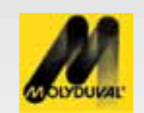




Our brands and distributors;

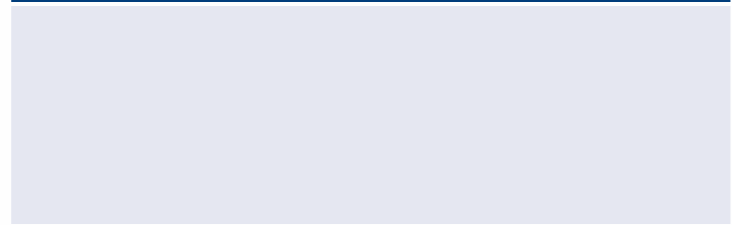


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Head Office

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Regional Branch



COMPRESSOR OILS



Our Dear Friends,

We, as ERSA ENDÜSTRİYEL YAĞLAR, have been serving our national industry for 11 years with our superior technical knowledge, competent personnel and high quality product range by supporting our special lubricants adventure started with GERMAN MOLYDUVAL and our ERALUBE brand name.

Leading industries of Turkey such as machining, food, textile, iron and steel, etc. are among our core businesses, for which we obviously use our best efforts. We are gradually increasing our significant contributions to the industry, especially in the recent efforts to reduce costs, improve the quality and maintain international competitiveness in the before mentioned industries.

With our specialized sales staff, we aim to offer our high-performance products under the fairest trading conditions possible by combining operating conditions with direct machine lubrication charts and requirements and recommendations of machinery manufacturers. We are glad to present you this catalogue prepared with great care in accordance with the said purposes and containing product details and points of use.

We also would like to state that all our products offered to the industry are always kept in stock.

Our company, which takes high quality products and services as the main principle, aims to provide you with significant benefits by solving the problems in the applications of your company and improving your existing applications through our well-trained staff and the unique training in lubrication and technical support provided by us.

Should you have any technical questions and/or need more information about our products that are not included herein, please contact us.

We would be pleased to offer our services, and wish you success in your business.



