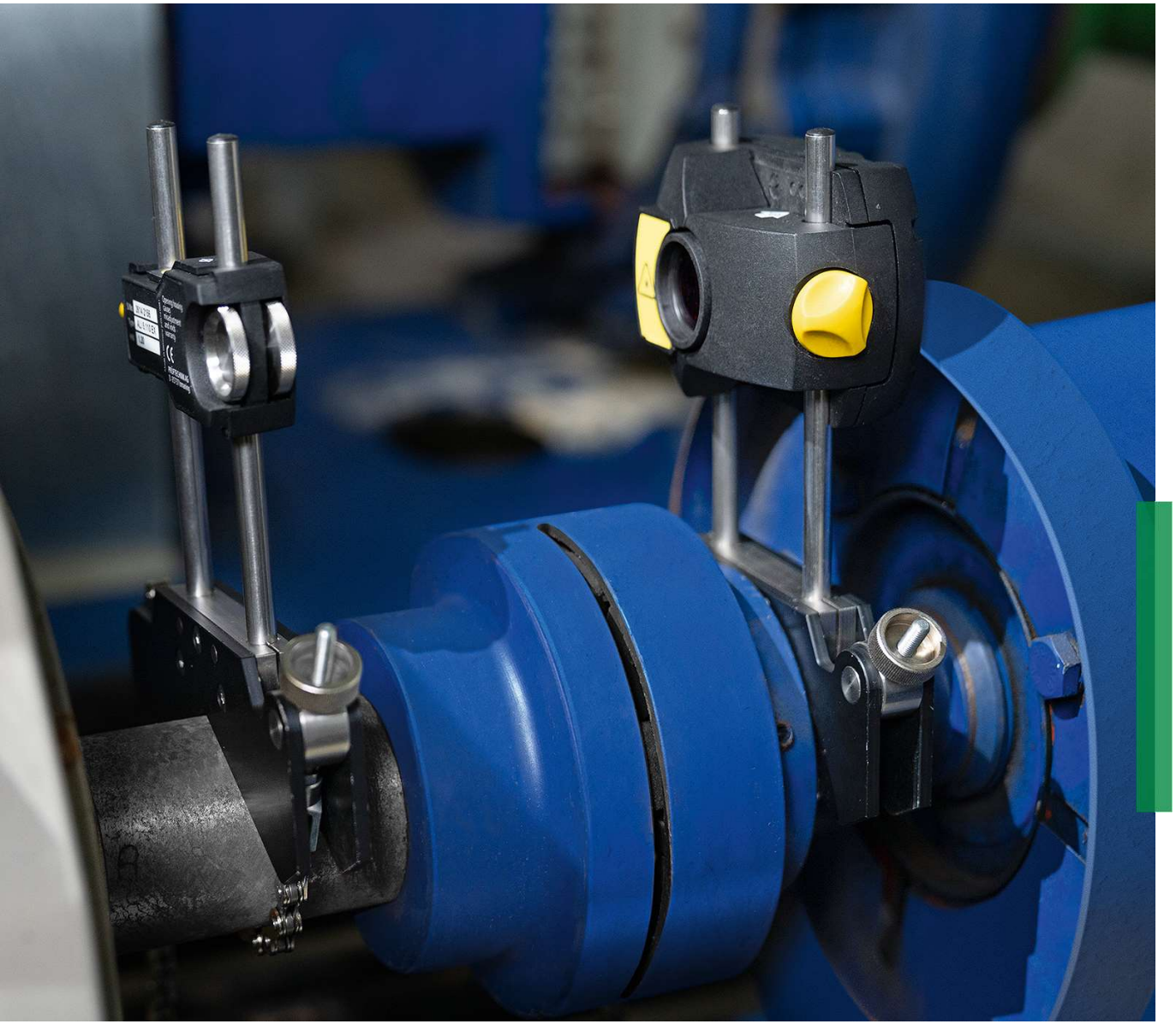

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New: LASER-EQUILIGN2 Shaft Alignment System

Line up for higher machine availability

We pioneer motion

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Schaeffler is

your solution provider

for smart maintenance

A thoroughly positive user experience

From installation to operation to maintenance.

One-stop shopping for all innovative and smart solutions for meeting long-term productivity needs.

In short:

