



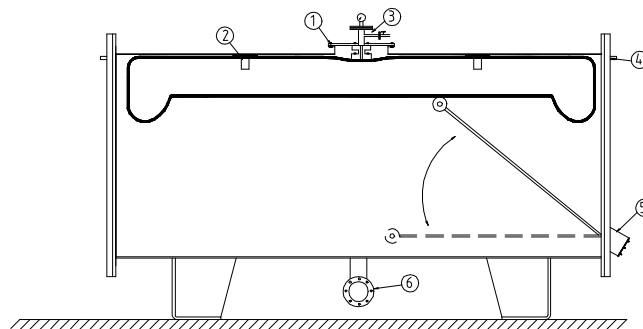
SAFETY RULES FOR THE USE OF RUBBER AIR CELL(RUBBER BAG) FOR TRANSFORMER with conservator Type MBT

- Never drag the rubber bag on the ground or walk or roll on it
- Respect the maximum inflation pressure of the rubber air cell in the conservator
- Respect the operating temperatures (ideal temperature range from -20 ° C to + 70 ° C)
- Respect the regulations and the wear of Personal Protective Equipment

INSTALLATION ADVISE

The following steps for installation are one possible way among others.

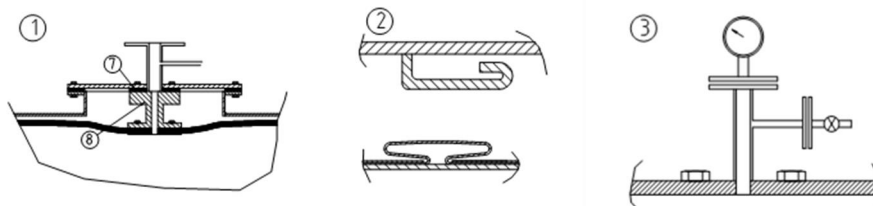
- Take the rubber bag out of the box and place it on a protective sheet on the ground
- Push the rubber air cell into the conservator through the open end or inspection hatch in the end of the conservator (Please check that there is no asperity on the internal surface of the conservator).
- Hang up the oil bladder from hooks (2) at the ceiling of the conservator using the loops.
- Fit the MBT flange (8) on the conservator flange using a gasket* (7) to ensure airtightness of the system.
- Close the open end of the conservator.
- Fill the rubber bag to a pressure of 10kPa (0,1 bar) maximum. Close the filling valve (3) while leaving the system pressurised. A relief hole (4) must be on the oil filled side of the conservator so that the oil bladder can freely expand.
- The rubber air cell will gradually stabilise. After 6 hours, adjust the air pressure again to 10kPa (0,1 bar) maximum. A 24 hours leak test is then to be made on the MBT. After 24 hours check the pressure reading again. If -the pressure has not dropped significantly, the test is correct. The temperature and atmospheric pressure shall be as stable as possible during the leak test period.



TAKE CARE : Never inflate at free air the rubber bag– maximum pressure in the rubber bag in the conservator is 0.1 bar-risk of bursting

Filling the Conservator

- Check that the rubber air cell in the conservator is at 10kPa (0,1 bar). If not, increase the pressure to the correct level and close the air-filling valve.
- Open the air vent valves (4) at both ends of the conservator.
- Open the valve (6) between the conservator and transformer tank and pump in more oil so that the oil level rises into the conservator. The pumping speed should be suitably slow so that the pressure within the MBT does not exceed 1 kPa (0,1 bar). Stop pumping when oil begins to come out of the vent valves, and close the vent screws.
- Adjust the pressure in the MBT to normal by opening the plug in the flange or air filling valve from which the pressure hose is removed.
- Reopen the valve (6) between the conservator and the transformer tank and continue filling with oil until the oil level indicator gives the correct reading according to the temperature of transformer.

**STORAGE, MAINTENANCE OF AIR CELL/ RUBBER BAG**

- Store the rubber bag flat in a room protected from extreme climatic conditions, aggressive vapors and rodents at a storage temperature between -5 ° C and +20 ° C and a degree of hygrometry between 40 and 70%.
- Protect against sunlight, UV light, or strong artificial light.
- Clean the rubber bag with warm soapy water (never use chemicals, iron brush or high pressure wash) rinse and let it dry.
- Check that the rubber air cell is not damaged (hole, cut) before any use. Due to the process of vulcanization you may have molding marks due to creeping without effect on the performance of the rubber bag. Contact Musthane if in doubt