

	TKSA 11	TKSA 31	TKSA 41	TKSA 51	TKSA 60	TKSA 80
User interface Input and interaction with the display device.	iOS & Android	touch screen	touch screen	iOS	keypad	keypad & touchscreen
Measurement type The "9-12-3" measurement demands pre-defined measurement positions, whereas the "free" measurement allows free user selectable measurement positions.	9-12-3	9-12-3	free	free	free	free
Automatic measurement Alignment measurements can be performed hands-free without display unit interaction.		✓	✓	✓		
Wireless measuring heads	✓		✓	✓	✓	✓
Measurement distance Maximum possible distance between the brackets of the measuring heads.	18,5 cm	2 m*	4 m	5 m	10 m	10 m
Minimal shaft rotation Describes the minimal required total shaft rotation angle to perform alignment measurements.	180°	140°	90°	40°	60°	60°
Live positioning Electronic inclinometers show the angular position of the measuring heads, enabling easy and fast positioning.	✓	✓	✓	✓	✓	✓
Live alignment Live feet values are shown to facilitate the horizontal motor movement and vertical chock adjustment.	only horizontal	✓	✓	✓	✓	✓
Soft foot The soft foot tool helps to find and correct a soft foot, so that the machine can stand evenly on all feet.		✓	✓	✓**	✓	✓
Automatic report Reports are automatically generated after each alignment and can be exported as PDF files.	✓	✓	✓	✓	✓	✓
Camera Machine picture(s) can be taken and added to alignment reports.	✓		✓	✓		
Machine library Overview of all registered machines and previous alignment reports.		✓	✓		✓	✓
QR code recognition QR labels can be used to simplify the machine identification and increase the usage convenience.			✓			
Swap view Enables graphics to be rotated or swapped (from one side of the machine to the other) to accommodate the user position.	fixed angle	fixed angle	fixed angle	free 3D rotation	2D swap	2D swap
Target values Using target values for alignment, it is possible to compensate for thermal expansion or similar influences.				✓	✓	✓
Disturbance compensation Measurement values are averaged over time, allowing accurate measurements in the presence of vibration or similar external disturbances.				✓		
Vertical machine alignment Alignment of machines with vertical shafts.					✓	✓
Machine train alignment Enables the alignment of up to 5 machines in a line.						✓
Run-out check The system reminds users to perform a simple measurement to look for bent shafts.						✓

*With USB cables supplied **With separate app: "Soft Foot for TKSA 51"