We make life as easy as possible for our customers

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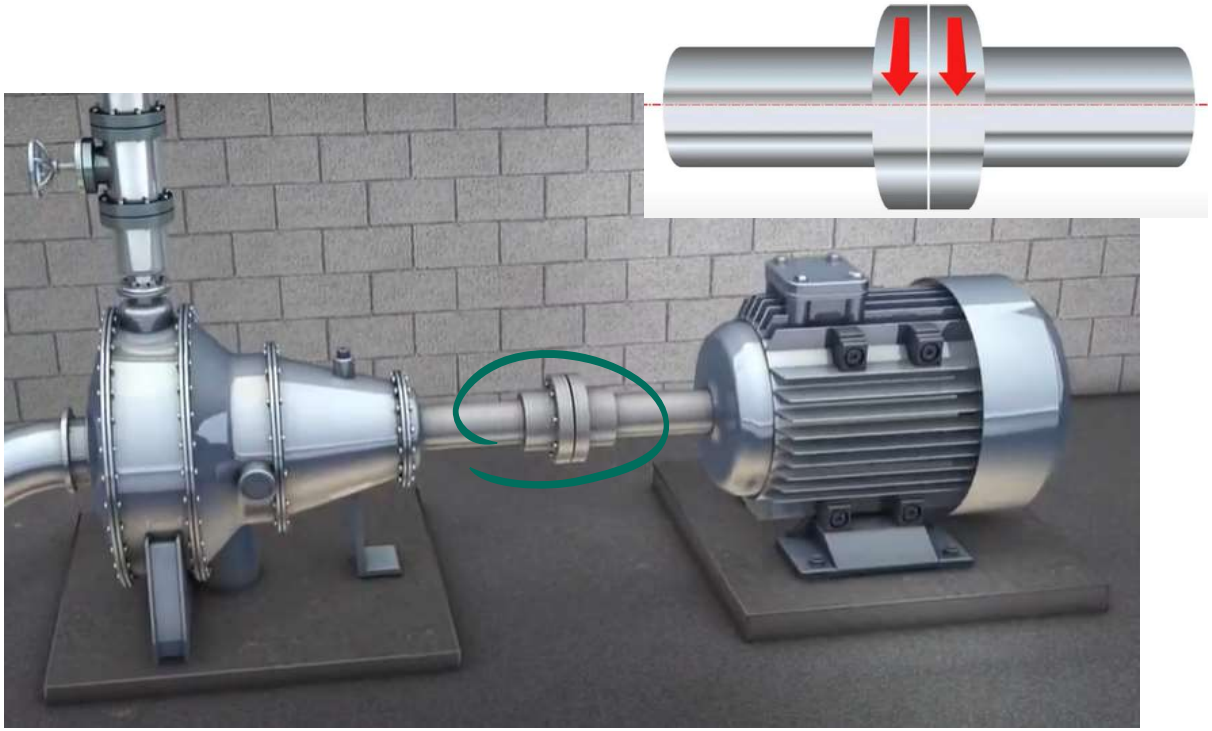
Why precise alignment is so important



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Why precise alignment is so important

When rotating shafts are not optimally aligned,

there are unwanted, high vibrations

the temperature of the coupling, bearings, lubrication, motors, and other components rises

energy consumption increases

machine failures can result

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Not every process is productive

Don’t align at all
The worst possible solution

Using a hairline gauge
Inexpensive and simple, but imprecise

Using a dial gauge
Requires experience and expertise, is time-consuming and also costly due to brackets and rods

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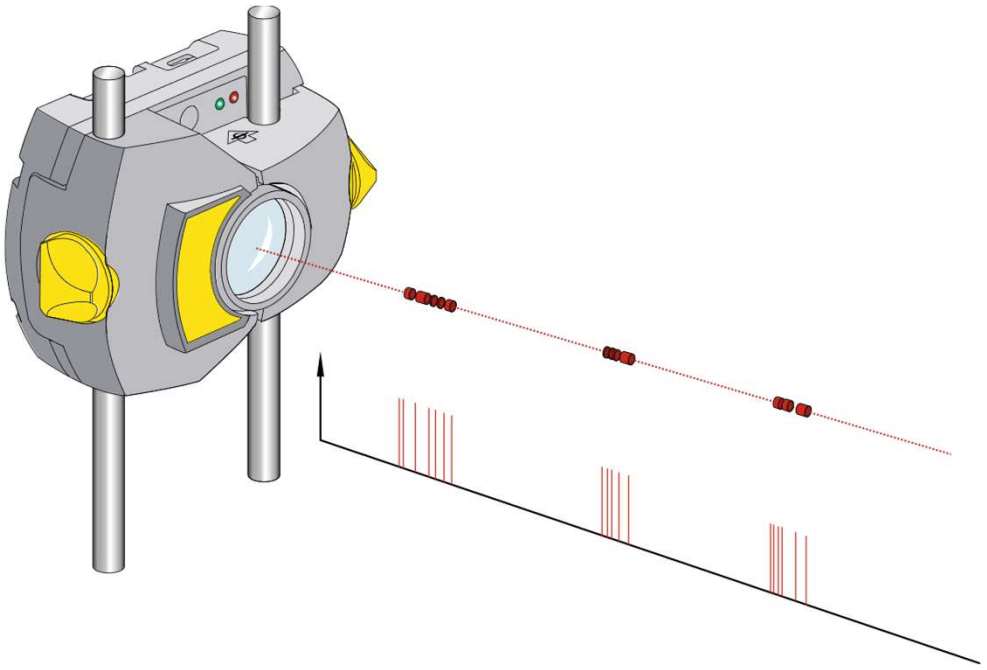
Optimally align using a laser



Alignment systems with laser technology offer significant benefits

- High precision of 1/100 mm
- Tell the user exactly what needs to be done and where in order to align the machine
- Easy to operate
- Fast installation and implementation

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For years, our

LASER-EQUILIGN alignment system

has been valued for its high precision and reliability.

