot | | Elliptical |
| Adjustable focus | | Yes |

### Environmental conditions

| | | |
|---|---|---|
| Ambient temperature | °C | -10 to +40 |
| Storage temperature | °C | -20 to +70 |
| Humidity | % | <90 %, non-condensing |

### Mechanical specifications

| | | |
|---|---|---|
| Weight | g | 31 |
| Length | mm | 40 |
| Head diameter Ø | mm | 11 |
| Material | | Brass, black chrome-plated, plastic cap |
| Protection class | | IP40 |

# ZR

## Robust entry-level model for rough working conditions

The ZR red line laser is perfect for carpentry or stonemasonry companies: Where there's dust, it's in its element! Thanks to the integrated heavy-duty power supply, it maintains great performance even when heavy machinery starts up nearby causing huge voltage spikes in the network. The line performance is impressive – it's a real hit.


- Red laser for long lines and best visibility
- Integrated heavy-duty power supply with high immunity
- Optical power output up to 40 mW
- Wavelength 635 nm (red)

## System specifications

| | | |
|---|---|---|
| Wavelength | nm | 635 |
| Power output | mW | up to 40 |
| Operating mode | | APC with current limitation |

### Electrical specifications

| | | |
|---|---|---|
| Supply voltage | VAC | 90 - 265 |
| Protection | | IP65 |
| Electrical isolation | | Potential-free housing |
| Connection | | Mains plug (available with standard, US or EU plug) |

### Optical specifications

| | | |
|---|---|---|
| Lines | | Line |
| Adjustable focus | | No |
| Laser class | | 1M, 2M |

### Environmental conditions

| | | |
|---|---|---|
| Operating temperature | °C | -10 to +50 |

### Mechanical specifications

| | | |
|---|---|---|
| Dimensions | mm | 200 x 40 Ø |
| Material | | Aluminum, powder-coated<br>Optic head: anodized aluminum (black) |

# ZRX
## large & precise cross projection

The lasers of the ZRX series are each fitted with two red or green diode laser modules. Each module independently generates a line with a 90° fan angle. Depending on the power output of the modules, crosses can be projected with dimensions of up to 5 x 5 m.

The ZRX – the right choice when you need a cross laser for large-scale positioning tasks.


- Best visibility and perfectly aligned lines
- Optical power output of 2 x 5 to 2 x 20 mW
- Wavelength 635 nm (red) or 520 nm (green)
- Integrated heavy-duty power supply with high immunity

## System specifications

| | | | |
|---|---|---|---|
| Wavelength | nm | 520 | 635 |
| Power output | mW | up to 2 x 20 | up to 2 x 15 |
| Operating mode | | APC with current limitation | |

### Electrical specifications

| | | |
|---|---|---|
| Supply voltage | VAC | 90 - 265 |
| Protection | | IP65 |
| Electrical isolation | | Potential-free housing |
| Connection | | Mains plug (available with standard, US or EU plug) |

### Optical specifications

| | | |
|---|---|---|
| Cross | | (2x) Gaussian line 90° |
| Adjustable focus | | No |
| Laser class | | 2M |

### Environmental conditions

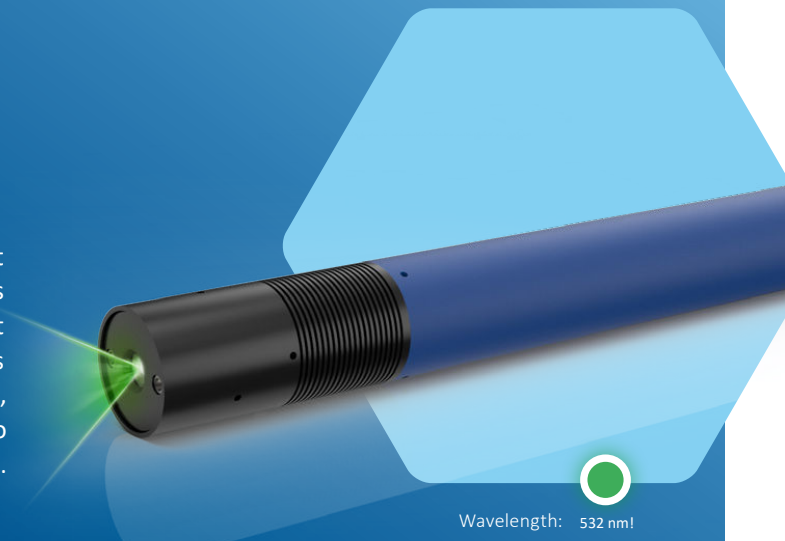
| | | |
|---|---|---|
| Operating temperature | °C | -10 to +40 |

