

# Transorfilter

Insulating oil treatment unit  
TF 200



# Transorfilter

*Highly effective self-contained units for treatment of insulating oil in transformers and other electrical equipment.*

*Based on 60 years of experience.*

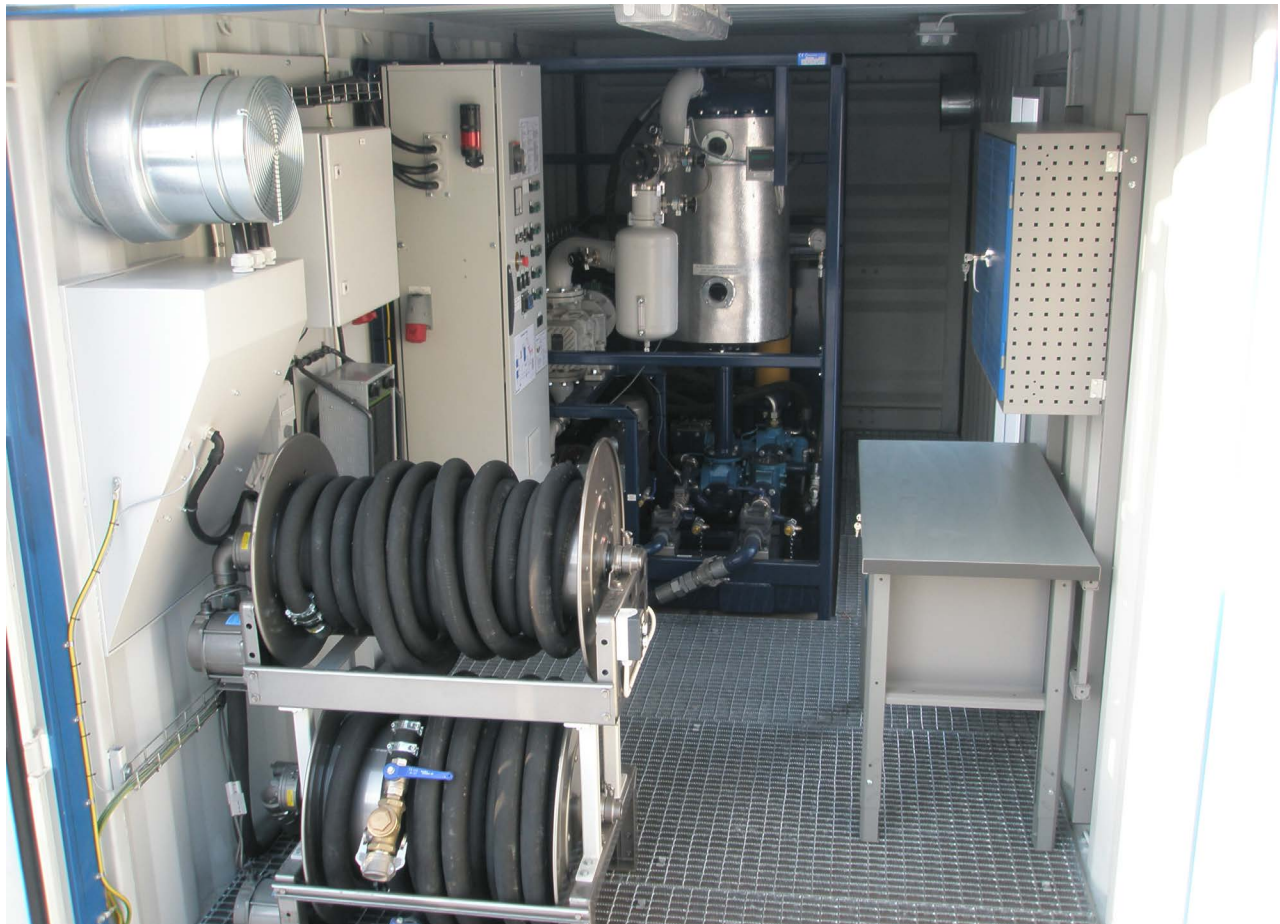
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## Transorfilter treatment units

Transorfilter treatment units give a dielectric strength that satisfies very high demands after only one passage through the filter.

