

***** IMPORTANT *****

Failure to follow the enclosed sampling instructions may result in a contaminated sample.

Please fully read instructions before beginning the sample.

Use extreme caution when working around energized electrical equipment. Follow all codes and recommended safety procedures.



PO Box 6316 • Fort Smith, Arkansas 72906
Ph 479-646-1668 • Fax 479-646-4101 • www.alfatransformer.com

***** SAMPLING INSTRUCTIONS *****

TRANSFORMER OIL QUALITY (Plastic Bottle)

- 1) **FILL THE BOTTLE BEFORE SAMPLING WITH THE SYRINGE.**
- 2) Try to sample on a calm, dry day. Rain, high humidity, or blown dust may seriously affect the quality of the sample.
- 3) Have on hand a waste oil container and a spill kit in the event a leak is discovered.
- 4) It may be necessary to use bottled nitrogen to release negative pressure and allow oil to flow out of the transformer.
- 5) To ensure that the sample is representative of the oil in the transformer, **be sure to drain off a small portion into a separate container before filling the bottle.** Also be careful not to let any dirt from the valve get into the sample.
- 6) **Fill the bottle as full as possible.** Make sure the bottle cap is tightened firmly.
- 7) Write the transformer serial number and any other necessary information on the test sample record (included).
- 8) Pack the bottles carefully inside the plastic bag inside the box to contain any leakage. Fill empty space with packing material to secure the sample containers.
- 9) Return filled sample containers to the address below.
- 10) Proper disposal of all sampling waste is the responsibility of the customer.

Return samples by FedEx/UPS or other courier to:

Alfa Transformer
6107 South Zero Street
Fort Smith, AR 72903

Or return samples by US Postal Service to:

Alfa Transformer
PO Box 6316
Fort Smith, AR 72906

If you have any questions, please call 479-646-1668.

The above is an instructional aid only. A full and comprehensive sampling method is found in ASTM D3613, Standard Test Method for Sampling Electrical Insulating Oils. It is the responsibility of the customer to perform the sampling, handling, shipping, and any related activity consistent with proper servicing of electrical equipment.

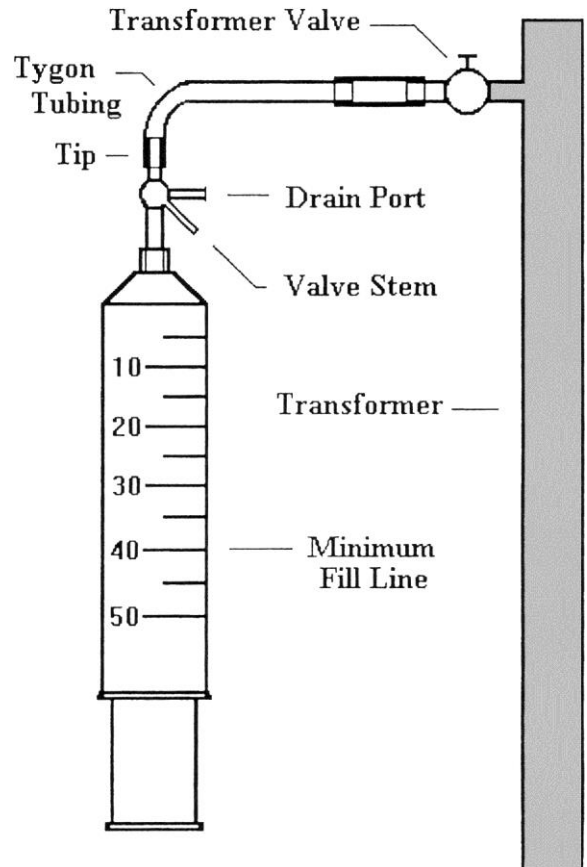


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**** SAMPLING INSTRUCTIONS ****

DISSOLVED GAS-IN-OIL ANALYSIS (Glass Syringe and Plastic Tube)

