



Transformer Services

INTELLIGENT TRANSFORMER MANAGEMENT®



Knowledge, Experience, Expertise.

The success of your operation depends on **SAFE, RELIABLE, & UNINTERRUPTED POWER**. The need to apply proven transformer asset management principles is more important than ever. Do you have systems in place and key personnel who understand these principles and possess the knowledge and expertise to act when problems arise?

SD Myers helps identify and address challenges your organization encounters in protecting your critical power transformer assets. For nearly a half century, we have been leaders in ensuring that our customers' transformers are tested, well maintained and serviced. Throughout that span, we have also built world class training programs that can equip your staff with the knowledge necessary to meet the daily challenges faced with transformer management.





NEARLY 50 YEARS OF EXPERIENCE

- Diagnosed and analyzed over 500,000 units with **6.5 MILLION TEST RECORDS**
- **OVER 250,000 UNITS** serviced in the field from 100 kVA to 1,100 mVA
- **DESIGNED & MANUFACTURED** over 300 custom oil processing rigs and insulation moisture removal systems
- Over **ONE BILLION GALLONS** of dielectric fluid processed through our equipment
- **EDUCATED OVER 18,000 PROFESSIONALS** on transformer maintenance
- **MEMBERS & CONTRIBUTORS** to IEEE, ASTM, CIGRE, IEC and other technical organizations

TESTING AND DIAGNOSTICS



OUR MOBILE DIAGNOSTIC TECHNICIANS

The process of serving your transformer maintenance needs begins with sending our **MOBILE DIAGNOSTIC TECHNICIAN** to your facility. Each transformer is visually inspected and documented. The data is then uploaded to your individual and secure account on our web-based system, TransformerDashboard™. While on-site, oil samples are acquired and sent to our testing and diagnostic center where their condition is documented and analyzed.

Each of our Mobile Diagnostic Technicians goes through an extensive certification process to ensure the highest level of excellence.



With technicians in more than 30 cities across the country, we are able to respond quickly to your needs.





DIAGNOSTIC ANALYTICAL SERVICES

ONCE AT THE LAB, your samples are subjected to proprietary protocols and SD Myers' Maxlife analytics. This standard ensures the quality and viability of each test result, accompanied by specific recommendations from our lab specialists. Within days, the results are then uploaded to TransformerDashboard™, where you can view them either in the field or from your office to determine which units need the most attention.

SD Myers has nearly a half century of experience in laboratory analysis of dielectric fluids and electronic data management services. Our Diagnostic Analytical Services give clear, understandable interpretations and recommendations related to a cost effective maintenance strategy.



SERVICE RECOMMENDATIONS

TRANSFORMER SPECIALISTS

A **TRANSFORMER SPECIALIST** is assigned to each account to review questionable or unacceptable results. Our years in the field and real world experience give our customers the best options for resolving any issues. Our extensive background means you can rest assured knowing that we will keep you well informed of any problems that arise. If service work is needed, we offer industry leading solutions and have the tools and resources needed to get the job done right. With the support of our Field Services team, we can help coordinate each service project from start to finish.



	KF	DGA	LPF	INH	ICP	FUR	PCB	RECOMMENDATION
10/18/2012	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	SEE GC DATA / RETEST 1 MONTH
12/13/2012	Questionable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	SEE GC DATA / RETEST 6 MONTHS
10/31/2012	Unacceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	RESAMPLE KF / SEE KF NOTE
08/02/2012	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	PCB Test
03/10/2012	Unacceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	SEE GC DATA - INVESTIGATE
	Unacceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	SEE GC DATA / RETEST 6 MONTHS
	Unacceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	SEE FURAN DATA / INVESTIGATE
	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	PCB Test
	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	SEE GC DATA / RETEST 6 MONTHS
	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	ACCEPTABLE DATA / RETEST 1 YEAR



FIELD SERVICES

We manage a **TEAM OF FULLY TRAINED EXPERTS** operating state-of-the-art SD Myers' oil processing equipment. No device is too large, too small or too unusual for us. SD Myers provides a full range of transformer **FIELD SERVICE SOLUTIONS** for transformers ranging from 1,000 kVA to 1,000 mVA – solutions to prevent and fix potential problems before an event occurs.