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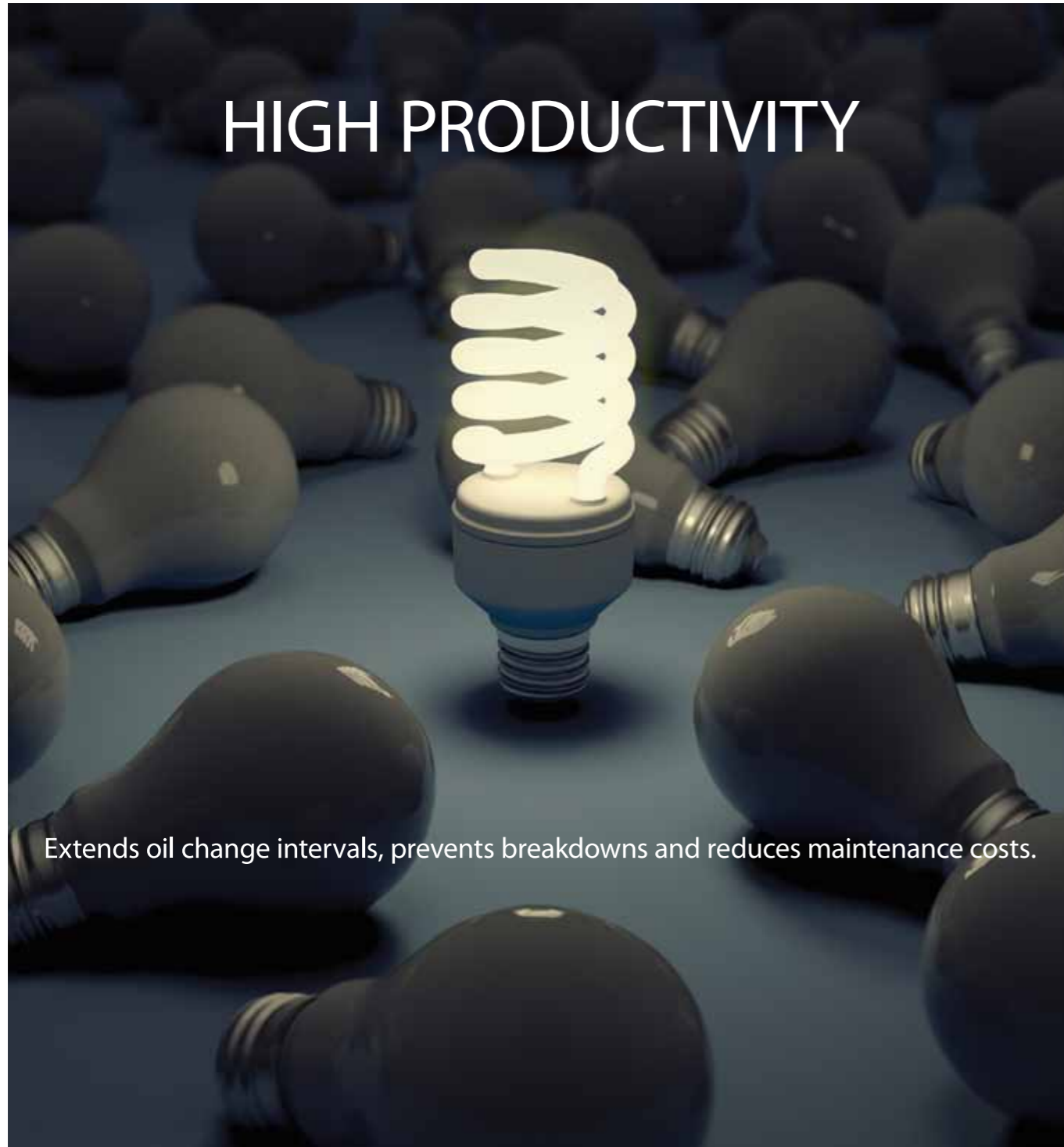
WHY ERALUBE COMPRESSOR OILS?

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WHY ERALUBE COMPRESSOR OILS?

P 02 ERS INDUSTRIAL ERALUBE COMPRESSOR OILS



ERALUBE COMPRESSOR OILS
INCREASE PRODUCTIVITY



P 03

»PRODUCTIVITY,

The relationship between the output generated by a production or a service system and the input provided to generate this output. Thus, productivity is the efficient use of resources (labor, capital, land, materials, energy, and information) in the production of various goods and services.

»HIGHER PRODUCTIVITY,

Producing more with the same amount of resources or achieving more output with the same level of input.

Everyone is well aware of how important is a compressor for production plants. Two essential points for Air Compressors you use at your plant;

- Timely generation of required compressed air
- Cost of this compressed air to company

In case of breakdown of compressed air machine and systems, which are usually given secondary importance against production machinery and systems, they are quickly realized to be the components that affect the whole company.

When it comes to system productivity in general, it is surprising that the oil selected for use in a compressor has direct effects on efficiency. These effects are as follows:

1. Reduced downtimes and increased service life;
2. Reduced costs through reduced energy and maintenance expenses
3. Reduced expenses incurred for cleaning the air generated.



1

WHY ERALUBE COMPRESSOR OILS?



ERALUBE COMPRESSOR OILS SAVE ENERGY



The greatest expense of compressors from the start-up is ENERGY. Compressors consume so much energy that their energy costs may reach and exceed the initial investment value within a short period of operation. That is why all efforts to reduce energy costs caused by compressors are so significant.

You can reduce your energy costs by using appropriate type of ERALUBE ERACOMP SYNTHETIC compressor oils.

HOW DO OILS REDUCE ENERGY CONSUMPTION?

- Reduce friction and allow easy movement;
- Ensure better tightness of rotary screws; and
- Allows lower separator pressure difference.

