REDFOX C-Ty

REDFOX

It takes new ways of thinking to solve problems we created with the old ones

A.Einstein

REDFOX puts you in control and improves your finances!

Provides increased reliability by alerting you long before gas production reaches dangerous levels. Extends lifetime dramatically by keeping the gas and water content to low levels. These are the benefits you will get from the REDFOX C-Ty a unique product providing safety and security for decades.

REDFOX C-Ty, a complete turnkey equipment with monitoring, degassing and filtration functions.

The main component is the hydraulically driven Redfox C vacuum unit, designed for many years of problem-free operation.

REDFOX-C operates in cycles and since the vacuum chamber is transparent you can actually watch gas and moisture being driven out of your oil. When the water- and gas-levels in the oil decrease, water and gasses will begin to migrate from the cellulose insulation due to the natural law of equilibrium.

The level of vacuum in the chamber can be monitored on a digital display. This enables you to make a daily estimation of the condition of your transformer since the vacuum level in the REDFOX-C unit is related to the content of gas in your oil.

REDFOX C-Ty is CE-marked which means that it complies with the EEC guidelines.

Maximise safety !

The built-in monitoring function of the REDFOX equipment provides an early warning if the production of gasses in your transformer increases above your preset level. This provides you with plenty of time to decide what steps and measures you need to take and, importantly, when they should be taken.
The internal monitoring system will also alert you to electric motor overload, oil leakage or filter clogging.

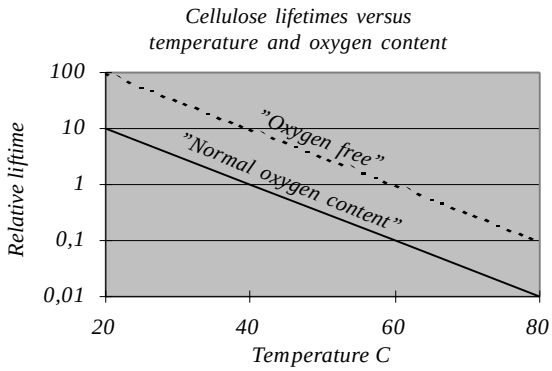
Degassed oil minimises the risk of gas bubbles in the transformer.

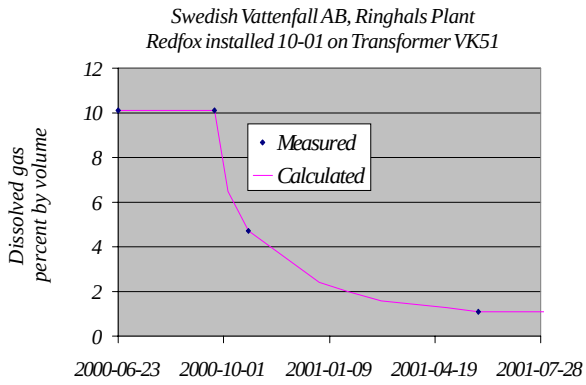
Improve remaining lifetime!

The lifetime of a transformer is governed by its insulation media, the oil and cellulose. These are chemically decomposed with the dominant factor being oxygen content. This has been proven in tests as well as in theory. The diagram on the right shows test results where gas production has been controlled at different levels of oxygen content in transformer oil. The lower the content of oxygen the lower the decomposition rate of the oil and cellulose.

Transformer oil in contact with atmosphere will dissolve approximately ten percent (10%) by volume of air. One third (33%) out of this amount is oxygen.

Continuous degassing with Redfox C-Ty will reduce the gas content down to 1-2 %.
This represents by rough calculation a 300% (often even more) increase in the remaining life of the transformer.





Improve profit !

