



## Perfect Surface with Portable Oil Film Measurement

OFIS 2.0



Measure it. Control it.

The OFIS 2.0 is supplied with a comprehensive range of accessories in a sturdy aluminum case suitable for industrial use.



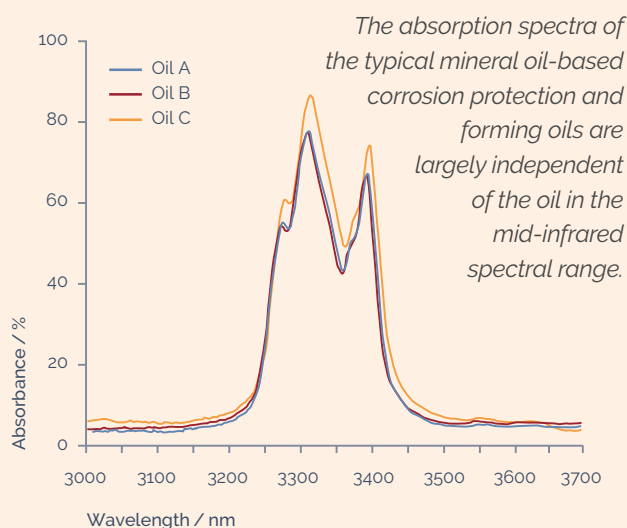
## Oil Film Thickness Measurement Easy, Fast and Objective

The OFIS 2.0 is a handheld measuring device for mobile oil film measurement designed for rough industrial environments. With the OFIS 2.0, the oil layer on metallic surfaces can be inspected within a few seconds.

By utilizing the OFIS, a time-consuming gravimetric or chemical analysis is no longer necessary, resulting in reduced costs and optimized product quality.

The OFIS 2.0 measures oil films and dry lubes (hotmelts) in a range up to  $5 \text{ g/m}^2$  ( $\approx 500 \text{ mg/ft}^2$ ). The device is calibrated for commonly used steel surfaces like cold-rolled, hot-dip, electro-galvanized, etc., and aluminum. After selecting the surface's calibration and setting the OFIS 2.0 onto the test object, the measurement is created by a push button. No reference measurement is needed, and in less than 1 second, the oil layer thickness is indicated on the display in  $\text{g/m}^2$  or  $\text{mg/ft}^2$ .

In addition to single measurements, series measurements with averaging functions are possible with the OFIS 2.0. Individual results and averaged values can be easily transferred wirelessly for later evaluation on a mobile PC with the OFIS application.



# Measurement Principle

The OFIS 2.0 technology takes advantage of Lambert-Beer's light absorption law. It states that the thickness of an oil film is directly proportional to the extinction of light.

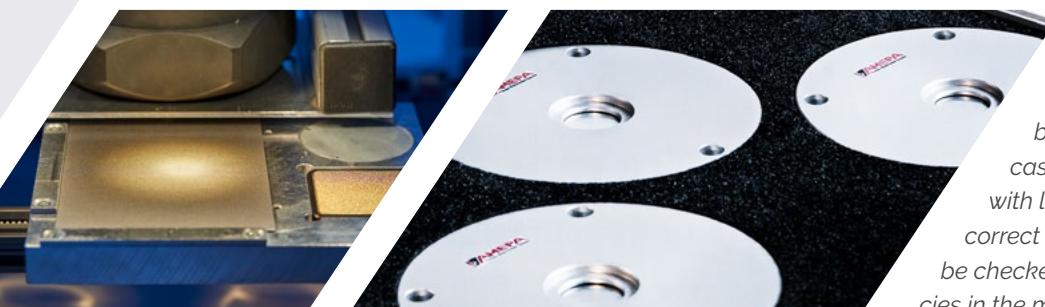
The oiled sheet surface is illuminated with two specially developed halogen lamps. On its way, the broadband light penetrates the oil film and is diffusely reflected by the surface. The reflected light is accumulated in an optic. Some characteristic wavelengths in the mid-infrared (MIR) region of the electromagnetic spectrum have undergone oil film-dependent absorption in

this process. A small number of characteristic wavelengths are separated and examined by a PbSe-detector, which is cooled and stabilized to ensure a low-noise and drift-free measurement.