With its features mentioned above, ERALUBE ERACOMP SYNTHETIC compressor oils reduce your energy consumption while increasing your functionality.

* Furthermore, industry reports indicate that accurately formulated oils with stable viscosity save approximately 5% of energy; and ERALUBE ERACOMP SYNTHETIC compressor oils may be the best example of such oils.

COMPRESSOR OPERATING COSTS;

% 75	Energy consumption costs
% 20	Investment costs
% 4,5	Maintenance costs
% < 1	Compressor oil cost

EXAMPLE;

A compressor with engine: 200 kw
Operating time: 8.000 hours
Energy consumption: 1.600.000 kw
Energy unit price: 0,08 €/kw
May cause a total energy cost of €128.000.

AMOUNTS OF SAVINGS ACCORDING TO THIS EXAMPLE:

You can save:

3%	€3.840
4%	€5.120
5%	€6.400

WHY ERALUBE COMPRESSOR OILS?



ERALUBE COMPRESSOR OILS ENERGY SAVING & TOTAL OIL COST



The followings are the tables in which total oil cost for an average 200 kw/h compressor are shown and ENERGY – OIL cost data are compared with each other in cases where energy saving is achieved.

In our example, compressor separator life is 8.000 hours. Annual maintenance is performed during each separator replacement. Energy used by this compressor is presented in the previous section. Oil capacity of the mentioned compressor is 125 lt.

TOTAL OIL COST FOR TÜRKİYE

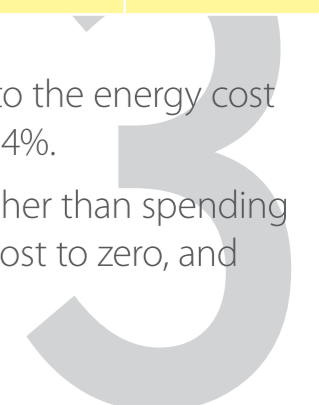
OIL TYPE	OIL CHANGE PERIOD	AVERAGE UNIT PRICE	CONSUMPTION AMOUNT	OIL CHANGE COST	NO OF CHANGES	TOTAL OIL COST
Hydraulic Oil	1.000 hours	2,28 €/lt	125 lt	€285	8	€2.280
Mineral Based Compressor Oil	2.000 hours	4,25 €/lt	125 lt	€531	4	€2.124
Eracomp 4068	8.000 hours	10 €/lt	125 lt	€1.250	1	€1.250

