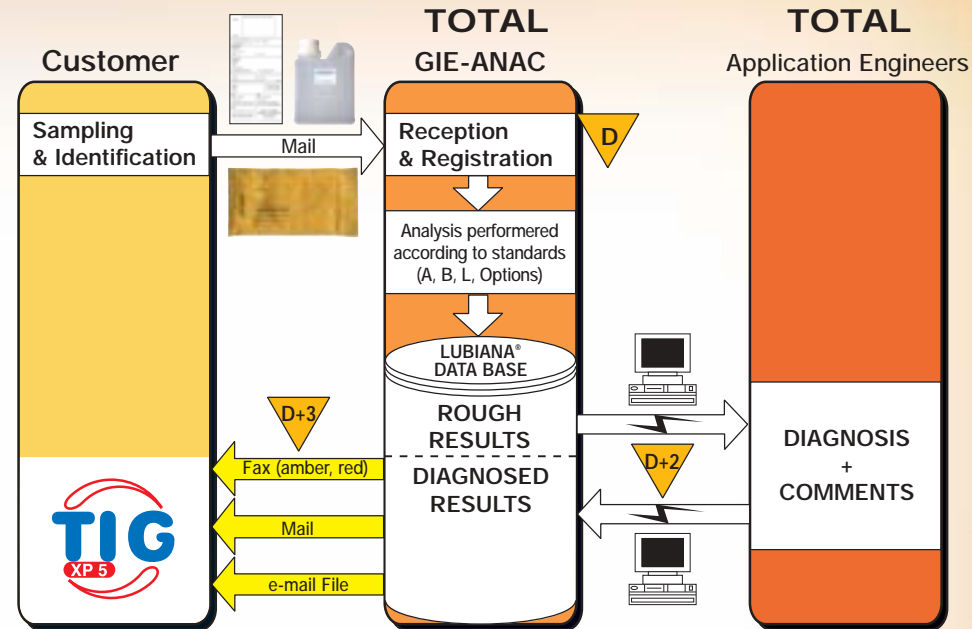


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Choosing a diagnosis that is easy to use

The user is in contact with the person in charge of his sector whose job it is to select the machines needing to be monitored by analysis. Each item of equipment will be clearly identified by customer-specific markers.

The LUBIANA® team sets up then a specific data base and is responsible for supplying the customer with bottles, identification labels and monitoring memorandum sheets.



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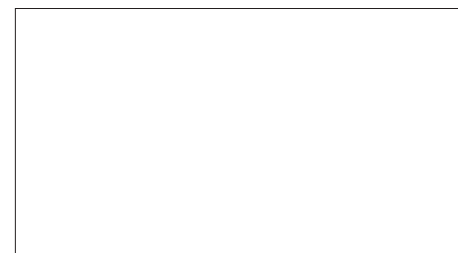
Accurately retranscribed analysis results

The results of analysis enable one to prepare the decisions concerning intervention while helping to cut consumption, shrink down costs, simplify maintenance and improve productivity.

- 2 diagnosis levels: on a characteristic-by-characteristic basis and overall
- Diagnosis expressed by a colour based on traffic lights:
 - Green (OK)
 - Amber (needs to be monitored)
 - Red (serious anomaly)
- Comments on the analysis carried out by the applications engineer: personalised as a function of the environment (background, machine and type of industry)
- Display of the evolution of the characteristics analysed
- Display of the background of the 10 previous analysis
- Faxing or e-mailing of Amber or Red results
- Consultation of analyses on the GIE-ANAC Internet server
- Loading of analyses, diagnoses and comments onto the TIG® XP 5 maintenance software
- Sheets listing results and comments

Internet site: www.gie-anac.fr

For further information, visit our Web site:
www.lubricants.total.com



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LUBIANA®

The industrial lubricants diagnosis



TOTAL

Monitoring of the physico-chemical properties of industrial lubricants in service is essential for conditional maintenance.

As things stand, the results of the oil analysis naturally make it possible to track the functional qualities of the oil, as well as providing information on wear and tear affecting the lubricated mechanical parts.

Advantages:

- the condition of the equipment and its lubricant is preserved
- consumption of lubricants is minimised.

Analysis of the industrial oils in service, carried out by lubrication industry specialists, GIE-ANAC laboratory and TOTAL LUBRIFIANTS Application Engineers, has several aims:

- monitoring of changes in the condition of the oil
- monitoring of changes and the type of wear and tear affecting the lubricated machine
- planning of maintenance operations and reduction in production shutdowns
- assistance as regards choice of the lubricant best suited to operating conditions
- determining the origins of possible pollution.

To achieve these objectives,

3 standards of analysis have been selected:

- **comprehensive analysis:** Standard A
- **analysis by speciality:** Standard B
- **simplified analysis:** Standard L

Additional analyses offered as an optional extra.



LUBIANA ANALYSIS STANDARDS

		STANDARD A					STANDARD B			STANDARD L	
		Hydraulic	Turbine	Machine oils Compressor Gear	Refrigerating Machine Compressor	Neat Cutting Oil	Soluble Oil	Transformer	Heat transfer fluid	Quenching	Lubricants
Bottle		125 ml	125 ml	125 ml	125 ml	125 ml	125 ml	500 ml	500 ml	1 L	125 ml
C H A R A C T E R I S T I C S	Appearance	Appearance	Appearance	Appearance	Appearance	Appearance	Appearance	Appearance	Appearance	Appearance	Appearance
	Water %	Water %	Water %	Water %	Water %	Water %	Water % (3)	Water %	Water % (3)	Water % (3)	Water %
	Addition elements	Addition elements	Addition elements	Addition elements	Addition elements	Addition elements	Addition elements	Addition elements	Addition elements	Addition elements	Addition elements
	Wear elements & pollutants	Wear elements & pollutants	Wear elements & pollutants	Wear elements & pollutants	Wear elements & pollutants	Wear elements & pollutants	Wear elements & pollutants	Wear elements & pollutants	Wear elements & pollutants	Wear elements & pollutants	Wear elements & pollutants
	Acid value	Acid value	Acid value	Acid value	Acid value	Acid value	Acid value	Acid value	A.N. (4)	A.N. (4)	A.N. (4)
	Insolubles % weight	Insolubles % weight	Insolubles % weight	Insolubles % weight	Insolubles % weight	Insolubles % weight	Insolubles % weight	Insolubles % weight	Insolubles % weight	Insolubles % weight	Insolubles % weight
	Viscosity at 40°C Viscosity at 100°C Viscosity index	Viscosity at 40°C	Viscosity at 40°C	Viscosity at 40°C	Viscosity at 40°C	Viscosity at 40°C	Viscosity at 40°C	Viscosity at 40°C	Viscosity at 40°C	Viscosity at 40°C	Viscosity at 40°C
						Alkalinity reserve Odour Bacteria / fungi % polluting oil					
							Dielectric strength				
								CC flash point	CC flash point		
								Ramsbottom carbon			
									Cooling curves		
OPTIONS		• Analytical Particulate Index • Counting of particles (2)	• De-aeration/ foaming (1) • Analytical Particulate Index • Counting of particles (2)	• Analytical Particulate Index • Counting of particles (2)	• Analytical Particulate Index						

(1) 500-ml bottle - (2) depolluted 125-ml bottle (NFE 48654 standard) - (3) Karl Fischer method - (4) Acid Number ASTM D 664 standard