

# Product guide

## Part 2 Laboratory & Practice Test Equipment

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## **OLEK** Description

Your result "The gas in oil analysis" can only be as good as your oil sample was taken. With the new oil sample system you take the oil sample contamination-free without contact with the outside air an automatic registration of the oil temperature is also present. An improper oil sampling or contamination of the test vessels can have a very large influence on the measured values of the individual test methods. This means that completely wrong conclusions can be drawn about the quality of the insulating liquids.



ÖLEK Kit

## Operating comfort & highlights:

- Easy operation
- No contamination with ambient air
- Automatic registration of the oil temperature
- Measurement according to standards IEC 567 and ASTM 3612





Optional accessories: 2x case with 16 glass syringes and 10 aluminium bottles





TOGA 100-GC Description

## Lab Quality Analyses in the Field, "It Goes with you Anywhere!"

The TOGA 100 GC Systems are designed to analyze oil from electrical insulation materials that may have decomposed under thermal, or electrical stresses. The gaseous decomposition products indicate the type of fault inside the transformer. The TOGA 100 GC Systems separate all 11 components in one injection; Hydrogen, Oxygen, Nitrogen, Methane, Carbon Monoxide, Ethane, Carbon Dioxide, Ethylene, Propane, Acetylene, and Propylene. All compounds are detected with the sensitive and universal Helium Ionization Detector (HID). ed under thermal, or electrical stresses. The gaseous decomposition products indicate the type of fault inside the transformer. The TOGA 100 GC Systems separate all 11 components in one injection; Hydrogen, Oxygen, Nitrogen, Propane, Acetylene, and Propylene all 11 components in one injection; Hydrogen, Oxygen, Nitrogen, Methane, Carbon Monoxide, Ethane, Carbon Dioxide, Ethylene, Propane, Acetylene, and Propylene. All compounds are detected with the sensitive and universal Helium Ionization Detector (HID).



- Analysis of all 11 components / gases
- Actual and setpoint display of all GC parameters
- Standard ASTM-D3612-C method
- Safety limits for all entered parameters
- Results in % or ppm





After years of development and testing, WGM Support is pleased to present the newest, most expandable and versatile Gas Chromatography Systems in history. The WGM Support TOGA 100-Lab-GC systems are the world's only modular GC systems. GC Modules can be mixed to and matched to make 100's of application specific configurations for any GC method! With 7 detectors to choose from, on-Column and Split / Splitless injectors, built-in Sample Concentrators, and an Autosampler interface, we boldly say, "If you can dream it, we can build it!"

They contain a state of the art space saving chassis at their core. Our plug-and-play modular components allow for unprecedented performance, which makes all of our GC Systems are easier to build, maintain, and upgrade in the field.

The TOGA 100-Lab-GC specifications are on par with the biggest selling GC's in the market, yet they are smaller, lighter, faster, more intelligent, and have delightful pricing.



- Analysis of all 11 components / gases
- Sampling: 42 Vials 20ml, 6 & 10ml
- Actual and setpoint display of all GC parameters
- Standard ASTM-D3612-C method
- Safety limits for all entered parameters





## **ÖLPG Description**

The ÖLPG Breakdown Analyzer is the smallest and lightest portable oil test set its rating available. The 2.8" colour display (ultra bright) is very bright and offers optimal readability mobility. For measuring modern silicon, mineral and ester oils a very fast switch off time after flash over is crucial.

The ÖLPG Breakdown Analyzer has the fastest switch-off time on the market available (< 5 µs). With the PC Software "Control Center" individual test procedures can be programmed and several units can be controlled and overviewed simultaneously. Test results are available in printed form, as pdf and as text files. The unit has USB Flash Drive and a Bluetooth connection for communications between the test unit and the PC.





## Operating comfort & highlights:

- Low weight and compact design
- Very high contrast colour display
- Internal battery
- Extremely short switch-off time (< 5 µs)
- Direct measurement of output voltage
- Measurement of silicone, mineral and ester oils
- Optimum shielding due to metal housing
- Bluetooth
- USB Flash Drive
- Intuitive operating concept



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TDM1515 Description

The TDM1515 measures the dielectric loss angle and the specific resistance of the insulating oil.

The Tan Delta & Resistance Oil Tester, Model TDM1515 is a precision measuring instrument. The resistance, loss factor and capacitance of the insulating oil are measured. The specific resistance is automatically calculated from the measured values.