### Mechanical specifications

| | | |
|---|---|---|
| Weight | g | 590 |
| Length | mm | 201 |
| Head diameter Ø | mm | 40 |
| Material | | Aluminum, powder-coated<br>Optic head: Aluminum, anodized black |
| Protection class | | IP65 |

# ZRG-F
## As bright as it gets!

The ZRG-F is a diode-pumped solid-state laser (DPSS) that emits green light at a wavelength of 532 nm. It remains unbeaten as a line laser when it comes to generating bright green lines, such as in sawmills or for the textile lay table. Its robust design makes it popular in the field of natural stone, too. Thanks to the integrated power supply, it is ready to connect and can easily be operated on the usual mains voltage.




- Green DPSS laser for long lines and best visibility
- Adjustable focus
- Integrated heavy-duty power supply with high immunity
- Optical power output of up to 40 mW
- Wavelength 532 nm
- Optimum heat dissipation via cooling fins on the laser head

## System specifications

| | | |
|---|---|---|
| Wavelength | nm | 532 |
| Power output | mW | up to 40 |
| Operating mode | | APC with current limitation |

### Electrical specifications

| | | |
|---|---|---|
| Supply voltage | VAC | 90 - 265 VAC |
| Protection | | IP65 |
| Connection | | Mains plug |
| Electrical isolation | | Potential-free housing |

### Optical specifications

| | | |
|---|---|---|
| Optics | | Line, circular dot |
| Focus | | Focusable |
| Laser class | | 1M, 2M |

### Environmental conditions

| | | |
|---|---|---|
| Housing temperature | °C | 0 to +35 |

### Mechanical specifications

| | | |
|---|---|---|
| Dimensions | mm | 329 x 40 Ø |
| Housing | | Aluminum, powder-coated<br>Optic head: anodized aluminum (black) |

# ZKV

## Now it’s time to rock a’round!

The ZKV uses a rotating mirror to generate perfectly visible red or green circles on a corresponding work surface. The required diameter is set via a wired remote control using a joystick.

With e.g. an installation height of 1.000 mm you can project a circle with a diameter from 270 mm to 1.400 mm. The ZKV is mainly used for barrel construction or for producing wooden cable drums. It does away with the need for templates.


- Circle projection, freely scalable diameter
- Wired remote control
- Simple installation above the work surface
- Power supply with EU or US plug
- Maintenance-free

## System specifications

| | | | |
|---|---|---|---|
| Wavelength | nm | 515 | 635 |
| Power output | mW | 15 | 15 |

### Electrical specifications

| | |
|---|---|
| Supply voltage | 100 - 230 VAC ±10 %; 50 - 60 Hz |

### Optical specifications

| | | |
|---|---|---|
| Projections available | | Circle: Rotating dot laser with circle projection |
| Fan angle | ° | 15° to 70° (variable) |

### Environmental conditions

| | | |
|---|---|---|
| Housing temperature | °C | 0 °C to +40 °C |

### Mechanical specifications

| | | |
|---|---|---|
| Dimensions | mm | Ø 150 x 345 |
| Housing | | Aluminum |
| Connection | | AC/DC adapter, European plug or US plug |
| Protection class | | IP65 |
| Standardisation | | 2M |
| | | EMC standard class 4 |

### Circle diameter

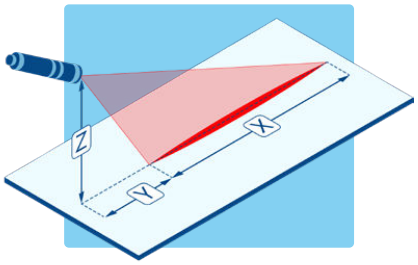
| Distance* | Min. diameter (15°) | Max. diameter (70°) |
|---|---|---|
| 500 mm | 135 mm | 700 mm |
| 1000 mm | 270 mm | 1400 mm |
| 2000 mm | 540 mm | 2800 mm |
| 3000 mm | 810 mm | 4200 mm |
| 4000 mm | 1080 mm | 5600 mm |

