

# SKF Shaft Alignment Tool TKSA 31 & TKSA 41

Quick Start Guide



## 1. Case content



1. 1 × TKSA 31/41 Display unit
2. 1 × TKSA 31/41 S Measuring unit
3. 1 × TKSA 31/41 M Measuring unit
4. 2 × Shaft V-Brackets with chains
5. 90 mm Extension rods (TKSA 41 only)
6. 1 × Chain tightening rod
7. 5 m (16 ft) metric and imperial measuring tape
8. 1 × 12V DC 3A Power supply
9. Country adapters (US, UK, EU, AUS)
10. 2 × USB to USB cables\*
11. Printed Quick Start Guide (EN)\*
12. Printed certificate of Calibration and conformance\*
13. 2 × A5 sheets with 6 × QR code stickers per sheet, TKSA 41 only (total of 12 × stickers)\*

\* *not shown*

## 2. Mount the Measuring Units (MU)

- Mount the “S” MU on the Stationary machine side
- Mount the “M” MU on the Moveable machine side
- Brackets are symmetric and can be mounted either way
- Make sure the brackets are firmly tightened on the shaft

## 3. Switch On

- Press the **On/Off** button on the display unit (DU) for >1 second
- Press the **On/Off** button on both MU until the LED is on

## 4. Adjust the lasers

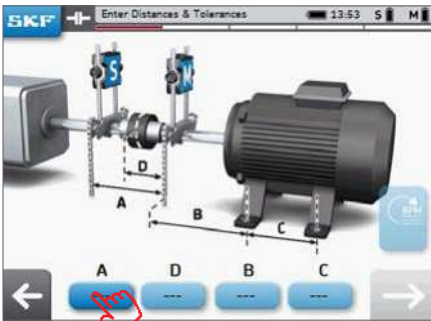
- Adjust the “S” unit vertically so that its laser faces the “M” unit in the centre of the detector
- Rotate the knob on the “M” units to adjust the laser in the centre of the “S” unit detector
- Firmly tighten the MUs on the rods

## 5. New alignment



- **New alignment**  
Quick way to start a new alignment job
- **QR Code**  
Scan a QR code sticker to create a new machine or retrieve an existing machine and start a new alignment
- **Machine library**  
Manually create a new machine or select an existing machine and start a new alignment

## 6. Enter dimensions

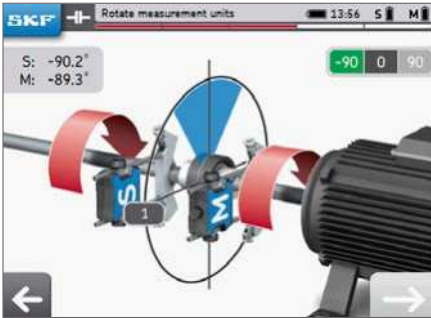


- Click the **A** box to enter the **A** dimension
- **D** is filled in automatically
- Use next arrow to move between boxes and enter the dimensions **B** and **C**
- Choose an existing misalignment tolerance or create a custom tolerance

### TIPS:

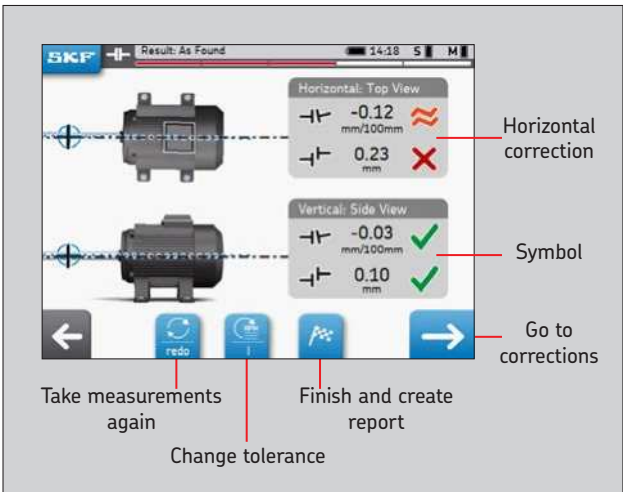
- Click on the left arrow to go back
- Click on the next arrow to go to the next step
- Imperial Units can be selected in the Settings before starting the alignment

## 7. Take a measurement



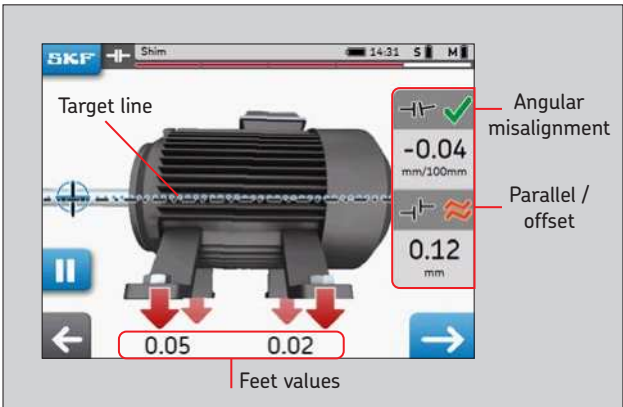
1. Turn the shafts to the blue wedge at the 9 o'clock position ( $-90^\circ$ )
2. When positioned within the blue wedge, the wedge becomes green
3. Click on the "next" arrow to take a measurement
4. Turn the shafts to the blue wedge at the 12 o'clock position ( $0^\circ$ )
5. Click on the "next" arrow to take a measurement
6. Turn the shafts to the blue wedge at the 3 o'clock position ( $+90^\circ$ )
7. Click on the "next" arrow to take a measurement