COMPARISON BETWEEN ENERGY AND OIL COSTS FOR TÜRKİYE

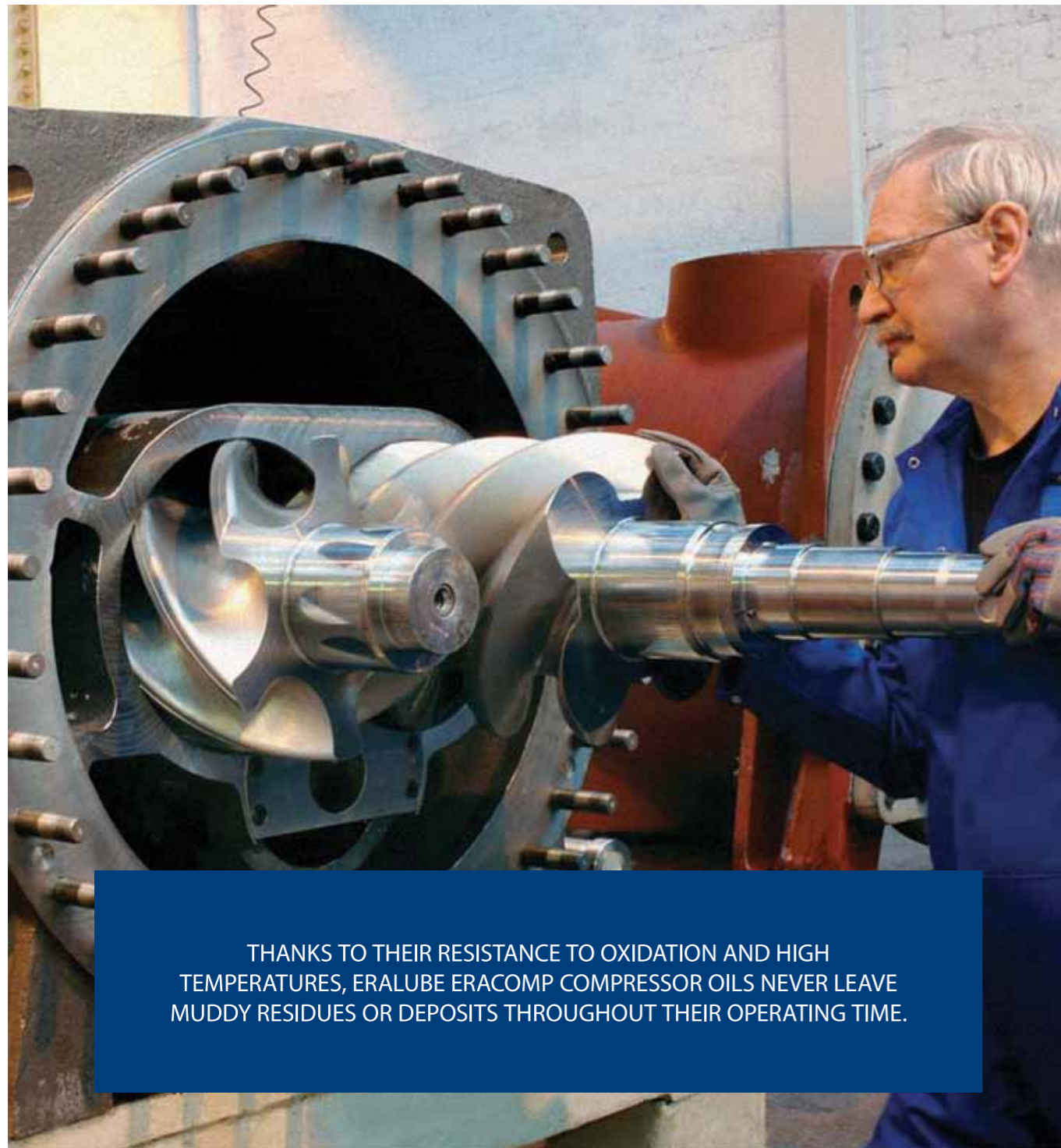
OIL TYPE	TOTAL ENERGY COST €	ENERGY SAVING RATE %	ENERGY SAVING AMOUNT €	TOTAL OIL COST €	ENERGY+OIL COST	TOTAL SAVING RATE
Hydraulic Oil	€ 128.000	0%	€ 0	€2.280	€130.280	-1,78%
Mineral Based Compressor Oil	€ 128.000	0%	€ 0	€2.124	€130.124	-1,66%
Eracomp 4068	€ 128.000	4%	€ 5.120	€1.250	€124.130	+4%

The figure obtained herein is notable. When we add total oil cost to the energy cost and repeat the calculation, it can be clearly seen that the saving is 4%.

In other words, your decision to use oil that will save on energy rather than spending your money on the conventional mineral oils will reduce your oil cost to zero, and provide a 4% saving on energy costs.



WHY ERALUBE COMPRESSOR OILS?



THANKS TO THEIR RESISTANCE TO OXIDATION AND HIGH TEMPERATURES, ERALUBE ERACOMP COMPRESSOR OILS NEVER LEAVE MUDDY RESIDUES OR DEPOSITS THROUGHOUT THEIR OPERATING TIME.

ERALUBE COMPRESSOR OILS REDUCE MAINTENANCE & DOWNTIME COSTS



OXIDATION,

When oxygen and moisture in the compressed and hot air that circulates together with oil within the system contact with oil, they have a serious oxidizing effect on the oil. Only lubricants containing carefully selected base oil and hi-tech additives can resist such a strong and negative impact, and endure for long operating hours.