Technical data	TKSA 11	TKSA 31	TKSA 41
Measuring Unit(s)			
Sensors & communication	2x Inductive proximity sensors Inclinometer $\pm 0.5^\circ$, Bluetooth 4.0 LE	29 mm (1.1 in.) CCD with red line laser Class 2 Inclinometer $\pm 0.5^\circ$, Wired, USB cables	29 mm (1.1 in.) CCD with line laser Class 2 Inclinometer $\pm 0.5^\circ$; Bluetooth 4.0 LE and wired, USB cables
System measuring distance	0 to 185 mm (0 to 7.3 ft)	0,07 to 2 m (0.23 to 6.6 ft) Up to 4 m (13.1 ft) possible with longer cables	0,07 to 4 m (0.23 to 13.1 ft)
Measuring errors	<2%	<0,5% $\pm 5 \mu\text{m}$	< 0,5% $\pm 5 \mu\text{m}$
Housing material	PC/ABS plastic	20% Glass filled Polycarbonate	20% Glass filled Polycarbonate
Operating time	Up to 18 hours continuous operation, 1 900 mAh rechargeable LiPo battery	N/A	Up to 16 hours of continuous use, 2 000 mAh rechargeable LiPo battery
Dimensions	105 x 55 x 55 mm (4.1 x 2.2 x 2.2 in.)	120 x 90 x 36 mm (4.7 x 3.5 x 1.4 in.)	120 x 90 x 36 mm (4.7 x 3.5 x 1.4 in.)
Weight	155 g (0.34 lb)	180 g (0.4 lb)	220 g (0.5 lb)
Operating device			
Operating device	iPod touch 5th generation, iPhone 4S, iPhone 5, iPad mini, iPad 3rd generation or above. Galaxy S4, Galaxy TabActive (all not included)	5.6" colour resistive touchscreen LCD display. High Impact PC/ABS with overmould	5.6" colour resistive touchscreen LCD display. High Impact PC/ABS with overmould
Software/App update	Apple AppStore or on Google Play Store	via USB stick	via USB stick
Operating system requirements	Apple iOS 8 or Android OS 4.4.2 (and above)	N/A	N/A
DU Operating time	N/A	7 hours of continuous use (100% backlight) 5 000 mAh rechargeable LiPo battery	8 hours of continuous use (100% backlight) 5 000 mAh rechargeable LiPo battery
Dimensions	N/A	205 x 140 x 60 mm (8.1 x 5.5 x 2.4 in.)	205 x 140 x 60 mm (8.1 x 5.5 x 2.4 in.)
Weight	N/A	420 g (0.9 lb)	640 g (1.4 lb)
Complete system			
Alignment method	Alignment of horizontal shafts 3 position measurement 9–12–3	Alignment of horizontal shafts 3 position measurement 9–12–3 (with min. 140° rotation), automatic measurement	Alignment of horizontal shafts 3 position measurement 9–12–3, automatic measurement, free measurement (with min. 90° rotation)
Live correction values	Only for horizontal	Vertical and horizontal	Vertical and horizontal
Soft foot correction	No	Laser soft foot	Laser soft foot
Extra features	No	Screen orientation flip	QR code reading, Screen orientation flip
Fixture	2x V-brackets with chains, width 15 mm (0.6 in.)	2x V-brackets with chains, width 21 mm (0.8 in.)	2x V-brackets with chains, width 21 mm (0.8 in.)
Shaft diameters	20 to 160 mm (0.8 to 6.3 in.)	20 to 150 mm (0.8 to 5.9 in.) 300 mm (11.8 in.) with optional extension chains (not included)	20 to 150 mm (0.8 to 5.9 in.) 300 mm (11.8 in.) with optional extension chains (not included)
Max. coupling height*	55 mm (2.2 in.)	105 mm (4.2 in.), 195 mm (7.7 in.) with optional extension rods (not included)	195 mm (7.7 in.)
Power adapter	Charging via micro USB port (5V) Micro USB to USB charging cable supplied Compatible with 5V USB chargers (not included)	Input: 100V-240V 50/60Hz AC power supplier Output: DC 12V 3A with EU, US, UK, AUS adapters	Input: 100V-240V 50/60Hz AC power supplier Output: DC 12V 3A with EU, US, UK, AUS adapters
Operating temperature	0 to 45 °C (32 to 113 °F)	0 to 45 °C (32 to 113 °F)	0 to 45 °C (32 to 113 °F)
IP rating	IP 54	IP 54	IP 54
Carrying case dimensions	355 x 250 x 110 mm (14 x 9.8 x 4.3 in.)	530 x 110 x 360 mm (20.9 x 4.3 x 14.2 in.)	530 x 110 x 360 mm (20.9 x 4.3 x 14.2 in.)
Total weight (incl. case)	2,1 kg (4.6 lb)	4,75 kg (10.5 lb)	4,75 kg (10.5 lb)
Calibration certificate	Supplied with 2 years validity	Supplied with 2 years validity	Supplied with 2 years validity
Warranty	2 years standard warranty +1 year upon registration	2 years standard warranty +1 year upon registration	2 years standard warranty +1 year upon registration
Case content	Measuring unit; 3 reference bars; 2 shaft brackets with chains 480 mm (18.9 in.) and rods 80 mm (3.1 in.); micro USB to USB charging cable; measuring tape 2 m (6.6 ft); printed certificate of calibration and conformance; printed quick start guide (EN); SKF carrying case	2 measuring units (M&S); display unit; 2 shaft brackets with chains 400 mm (15.8 in.) and threaded rods 150 mm (5.9 in.); chain tightening rod; power supply with country adapters; 2 micro USB to USB cables; measuring tape; printed certificate of calibration and conformance; printed quick start guide (EN); SKF carrying case	2 measuring units (M&S); display unit; 2 shaft brackets with chains 400 mm (15.8 in.) and threaded rods 150 mm (5.9 in.); chain tightening rod; 4 threaded extension rods 90 mm (3.5 in.); power supply with country adapters; 2 micro USB to USB cables; measuring tape; printed certificate of calibration and conformance; printed quick start guide (EN); SKF carrying case

* Depending on the coupling, the brackets can be mounted on the coupling, reducing the coupling height limitation.

