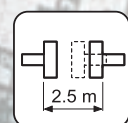
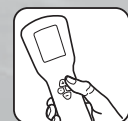
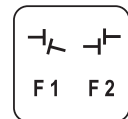
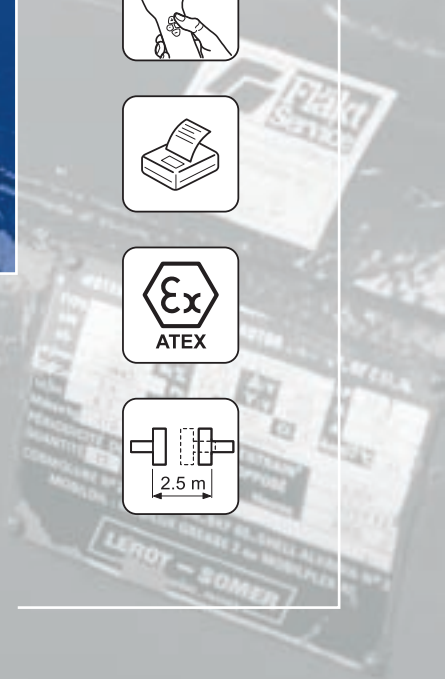


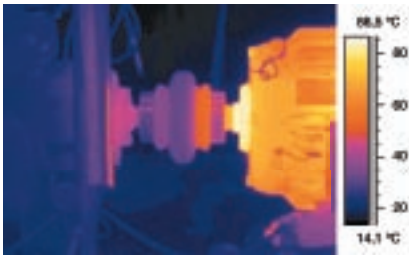
Up to 50% of all costs related to rotating machinery breakdowns is caused by shaft misalignment

Shaft misalignment is responsible for up to 50% of all costs related to rotating machinery breakdowns. These breakdowns increase unplanned machinery downtime, resulting in higher maintenance costs and loss of production. Additionally, misaligned shafts can increase vibration levels and friction, which can significantly increase energy consumption and can cause components to overheat, failing prematurely.



The SKF shaft alignment tools TMEA Series will help you reduce these costs

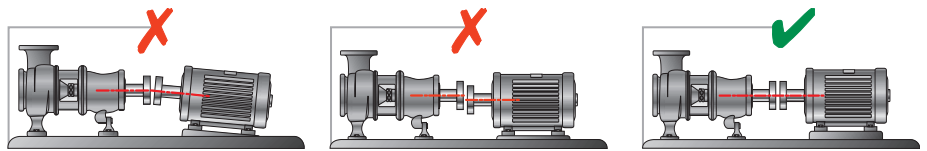




"Overheated motor due to misalignment.
Picture taken using a FLIR infrared camera"

Accurate shaft alignment helps you:

- Increase bearing life
- Reduce stress on couplings as well as bearings and thereby the risk of overheating and breakage
- Reduce wear on seals, minimising the risk of contamination and lubricant leakage
- Reduce friction and thereby energy consumption
- Reduce vibration and noise
- Increase machinery uptime, efficiency and productivity
- Reduce costs of replacing components and machinery downtime



Pinpoint accurate alignment simply achieved

The SKF shaft alignment tools TMEA Series offer you simplicity with a high degree of accuracy. These highly innovative tools feature a three-step process for correcting alignment: **Measuring, Aligning and Documenting.**

First, you **Measure** the machinery's current alignment status. Then you **Align** the machine horizontally and vertically. Finally, you **Document** and keep track of the alignment activities. These three simple steps allow you to easily and effectively align shafts using advanced laser technology.

- Easy-to-use, three-step process: Measure-Align-Document
- Compact, lightweight design
- Spirit levels allow easy and fast positioning of the measuring units
- Selectable mm or inch reading of measurement facilitates worldwide use
- Supplied in sturdy, lightweight carrying cases for portability
- Supplied with high precision SKF pre-cut shims for accurate alignment

Shaft alignment tool TMEA 2

Easy, quick and affordable shaft alignment

The TMEA 2 is the latest addition to SKF's range of shaft alignment tools. The two measuring units can be easily attached to the shafts using magnetic brackets or chains. Each measuring unit emits a laser line, which is projected on the detector of the other unit.

- Display unit simultaneously provides clear "real-time" coupling and feet values during alignment process making rechecking of the alignment unnecessary
- The laser and scale lines facilitate easy pre-alignment
- "Soft foot" feature is shown on the digital display, which easily guides the operator through this function
- Display unit can be held using one hand, freeing the operator to perform the alignment
- Magnetic brackets allow easy fixture of the measuring units onto the shaft
- A set of blank alignment reports to help you keep record of your alignment jobs
- Maximum distance of 0,85 m (2.8 ft) between the measuring units brackets



TMEA 2

Shaft alignment tool with printer capability TMEA 1P/2.5

Record alignment activities using an optional printer

The TMEA 1P/2.5 offers you the advantage of keeping record of the alignment activities. It is equipped with a printer port to which the *optional* thermal printer TMEA P1 can be connected. The printer provides a clear and complete alignment report, which can be used to document alignment activities. This user-friendly printer is operated with the touch of a single button on the display unit of the TMEA 1P/2.5.