Growing challenges …

But the demands are increasing

… for machine performance

… for cost-effectiveness

… for speed

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… require new solutions

The **new generation of LASER-EQUILIGN** helps you to meet these challenges

It measure with
maximum precision

It boosts
efficiency

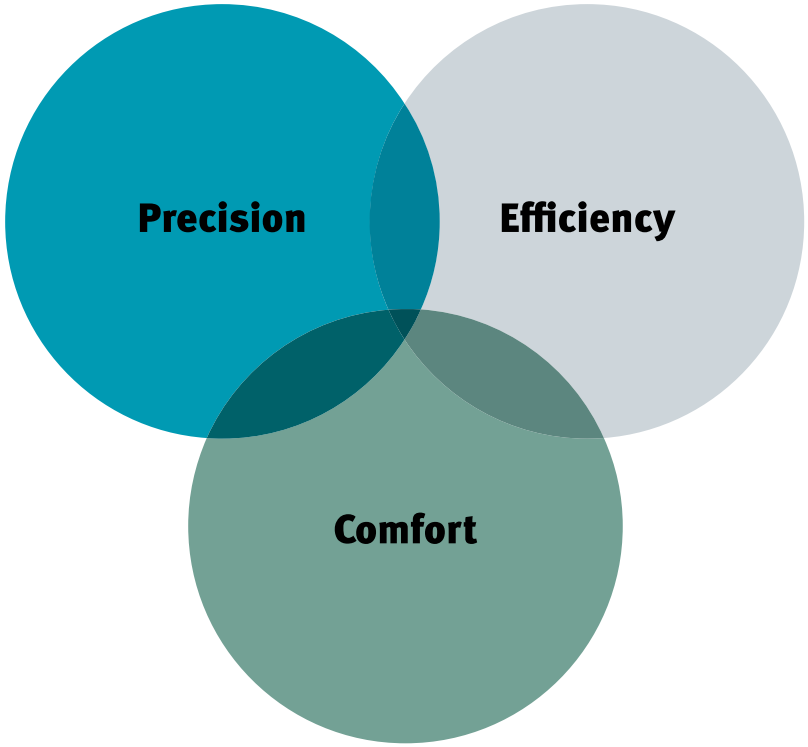
It simplifies
operations

The Product

LASER-EQUILIGN2

Line up for higher machine availability –
with single-laser technology

The Product



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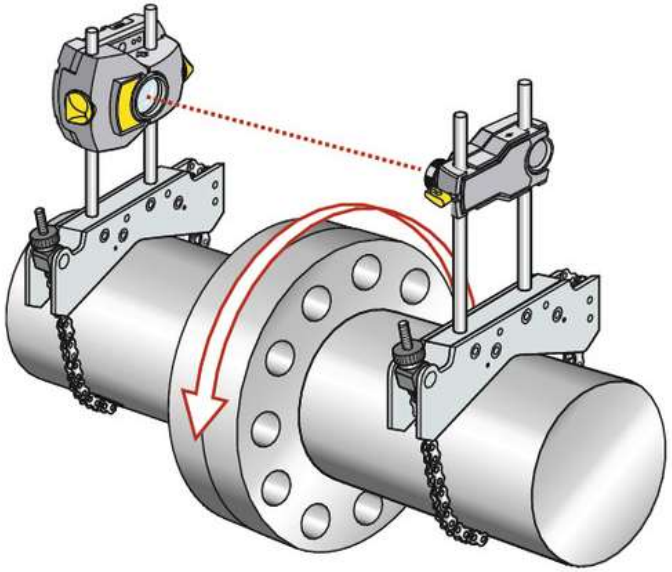
Precision

