



# TFSS®

*Turbulent Flush Sampling System*

## turbulent Flush, representative Samples

### turbulent flush sampling system

One of the most important concerns companies face when it comes to the testing of high-voltage electrical equipment is a result that accurately indicates the condition of the equipment. When evaluating test results we make inferences about data that are based upon our collective experiences. These inferences are drawn from magnitudes of, changes in, associations of and relationships of test results. However, the underlying assumption is that the variance in test results from differing sample collection practices is negligible. In reality, we observe that a poorly drawn or contaminated sample can in fact negate the validity of a test result and even lead to a potential misdiagnosis.

The key to a properly collected sample is to ensure that a turbulent flush is achieved throughout the sampling process. This starts with a turbulent flush of the drain valve. Sample collectors are often reticent to open the main drain valve and flush adequate volumes of stagnant oil for fear of an accidental mishap. What typically results from this fear is a restricted laminar flow that produces a significant variance in sample quality as moisture or sedimented material exits the drain valve in an unpredictable pattern.

### benefits

The TFSS® (see figure 1) provides several benefits, including:

- **promotes turbulent flush.**
- **standardizes flush volumes.**
- **produces representative sample.**
- **prevents sample contamination.**

### product information

TJH2b has developed the Turbulent Flush Sampling System or TFSS® for promoting a turbulent flush of the drain valve and facilitating the collection of a representative sample from electrical equipment. The TFSS® is a compact, self-contained system which comes with quality parts and adapters to fit all types of sampling valves. It eliminates the need for funnels, pans, and bags and requires less tubing than standard sample collection methods. And its design allows for easy sampling from low-clearance valves.

Without standardized collection equipment it is difficult to determine how much oil has been flushed from the drain valve. The TFSS® containment vessel markings make it easy to meet the recommended flush volumes and obtain a representative sample of the oil inside the equipment, not the contaminants that have settled into the valve.



*Figure 1 - TFSS®*