*Measured from the front edge of the laser

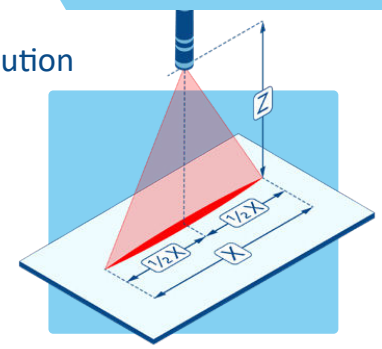
# Z-LASER application and installation options.

This page shows you the different options for employing and installing our positioning lasers. The examples are numbered.
We can use the dimensions x, y and z to provide you with a more accurate offer for your special laser.

## 1. Line with Gaussian light distribution

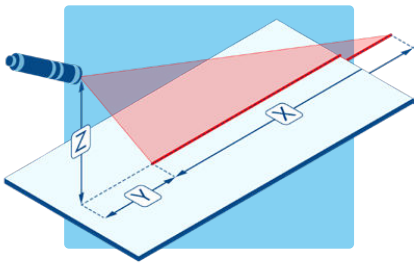



(a) Standard installation situation (inclination 45°)

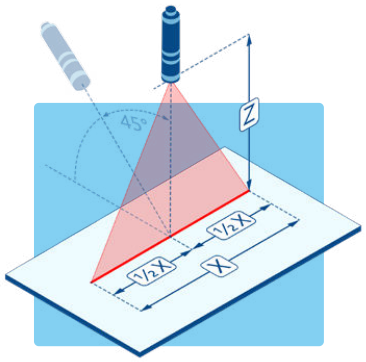



(b) Vertical installation (perpendicular 90°)

## 2. Line with homogeneous light distribution




(a) Long homogeneous line (up to max. 1 m installation height)




(b) Vertical installation (up to 45°)

### Dimensions:

Installation height: Z

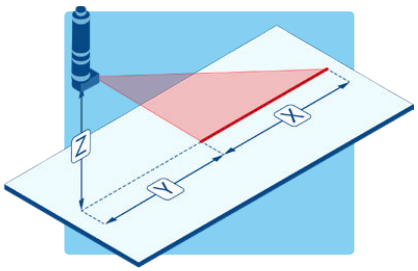
Required line length: X

Offset from start of beam: Y

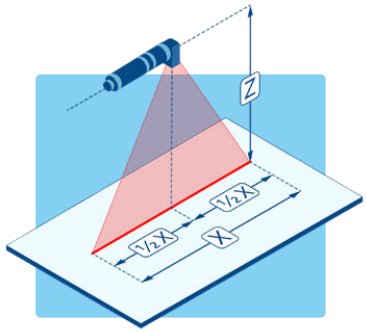
(results from different optical fan angles and the inclination of the laser)

Optional

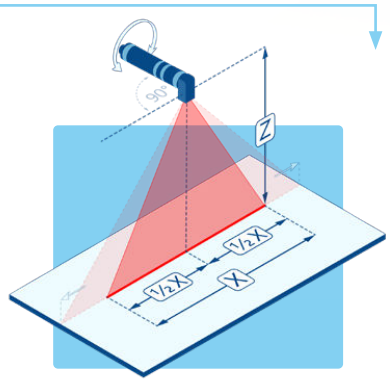
## I. Laser with angular optic head




(a) Vertical beam emitted downwards

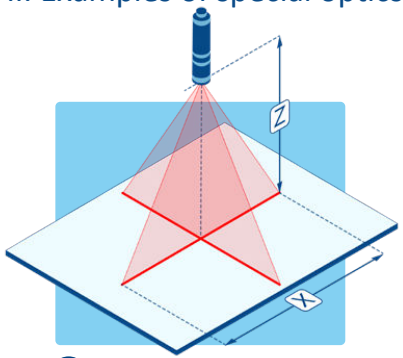



(b) Beam parallel to the housing

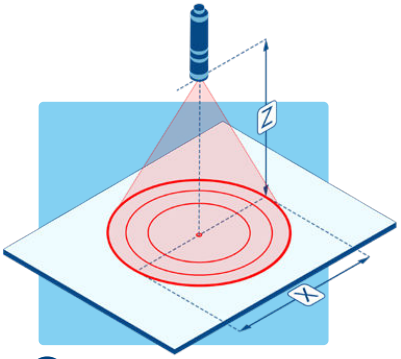



(c) Beam perpendicular to the housing (tiltable)

