

MYRK
Transformer Fault



MYRKOS

Portable DGA MicroGC

by Morgan Schaffer

High accuracy DGA analyzer for condition
assessment of oil-filled equipment

**MS MORGAN[®]
SCHAFFER**
Transformers - The Inside View



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Complete DGA results anywhere, anytime

Morgan Schaffer introduces a new version of its MYRKOS Portable DGA MicroGC, featuring the measurement of both air components (oxygen and nitrogen) in addition to the seven dissolved fault gases. Designed for the control room, mobile vehicle, field and laboratory environments, MYRKOS offers the fastest, most versatile solution on the market for the measurement of transformer dissolved gases.

Precision and accuracy you can trust

Building on 45 years experience designing precision instrumentation for DGA analysis, Morgan Schaffer has incorporated the latest innovations in MicroGC technology to provide the most precise and accurate portable DGA analyzer in the market. MYRKOS delivers DGA measurements you can trust.

Morgan Schaffer's references: ASTM and IEC standards

Gas chromatography is the only method currently supported by the worldwide electrical industry for the measurement of atmospheric and fault gases dissolved in dielectric fluids⁽¹⁾. Used by hundreds of oil testing laboratories worldwide, gas chromatography offers the advantage of separating gas samples in their individual components prior to performing measurements. Chromatography eliminates most possible sources of signal interference and provides more reliable DGA measurements for all types of samples including low concentration, high concentration and "dirty" samples.

The Shake Test[®] syringe: your guarantee of sample integrity

The Shake Test[®] syringe was developed by Morgan Schaffer and first commercialized in 1995. The Shake Test[®] method is a variation of ASTM D3612-02, Method C, and is also described in the international standard IEC 60567.

This unique syringe guarantees that oil samples are collected from oil-filled equipment with the highest possible integrity. The syringe is also used to extract gases from the oil rapidly and precisely. The extracted gas sample is then introduced in the analyzer directly, from the syringe, thus minimizing the possible losses of low solubility gases such as hydrogen or contamination of the sample with ambient carbon dioxide and moisture. The value: proven sampling and sample preparation methods that guarantee the integrity of all samples to be analyzed with MYRKOS.



(1) Refer to standards ASTM D3612 and IEC 60567.



How about measurement traceability?

MYRKOS is supplied with a NIST* traceable CALGAS standard that provides a quick and easy way of maintaining the accuracy of your DGA results throughout the life of the instrument.

* National Institute of Standards

MYRKOS and PPMreport: easy to use daily, or once in a while

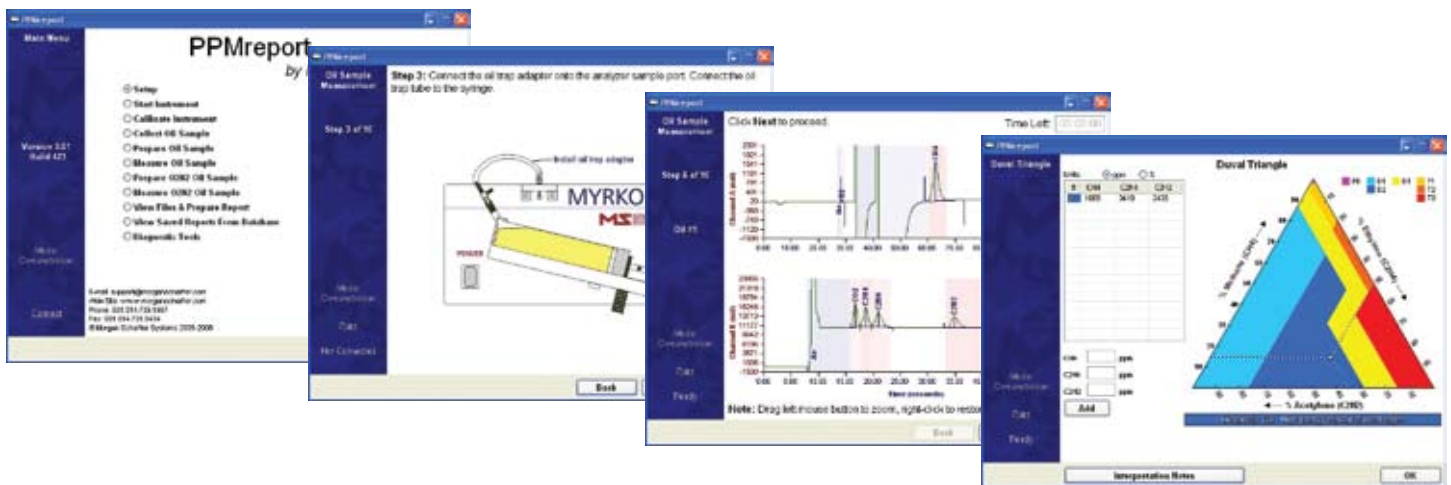
Based on feedback from many utility and laboratory clients, Morgan Schaffer developed the PPMreport user interface. PPMreport is designed to meet the needs of both the new user *and* the experienced instrument operator. The interface can be operated in any of 6 supported languages. Our goal: to guarantee the precision and accuracy of your measurements without extraneous training, no matter how frequently or infrequently the instrument is used.