## 8. Results



## 9. Live vertical correction – Shimming

- Rotate the MU to 12 o'clock (0°)
- Correct the alignment by following the arrows
- The arrows indicate the direction the motor has to go



- Add or remove shims to achieve the selected tolerance
  - The symbols become green when the chosen tolerance is reached
- ✓ Within tolerance
  - ≈ Close to tolerance
  - ✗ Out of tolerance

## 10. Live horizontal correction

- Rotate the MU to 3 o'clock (+90°)
- Up arrow means the motor has to go to the right
- Down arrow means the motor has to go to the left
- Tighten the bolts when the correction is complete
- It is recommended to remeasure the alignment after correction

## 11. Create a report



Report name is mandatory

## 12. Declaration of conformity

### EU Declaration of conformity SKF Shaft Alignment Tool TKSA 31 & TKSA 41

We, SKF MPT, Meidoornkade 14, 3992 AE Houten, The Netherlands herewith declare under our sole responsibility that the products described in these instructions for use, are in accordance with the conditions of the following Directive(s) and are in conformity with the following standards:

**TKSA 31** has been designed and manufactured in accordance with: EMC DIRECTIVE 2014/30/EU as outlined in the harmonized norm for EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use – Part 1: General Requirements, EN 55011: 2009 +A1:2010, EN 61000-4-2: 2009, EN 61000-4-3: 2006 +A1:2008 +A2:2010, EN 61000-4-4: 2004 +A1:2010, EN 61000-4-5: 2006, EN 61000-4-6: 2009, EN 61000-4-11: 2004, No.020-01304-5

**TKSA 41** has been designed and manufactured in accordance with: RADIO EQUIPMENT DIRECTIVE 2014/53/EU as outlined in the harmonized norm EN 61010:2010, EN 61326-1:2013, EN 55011: 2009 +A1:2010, EN 61000-4-2: 2009, EN 61000-4-3: 2006 +A1:2008 +A2:2010, EN 61000-4-4: 2004 +A1:2010, EN 61000-4-5: 2006, EN 61000-4-6: 2009, EN 61000-4-11: 2004, EN 301 489-1 v2.1.1, EN 301 489-17 v3.1.1, EN 300 328 v2.1.1, No.020-01304-5

RoHS DIRECTIVE (EU) 2015/863 and the harmonized standard: EN IEC 63000:2018: Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

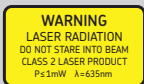
The laser is classified in accordance with the EN 60825-1:2014. The laser complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

**TKSA 41 only:** The enclosed device complies with Part 15 of the FCC Rules. 47CFR: 2011 Part 15 Sub Part B Unintentional Radiators. Contains FCC ID: 0C3BM1871, QDID: B020997. Manufacturer's Name, Trade Name or Brand Name: NovaComm. Model Name: NVC-MDCS71.

Houten, The Netherlands, December 2022



Guillaume Dubois  
Manager Quality and Compliance



## UK Declaration of conformity SKF Shaft Alignment Tool TKSA 31 & TKSA 41

We, SKF MPT, Meidoornkade 14, 3992 AE Houten, The Netherlands herewith declare under our sole responsibility that the products described in these instructions for use, are in accordance with the conditions of the following Directive(s) and are in conformity with the following standards:

**TKSA 31** has been designed and manufactured in accordance with: Electromagnetic Compatibility Regulations 2016 (2016 No. 1091) as outlined in the harmonized norm for EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use – Part 1: General Requirements, EN 55011: 2009 +A1:2010, EN 61000-4-2: 2009, EN 61000-4-3: 2006 +A1:2008 +A2:2010, EN 61000-4-4: 2004 +A1:2010, EN 61000-4-5: 2006, EN 61000-4-6: 2009, EN 61000-4-11: 2004, No.020-01304-5

**TKSA 41** has been designed and manufactured in accordance with: Radio Equipment Regulations 2017 (2017 No. 1206) as outlined in the harmonized norm EN 61010:2010, EN 61326-1:2013, EN 55011: 2009 +A1:2010, EN 61000-4-2: 2009, EN 61000-4-3: 2006 +A1:2008 +A2:2010, EN 61000-4-4: 2004 +A1:2010, EN 61000-4-5: 2006, EN 61000-4-6: 2009, EN 61000-4-11: 2004, EN 301 489-1 v2.1.1, EN 301 489-17 v3.1.1, EN 300 328 v2.1.1, No.020-01304-5

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (2012 No. 3032) and the harmonized standard: EN IEC 63000:2018: Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

The laser is classified in accordance with the EN 60825-1:2014. The laser complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

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Manufacturer's Name, Trade Name or Brand Name: NovaComm.  
Model Name: NVC-MDCS71.

The person authorised to compile the technical documentation on behalf of the manufacturer is SKF (U.K.) Limited, 2 Canada Close, Banbury, Oxfordshire, OX16 2RT, GBR.

Houten, The Netherlands, December 2022



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