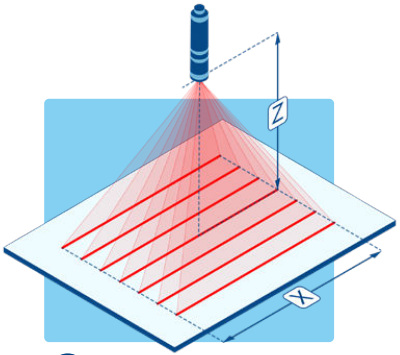
## II. Examples of special optics




(a) Cross




(b) Concentric circles




(c) Parallel lines

# Products

## Accessories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BG2 with table clamp . . . . . 25
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# Mountings

## H0

Rotatable block mount for lasers with 40 (H0-40-20) or 20 mm housing diameter (H0-20-20) for fitting on ø20 mm round material. The aluminum housing ensures optimum heat dissipation. The H0-20-20 can also be used with adapters for lasers with smaller diameters.

## H2

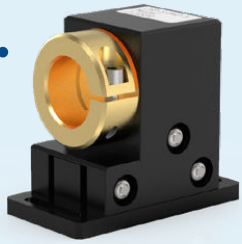
Tiltable aluminum mount with optimum heat dissipation for lasers with a housing diameter of 11 to 40 mm.

## H3

Flexibly adjustable ball joint mount made of PVC for lasers with a housing diameter of 11 to 20 mm.

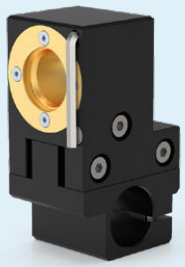
## H6

This aluminum precision mounting is suitable for all laser modules with Ø20mm or M18 threads. The aluminum block housing ensures optimal heat transfer.



## H8

This aluminum precision mounting is suitable for all laser modules with Ø20mm or M18 threads. The aluminum block housing ensures optimal heat transfer.

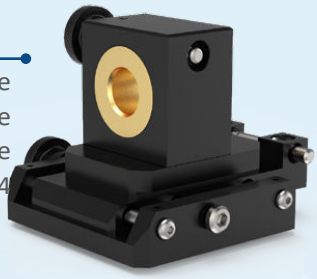


## HX-11-K

Precision disc-spring mount made of PVC for lasers with a housing diameter of 11 mm.

## MXYZ

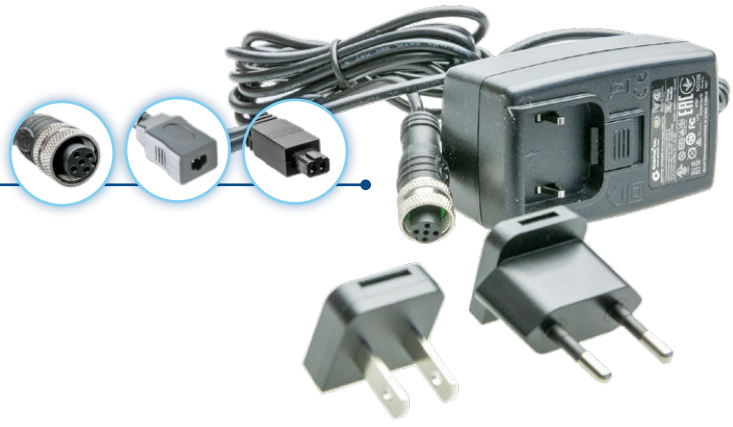
The precision mount can be adjusted in 3 axes. No tools are required for alignment. The base plate of the precision mount has 4 threaded holes for installation.



