TKSA 31 / TKSA 41 Firmware update
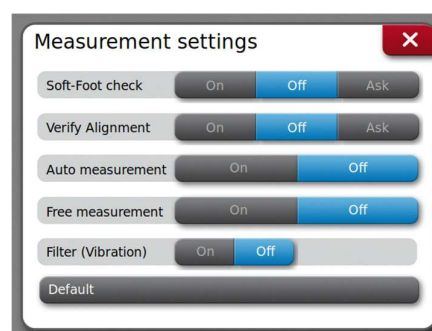Version TKSA31_41-V2-1-0
March 2025

Not all machines can be turned off during some maintenance phases in a workshop or a factory. It is sometimes possible to face some challenges while doing alignments. When surrounding vibrations coming from neighboring machines, it can cause unstable conditions and prevent achieving a proper alignment.

Therefore, SKF comes with a firmware update that includes a "filter" to compensate for those vibrations. When used, measurement values are computed (average calculation), enabling the necessary measurements to achieve machine alignment.
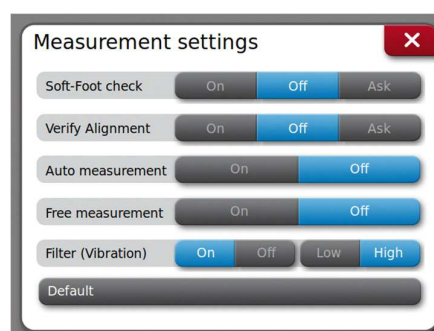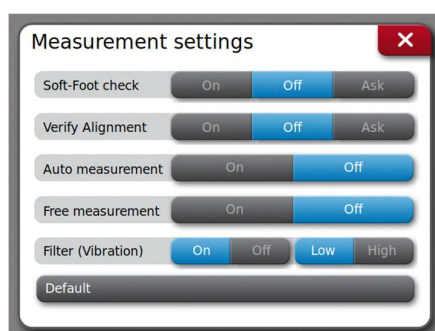
To enable this filter, please follow those steps:

Go to Homepage; Settings; then tap on "Measurement settings"; turn "Filter" ON or OFF, as shown on the image below, and it will enable two levels of filtering:

With the "Low" filter applied, it takes 8-9 seconds to obtain one filtered value. As a result, there will be a slight delay in stabilizing the angle compared to normal operation without the filter.
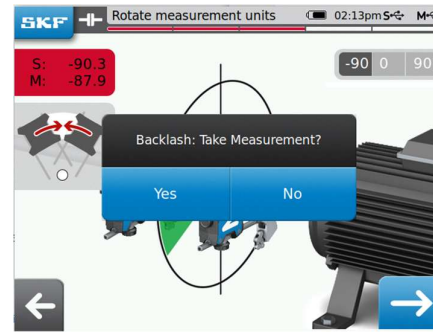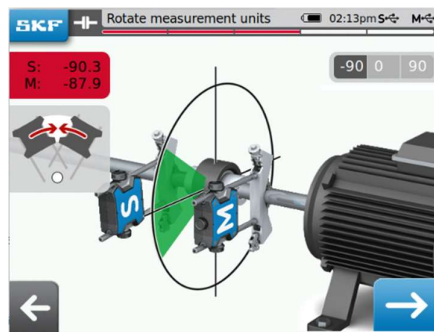
With the "High" filter applied, it takes 15-16 seconds to obtain one filtered value. So, the delay will be a little higher as compared to Low filter.

Backlash warnings on vibrating platform:

When in presence of vibrations, sensor values on TKSA Display will change continuously over time, **AND** *a pop-up window may appear about a possible "backlash" between sensors: it is perfectly normal: TKSA is warning you that the data being detected are not stable due to surrounding vibrations.* **BUT** *it has no impact on misalignment detection accuracy: measurements are determined by the light received on the sensors from the lasers, not the inclinometers: those are only used for a "supporting" function but not taken into account for misalignment calculation.*

Therefore: It has no impact on alignment accuracy, as long as the white arrow on the blue box is "enabled", it means you can keep going, no need to wait for the values to stabilize and select "Yes" to proceed.
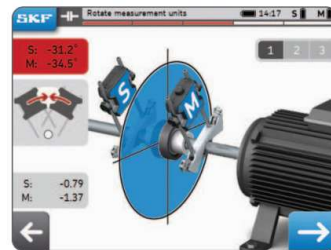
About backlash: See also chapter 3.6 in our Instructions for Use:

3.6 Backlash

In order to achieve the best measurements accuracy, **the measuring units should not be separated by more than 2° from each other.**
When the MUs are more than 2° apart, this condition is called backlash.

Example: MUs are 3° apart in the above example

- Backlash warnings are enabled only when the MU are within a blue wedge.
- **It is always possible to take a measurement with backlash (ie MU angle >2°).**
  - Accept the warning message to take the measurement anyway.

SKF recommends to perform a second cycle of verification of the alignment when done, to reduce the potential errors induced by vibrations.