The transformer service solutions we provide in support of your transformer oil testing, diagnostics and analysis are:

FLUID

TESTING DIAGNOSTICS AND ANALYSIS OF ALL TYPES OF OIL

VACUUM FILLING SERVICES

FLUID PROCESSING INCLUDING DEHYDRATION, DEGASIFICATION, FULL RECLAMATION & REINHIBIT

MINERAL OIL - SILICONE - FR3 LESS FLAMMABLE - RTEMP

ENERGIZED PROCESSING FOR QUALIFIED UNITS

INFRARED (IR)

MECHANICAL

FIELD TRANSFORMER INSPECTION AND LEAK REPAIR SERVICES

LTC INSPECTION & REPAIR SERVICES

COMPLETE UNIT REGASKETING/REFURBISHING

UNIT REBLOCKING

INSTALLATION, RELOCATION, TRANSPORTATION AND RIGGING

INFRARED (IR)

ELECTRICAL

FULL ELECTRICAL TESTING

ACCEPTANCE TESTING

PREVENTIVE MAINTENANCE AND DIAGNOSTIC TESTING














SFRA TESTING

TRANSFORMER DATA MANAGEMENT

TRANSFORMERDASHBOARD.COM

There is an ever-increasing need to have access to critical information in order to make intelligent, cost-effective decisions in a timely manner. Our solution is Transformer Dashboard - a comprehensive source for all of your transformer fluid testing data.

THE BENEFITS OF TRANSFORMER DASHBOARD™ INCLUDE:

-  **RESULTS ONLINE** - eliminate the need to receive mailed reports by printing and saving your own Rainbow (in color or black and white), recap, and specified summary reports.
-  **REDUCE TURNAROUND TIME** - as soon as the testing is complete you will receive access to your posted results via the internet.
-  **CUSTOMIZE YOUR REPORTING** - ability to filter multiple transformer criteria and sort on priorities specific to your needs. Print and save the reports you choose, knowing that the rest of your data remains instantly accessible through Transformer Dashboard.
-  **MULTIPLE USER ACCESS** - whoever needs to see the data can have secure access to their Transformer Dashboard data.
-  **MULTIPLE LOCATION ACCESS** - if you have access to the internet, you can have access to Transformer Dashboard - anytime, anywhere.
-  **MULTI-FUNCTIONAL GRAPHING** - graph your test data to examine and interpret trends and changes.
-  **TEST EXPLANATIONS** - understand what each test means to you.
-  **RECOMMENDATIONS** - receive clear and accurate recommendations for each transformer tested.
-  **EQUIPMENT PICTURES** - view and upload pictures of your electrical equipment.
-  **COMMENTS** - enter specific comments for any piece of equipment.
-  **PRINTABLE** - specialized equipment test reports can be viewed and printed.
-  **DATA TRANSFER** - have previous test data from other laboratories added to Transformer Dashboard.
-  **DATA DOWNLOAD** - download your test data for internal record-keeping.



Transformer Dashboard allows you to benefit from millions of critical records, data and expertise from virtually anywhere.

ENGINEERED PRODUCTS & SERVICES

SD Myers produces a number of solutions for the maintenance and repair of your transformer equipment. Removing harmful moisture and contaminants from transformer dielectric fluids & insulation, and keeping those fluids cool, will **EXTEND THE LIFE OF YOUR TRANSFORMER.**

DryMax[®]

MOISTURE REMEDIATION SYSTEMS

DryMax[®] 800

DryMax[®] 400

DryMax[®] 200



DryMax[®] is a small but highly efficient unit placed on an energized transformer to slowly remove moisture from both the oil and the paper insulation.



DryMax GT™

DryMax®, and now DryMax GT™, can dry the wet insulation in a transformer while energized, when traditional dry-out techniques require taking it out of service. These state-of-the-art oil dehydration units are portable, the installation is very simple, and maintenance steps can be performed by any qualified substation technician.

WITH DRYMAX GT™ THERE'S NO NEED FOR FILTER CHANGES... IT RECYCLES ON SITE.

MOISTURE REDUCTION TRACKING

Our technical staff will monitor the operation and drying progress of your DryMax®. Data can be emailed to us or transmitted via cellular or ethernet connection, and is viewable in the TransformerDashboard™.



To learn more, visit SDMyers.com



PATENT
PENDING



InsulMax¹⁰⁰⁰

MONITORING & FILTERING SYSTEM

THE CLOSEST THING TO A
MAINTENANCE-FREE TRANSFORMER.

InsulMax1000 is a substation-grade monitoring and filtering system. The continuous on-line process helps control unwanted oxidation by filtering the minute traces of acid and moisture as they are created, stopping their progression to damaging levels.

Online Status Updates

InsulMax1000 provides value by **MONITORING KEY INFORMATION** on the condition of your transformer. Indicators such as temperature, moisture level and hydrogen are viewed, monitored and evaluated on your **TRANSFORMER DASHBOARD™**. SD Myers' cellular transmitter sends regular updates to your online dashboard located at TransformerDashboard.com. Any event or progressing condition is captured and communicated to our experts to assure that we can help you maximize the life of your transformer.