- 1) Have on had a waste oil container and a spill kit in the event a leak is discovered.
- 2) It may be necessary to use bottled nitrogen to release negative pressure and allow oil to flow out of the transformer.
- 3) **Do not reuse the plastic tubing.** Gases in the oil, especially acetylene, may carry over from one sample to another.
- 4) Attach the plastic tube to the transformer valve, or an adapter that fits the tube, to ensure a leak-tight connection. Open the transformer valve slowly, draining oil through the tube to an overflow pan, until oil is running clear and free of debris and water. Close the transformer valve.
- 5) Affix the open end of the tube to the tip of the syringe. Open the transformer valve slowly then open the valve stem to the syringe by turning it in the direction of the drain port. Fill approximately 10 mls (CCs) of oil and close the transformer valve. While holding the syringe, tip pointed up, open the syringe valve stem towards the tip and empty syringe contents into the waste oil pan until all the air bubbles are removed from the fluid in the syringe. This process is meant to rid syringe space of air bubbles.
- 6) Open the syringe valve (valve stem in the direction of the drain port) and allow syringe to fill itself by pressure and gravity, while holding onto the syringe with the tip pointing upward. **DO NOT PULL BACK ON THE BARREL.** This will cause bubble formation. If gas bubbles form do not attempt to drain them, as they will now be part of the sample. Fill the syringe to the 40 ml level. If using smaller 30 ml (cc) syringes, fill syringe to about 1/2" past the 30 ml (cc) line while making sure the filled syringe will fit into the box.
- 7) Close the transformer valve followed by the syringe valve stem (pointed towards syringe). Detach the tube very carefully while holding onto syringe tip firmly (if tip becomes loose or dislodged oil contents could leak out). Discard the tube and waste oil properly. Place the syringe in the box immediately to avoid exposure to light and fill out the test sample record (included). Package and ship your samples carefully to Alfa Transformer as soon as possible after sampling.



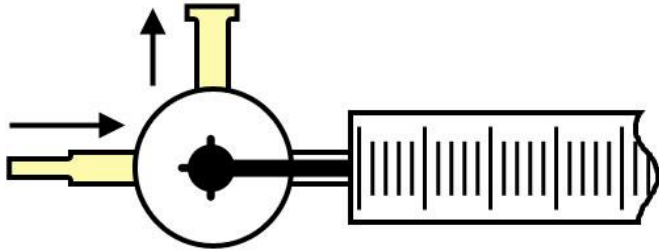
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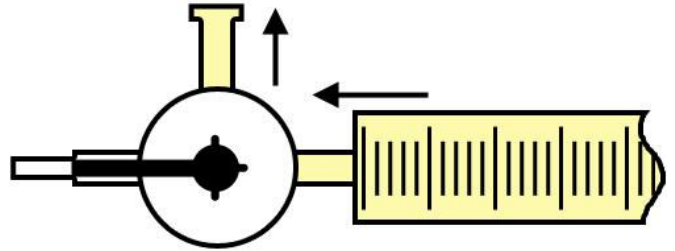
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***** SAMPLING INSTRUCTIONS *****
SYRINGE VALVE SETTINGS

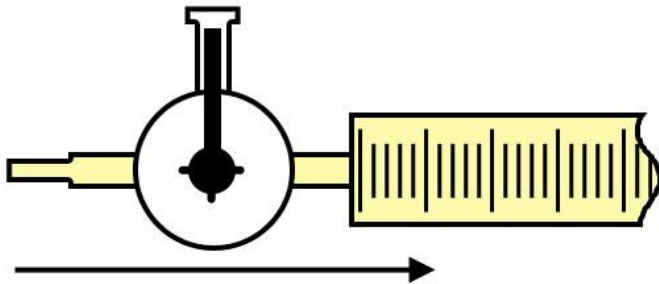
BLEEDING
(when tube is connected)



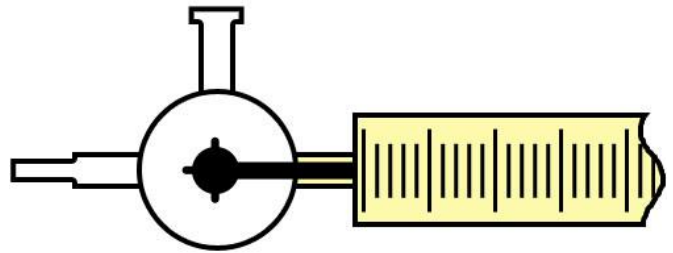
EVACUATING
(with tube connected)



FILLING
(with tube connected)



CLOSED
(when tube is disconnected)



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