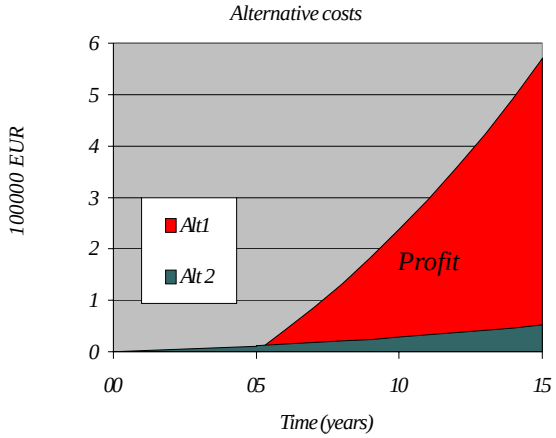
The REDFOX C-Ty equipment will normally pay for itself in less than six months which is demonstrated in the following example.

Option 1: "Wait and see"
- A new transformer is purchased for the amount of EUR 400 000 after five years. Internal interest rate is set to 7 percent and depreciation time thirty years.
- Cost of capital and depreciation amounts to EUR 570 000 Euro after 15 years.

Option 2: "Install Redfox C-Ty"
- A REDFOX C-Ty is immediately installed .
- The total cost of this unit after 15 years is merely EUR 50 000, maintenance costs included!

After 15 years you will have saved in exess of EUR 500 000. This will enable you to purchase a new transformer with your savings and allow the capital needed for buying the transformer to be used for other investments.

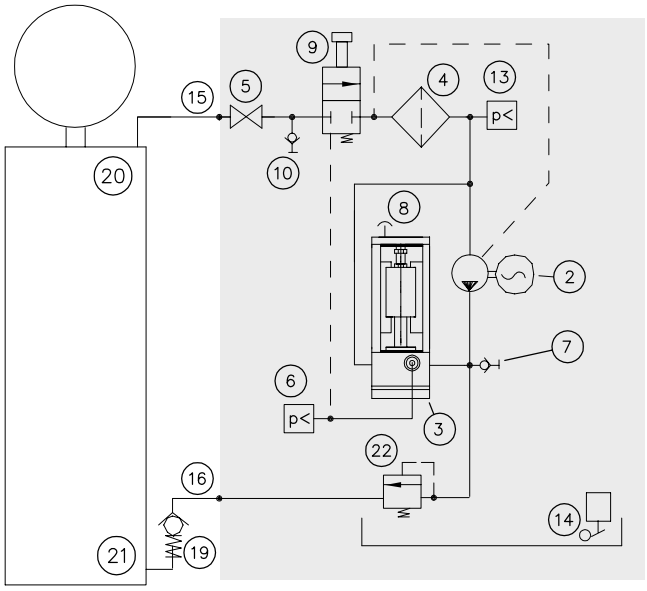
Triple transformer life !



pay-off < 6 months

Technical specifications

Design specification



2. Electric motor and pump
3. Redfox C
4. Particle filter
5. Manual shut-off valve
6. Vacuum gauge
7. Test point
8. Air evacuation plug
9. Security valve
10. Test point
11. Check valve
13. Filter pressure switch
14. Level switch
15. Inlet
16. Outlet
19. Check valve 0,5 bar
20. Top connection
21. Bottom connection
22. Pressure limiter

Weight	Approximatley 60 kg (empty), weather protection included.
Dimensions WxHxD	785x750x395 (mm).
Power consumption	Approximately 300 W.
Electrical connection	Single phase 230 V, 10A.
Hydraulic connection	2 hydraulic hoses.
Degassing capacity	15 m³ of oil degassed weekly.
Dehydration capacity	Determined by temperature conditions and the type of Redfox unit. (Standard C-type or LC-type with optional water cooling).
Particle filtering	10 µm absolute. Particles greater than 3 µm are filtered to 92 % with each pass.
Cooling	The equipment is normally sufficiently cooled by surrounding air but is prepared for water cooling.
Working temperature	- 35 to + 60 C°.
Maximum oil temperature	+ 95 C°.

The equipment should be installed in the coolest possible environment. There is no need to shut down the transformer for either installation or initial start-up.

REDFOX AB develop, manufacture, and market our own patented products for continuous degassing of oils in industrial systems. Our products are found in forestry and contracting equipment as well as stationary hydraulic systems, transformers and lubricating systems. The company headquarters are in Örnsköldsvik, Sweden.

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