

BRANDON AND CLARK, INC.



HOW HEALTHY IS YOUR PADMOUNT?



DON'T GUESS, GET A CLEAR VIEW.

It well known in the industry that DGA (dissolved gas analysis) and thermal imaging are among the *most effective ways* for detecting faults within a transformer. Brandon and Clark offers the safest, most convenient way of analyzing the health of your padmount transformer through it's IR Window Installation and Remote Oil Sampler Valve Kit.

DISSOLVED GAS ANALYSIS (DGA)

Dissolved Gas Analysis is a vital test performed on the oil in the transformer. Oil analysis can reveal a variety of phenomena such as arcing, partial discharge, moisture contamination and overheating.

The breakdown of electrical insulating materials and related components inside a transformer generates gases within the unit. Identifying these gases being generated can be very useful information in any preventative maintenance program. Once oil samples have been taken and analyzed, the first step in evaluating DGA results is to consider the concentration levels (in ppm) of each key gas. It is recommended that values for each of the gases be trended over time. Any drastic change is a sign of a potential problem and action should be taken to prevent damage to the transformer.

Keeping trending records and performing regular DGA testing will

ensure the health of your transformer and prevent any unscheduled downtime.

TAKING OIL SAMPLES REMOTE SAMPLER VALVE KIT

Brandon and Clark's remote sampler valve kit allows for oil samples to be taken in an environment that is safe with no risk of arc flash because the transformer doors are never opened. The kit is located in an easy to access location allowing for samples to be taken without having to deenergize the unit.

As a part of your preventative maintenance program, Brandon and Clark will routinely take oil samples and send it to a third party laboratory for analyzing. The results from the test will be stored and trended to ensure that if something is out of the ordinary proactive measures can be taken.



BENEFITS

The greatest benefit to installing a Remote Sampler Valve Kit is for its safety capabilities. The technician servicing the unit has no concern of entering into an arc flash hazardous condition. The panel doors to the transformer never have to be opened and samples can be taken while energized, meaning no loss of production time.

Another great feature of the kit is that there

is no great risk to the environment or the property around the padmount. Sampling is done cleanly and precisely so leaking or spilling oil is not a concern.

To get the most accurate picture of the transformer's health measuring its oil during operation gives real time data of the oil's temperature and moisture content within the unit. No more adjusting or second guessing the temperature changes while waiting for the unit to come off line.

The return on investment (ROI) is without a doubt another great benefit of installing a Remote Sampler Valve Kit. The ability to prevent failure, prevent loss of production, eliminate arc flash hazard all add up to outweighing the cost of the kit. You simply cannot put a price on a life!

CONSTRUCTION

All of Brandon and Clark, Inc.'s Remote Sampler Valve Kits are constructed of heavy duty metal that will stand the test of time and the environment. Other units on the market are made of fiberglass, which can degrade over time. Brandon and Clark, Inc.'s Remote Sampler Valve Kits have nameplate information inside the box for

easy identification of units.

OIL SAMPLING RECOMMENDATIONS

It is recommended that oil samples be taken on a yearly basis for a healthy transformer. As time goes on and if proper maintenance is not performed, samples may be required more frequently. As a value-added service of Brandon and Clark, each time we perform an oil sample recommendations of oil sampling frequency will be recommended and trending data will be collected. Brandon and Clark is a trusted resource in an effort to keep your units running safely, efficiently and at tip-top health.

INSTALLATION

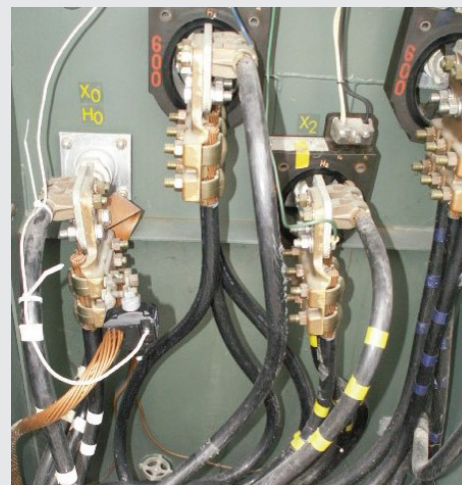
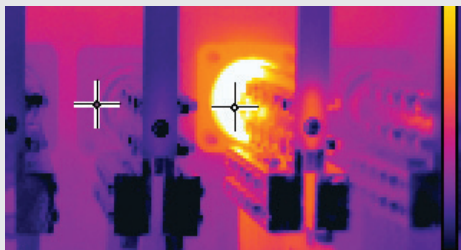
Brandon and Clark makes the install of its Remote Sampler Valve Kit simple and quick. The total installation time is approximately 1 ½ hours and can be done in the field or at our facility.

NITROGEN PURGE VALVE

The nitrogen purge valve plays an important role for oil sampling during the winter or when the ambient temperature is cold. Nitrogen creates a vacuum to help get the oil flowing.

THERMAL IMAGING

An IR (Infrared) Window can be installed to allow for infrared scanning *without* coming into contact with hazardous conditions that you are exposed to when the panel doors are open. With the addition of this window, arc flash PPE may no longer be required.



Don't expose yourself to hazardous testing conditions



BRANDON & CLARK, INC. "KEEPING INDUSTRY HUMMING SINCE 1950."

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