The TDM1515 is a single measuring instrument with integrated oil test cell and therefore a self-contained unit. The high-frequency induction heating with controller, temperature sensor, dielectric loss measuring bridge, AC test voltage source, standard capacitor, high resistance meter, DC voltage source and all IC circuits are in the digital version.



Automatic dielectric constant Tan Delta & resistance

- Maximum power of 2 kV.
- Stainless steel oil test cell with 3 connections
- Storage of the measured test results
- I-Touch LCD screen
- High voltage display
- Heating Display
- Cover High voltage Locking
- Ground terminal





## M-FTIR s10 Description

The functions of the M-FTIR s10 spectrometer include instrument performance verification, material quality verification, SOP and proficiency testing, identification of unknown substances and mixtures, and quantification of mixture constituents. The M-FTIR s10 has been specifically designed for material characterization, from the recording of sample information to the final report. The M-FTIR s10 is suitable for beginners as well as for experts; many tasks can be performed with one click.

Designed for ease of use.

The M-FTIR s10 spectrometer is designed for ease of use and high reliability required in high workload laboratories.



M-FTIR s10 Spektrometer

## Operating comfort & highlights:

- Easily accessible, regenerable desiccant container with moisture indicator
- Integrated keypad and program for creating SOP's, for easy handling, consistency and productivity
- Smart technology for easy exchange of accessories and setup of experiment conditions
- Package for material identification with common and highly sensitive correlation algorithms, depending on tested material
- The innovative multi-component search algorithm enables the identification of ingredients in mixtures. Every laboratory can confidently tackle the difficult identification of contaminations.

With the M-FTIR s10, anyone can consistently and reliably test and identify materials.



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## **VFP1515** Description

Fully automatic flame and focal point tester with closed container.

The fully automatic Pensky-Martens VFP 1515 closed-crucible flame and focal point tester measures the flash point, the lowest temperature at which an ignition source ignites the vapors of a sample. The VFP 1515 is suitable for flash point determinations on diesel, heating oil, kerosene and other potentially flammable liquids (liquid fuels, lubricants).



Fully automatic flash / focal point tester

- Two-point ignition mode as platinum resistance wire and gas.
- Alarm function when the temperature exceeds the range to be tested.
- Automatic operation safe and efficient.
- Automatic detection function
- Up to 255 timestamped recordings are automatically stored
- Meets the national standards of the USA, GB and EU.
- LCD touch screen.
- Built-in printer





## KF 750 Description

With the new Titrator KF trace, you can actually do nothing wrong with water determination according to Karl Fischer. On the large display, each step to be performed is shown in the dialog. The pre-parameterized methods can be conveniently called up and make work easier.

In addition, the versatility of the KF 750 titrator makes it a problem-free KF measuring station for almost all areas of industry, such as the pharmaceutical, chemical, food and mineral oil industries. The coulometric Karl Fischer titrator is exactly the right instrument for determining even the lowest water contents in your samples.



Bild- Quelle SI Analytics

The Karl Fischer titrator KF 750 is a specialist for low water contents.

## Operating comfort & highlights:

- Fast, simple and accurate
- With standard methods for different applications (titer, blank value, 1...)
- With brilliant TFT display, which can also be read from the side
- Results can be saved via USB connection (PDF and CSV format)
- With intelligent exchange units (only TitroLine® 750 KF volumetric)



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KF 700 Description

#### Ideal for non-aqueous titrations.

The built-in amplifier is particularly suitable for titrations in non-aqueous solvents. The use of special electrodes (e.g. separate measuring, reference and auxiliary electrodes) is not necessary.

Applications are e.g.

- Acid and base number in oils
- Titrations in glacial acetic acid with perchloric acid / glacial acetic acid
- hydroxyl, NCO number and other key figures.



Bild- Quelle SI Analytics

The KF 700 is a specialist for non-aqueous Tltrations.

## Operating comfort & highlights:

## pH-Stat Titration

With a pH-Stat application, a preset pH value is first adjusted and then kept constant with an acid or alkaline solution for a certain period of time. The pH-Stat titration is used e.g. for:

- the determination of enzyme activity
- the pH-Stat elution of soil samples at pH 4
- Keeping the pH value constant during syntheses





The new titrator KF 7751 with more possibilities

The KF 7751 is a generalist for potentiometric titration and volumetric Karl Fischer titration. It combines the properties of the potentiometric titrator KF 700 and the volumetric Karl Fischer titrator KF 750.