# More Accessories

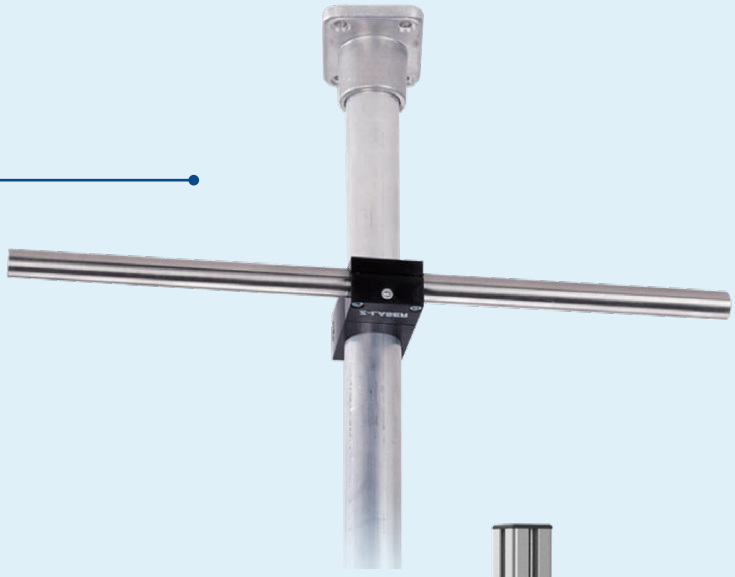
## WPS & WPSB power supplies

The right power supply for your laser, optionally with M12 socket (female), Texas plug or socket. The power supplies are available with 3.5 VDC, 5 VDC or 9 VDC. Exchangeable inserts allow operation in Europe as well as the US or Asia.



## Wall & ceiling mount BD

Typisches Beispiel für den Einsatz dieser massiven Deckenhalterung ist die Montage eines Positionierlasers über der Kreissäge einer Tischlerwerkstatt. Der Flansch aus Aluguss wird an der Decke verschraubt. Ein ø40mm-Aluminiumrohr, kombiniert mit einem stabilen Kreuzgelenk und einer waagerecht verlaufenden Edelstahlwelle ermöglicht die Justage des Lasers in der richtigen Höhe.

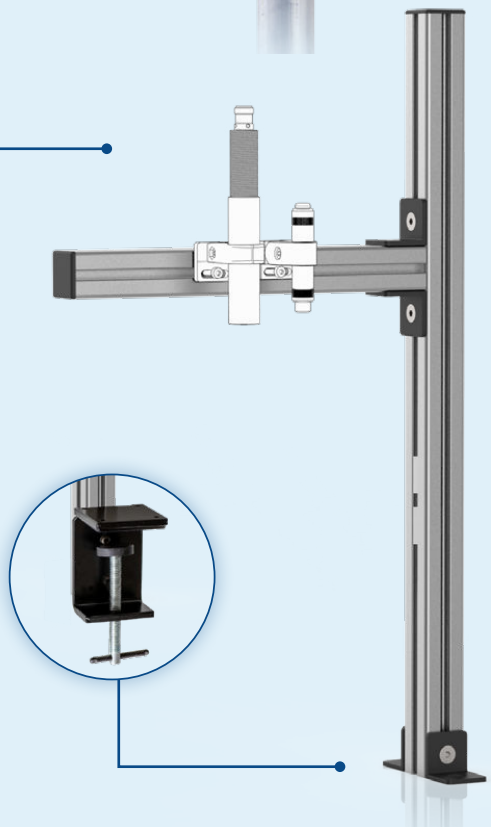


## Mounting system BG

The mounting system BG is simple and flexible to install. The lasers can be mounted individually to the aluminum profiles in combination with the right mount. The set consists of two aluminum profiles (500 mm x 30 mm x 30 mm | 250 mm x 30 mm x 30 mm) and the fastening material. Installation takes place directly on the work table or on the wall.

### BG2 with table clamp

The table clamp allows the mounting system to be moved quickly and easily.



## Battery pack 18 V

Ideal for mobile use of your ZM18 or ZM12B series laser. 18 VDC output voltage. Can be used with two 9 VDC block batteries or equivalent rechargeable batteries.

# About Z-LASER

"Innovative light for better results.
This is Z-LASER's promise and obligation."