for maximum
machine performance

The Product / Precision

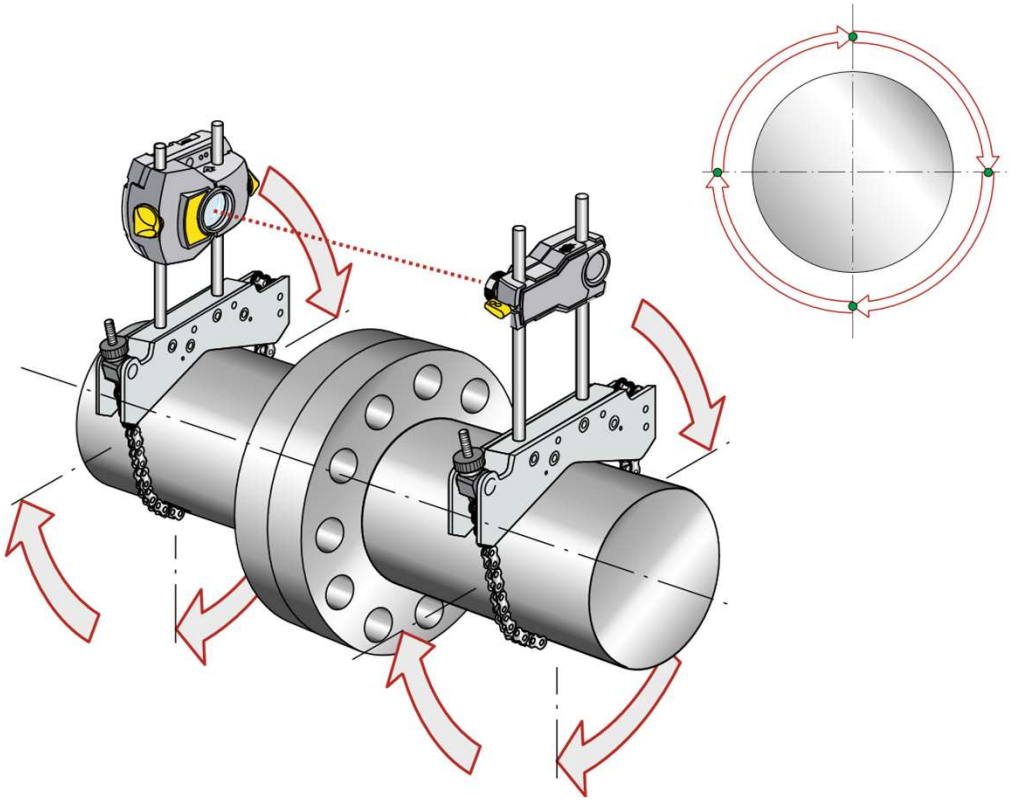


Single-laser/sensor technology in the LASER-EQUILIGN2

The precise alignment comes from reflection technology, which results in double the normal angle resolution.

This is especially advantageous in applications with short shafts where lasers and sensors are close together.

The Product / Precision



Active clock mode with 3 - 4 measuring points

The precise alignment comes from reflection technology, which results in double the normal angle resolution.

Depending on the conversion situation and turning options there can be measured

- 3 or 4 measuring points
- In 8 possible clock positions:

12:00	1:30	3:00	4:30
6:00	7:30	9:00	10:30

The Product / Efficiency

Efficiency

for high
cost-effectiveness

The Product / Efficiency

Precise alignment using LASER-EQUILIGN2 yields crucial benefits in terms of cost-effectiveness

Machines consume less power

Less wear

Higher availability

Longer service life

The Product / Efficiency

Motor output	75 kW	100 kW	200 kW
Annual energy costs	€37,440	€49,920	€99,840
Assumed energy reduction	1%	1%	1%
Savings per machine	€374	€499	€998
Savings with six machines	**€2,244**	**€2,994**	**€5,988**

Precise alignment reduces energy consumption: Example – 1% less energy

Example of 6 machines at 75 kW:
€ 374 **= € 2244 per year at 8h per day**

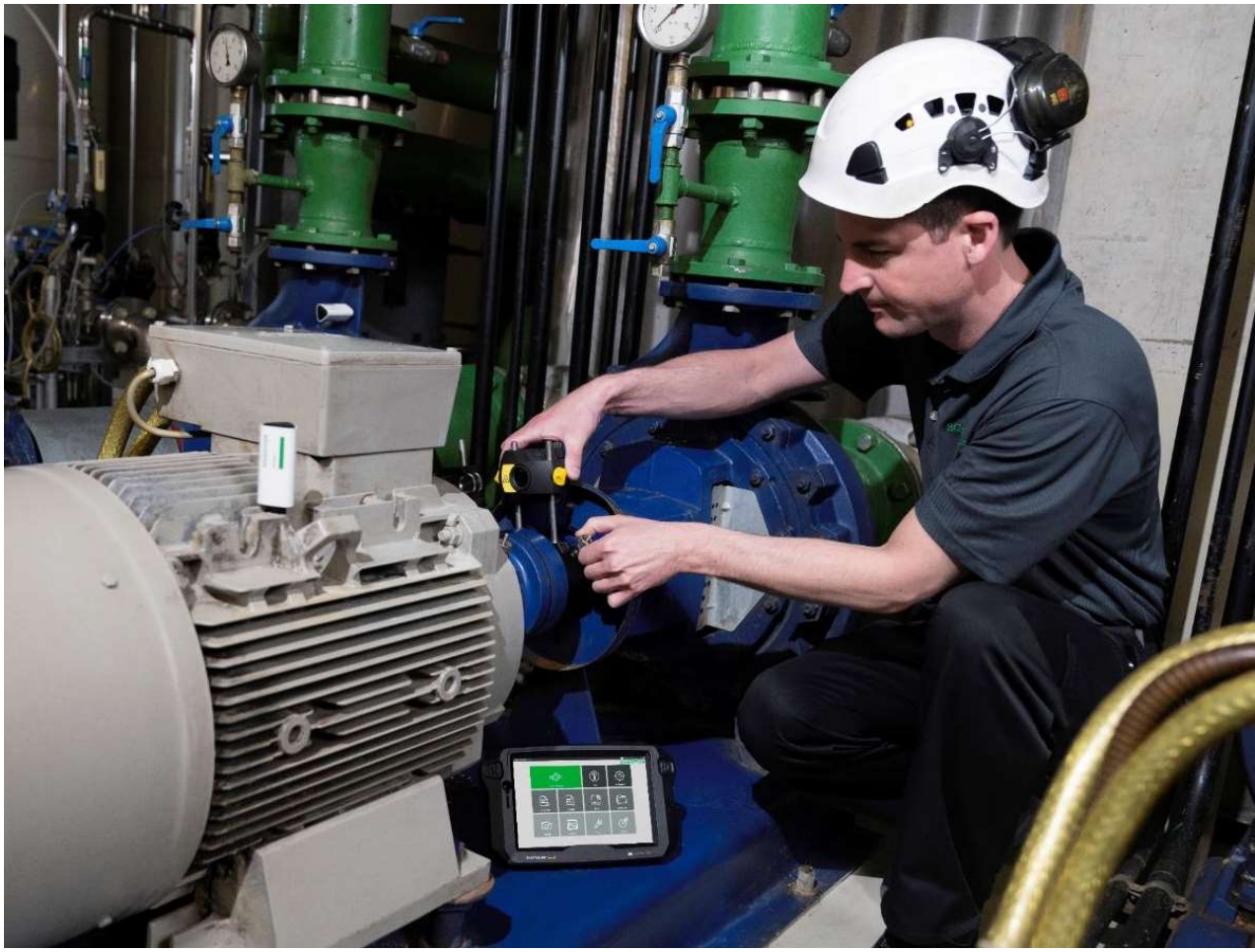
Additional cost savings thanks to:

- Less time spent on alignment
- Longer machine running time, thanks to reduced bearing and seal wear

The Product / Efficiency

Simple installation and calibration of LASER-EQUILIGN2

Only one laser beam has to be aligned and only one sensor calibrated.
This saves both time and money.



The Product / Convenience

Comfort

thanks to
easy operation

The Product / Convenience

Convenient, intuitive operation for fast and precise alignment

using a large, user-friendly, handheld tablet. All functions are easily identifiable. Users receive clear instructions on how to successfully carry out the alignment process.

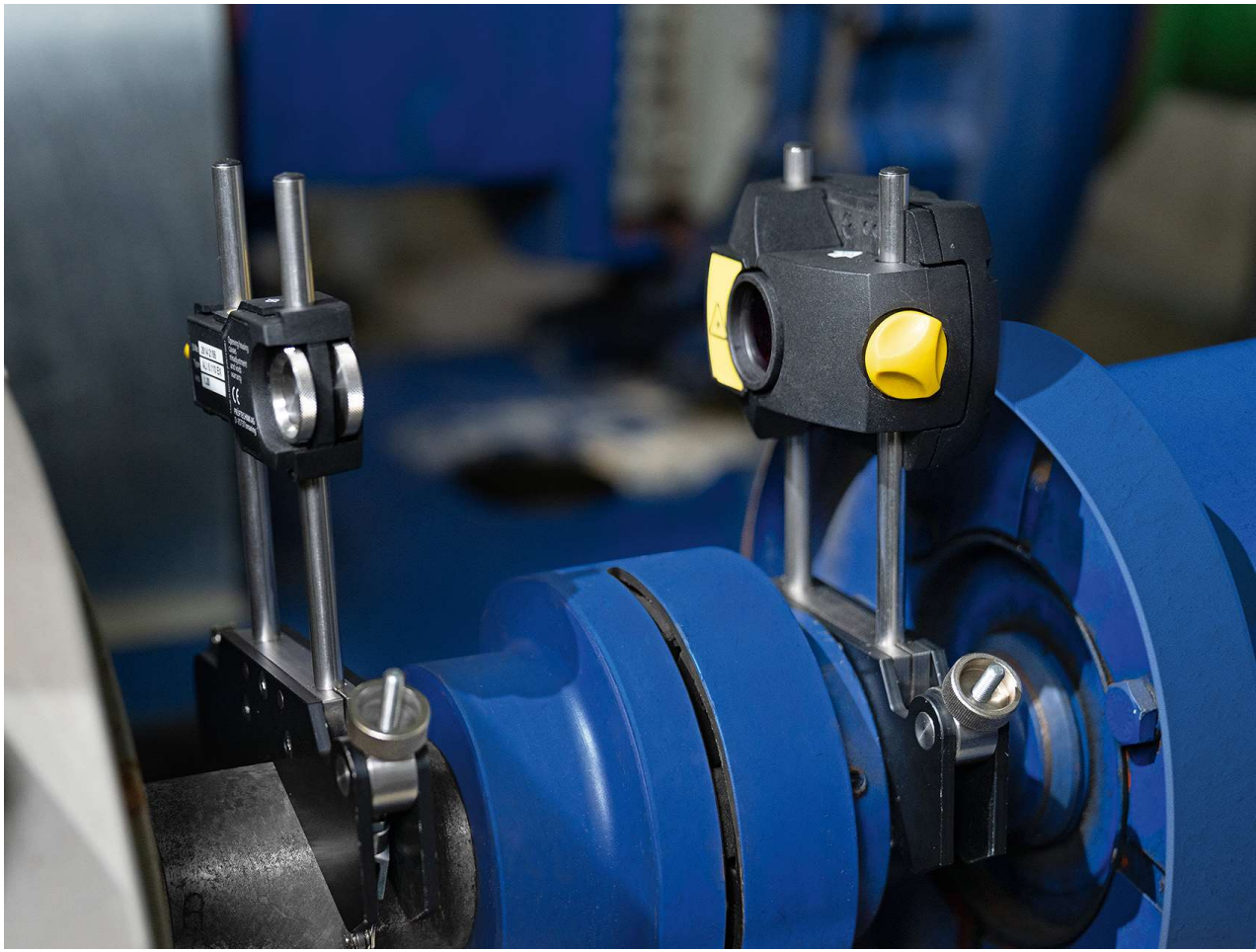
The Product / Convenience

- Tablet is shock-resistant and waterproof (IP68)
- 8'' 4c touchscreen
- 19 languages
- High-resolution camera with flash for documentation purposes
- RFID inside