The KF 7751 has the following features, among others:

- With brilliant TFT display, which can also be read from the side
- With interchangeable attachments with storage of all relevant attachment and reagent data
- Two USB-A, one USB-B and two RS232 interfaces provide excellent communication capabilities. USB keyboard, USB printer, barcode reader, USB storage media, scale, PC and other devices can be connected.
- Results can be stored via USB connection (PDF and CSV format), incl. method transfer.
- With standard methods for potentiometry and KF titration





Accessories for oil samples

## Glass syringe for DGA investigations



The glass syringes with metal cone have a Luer lock connection and are made of borosilicate glass. The syringes are suitable for DGA analysis (gas-in-oil analysis). The glass syringe is supplied with printed brown graduation and stamped on the housing and plunger. The syringes are acid and alkali resistant. Available in different versions from 1ml to 200ml. Example: 100ml glass syringe model - type WGM-100.

The 2-way valve for Luer lock is not included.



Aluminium bottle for oil sampling

#### **Equipment:**

Pure aluminium (material AL 99.5) With tamper-evident screw cap made of PP with aluminium inner seal Suitable for food With UN approval (for 60-1200 ml)

The aluminium bottle is particularly suitable for the storage, transport or dispatch of substances and retained samples that must be stored completely unadulterated. Further features: completely emptyable, odourless, opaque, rustproof.







## Sigma 200 Description

The Sigma 200 tensiometer is used to determine the surface and interfacial tension as well as the density of liquids. The measurement is fully automatic. The tensiometer has integrated software for automatic measurement of the density and the oil-water interfacial tension of oil transformers.



Bild-Quelle: KSV Instruments Ltd

Built-in LCD display, Highly sensitive balance, Integrated magnetic stirrer Motorized sample stage, One integrated 70 mm, Sample vessels, Integrated control keyboard for measurement execution, Sample stroke magnetic stirrer, Interior lighting, Integrated software for measurement of interfacial tension -/- surfaces and density, USB connection for data output.

- Built-in LCD display
- Highly sensitive scale
- Integrated magnetic stirrer
- Motorized sample table for the sample vessel
- Integrated control keyboard for measuring execution, sample stroke, magnetic stirrer, interior lighting
- Integrated software for measurement of interfacial tension -/- surfaces and density
- USB port for data output







## CS 100 Description

Sulfur test kit, according to ASTM D1275 / B and IEC 62535. In recent years, a number of defects and reactors have occurred in transformers, due to the formation of copper sulfide. This type of failure is due to different processes, usually at high temperatures and especially in the most common cases without warning.



In most cases it is not possible to detect deposits of copper sulphide through a normal inspection. The copper wire must be unwound and the paper deoiled to make the glossy deposits visible. The copper conductor can be dark or coloured. The discoloration can vary significantly over the entire length of a conductor.

- Complies with the new method IEC 62535 and ASTM D1275 / B".
- Easy to use
- No sample preparation
- Individually pre-cleaned
- Hermetically sealed copper / paper (IEC 62535 & ASTM D1275 / B)
- Sample strips for easy and effective handling







## **PZMG 100 Description**

The PZMG 100 Portable Oil Lab is a mobile service oil laboratory that quickly and easily examines oil cleanliness and oil condition in hydraulic and lubrication systems.

Mobile oil laboratory for oil cleanliness and condition monitoring - simple, compact and cost-effective The PZMG 100 is a mobile oil laboratory for service use, which can be used quickly and easily to investigate oil cleanliness and oil condition in hydraulic and lubrication systems. Samples can be taken directly via a pressure line or via the integrated pump. A measurement can be performed manually or automatically at an adjustable time interval.





Portable oil diagnosis device Particle counting made easy

great dimensions: L= 298mm W= 233mm H= 265mm

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- Easy handling.
- Intelligent and cost-effective monitoring of systems and oil parameters.
- Direct sampling via pressure line.
- Particle measurement according to the latest ISO 4406:1999 and SAE AS4059 standards.
- Integrated real-time clock for a time stamp on the measurement data.
- Long service life and short charging time.





Online and bottle measurement	Laboratory quality measurement	Mobile & stationary use

PPC Lab: Mobile and stationary measurement.

The PPC Lab is a particle counter that can be used both stationary and mobile. A touch display and membrane keyboard make it easy to operate anywhere.



The volumetric sensor measuring cell and the modern and technically sophisticated components guarantee high resolution and measuring accuracy. Every particle that flows through the sensor is detected, counted and measured. Up to 32 freely selectable size channels display the particle numbers and particle size distribution.

- Online and bottle measurement.
- Mobile & stationary use.
- Execution of measuring tasks and trend display.
- Multi Language.
- User area is password protected.