TEMPERATURE,

Is one of the key factors that determines performance and life of a lubricant. Temperature in compressors during operation increases up to maximum operating temperature of ordinary mineral oils and rapidly spoils their structure. However, base oils resistant to temperatures way above operating temperature of compressors are not affected by such temperatures, and therefore, are of high-durability.

Lubricants used in compressors have to resist OXIDATION AND TEMPERATURE throughout operating time.

If the lubricant used is not resistant enough to oxidation and temperature, its structure spoils rapidly and needs to be changed.

As a result, frequent change of oil causes the following troubles:

- Increased downtimes and downtime costs;
- Increased maintenance costs;
- * Maintenance labor costs
- * Spare parts (Lubricant, Separator, Oil Filter, etc.) costs

Worse still, if the oil is used despite its spoiled structure, MUDDY RESIDUES and DEPOSITS may be formed throughout the oil circulation system. In such a case:

- Rapid wear on friction surfaces begins due to use of oil with a spoiled structure. Especially ball bearings and screw elements are adversely affected from such wear.
- As a natural consequence, energy consumption increases.
- Operating temperatures rise.
- Oil cooler radiator begins to lose its efficiency due to residues, and oil cooling performance decreases.

- Separator is clogged rapidly, and pressure difference increases, and as a natural consequence, energy consumption increases.

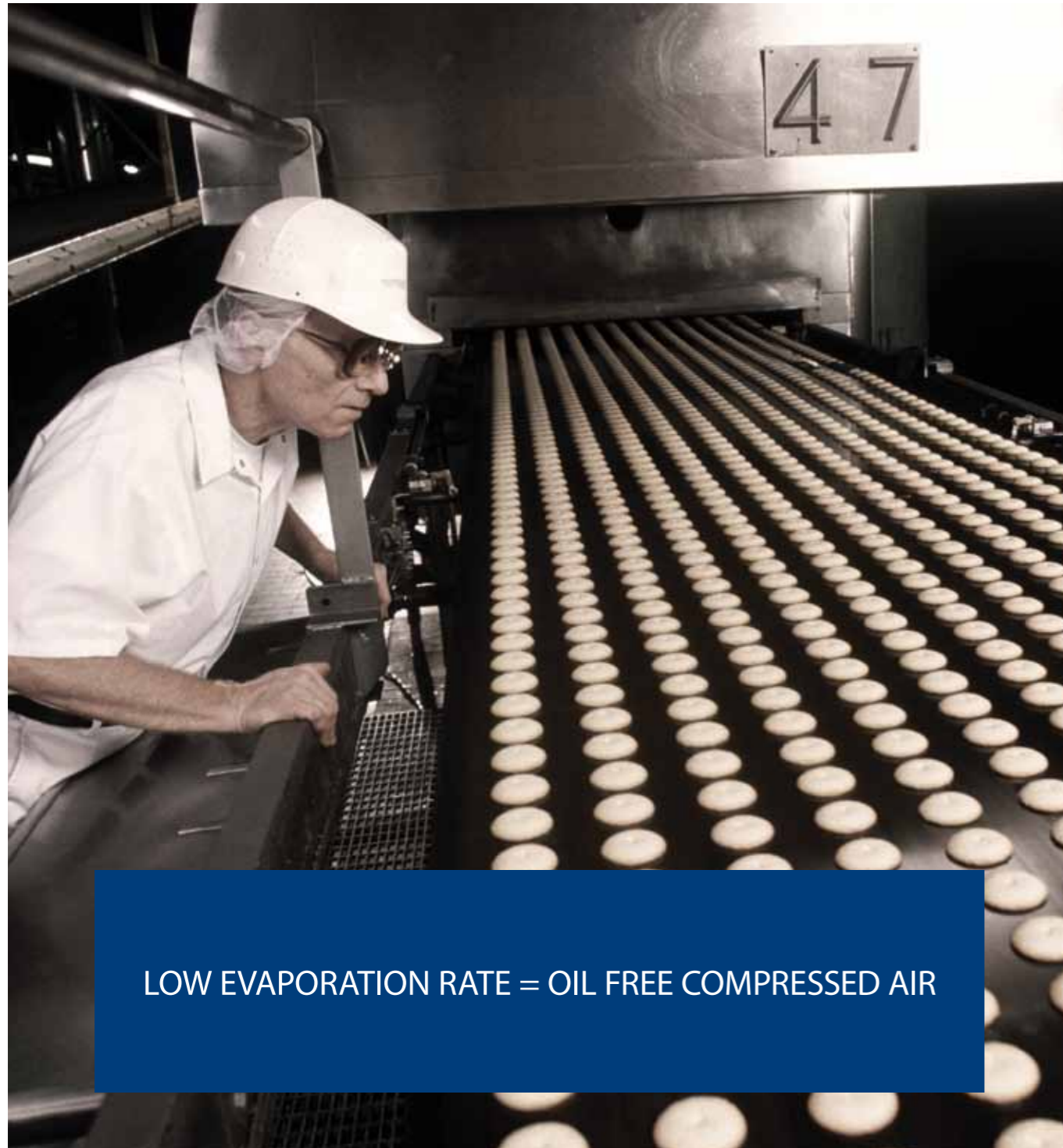
ERALUBE offers a special group of compressor oils designed for different operating hours. No matter how long is the maintenance period of your compressor (6.000-8.000-10.000-12.000 hours), using an ERALUBE ERACOMP COMPRESSOR OILS, thanks to their resistance to OXIDATION and TEMPERATURE during operations, never leave any MUDDY RESIDUE or DEPOSIT.