## OFIS 2.0 Technical Data

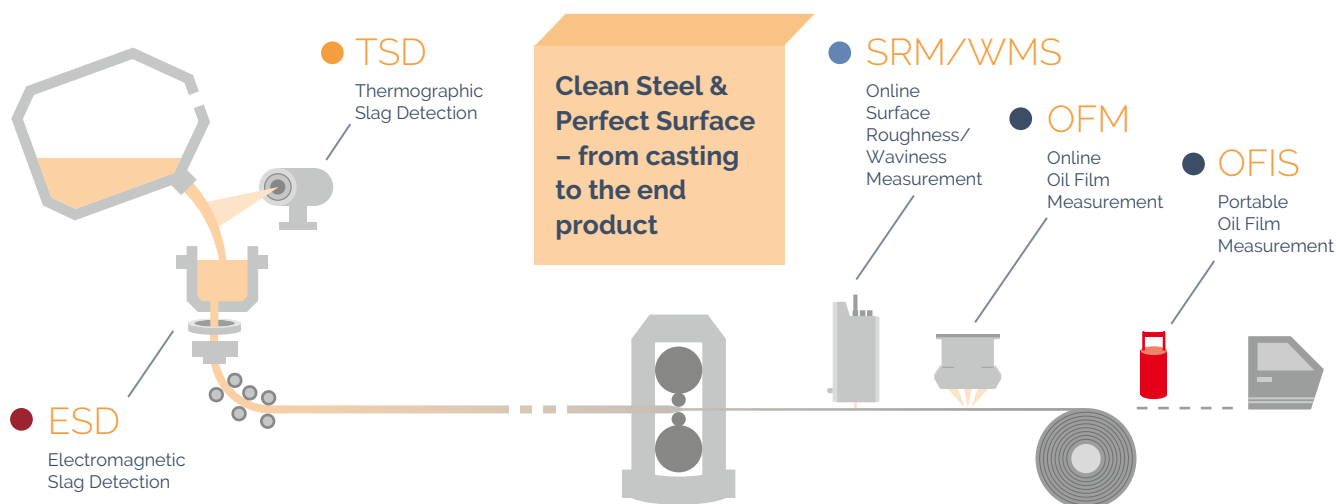
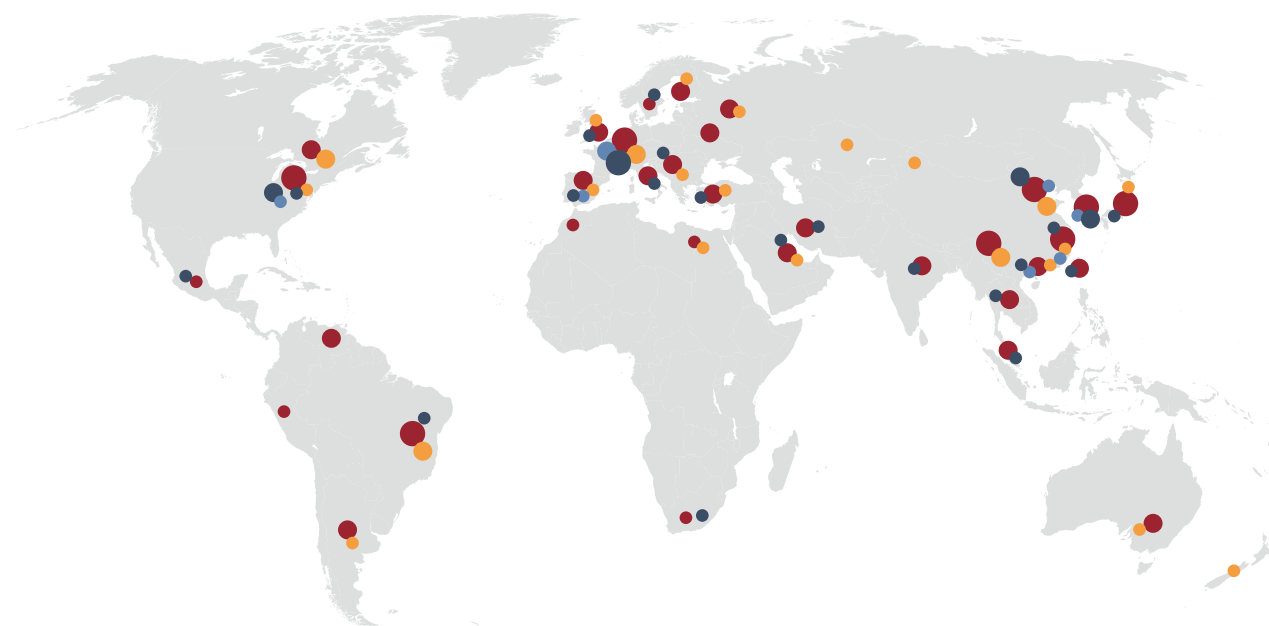
- Measuring range: Up to  $5 \text{ g/m}^2$  ( $\approx 500 \text{ mg/ft}^2$ )
- Measuring accuracy: Measuring range up to  $1.0 \text{ g/m}^2 \rightarrow \pm 0.1 \text{ g/m}^2$   
Measuring range  $> 1.0 \text{ g/m}^2 \rightarrow \pm 10 \% \text{ displayed value}$
- Repeat accuracy:  $0.01 \text{ g/m}^2$
- Dimensions:  $400 \text{ mm} \times 145 \text{ mm}$
- Weight:  $3.4 \text{ kg}$  incl. battery
- Protection class: IP 54
- Power supply:  $7.2 \text{ V}$  NiMH-rechargeable battery pack
- Display: LCD,  $4 \times 20$  characters, illuminated
- Measurement mode: Single or series with averaging
- Data: Can be stored with coil number, name, and time
- Data transfer: Data transferable to PC, also wireless, with an interface adapter and OFIS app software
- Additional accessories: Second NiMH-rechargeable battery pack, charging unit, charging dock for batteries, carrying case
- Optional accessory: Validation Set, Tablet-PC



The Validation Set is an accessory for the OFIS 2.0, consisting of three gold-plated, metallic round blanks stored in a protective carrying case. The validation specimens, coated with long-term stable lacquer, enable the correct system status of the handheld unit to be checked at any time. As a result, inaccuracies in the measurement are avoided.



## Worldwide successful



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