



# Bearing Analysis Kit

CMPK 60 <sup>plus</sup>/CMPK 70 <sup>plus</sup>



- *Check bearing and machine condition quickly and easily.*
- *Reduce unexpected downtime.*

A convenient collection of monitoring tools that no industrial manufacturing plant should be without. Makes condition monitoring a simple task for maintenance, operations, reliability and vibration analysis departments.

Monitor Vibration, Temperature and Oil condition with:

- *Vibration Pen<sup>plus</sup> CMVP 40/CMVP 50*
- *Non-Contact Temperature Probe CMSS 2000-SL*
- *OilCheck Monitor TMEH1*

**CMPK 60<sup>plus</sup> Bearing Analysis Kit (English) Includes:**

- CMVP 40 (in/s, eq. peak-English) Vibration Pen<sup>plus</sup> with Manual, Carrying Case, Severity Card, and Battery.
- CMSS 2000-SL Laser Sighted Non-contact Temperature Probe with Manual, Hard Case, Belt Clip, and Battery.
- SKF TMEH1 OilCheck with Manual, Soft Carrying Case, and Battery.
- Custom Hard-shell Carrying Case.

**CMPK 70<sup>plus</sup> Bearing Analysis Kit (Metric) Includes:**

- CMVP 50 (mm/s, RMS-Metric) Vibration Pen<sup>plus</sup> with Manual, Carrying Case, Severity Card, and Battery.
- CMSS 2000-SL Laser Sighted Non-contact Temperature Probe with Manual, Hard Case, Belt Clip, and Battery.
- SKF TMEH1 OilCheck with Manual, Soft Carrying Case, and Battery.
- Custom Hard-shell Carrying Case.



**Vibration Pen<sup>plus</sup>**

CMVP 40 (in/s) eq. Peak /  
 CMVP 50 (mm/s) RMS

- *Easy to operate.*
- *Takes two readings simultaneously.*
- *Light and compact enough to fit in your shirt pocket.*
- *Quickly monitors overall vibration and acceleration enveloping.*
- *Supporting software available.*
- *Includes belt-loop carry case.*

Most vibration monitoring has been limited to either a single function or bulky, complex instruments. The Vibration Pen<sup>plus</sup> is a Multi-Parameter monitoring tool capable of measuring vibration (caused by rotational and structural problems like misalignment and looseness) and vibration in higher frequencies (caused by rolling bearing elements or gearmesh problems).

Multi-Parameter monitoring provides accurate and reliable data to use as a basis for maintenance scheduling, and for early detection, confirmation, and accurate trending of bearing and machinery problems.

**Easy Evaluation**

The front panel LCD on the Vibration Pen<sup>plus</sup> simultaneously shows overall velocity vibration readings in/s eq. Peak (CMVP 40), mm/s RMS (CMVP 50), and enveloped acceleration readings in gE ("E" indicating enveloped acceleration).

The SKF Vibration Pen<sup>plus</sup> severity card is a quick reference for ISO Standard 10816 overall velocity vibration comparisons.



### Laser Sighted Non-Contact Temperature Probe

CMSS 2000-SL

- Proven method.
- High and low alarms.
- Calculates minimum, maximum, differential, and average temperatures.
- Expanded temperature range of  $-25^{\circ}\text{F}$  to  $+932^{\circ}\text{F}$  ( $-32^{\circ}\text{C}$  to  $+500^{\circ}\text{C}$ ).
- Precision laser sighting to pinpoint the target.
- Features automatic shut off.

The non-contact thermometer senses the energy of an object with an infrared detector. The energy of the object consists of transmitted, emitted, and reflected energy enabling a user to assess the temperature of a bearing as it is operating. The thermometer lens, when pointed at an object, collects energy onto the infrared detector producing a signal that the microprocessor translates as a reading on the backlit display. As the trigger is squeezed, the object temperature is continuously measured by the infrared detector. This allows for fast and accurate real-time readings.

Simply point, shoot and read. No contact with hot surfaces or moving parts means safer, faster, and easier temperature measurements.

This instrument features a  $-25^{\circ}\text{F}$  to  $+932^{\circ}\text{F}$  ( $-32^{\circ}\text{C}$  to  $+500^{\circ}\text{C}$ ) temperature range; laser sighting; LCD backlight; MAX, MIN,  $\Delta\text{T}$ , and AVG temperatures; recall last reading, HI and LOW audible and visual alarms;  $^{\circ}\text{C}$  or  $^{\circ}\text{F}$  selectable; low battery indicator; recall last reading; and adjustable emissivity.



### OilCheck Monitor

TMEH1

- Shows changes in oil condition effected by:
  - Water content
  - Fuel contamination
  - Metallic content
  - Oxidation
- Hand-held and user friendly.
- Numerical readout to facilitate trending.

The OilCheck detects and measures the dielectric constant of oil. By comparing the measurements obtained from used and unused oils of the same brand, OilCheck is able to determine the degree of change in the dielectric constant of the oil. Dielectric change is directly related to the degradation and contamination level of the oil and helps the user to optimize intervals between oil changes and to detect increased mechanical wear and loss of the oils lubricating properties.

The usual contamination found in oils is caused by oxidation and acid build up, which occur during the normal operation of a machine and should show up as a gradual increase in readings over a period of time. Other contaminants occur because of excessive wear or mechanical failure, the main elements of which are dirt, soot, fuel, water, antifreeze and metal particles. These elements give a marked increase in the OilCheck's reading and will give immediate warning of possible resulting failure.

### Technical Data

**Suitable Oil Types:** mineral and synthetic oils

**Repeatability:** better than 5%

**Readout:** green/red grading, numerical value (0-100)

**Battery:** 9 V Alkaline IEC 6LR61

**Battery Lifetime:** > 150 hours or 3,000 tests

**Dimensions:** 9.8" x 3.7" x 1.3" (250mm x 95mm x 32mm)

**NOTE:** The SKF OilCheck is not an analytical instrument. It is an instrument to detect only changes in the oil condition. The visual and numerical readouts are purely a guide to enable trending of the comparative readings of a good oil to a used oil of the same type and brand.

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