FILTERALL LIMITED

Modern oil purification systems such as the FILTERALL Transformer Oil Purification Plant Type E, are most effective in removing moisture from transformer oil. However, regardless of such high efficiency of dehydration of the oil, the reality of the integrity of the insulation system is not totally confirmed after such oil processing.

In a transformer dry out situation, the eventual rate of water removal is very small;; and continued oil processing becomes economically prohibitive. Whilst the oil inside the transformer may be dry after a certain period of processing, this does not conclude that the transformer's internals are equally dry. This is because of the rate of diffusion of water through the paper insulation, which initially can contain some 99% of the moisture in the transformer. Therefore, unless dry out is continued after this initial dry out period, after several weeks of normal operation following the initial treatment the transformer oil appears to be almost as wet as before processing was made.

The transformer design contributes to this problem. Older transformers tend to have thick solid insulation structures and newer transformers tend to have built up insulation structures which are made up of relatively thin insulation barriers alternated with oil ducts. In both instances prolonged oil treatment is necessary to attain the degree of dryness desired.

A solution offered by FILTERALL utilises FILTERALL Multi-purpose Filter Type FDP fitted with element part no. AB6318-05U14, providing for high moisture retention capacity. This mini type Dehydration / Filtration unit is a low priced unit which can be positioned at the side of the transformer allowing for continuous prolonged treatment in order to remove the moisture as it is released from the transformer insulation. The low flow rates has no effect on the stability within the transformer and the unit can be left without attention for long periods. When the element becomes saturated it is easily changed without interference with the transformer operation.

Once the transformer internals are proven to be free from moisture, the unit can be removed for use on other transformers or it can remain fitted to the transformer available to provide convenient processing facility at pre-determined periods in order to maintain desired dryness.

Please refer to specification Multi-purpose Filter.