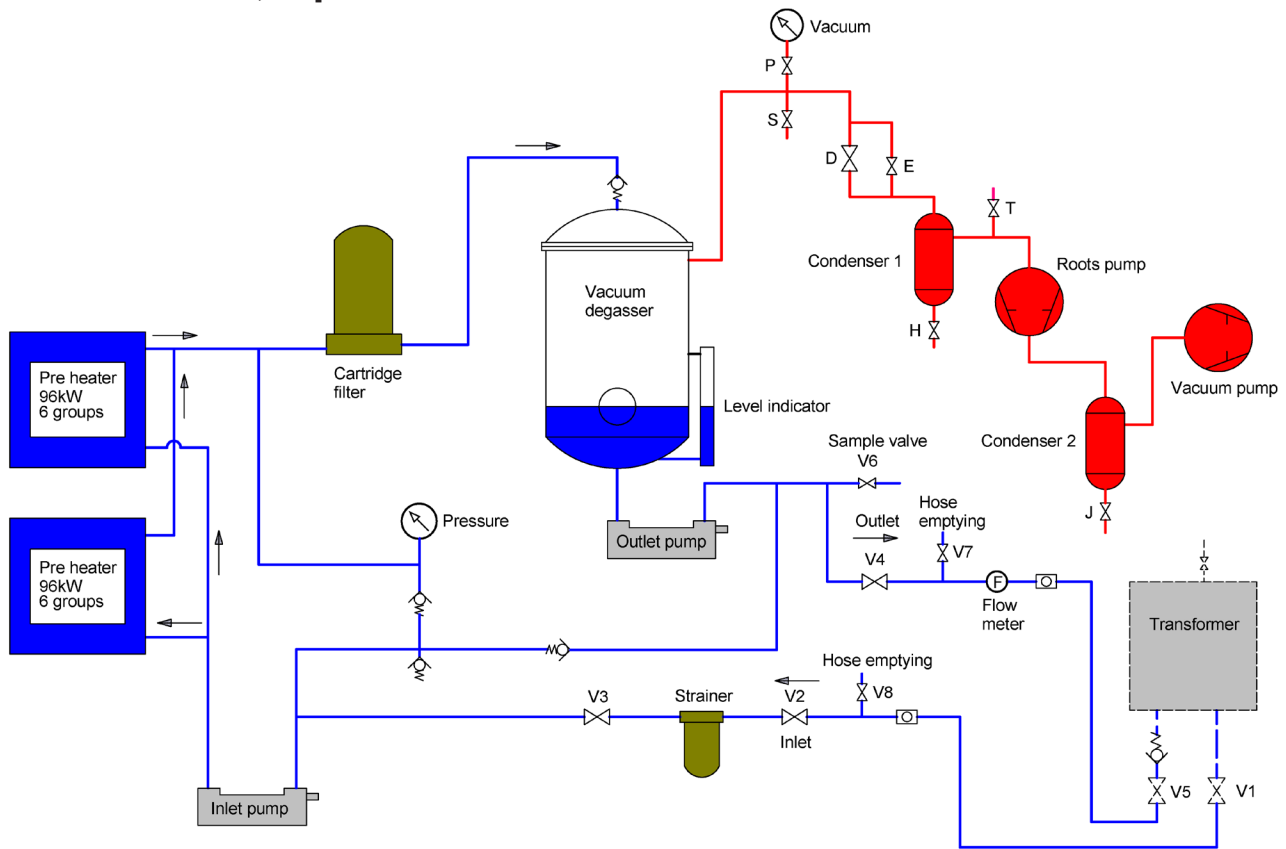
The treatment units are self-contained needing only electrical supply.

- Separate vacuum degasser of a patented very effective design with a large evaporation area.
- Cartridge filter.
- Electric hose reels for the inlet and outlet hoses.
- Air cooled pumps. No water supply needed.
- High capacity oil heaters with low power density (1.6 Watt/cm<sup>2</sup>) and individually thermostat controlled heating groups.
- All parts are easily accessible thus improving the reliability of service.
- The TF 200 is built inside a 20 foot container and can easily be moved using a truck.



*View from inside TF 200-1 transformer oil filter.*

# Transorfilter, Operation



## Description

The treatment units consist of a filtration part and a degasser part. The oil is first heated and filtered and then dehydrated and degassed. After passing the filter cartridge the oil enters the separate vacuum degasser which consists of a container with a number of plates spreading the oil into a thin layer on a large surface giving a very effective dehydration and degassing. The Transorfilter degasser is patented.

## Applications and performance

The treatment units are suitable for most normal applications such as the treatment of oil in transformers in factories and substations. The filter cartridge has high particle removal efficiency. Theoretical filtration capacity of installed filter cartridge is according to ISO 4406, cleanliness code 08/04/01. The water content of the oil is reduced when the oil passes through the vacuum degasser. Gas content of the oil is also reduced in the same process. The vacuum degasser has a working pressure below 1 mbar when both vacuum pump and roots pump are in operation.

## Principle of operation

The oil is drawn in through the inlet valve, then passes a strainer, an inlet pump controlling the rate, an electric heater, the filter, the vacuum degasser with its outlet pump and level regulating sensor and comes out fully cleaned through the outlet valve. By throttling or shutting the outlet valve, the oil will recirculate inside the unit which is utilised while starting up and if the oil is very cold or contains free water. The temperature is controlled by thermostats and can be read on a digital thermometer. The rotary vane vacuum pump is air cooled. The vacuum can be read on the digital vacuum meter. A manometer connected across the filter shows if the pressure becomes too high, meaning that the filter is contaminated.

## Basic forms

The standard voltage is 400 V, 3-phase, 50 Hz. Other voltage specifications on request. The TF200 chassis is built into a 20 foot double door container with grating on the floor. Also there is a door for personnel entrance on the container side. The container can be equipped with ventilation fan, space heater, work bench etc. upon customer request.

## Transorfilter, Technical data

Measurements	TF 200-1
Length (including 20 foot double door container), mm:	6 058
Width (including 20 foot double door container), mm:	2 438
Height (including 20 foot double door container), mm:	2 591
Length (chassis), mm:	3 710
Width (chassis), mm:	1 600
Height (chassis), mm:	2 230
Weight (chassis with components), kg:	3 000
Weight (including 20 foot double door container), kg:	5 900

Technical data	TF 200-1
Capacity, adjustable, (approximately), L/min (L/h)	100/200 (6 000/12 000)
Heater (divided into 6 individual groups), kW	192 (48+48+48+24+12+12)
Vacuum pump capacity, m <sup>3</sup> /h	190
Motor vacuum pump, kW	4
Roots pump capacity, m <sup>3</sup> /h	1 000
Motor for roots pump, kW	4
Motors oil pumps (2 pcs), kW/each	3
Inlet hose, dimension x L (inches x m)	2" x 20m
Outlet hose, dimension x L (inches x m)	1 ½" x 20m
Hose reels for inlet (1 ½") and outlet (2") hoses	Electric (24V)
Painting 20 foot container	RAL 7035 (light grey)
Painting chassis	RAL 5003 (dark blue)
Suction nozzle for oil barrels	Included
Flow meter	Included (0 – 200 L/min)
<b>The TF200 unit is filled with transformer oil at delivery.</b>	

*Subject to changes without notice.*