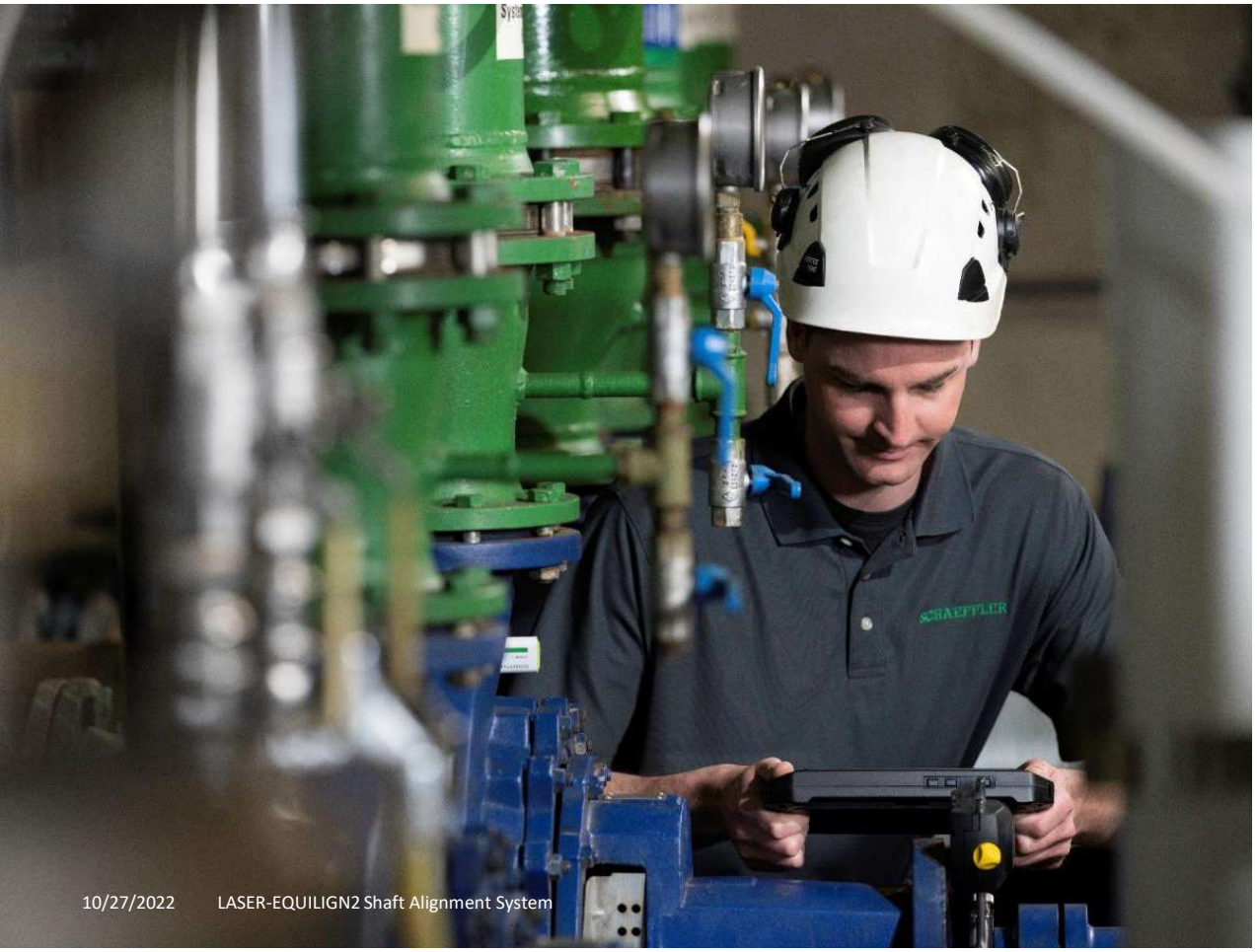
The Product / Convenience

Proven system comprising of laser/sensor and reflector

- Easy to install, easy to calibrate
- Bluetooth connection
- Li-ion battery with a long life



The Product / Convenience



Live Move function for fast results

Live Move monitors alignment corrections in real time:

Red: outside tolerance

Yellow: within acceptable range

Green: within optimal range

Your benefits at a glance

- Economical and competitive alignment device for horizontal applications
- Precise alignment thanks to superior single-laser technology
  - Higher machine availability
  - Lower energy costs during operation
  - Longer service life for all surrounding parts
  - Fast and simple setup
- Four-point measurement for better measurement analysis
- Large 8'' TFT display that can also be operated when wearing gloves
- Intuitive operation, thanks to nonverbal user interface – no additional training or consulting fees
- Bluetooth connection
- RFID machine identification
- High-resolution camera for documentation
- PDF report with images (editable, e.g. with company logo)

