

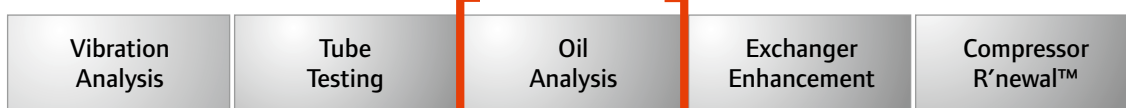


# *Oil Analysis*

*Trane Care Services*



Trane Care customized service solutions for building owners address operating performance, energy efficiency and environmental concerns. Oil analysis is an essential aid in maintaining your compressor at the highest level of reliability.



### Keep your compressor working longer

High oil quality ensures the longest possible lifecycle for the compressor. Regular oil analysis helps reduce the risk of premature damage and can cut the cost and frequency of oil changes.

Oil quality can be affected by three main factors:

- **Wear:** solid particles in the oil can wear components, reducing compressor life.
- **Chemistry:** Abnormal viscosity due to oil temperature changes caused by moisture or high acidity [TAN] resulting from internal chemical reactions (refrigerant alteration or oil hydrolysis)
- **Contamination:** moisture in the refrigerant circuit.

These problems are caused by oil overheating, bad vacuums, water, refrigerant or air leaks, and additives.

### The Trane Oil Laboratory – expert analysis at your service

Thanks to our own new state-of-the-art laboratory, combined with 40 years' experience, Trane experts are on hand to identify these issues by employing the very best HVAC oil analysis, conducted using the latest technology and equipment.

#### Predictive maintenance for reduced operating costs

Trane Oil Analysis is a predictive tool used to detect minor issues before they become major problems. It also reduces failure detection time and allows planning for appropriate maintenance.

Oil changes can be reduced by half, resulting in lower operating costs and a lower impact on the environment.

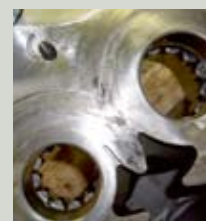
#### Various types of defects may occur due to poor oil quality



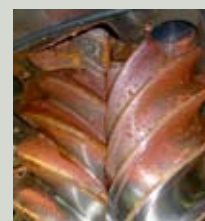
**High level of oil acidity**  
Corrosion on the motor windings resulting in motor burn out



**Components wear**  
High wear on bearing causing compressor failure



**Moisture presence**  
Moisture in oil considerably decreases the lifecycle roller bearings, can lead to corrosion and big damages



*Trane recommends one yearly analysis per refrigerant circuit.*

### Trivector reporting for clearer results

Trane Oil Analysis is based around a range of tests which measure both oil characteristics and compressor wear. A detailed technical report is presented using the Trivector concept for easy understanding. The tests concentrate on:

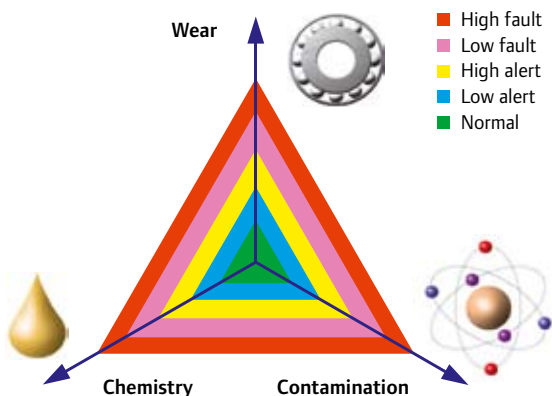
- **Wear:**
  - Spectrometric analysis to identify wear amount
  - Quantity of particles (ppm)
  - Nature of particles (additive, wear, pollution)
- **Chemistry:**
  - Total Acid Number (TAN)
  - Viscosity
- **Contamination:**
  - Moisture presence

Then, according to the compressor technology and original oil characteristics, the analysis determines 5 alarm levels on each of the three axes.

Depending on the results of the oil analysis we may recommend to do a vibration analysis to give you further peace of mind.

### Trane Oil Analysis:

- is available for all compressor technologies and brands
- is available for any HVAC oil
- provides fast results (within 5 working days)
- includes comments and corrective recommendations
- includes comparisons with previous analyses, enabling tracking of oil change evolution



To perform Trane Oil Analysis, simply contact your local Trane representative to order an analysis kit.





### Trane Care Services

Trane Care offers an extensive array of upgrade products to answer our customers' top business priorities. Because Trane service experts will analyze your objectives, you can trust they will make the best recommendations to meet your building needs.

With Trane Care, let us show you how to enhance your cooling and heating system to like-new performance. Trane Care reliability services reduce the risk of breakdowns, improve operation and extend equipment life.



**Reliability**



**Energy**

Trane Care proposes cost effective ways to optimize the energy efficiency of your existing system and generate immediate savings.



**Environment**

Trane Care service experts can advise building owners and managers on how to manage complex issues such as building carbon footprint, occupational health, comfort, safety and compliance with national and local legislation.

### Call on Trane

Call on Trane today and get the expertise of a global leader and its experienced service professionals and resources. With more than 120 locations in Europe, Middle East, India and Africa, Trane has one of the most extensive service networks in the industry.

Our local technicians have:

- Knowledge on the history of your equipment and controls
- In-depth expertise in servicing your equipment and controls
- Access to the latest technology and support

Call us, let's talk.



Trane optimizes the performance of homes and buildings around the world. A business of Ingersoll Rand, the leader in creating and sustaining safe, comfortable and energy efficient environments, Trane offers a broad portfolio of advanced controls and HVAC systems, comprehensive building services, and parts. For more information, visit [www.Trane.com](http://www.Trane.com).

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.

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