TKBA 21

SKF Belt Alignment Tool

Advanced tool allowing belt pulley and chain drive alignment

Belt-driven machinery is used in many industries and applications – including HVAC equipment, milling machines, compressors and camshafts.

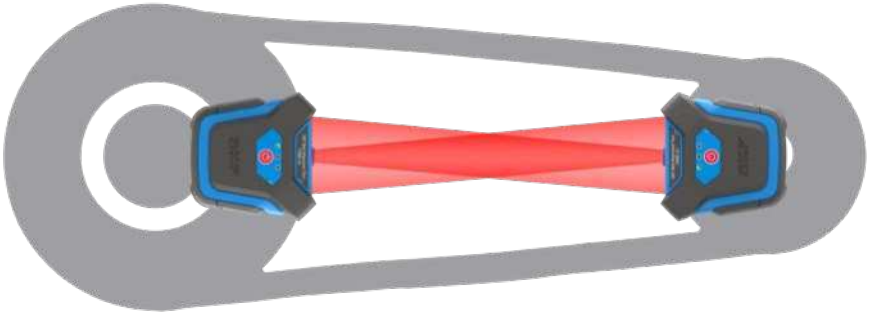
Aligning belt drives and chain drives accurately helps to reduce wear on belts, pulleys, chains and sprockets. As well as extending belt and pulley life, precise alignment also reduces machine vibration. Typical benefits of this include improved machine performance, a reduction in unscheduled downtime and lower energy costs.

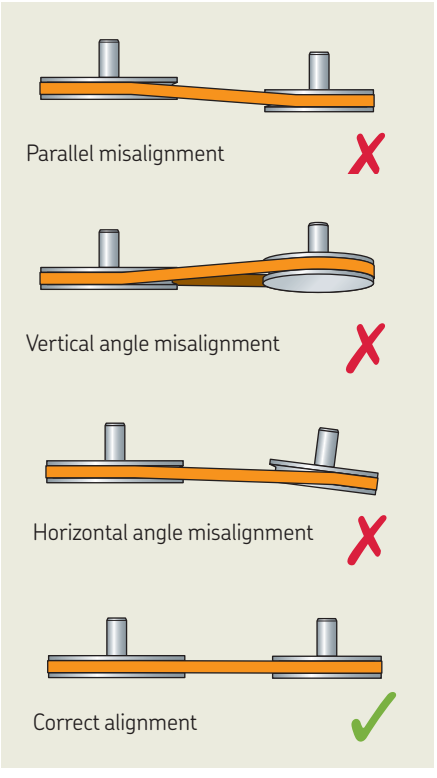
SKF's TKBA 21 Belt alignment tool is part of a series of tools offering a simple way to do this. It accurately aligns pulleys and sprockets and corrects for various types of misalignment.

The tool has two components: a laser-transmitting unit and a receiver unit. Each is attached quickly and easily – using a powerful magnet – to the inside or outside face of a belt pulley or chain sprocket. The TKBA 21 can be applied to most machines that use V belts, banded belts and ribbed belts – as well as those with chain sprockets.

A laser line is projected from the transmitter to the receiver – which is mounted on the opposite pulley. The tool then corrects for vertical angle, horizontal angle and parallel misalignment – including combinations of all three.

The TKBA 21 uses two red laser diodes for distances up to 3 m *(10 ft)*. Sturdy housings, made from ABS and 2K polymers and an aluminium base help ensure assembly stability and accuracy during alignment. All components of the TKBA 21 – two red laser transmitter/receiver units and six AAA batteries – are supplied in a sturdy carrying case.





Accurate alignment of pulleys and sprockets

Belt drives are found in a variety of applications, including HVAC, pump installations, paper mills, flour mills, lathe machine, milling machines and conveyors. Sprocket drives are often used in agricultural machinery, compressors and engine camshafts.
TKBA belt alignment tools are commonly used in power plants, recycling facilities, chemical plants and food & beverage production.

Key benefits of the TKBA 21 include:

- Two laser transmitter/receiver units
- Uses red laser diodes and can be used for distances up to 3 m *(10 ft)*.
- Fast, easy attachment – using powerful magnets
- Simplified alignment process
- Simultaneous adjustment of tension and alignment
- Applicable to most machines using V belts, banded belts, ribbed belts – as well as chain sprockets

Technical data

Designation	TKBA 21
Transmitter/receiver units	
Type of laser	Red laser diode
Laser	1 × Built-in class 2 laser, <1 mW, 635 nm
Laser line length	2.4 m at 2 m *(7.9 ft at 6.6 ft)*
Measurement accuracy angular	Better than 0.02° at 2 m *(6.6 ft)*
Measurement accuracy offset	Better than 0.5 mm *(1/50" in.)*
Measurement distance	50 mm to 3 m *(2 in to 10 ft)*
Control	Laser ON/OFF
Housing material	ABS + 2K and Aluminium base powder coat finish
Fixtures	
Mounting	Magnetic, side mounted
Battery	3 × AAA Alkaline type IEC LR03
Operation time	32h (continuous operation)

Operating requirements	
Operating temperature	0 to 40 °C *(32 to 104 °F)*
Storage temperature	-20 to 60 °C *(-4 to 140 °F)*
Relative humidity	10 to 90% RH non-condensing
IP rating	IP 40
Dimensions	
Transmitter/receiver units	98 × 97 × 52 mm *(3.86 × 3.82 × 2.05 in.)*
Carrying case	360 × 110 × 260 mm *(14.2 × 4.3 × 10.2 in.)*
Weight	
Transmitter/receiver units	250 gr *(0.55 lb)* with batteries each
Total (incl. case)	1.62 kg *(3.57 lb)*
Case contents	2 × TKBA 21 transmitter/receiver units 6 × AAA batteries 1 × Printed Instructions for use

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Scan (or click) the code for the SKF Belt Alignment Tools comparison table