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Technical Data

LASER-EQUILIGN2		
Case dimensions	W x H x D	Approx. 500 x 410 x 140 mm
Total weight		Approx. 7.8 kg
LASER-EQUILIGN2-TABLET		
Operating system		Kiosked Android Operation System
CPU	Processor:	Exynos 7 Octa, 1.6 GHz Octa-Core (Cortex®-A53)
	Storage:	3 GB RAM, 16 GB flash memory
Display	Technology:	TFT
		Integrated light meter for automatically adapting background lighting to ambient brightness in order to extend battery life
	Resolution:	1280 x 800 pixels
	Dimensions:	203.1 mm (8”)
Connectivity	Wi-Fi:	802.11 a/b/g/n/ac (2.4 GHz +5 GHz)
	Wireless:	4.2
	RFID:	NFC
Camera	Resolution main camera	8.0 MP, Auto Focus
	Resolution front camera	5.0 MP
IP classification	IP68:	Dust-tight, immersible 1.5 m
Temperature range	Operating:	-20°C to 50°C (-4°F to 122°F)
Battery	Type:	Li-ion rechargeable battery 3.8 V/4450 mAh/16.91 Wh
	Operating time:	Up to 11 hours
Dimensions	W x H x D	Approx. 256 x 149 x 35 mm
		(10 5/64” x 5 55/64” x 1 3/8”)
Weight		Approx. 710 g (1.6 lbs)

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Technical Data

Laser/sensor unit LASER-EQUILIGN2.TRANS		
Measuring principle		Coaxial, reflected laser beam
LED indicators		1 LED for laser status and battery status
		1 LED for wireless communication
Power supply	Battery:	Lithium-ion rechargeable 3.7 V/5 Wh
	Operating time:	10 hours (continuous use)
	Charging time via charger:	2.5 h for up to 90% - 3.5 h for up to 100%
	Charging time via USB port:	3 h for up to 90% - 4 h for up to 100%
IP classification	IP 65:	Dust-tight, protected against water spray, impact-resistant
	Relative humidity:	10% to 90% (non-condensing)
Protection against incident light		Yes
Temperature range	Operating:	-10°C to 50°C (14°F to 122°F)
	Charging:	0°C to 40°C (32°F to 104°F)
	Storage:	-20°C to 60°C (-4°F to 140°F)
Dimensions	W x H x D	Approx. 105 x 69 x 55 mm
		(4 9/64” x 2 23/32” x 2 11/64”)
Weight	Type:	Approx. 210 g (7.4 oz) with dust cap
Detector	Measuring range:	Unlimited, flexibly expandable
	Resolution:	1 µm (0.04 mil) and angle 10 µRad
	Accuracy (average):	> 98%
Inclinometer	Measuring range:	0° to 360°
	Resolution:	0.1°
	Inclinometer error (Ta = 22°C):	0.3% full scale

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Technical Data

Laser/sensor unit LASER-EQUILIGN2.TRANS		
Laser	Type:	Semiconductor laser diode
	Wavelength:	630 - 680 nm (red, visible)
	Safety class:	Class 2 according to IEC 60825-1:2014 Laser corresponds to 21 CFR 1040.10 and 1040.11 with the exception of deviations pursuant to Laser Notice No. 50 from June 24, 2007.
	Beam power:	< 1 mW
	Beam divergence:	< 0.3 mRad
	Safety precautions:	Never look directly into the laser beam
External interface		Wireless communication
Transmission distance		Up to 30 m (98 ft) direct line of sight
CE conformity		See CE Declaration of Conformity
Country-specific approvals		LASER-EQUILIGN2: 096035269-0000-10 EU + Switzerland, Norway, UK, USA, Australia, Singapore, Thailand, Brazil, India, Malaysia, South Africa, UAE LASER-EQUILIGN2-CA: 096866314-0000-10, Canada
Reflector (prism) LASER.REFLECT		
Type		90° roof prism
Accuracy (average)		> 99%
IP classification		IP 67 (immersible, dust-tight)
Temperature range	Operating:	-20°C to 60°C (-4°F to 140°F)
	Storage:	-20°C to 80°C (-4°F to 176°F)
Dimensions	W x H x D	Approx. 100 x 41 x 35 mm (4” x 1 5/8”x 1 3/8”)
Weight		Approx. 65 g (2.3 oz)

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Scope of Delivery – Overview