ERACOMP compressor oils:

- Reduce maintenance costs;
- Extend maintenance intervals;
- Reduce spare parts costs;
- * Oil life increased up to 8 times
- * Longer separator life
- Daha az bakım işçiliği (servis bedeli) ve bakım Reduce maintenance labor (service cost) and maintenance planning;
- Reduced downtime costs caused by maintenance and breakdowns; and
- Reduced waste oil causing less adverse effects on the environment.

WHY ERALUBE COMPRESSOR OILS?

P 10 ERSALUBRE INDUSTRIAL ERALUBE COMPRESSOR OILS



ERALUBE COMPRESSOR OILS PROVIDES EASIER ACCESS TO OIL FREE COMPRESSED AIR



P 11

Thanks to special base oils and additive packs showing zero tendency to evaporate, Eralube compressor oils total evaporation amount is equal to only 5% of total mineral oil evaporation amount. Such a low evaporation rate offers the following advantages:

- Oil free compressed air released by the compressor;
- Longer oil filter life;
- Less problems in pneumatic valves and equipments arising from residues formed by oil;
- Clean compressed air system and lines; and
- Reduced oil consumption, steady oil level, eliminated need to add oil.

WITH OIL FREE COMPRESSED AIR, ERALUBE ERACOMP COMPRESSOR OILS CONTRIBUTES GREATLY TO FOOD AND PHARMACEUTICAL INDUSTRIES

The oil free compressed air generation mentioned above has critical importance for food and pharmaceutical industries. These industries must use either oil-free compressors or completely purify the compressed air from oil. At this point, Eralube Eracomp compressor oils, thanks to reduced evaporation, ensure a longer special carbon filter life.

Please contact our technical staff members in connection with our special lubricants approved by NSF for use in food and pharmaceuticals industries.



WHY ERALUBE COMPRESSOR OILS?