- Optional printer facilitates recording of alignment activities
- Maximum distance of 2,5 m (8.2 ft) between the measuring units makes it suitable for aligning variety of applications
- Display unit provides clear “real-time” values during the alignment process making rechecking alignment unnecessary
- User-friendly display unit with only four buttons for operation
- Supplied with blank alignment reports for recording alignment activities in case the printer is not purchased

TMEA 1P/2.5



Intrinsically safe shaft alignment tool TMEA 1PEX

Accurate alignment in explosive hazardous areas

The TMEA 1PEX is an intrinsically safe (Ex) shaft alignment tool, especially designed for use in potentially explosive hazardous areas. It has been tested and certified according to the latest ATEX standards in intrinsic safety zones generally found in industries such as the petrochemical, gas and pharmaceutical among others. The TMEA 1PEX is supplied standard with a thermal printer for recording alignment activities.

- Intrinsically safe classification EEx ib IIC T4, ATEX code: II 2 G
- Standard printer facilitates recording of alignment activities
- Maximum distance of 1 m (3 ft) between the measuring units makes it suitable for aligning variety of applications
- Display unit provides clear “real-time” values during the alignment process making rechecking alignment unnecessary
- User-friendly display unit with only five buttons for operation

TMEA 1PEX



Thermal printer TMEA P1

Keep track of alignment jobs

This compact thermal printer helps you to document your alignment jobs. A clear and complete printout of the measurement data shows that the machine has been properly aligned within the allowed tolerances.

- Compact easy-to-use printer
- Clear easy-to-read printout
- Pre-alignment and post-alignment reports possible
- Battery is rechargeable
- Continental European adaptor included
- Printer uses standard thermal paper roll (120 mm x 20 m) / (4.4 in x 65 ft)
- Can be used in combination with TMEA 1P/2.5 and TMEA 1PEX only



Ordering details

| Designation | Description |
|-------------|--|
| TMEA 2 | Shaft alignment tool |
| TMEA 1P/2.5 | Shaft alignment tool with printer capability |
| TMEA 1PEX | Intrinsically safe shaft alignment tool with printer |
| TMEA P1 | Thermal printer complete with Continental European adaptor and connection cable (TMEA 1P/2.5 and TMEA 1PEX only) |
| TMEA C2 | Extension chain set (1020 mm / 40.1 in) |
| TMEA F2 | 1 chain fixture, complete set |
| TMEA F6 | 2 thin chain fixtures, complete set |
| TMEA F7 | Set of 3 pairs of connection rods; short: 150 mm (5.9 in), medium: 220 mm (8.6 in) and long: 320 mm (12.5 in) |
| TMEA MF | 1 magnetic fixture |
| TMEA P1-10 | UK / Australian mains adaptor for the printer |
| TMEA R1 | 3 spare rolls of thermal paper for the printer |
| TMAS 340 | Kit containing 340 pre-cut shims in two different sizes, each size in nine different thicknesses |
| TMAS 360 | Kit containing 360 pre-cut shims in three different sizes, each size in six different thicknesses |
| TMAS 510 | Kit containing 510 pre-cut shims in three different sizes, each size in nine different thicknesses |
| TMAS 720 | Kit containing 720 pre-cut shims in four different sizes, each size in nine different thicknesses |

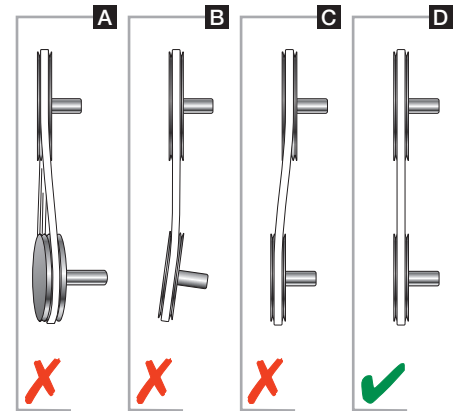


Belt alignment tool BeltAlign TMEB 2

Accurate and quick alignment of belt-driven machinery

In addition to shaft misalignment, pulley misalignment can result in unplanned machinery downtime and loss of productivity. The SKF BeltAlign, TMEB 2, aligns the pulleys where it counts most - in the grooves. V-guides and powerful magnets allow the BeltAlign to be fitted in the grooves of the pulley. With only two components, a laser-emitting unit and a receiver unit, the BeltAlign is easy and fast to attach. The three-dimensional target area on the receiver unit allows the easy detection of misalignment as well as its nature; whether it is horizontal, vertical, parallel or a combination of all three.