Pos. No.	Quantity	Designation	Description
1	1	LASER-EQUILIGN2-TABLET	Tablet
2	1	LASER-EQUILIGN2.REFLECT	Reflector
3	1	LASER-EQUILIGN2.TRANS	Laser/sensor unit
4	2	LASER-EQUILIGN2.CHARGER	Charger with 5 adapters each
5	1	LASER-EQUILIGN2.CABLE-USB-STICK	USB-A-USB-C ADAPTER CABLE for data transfer
6	1	LASER-EQUILIGN2.CABLE-TRANS	MICRO USB CABLE for charging the sensor
7	1	LASER-EQUILIGN2.CABLE-TABLET	USB-C DATA CABLE for charging the tablet
8	1	-	Tape measure
9	1	-	Hex wrench, SW 4
10	2	LASER.BRACKET	Shaft bracket for laser/sensor and reflector
11	2	LASER.CHAIN600	Chain, length 600 mm
12	4	LASER.POST150	Post, length 150 mm
13	1	LASER-EQUILIGN2.CASE	Case
	1	-	Microfiber cloth
	1	BA55, Pocket Guide German	Printed matter, quick reference guide
	1	BA55, Pocket Guide English	Printed matter, quick reference guide
	1	Warning Notices and Safety Instructions	Printed matter, quick reference guide
	1	Calibration certificate, bilingual (de and en)	Printed matter

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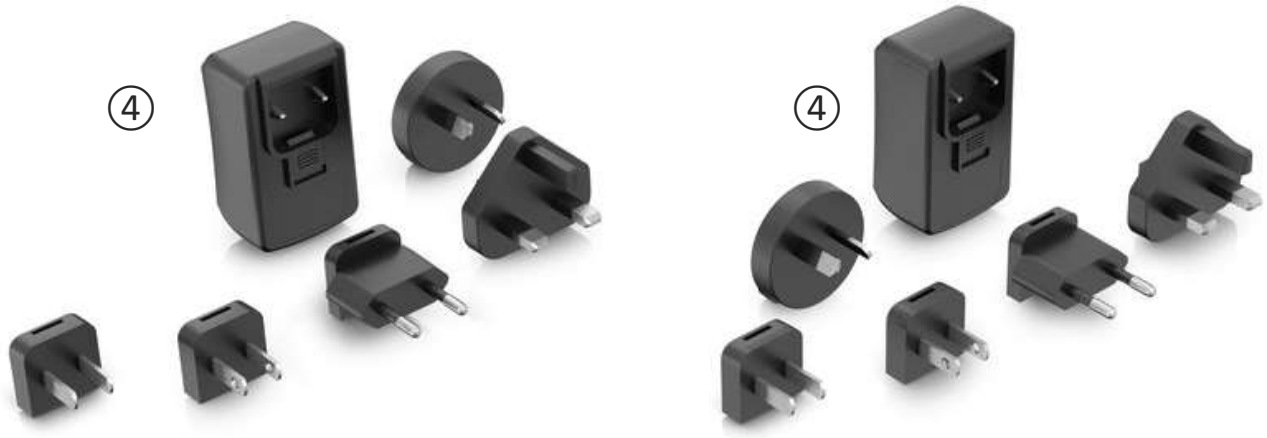
Scope of Delivery – Charger (Pos 4) with 5 adapters each, 2 sets



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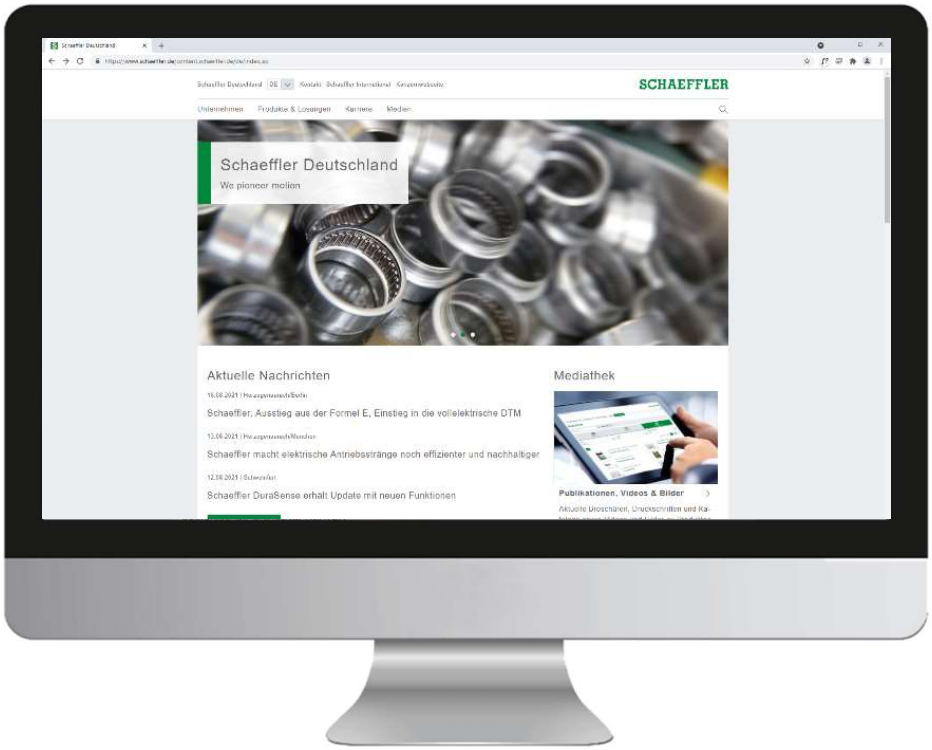
For more information, visit our product page

www.schaeffler.de/en/Shaft-alignment-device



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Line up now for higher machine availability – with the **new LASER-EQUILIGN2**