ERAFLUSH SP= FOR CLEANING OF CIRCULATION SYSTEMS



ERALUBE COMPRESSOR OILS CLEANING COMPRESSORS IS VERY EASY WITH ERAFLUSH SP



Oil circulation areas in a compressor become dirty in time due to spoiled oils, deposits and muddy residues. Due to high temperatures and oxidizing effect during long operations, spoiled oils, deposits and muddy residues can be found on many essential components of a compressor even after the oil is changed. Failure to clean a compressor when necessary may result in serious malfunction and productivity decrease.

In case maintenance is performed without cleaning the system thoroughly, the residual oil, deposits and muddy residues will quickly contaminate:

- Oil;
- Oil filter; and
- Separator

and reduce their service periods. Furthermore, they will increase maintenance costs and downtimes.

WHAT ARE THE COMMON METHODS OF CLEANING?

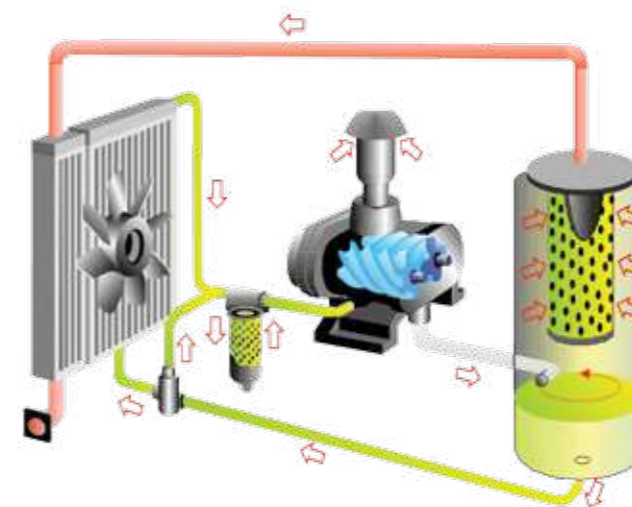
1. Dismantling all necessary parts of a compressor and manually cleaning;
2. During maintenance, operating the compressor with a minimum amount of oil and changing oil again.

USING ERAFLUSH SP IS THE MOST EFFICIENT METHOD.

- Eraflush SP is a cleaner that contains specially-formulated base oil. It cleans without harming any component of compressor.
- It cleans the system by absorbing muddy residues, burnt oil residues and any other dirt during operation, and ensures their disposal during oil change.
- It has a very practical use. It is added to the existing dirty oil 2 or 3 days before maintenance and oil change. Please remember that amount of cleaner may be adjusted depending on the level of dirt.
- This saves a considerable time. It does not require extra downtime and maintenance time.
- In case of compressor switched from mineral oil to synthetic oil, Eraflush SP prevents damage to synthetic oil that may arise from mineral oil, and eliminates compatibility problems.
- Ensures maximum synthetic oil performance even in the first filling.

ERALUBE ERAFLUSH SP

- Reduces operating temperature;
- Extends oil, oil filter and separator lives; and
- Reduces maintenance, breakdown and downtime costs.



WHY ERALUBE COMPRESSOR OILS?

ERACOMP 2000 SERIES

- A semi-synthetic base oil comprised of Group III and IV base oils and synthetic hydrocarbons.
- New generation non-volatile additives technology.
- Lubrication period up to 3 times longer than the period of mineral oils. 4.000 to 6.000 hours.
- Compatible with mineral oils; easy switch from mineral oils..