PPMreport can be used like a wizard or a reference manual, and will allow a new user to generate reliable results within 2 minutes. The experienced user will take advantage of the extended software database to prepare and manage DGA reports, to apply built-in fault diagnostic tools, or to export data to more sophisticated diagnostic software such as TOA4*. Raw chromatograph data is readily accessible to assist in cases where only a few ppm of a critical gas may affect your decisions, a feature unique to GC and MicroGC instrumentation.

For maximum accuracy, users can select their oil-type from a menu. Accurate solubility coefficients for that oil (determined by Morgan

Schaffer's ISO/IEC 17025 certified laboratory) will then be used to calculate dissolved gas concentrations. To span the broadest range of gas concentrations, PPMreport accommodates several variations of the standard Shake Test® method. In addition, gas samples taken directly from the transformer headspace or the Bucholtz relay may be measured, and PPMreport will automatically calculate gas concentrations in the headspace, or in the oil, as selected.

PPMreport generates clear, comprehensive one-page reports in PDF format, for ease of communication and record keeping. Reports may also be customized to include the client's logo.



*Morgan Schaffer is an authorized reseller of Transformer Oil Analyst.

Morgan Schaffer's philosophy

Morgan Schaffer's philosophy is one of "no compromise" in terms of quality, measurement precision and accuracy. We want our customers to trust their results and to be able to compare them against any reliable reference. The MYRKOS analyzer was designed with our commitment to the electrical industry in mind: maximizing the protection of your oil-filled electrical assets against incipient faults by providing you with knowledge, services and instruments of the highest precision and accuracy.





MYRKOS PORTABLE CONTROLLER

Lightweight and pre-configured with PPMreport and additional Morgan Schaffer technical documents. Ideal for field use.



MYRKOS FIELD MODULE

Provides 30 hours of gas autonomy when using the instrument in the field.



RUGGEDIZED FIELD CARRYING CASE

Designed to include MYRKOS and all the accessories required to perform DGA in the field, including MYRKOS' Portable Controller.



SHAKE TEST SYRINGE CARRYING CASE

Holds 6 Shake Test® syringes, empty or filled with transformer oil.



MYRKOS: expand your capabilities

MYRKOS measurements are available in 2 minutes from sample injection, with accuracy and repeatability equal to, or better than ASTM D3612 or IEC 60567. The instrument can therefore be used both in laboratory and field environments to provide seamless traceability when data comparison is required. MYRKOS is offered in two main configurations: Field and Laboratory. Each package includes the required accessories to maximize ease of use and sample throughput.



SYRINGE SHAKER

Designed for higher sample volume, the Syringe Shaker ensures efficient and automated headspace gas extraction.

**MS MORGAN®
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Transformers - The Inside View

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