

TKBA 31

SKF Belt Alignment Tool

Pro advanced tool allowing pulley and chain drive alignment

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

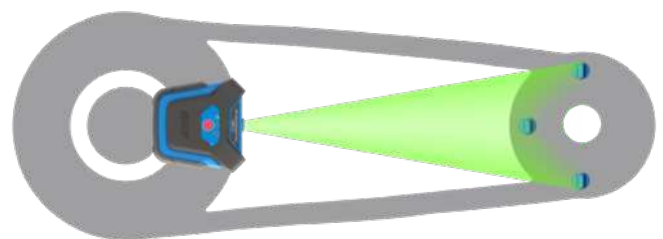
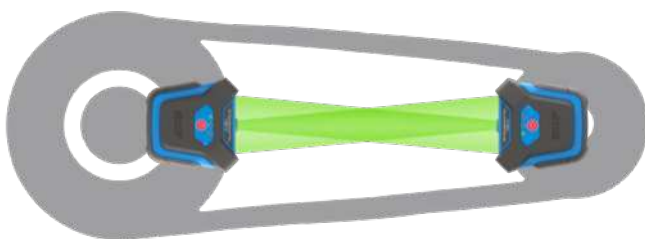
Aligning belt drives and chain drives accurately helps to reduce wear on belts, pulleys, chains and sprockets. As well as extending belt and pulley life, precise alignment also reduces machine vibration. Typical benefits of this include improved machine performance, a reduction in unscheduled downtime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

SKF's TKBA 31 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 31 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 31 uses a highly visible green laser diode. It can operate over distances up to 6 m (20 ft) – and can even be used outdoors in sunny conditions. 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 31, including two green laser transmitter/receivers, three passive targets, wear check gauge, tension checkers and six AAA batteries, are supplied in a sturdy carrying case.



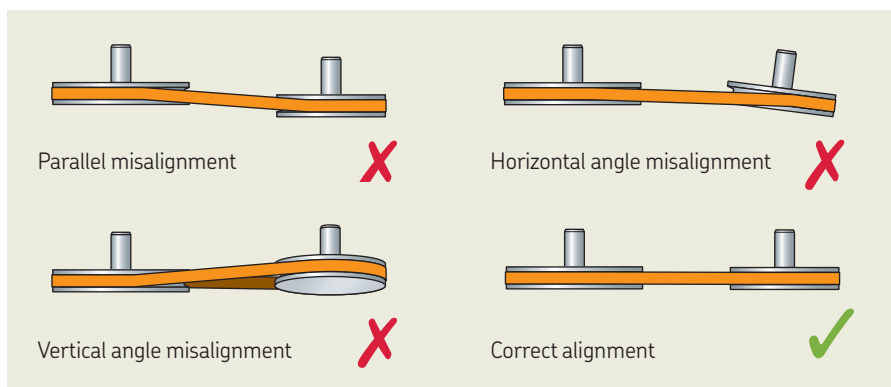
Accurate alignment of pulleys and sprockets

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 31 include:

- Two laser transmitter/receiver units
- Each unit uses a green laser diode and can be used for distances up to 6 m (20 ft) – including outdoors in sunny conditions
- Three targets
- Three belt tension checkers
- Wear check gauge
- 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 31		
Transmitter/receiver units			
Type of laser	Green laser diode	Operating requirements	
Laser	1 × Built-in class 2 laser, < 1mW, 520 nm	Operating temperature	0 to 40 °C (32 to 104 °F)
Laser line length	2.4 m at 2 m (7.9 ft at 6.6 ft)	Storage temperature	-20 to 60 °C (-4 to 140 °F)
Measurement accuracy angular	Better than 0.02° at 2 m (6.6 ft)	Relative humidity	10 to 90% RH non-condensing
Measurement accuracy offset	Better than 0.5 mm (1/50" in.)	IP rating	IP 40
Measurement distance	50 mm to 6 m (2 in to 20 ft)	Dimensions	
Control	Laser ON/OFF	Transmitter/receiver units	98 × 97 × 52 mm (3.86 × 3.82 × 2.05 in.)
Housing material	ABS + 2K and Aluminium base powder coat finish	Receiver units (Passive targets)	40 × 25 mm (1.57 × 0.98 in.)
Receiver units (Passive targets)		Carrying case	360 × 110 × 260 mm (14.2 × 4.3 × 10.2 in.)
Housing material	ABS	Weight	
Fixtures		Transmitter/receiver units	250 gr (0.55 lb) with batteries each
Mounting	Magnetic, side mounted	Passive targets (3 pcs)	35 gr (0.08 lb)
Battery	3 × AAA Alkaline type IEC LR03	Total (incl. case)	1.88 kg (4.14 lb)
Operation time	6h (continuous operation)	Case contents	
		2 × TKBA 31 transmitter/receiver units	
		3 × TKBA-TARGET passive targets	
		6 × AAA batteries	
		3 × Belt tension checkers of different loads	
		1 × Pulley groove gauge	
		1 × Printed Instructions for use	

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