ERACOMP 3000 SERIES

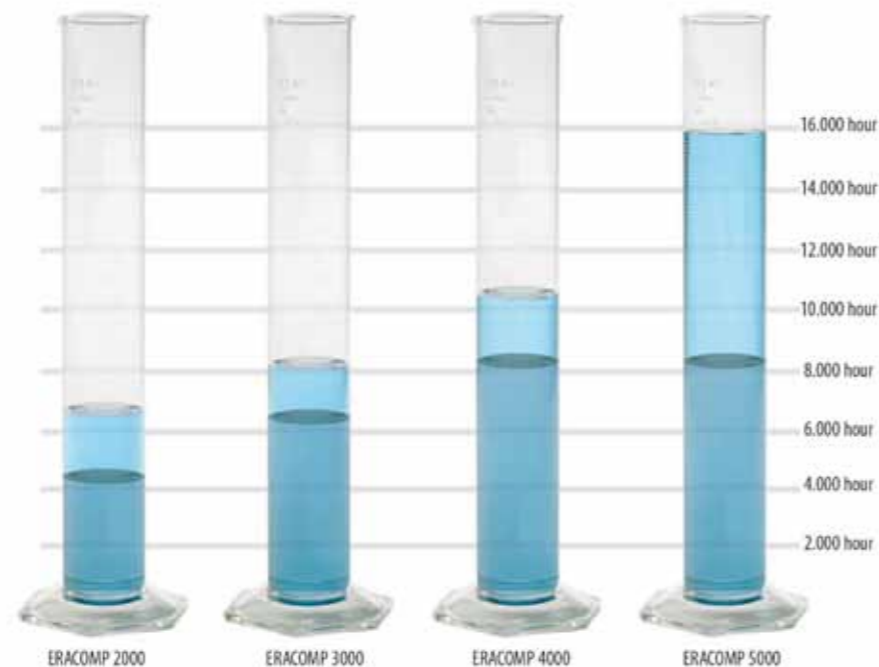
- Synthetic base oil.
- High-performance additives.
- Formulated for a performance life of 6.000 to 8.000 hours.
- Reduces maintenance costs and increases compressor efficiency
- Energy saver.
- Ensures smooth switch from mineral-based products.

ERACOMP 4000 SERIES

- Fully synthetic compressor oils.
- Oil life ranges from 8.000 to 10.000 hours of operation.
- High energy saver. Ensures energy saving up to 5%.
- Increases compressor efficiency.
- Reduces maintenance and downtime costs.

ERACOMP 5000 SERIES

- Fully synthetic compressor oils.
- 12.000 hours of performance life under normal operating conditions.
- Strongly recommended for operations under very high temperatures, very humid climate, at and above sea level areas, and for the cases when system problems are encountered.
- Ensures smooth switch from the products currently in use, and compatible with other base oils.



ERALUBE COMPRESSOR OILS



ERACOMP 7000 SERIES

- Fully synthetic compressor oils.
- Meets the performance criteria of machinery manufacturers, which require use of Polyalkylene glycol (P.A.G.) based synthetic oil.
- Base oil includes Polyester (P.E.)
- Can easily reach up to 10.000 hours of lubrication period under normal operating conditions.
- Smooth switch is possible at the points where P.A.G. is used; please ask for technical information before switching from mineral oils and other synthetic base oils.
- Developed for use in Ingersoll Rand compressors.

ERACOMP 1000 SERIES

- High-performance mineral base oil.
- Hi-tech new generation additives.
- Higher performance than standard mineral oil based compressor oils.



WHY ERALUBE COMPRESSOR OILS?

ERAFLUSH SP

- Includes semi-synthetic base oil and special cleaning additives, particularly for cleaning tar muddy and other residues
- Cleaner with lubrication characteristic
- Causes no harm to the system during operation. (Aluminum surfaces, elastomer materials, etc.)
- Cleans the system during operation
- Even for the worst dirt, the system can be operated with ERAFLUSH SP for up to 72 hours without any problem.



ERALUBE GREASES FOR ELECTRIC ENGINE BEARINGS



ERAGREASE 1220

- A complex thickener
- Includes special mineral base oil
- Improved with strong additives
- Durable grease for electric motor bearings

ERAGREASE 1024

- Polyurea thickener
- Includes refined mineral base oil
- Formulated for the equipment's operating under high temperatures
- Durable grease for electric motor bearings

ERAGREASE 9100

- New generation thickener with a synthetic structure
- Includes synthetic ester-based oil
- Resistant to high temperatures and high speeds; developed for use in the points requiring durable lubrication
- Special grease for electric motor bearings with a lubrication life 4 times longer than those of mineral based oils