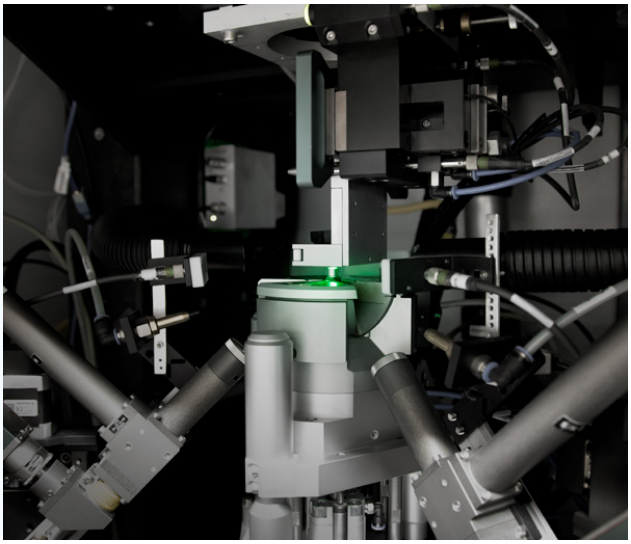
## Innovations from the Black Forest

Located in the heart of the Black Forest in Freiburg, Germany, Z-LASER has been **developing and producing innovative, high-quality laser solutions since 1985.**

By providing visual guidance and orientation for people as well as machines, our lasers contribute to optimizing your production processes, ensuring quality, and to using resources carefully. Z-LASER's product range includes lasers for positioning, lasers for machine vision, laser projectors, and OEM laser systems. The **positioning lasers** acute, visually distinct laser lines enable precise alignment and positioning on virtually any surface. **Lasers for machine vision**, in combination with a smart camera, capture the spatial contours of moving and non-moving objects to automate optical quality control and much more. **Laser projectors** are an optical guidance aid for people and machines, projecting variable patterns and guidance lines for step-by-step assembly processes. And **OEM laser systems** are manufactured according to your specific, individual requirements.

## Z-LASER at a Glance

- Laser innovations from Germany since 1985
- Lasers for positioning, lasers for machine vision, laser projectors
- More than 75,000 products sold annually
- A worldwide network with over 120 employees and more than 60 trading partners
- Part of the Exaktera holding company specializing in laser technologies



## Locally Rooted, Globally Present

The Black Forest in the southwest of Germany is an economic region rich in tradition. People here are proud of their inventive spirit, tenacity, their knack for technology, and sense of precision. So, it's no wonder that countless world market leaders and hidden champions are based here.

## Versatile Application, Trusting Cooperation

The combination of customer focus and our passion for technology has shaped our continued success. It's not surprising that, over the decades, Z-LASER has been readily chosen by countless industries.

From wood processing and electronics manufacturing to textile and paper production, to the automotive and building materials industries – laser innovations from Freiburg are used wherever reliable precision and efficient high-performance processes are called for.


## We get to the point...

... because we know that company presentations don't necessarily belong in the blockbuster category. And you certainly don't have that much time either. That's why we've condensed our 35 years of laser history into a crisp 17 pages. And instead of talking about us, we'd rather let our innovations do the talking. For all other questions, we are of course always there for you.

[~ 5MB pdf]
company presentation

# Z-LASER

An Exaktera Company

## Innovative light for better results

### Providing visual guidance to people and machines with laser solutions

**Z-LASER has been developing and producing innovative, high-quality laser solutions since 1985.**

By providing visual guidance and orientation for people as well as machines, our lasers contribute to optimizing your production processes, ensuring quality, and to using resources carefully.

### German engineering since 1985

Over 120 employees develop and manufacture completely in Freiburg, Germany.

### Innovators by conviction

25 % of our workforce is involved in R&D.

### Rooted locally, at home globally

Sales offices and over 60 distributors worldwide.

### The right solution for every challenge

Developed in close customer exchange, our products adapt perfectly to your requirements.

### Modular products for efficient processes

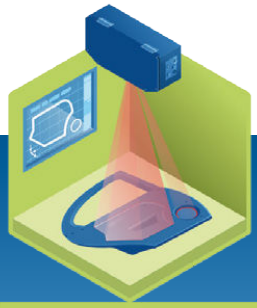
Modularity means less maintenance, optimized performance and better scalability.

**Positioning Laser**

Benefit from increased precision for more efficient processes with lower material consumption.

**Laser for Machine Vision**

Automate your optical quality control with structured laser light.



**Laser Projectors**

Replace mechanical templates with laser projections and save time, money and material.

## Contact

Contact us.
We would be happy to advise you!

www.z-laser.com/contact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