FluidMax™

OIL RECLAMATION SYSTEM

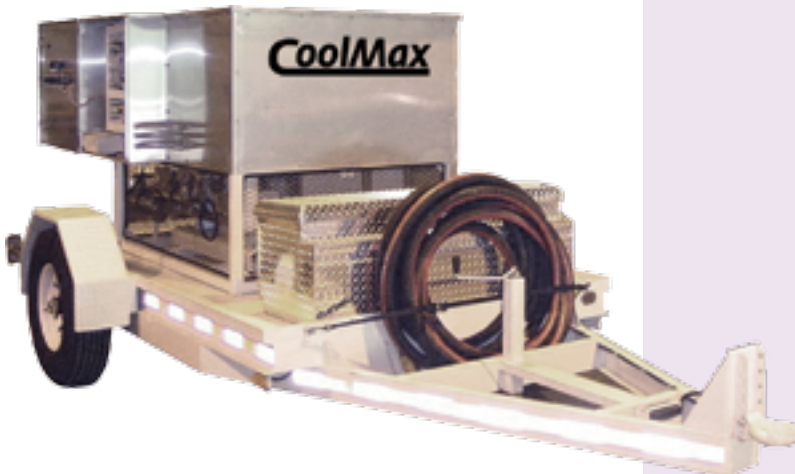
FluidMax™ reclaims fluid and preserves the life of paper insulation in transformers. FluidMax™ technology avoids disposal and replacement costs by recycling the filter media over 100 times before replacement. The result can be substantial savings to both the environment and your bottom line.



CoolMax®

MOBILE COOLING SYSTEM

Lower the operating temperature of your heavily loaded transformer with a CoolMax®, custom-sized for your requirements. This mobile cooling system is operated unattended, and is built with quality substation grade equipment.



SampleSafe®

EXTERNAL SAMPLING DEVICE

SampleSafe® eliminates the need to enter the transformer cabinet for routine oil sampling or processing. This allows technicians access to valves and instruments inside the transformer without dangerous exposure to energized equipment. Its stainless steel locking enclosure mounts on the surface of the transformer away from electrical hazards.

TRAINING & EDUCATION

There is a growing need for training when it comes to maintaining and servicing your critical power assets. Targeted training aligned to your specific job functions, from basic electrical fundamentals to advanced maintenance and management, is increasingly necessary. Factors such as aging transformers, retirement, and new technology and standards all point to the need for technical transformer training.

Whether your organization needs fundamental or master level training, our transformer education programs are designed to provide you with the appropriate level of knowledge based on your specific needs. With over 45 years of transformer management experience, millions of dielectric fluid tests, and memberships with standards organizations such as ASTM, IEEE, CIGRE, and IEC, we are dedicated to continued training excellence for our customers.

SD Myers' training team is known for their outstanding hospitality, and for providing the best training experience possible.



A photograph of a person's head and hand in the foreground, looking at an open technical manual. The hand is holding a black pen over a diagram on the page. The manual has a red spine and a green cover with the text 'SD MYERS' and 'www.TransformerEducation.com'. The background is a wooden desk with a white box.

SEMINARS & COURSES

THE HALF CENTURY TRANSFORMER

PRINCIPLES OF TRANSFORMER MAINTENANCE

RISK ASSESSMENT AND ASSET MANAGEMENT

LOAD TAP CHANGER MAINTENANCE

DISSOLVED GAS ANALYSIS

IN-SERVICE INSPECTION & SAMPLING FLUID-FILLED TRANSFORMERS *(hands-on)*

PRINCIPLES OF TRANSFORMER MAINTENANCE *(online)*

ELECTRICAL FUNDAMENTALS FOR TRANSFORMERS *(online)*

NEW IN 2013

THE HALF CENTURY TRANSFORMER APPLIED MAINTENANCE

ADVANCED TRANSFORMER MAINTENANCE & PLANNING

TRANSFORMER LIFECYCLE MANAGEMENT

*SD Myers also offers custom seminars at your location. Call for more information.
330.630.7000*

MAXLIFE[®] PHILOSOPHY

At SD Myers, our sole focus is **MAX**imizing the cost effective, reliable life of high voltage equipment. It's about exceeding expectations with benchmarks higher than status quo, and serving as our customers' advocate.

CONTACT US TODAY

Let us work with your experts to maximize the life of your critical transformer assets.

CONTACT YOUR SDMI REPRESENTATIVE

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