- Aligns grooves of the pulley rather than its face, allowing the alignment of pulleys of unequal width or with dissimilar faces - even fits applications where the pulley face cannot be used as a reference
- No trial and error. The laser position indicates the nature of misalignment allowing easy and accurate adjustment
- Powerful magnets allow fast and easy attachment
- Allows for the simultaneous adjustment of belt tension and alignment
- Special side adaptor allowing alignment of multi-ribbed and timing belt pulleys as well as chain sprockets is available as accessory
- A maximum operating distance of 6 meters (20 ft), makes it suitable for use in various applications



- A Vertical angle misalignment
- B Horizontal angle misalignment
- C Parallel misalignment
- D Correct alignment

Ordering details

Designation
TMEB 2
TMEB A2

Description

Laser belt alignment tool
Magnetic side adaptor for chain sprockets, multi-ribbed and timing belt pulleys

Machinery Shims TMAS series

For accurate vertical machinery alignment

Accurate machine adjustment is an essential element of any alignment process. SKF single slot pre-cut shims are available in five different dimensions and in ten different thicknesses. SKF also offers pre-cut double slot shims for accurate adjustment of bearing housings when aligning machinery. For custom sizes, uncut shim kits including different thicknesses are also available.



- Made of high quality stainless steel
- Easy to fit and to remove
- Close tolerances
- Thickness clearly marked on each shim
- Fully de-burred
- Reusable
- Pre-cut shims are supplied in packs of 10 and complete kits are also available
- Uncut shims are also available in inch sizes

| Technical data | | | |
|--|--|---|---|
| | TMEA 2 | TMEA 1/P2.5 | TMEA 1PEX |
| Measuring units: | | | |
| Type of laser | Diode laser | Diode laser | Diode laser |
| Laser wave length | 670 - 675 nm | 670 - 675 nm | 670 - 675 nm |
| Laser class | 2 | 2 | 2 |
| Maximum laser power | 1 mW | 1 mW | 1 mW |
| Maximum distance between measuring units | 0,85 m (2.8 ft) | 2,50 m (8.2 ft) | 1 m (3 ft) |
| Type of detectors | Single axis PSD, 8,5 x 0.9 mm (0.3 x .04 in) | Single axis PSD, 10 x 10 mm (0.4 x .04 in) | Single axis PSD, 10 x 10 mm (0.4 x .04 in) |
| Fixture | Magnetic and/or chain | Chain standard Magnetic optional | Chain standard Magnetic optional |
| Display unit: | | | |
| Battery type | 2 x 1,5V LR14 Alkaline | 3 x 1,5V LR14 Alkaline | Special type of LR 14 batteries |
| Operating time | 20 hours continuous operation | 20 hours continuous operation | 20 hours continuous operation |
| Displayed resolution | 0,01 mm (0.1 mil in "inch" setting) | 0,01 mm (0.1 mil in "inch" setting) | 0,01 mm (0.1 mil in "inch" setting) |
| Complete system: | | | |
| Content | Display unit 2 measuring units with spirit levels 2 magnetic / mechanical shaft fixtures 2 locking chains 5 sets of shims Measuring tape Instructions for use Certificate of calibration Set of alignment reports Carrying case | Display unit 2 measuring units with spirit levels 2 mechanical shaft fixtures 2 locking chains 2 extension chains 5 sets of shims Measuring tape Instructions for use Certificate of calibration Set of alignment reports Carrying case | Display unit 2 measuring units with spirit levels 2 mechanical shaft fixtures 2 locking chains 2 extension chains 5 sets of shims Measuring tape Instructions for use Certificate of calibration Printer Printer charger Printer connection cable Spare paper roll Carrying case |
| Shaft diameter range | | | |
| Magnetic | 30 - 500 mm (1.2 - 20 in) | | |
| Chain | 30 - 150 mm (1.2 - 5.9 in) | 30 - 500 mm (1.2 - 20 in) | 30 - 500 mm (1.2 - 20 in) |
| Optional chain | 150 - 500 mm (5.9 - 20 in) | | |
| Accuracy of system | Better than 2% | Better than 2% | Better than 2% |
| Ex classification | - | - | EEx ib IIC T4, ATEX code: II 2 G |
| Ex certificate number | - | - | NEMKO No. 03ATEX101X |
| Temperature range | 0 - 40°C (32 - 104°F) | 0 - 40°C (32 - 104°F) without printer | 0 - 40°C (32 - 104°F) without printer |
| Operating humidity | < 90 % | < 90 % without printer | < 90 % without printer |
| Carrying case dimensions | 390 x 340 x 95 mm (15.4 x 13.4 x 3.7 in) | 534 x 427 x 157 mm (21.0 x 16.8 x 6.2 in) | 534 x 427 x 157 mm (21.0 x 16.8 x 6.2 in) |
| Total weight (incl. Case) | 3.7 kg (8.1 lb) | 7,9 kg (11.4 lb) | 8,9 kg (19.6 lb) |
| Calibration certificate | Valid for two years | Valid for two years | Valid for two years |
| Warranty | 12 months | 12 months | 12 months |
| Printing capability | No | Yes - printer is optional | Yes - printer is standard |

Printer unit (optional for TMEA 1P/2.5 and standard for TMEA 1PEX)

| | |
|-----------------|--|
| Printing system | Thermal dot matrix |
| Power | Rechargeable battery - 12V maximum, Continental European adapter |
| Operation time | 60 minutes continuous operation with fully charged battery |

In line with our policy of continuous development of our products we reserve the right to alter any part of the above specification without prior notice.

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SKF Maintenance Products

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