TKSA 51	TKSA 60	TKSA 80
20 mm (0.8 in.) PSD with line laser Class 2 Inclinometer $\pm 0.1^\circ$; Bluetooth 4.0 LE	36 mm (1.4 in.) CCD with line laser Class 2 Inclinometer $\pm 0.1^\circ$; Wireless 802.15.4	36 mm (1.4 in.) CCD with line laser Class 2 Inclinometer $\pm 0.1^\circ$; Wireless 802.15.4
0,07 to 5 m (0.23 to 16.4 ft)	0,07 to 10 m (0.23 to 32.8 ft)	0,07 to 10 m (0.23 to 32.8 ft)
<1% $\pm 10 \mu\text{m}$	< 0,5% $\pm 5 \mu\text{m}$	< 0,5% $\pm 5 \mu\text{m}$
Anodized Aluminum front and PC/ABS plastic back cover	Aluminum chassis glass filled PBT	Aluminum chassis glass filled PBT
Up to 10 hours continuous use 2 000 mAh rechargeable Li-ion battery	Up to 8 hours continuous use 2x AAA alkaline batteries or rechargeable battery (NiMH)	Up to 8 hours continuous use 2x AAA alkaline batteries or rechargeable battery (NiMH)
52 x 64 x 50 mm (2.1 x 2.5 x 2 in.)	96 x 93 x 36 mm (3.8 x 3.7 x 1.4 in.)	96 x 93 x 36 mm (3.8 x 3.7 x 1.4 in.)
190 g (0.4 lb)	326 g (0.7 lb)	326 g (0.7 lb)
iPad Mini recommended, iPad 3rd generation or above iPod Touch 5th generation, iPhone 4S or above (all not included)	4.3" colour LCD display High impact PC/ABS plastic	7" colour resistive touchscreen LCD display with keypad. High impact PC/ABS plastic
Apple AppStore or on Google Play Store	via PC / USB stick	via PC / USB stick
Apple iOS 8 or Android OS 4.4.2 (and above)	N/A	N/A
N/A	10 hours of continuous use (100% backlight) Li-ion rechargeable battery	10 hours of continuous use (100% backlight) Li-ion rechargeable battery
N/A	234 x 132 x 48 mm (9.2 x 5.2 x 1.9 in.)	276 x 160 x 53 mm (9.2 x 5.2 x 1.9 in.)
N/A	680 g (1.5 lb)	1 060 g (2.4 lb)
Alignment of horizontal shafts 3 position measurement 9–12–3, automatic measurement, free measurement (with min. 40° rotation)	Alignment of horizontal and vertical shafts 3 position measurement 9–12–3, free measurement (with min. 60° rotation)	Alignment of horizontal and vertical shafts 3 position measurement 9–12–3, free measurement (with min. 60° rotation)
Vertical and horizontal	Vertical and horizontal	Vertical and horizontal
Soft FootApp	Laser soft foot & Feeler gauge inspection	Laser soft foot & Feeler gauge inspection
Target values, Screen flip (plus portrait on tablets)	Target values, inspections	Target values, inspections, machine train alignment
2x V-brackets with chains, width 15 mm (0.6 in.)	2x V-brackets with chains, width 21 mm (0.8 in.)	2x V-brackets with chains, width 21 mm (0.8 in.)
20 to 150 mm (0.8 to 5.9 in.) 450 mm (17.7 in.) with extension chains (included)	20 to 150 mm (0.8 to 5.9 in.) 300 mm (11.8 in.) with extension chains (included)	20 to 150 mm (0.8 to 5.9 in.) 300 mm (11.8 in.) with extension chains (included)
170 mm (6.7 in.)	195 mm (7.7 in.)	195 mm (7.7 in.)
Charging via micro USB port (5V) Micro USB to USB split charging cable supplied Compatible with 5V USB chargers (not included)	Input: 100V–240V 50/60Hz AC power supplier Output: DC 12V 3A with EU, US, UK, AUS adapters	Input: 100V–240V 50/60Hz AC power supplier Output: DC 12V 3A with EU, US, UK, AUS adapters
0 to 45 °C (32 to 113 °F)	–10 to +50 °C (14 to 122 °F)	–10 to +50 °C (14 to 122 °F)
IP 54	IP 65	IP 65
355 x 250 x 110 mm (14 x 9.8 x 4.3 in.)	540 x 200 x 410 mm (21.3 x 7.9 x 16.1 in.)	540 x 200 x 410 mm (21.3 x 7.9 x 16.1 in.)
2,9 kg (6.4 lb)	7,3 kg (16.1 lb)	7,64 kg (16.84 lb)
Supplied with 2 years validity	Supplied with 1 years validity	Supplied with 1 years validity
2 years standard warranty +1 year upon registration	1 year standard warranty (Product Support Plan available)	1 year standard warranty (Product Support Plan available)
2 measuring units (M&S); 2 shaft brackets with chains 480 mm (18.9 in.), threaded rods 80 mm (3.2 in.) and magnets; chain tightening rod; 4 threaded extension rods 120 mm (4.7 in.); 2 extension chains 980 mm (38.6 in.); micro USB to USB split charging cable; measuring tape; printed certificate of calibration and conformance; quick start guide (EN); SKF carrying case	2 measuring units (M&S); display unit; 2 shaft brackets with chains 400 mm (15.8 in.) and threaded rods 150 mm (5.9 in.); chain tightening rod; 4 extension rods 90 mm (3.5 in.); power supply with country adapters; USB cable; measuring tape; screw driver; CD with instructions for use; printed certificate of calibration and conformance; quick start guide (EN); carrying case	2 measuring units (M&S); display unit; 2 shaft brackets with chains 400 mm (15.8 in.) and threaded rods 150 mm (5.9 in.); chain tightening rod; 4 extension rods 90 mm (3.5 in.); power supply with country adapters; USB cable; measuring tape; screw driver; CD with instructions for use; printed certificate of calibration and conformance; quick start guide (EN); carrying case

Note: Additional accessories are available such as extension chains, extension rods, sliding brackets, magnetic brackets, offset brackets. More information about spare parts and accessories can be found in the instructions for use. Please contact SKF or your authorised SKF distributors for more details.