



 **ADVANCED BASE OIL** technology  
drives the **LUBRICANTS INDUSTRY**



**Raj Group**

Recent advancements in the lubricants industry are technology up-gradation of base oils to meet the Environmental driven Norms. The recent developments in design and manufacturing of automobiles and other industrial equipment have placed an enormous demand on lubricants .

## RECENT ADVANCEMENTS



## ADVANCED BASE OIL technology drives the LUBRICANTS INDUSTRY

It is imperative that the lubricant technology complements the vehicle & equipment / machinery technology so that the end user can realize the benefits of technological advancements. Further the stringent emission norms and enhanced environmental concerns triggered a cascading demand on lubricants, especially, in the automotive sector.

We at Raj Petro met this challenge by developing new lubricants and continuously upgrading our existing products since the year 2000. It has been our endeavour to provide the customer with high performance lubricants that can extend both the oil and the vehicle/ equipment life and increase productivity through better availability of machine/ equipment, thereby reducing operating costs. **The lubricants from Raj Petro Specialities epitomizes a range of high performance lubricants meeting the latest International & national specifications.**

Petroleum based Lubricating Oils are made from heavier portion of Crude Oil that remains after removal of the lighter fractions. Till recently Lubricant manufacturing companies have been using API GROUP I Base Oil. In Group I processing, older conventional technology is

adopted where in base oils are produced by Solvent Refining Technology (solvent extraction and solvent Dewaxing). More modern base oils using **hydro processing technology** fall into the API Group II & III Classification which is a vast improvement over Group I base oils.

We at Raj Petro have been using Group II Plus & Group III base stocks imported from the best refineries across the globe. This has given access to us one of the best quality base oils in the world exceeding the requirement of API Group II (rated as Group II plus) & Group III.

These base oils are manufactured using an all hydro processing technology route i.e. hydro cracking hydro iso-dewaxing hydro finishing.

Raj Base typically has less than 1% aromatics and almost negligible amounts of sulfur and nitrogen. The virtual absence of heteroatom containing compounds coupled with an inherently low aromatic content in base oil not only imparts superior performance characteristics but also makes it **more eco-friendly** as compared to conventional Group I base oils.

The features of Raj Base oil are :

- Raj Petro Base is Colourless, Odourless, Non-Toxic and Stable
- Raj Petro Base has high viscosity index (greater than 110)
- Raj Petro Base has negligible Aromatic content and Sulphur
- Raj Petro Base has excellent Low temperature properties
- Raj Petro Base has low Volatility
- Raj Petro Base has excellent Demulsibility and Anti-Foaming Characteristics

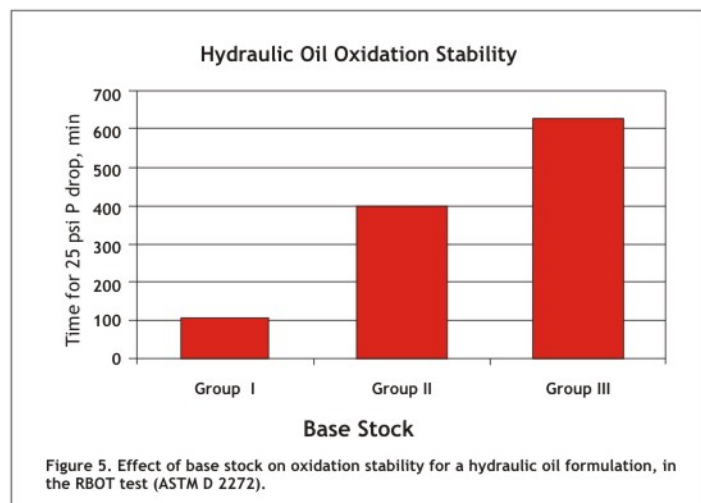
## RAJ BASE OIL



As base oils are the platform on which lubricants are formulated, access to such superior quality base oils will further enhance the quality of Lubricating oils produced by us offering the following advantages:

### EXTENDED OIL DRAIN INTERVALS THROUGH IMPROVED OXIDATION STABILITY

Raj Petro Base oils contain very less Aromatic content thus providing excellent Oxidation Stability which minimizes viscosity increase and reduced deposits enabling longer lubricant life. Grades blended with Raj Petro Base due their inherent superior oxidation stability provide scope for extending oil service life.



### LESSER OIL CONSUMPTION

The higher Viscosity Index and sharp distillation cuts of Raj Petro Base oil helps make them less volatile, thus

providing - Engine oils with lower oil consumption - Industrial oils and power transmission fluids that have less fluid loss - Lubricants that show less thickening

### LOWERS EMISSIONS & CATALYTIC CONVERTER COMPATIBLE

Raj Petro Base oils with its very low sulphur content provides - Better protection to emission control devices such as catalytic converters and after treatment devices, which would help in reducing emissions.

### IMPROVED WEAR PROTECTION AND LONGER COMPONENT LIFE

Raj Petro Base oils have more stable viscosity at extreme temperatures, thus providing lubricants that thickens less at cold temperatures and thin less at higher temperatures. It also has excellent low temperature properties. Thus providing - Enhanced wear protection and equipment life - Better low temperature fluidity and pumpability.

### ENHANCES PROTECTION AGAINST RUST AND CORROSION

Raj Petro Base oils have better demulsibility resulting in faster water separation and better protection against corrosion which is a very critical property for turbine oils and hydraulic oils.

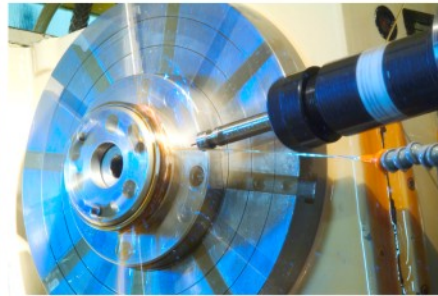
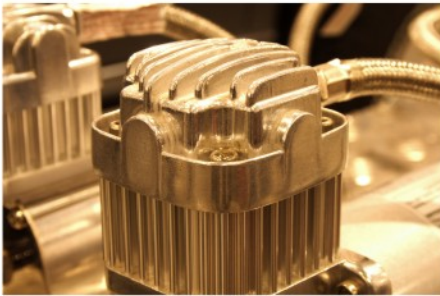


## AIDS ENERGY SAVINGS

Raj Petro base oils are removed of lower volatile components which improves Viscosity Index, and permits thinner oils to be used in formulations, thus resulting in substantial fuel and energy savings in both automotive and industrial applications.

## EXCELLENT AESTHETICS

Due to the white colour of Raj Petro Base oil, some industrial grades like Hydrasuper , Super Turbo S etc. would have far lighter and brighter colour (white to light yellow) compared to the same product yellow to dark yellow manufactured with Group I base oil. The customer is advised to take note of this significant aspect while receiving the product from our blending plants/ depot.



Our Raj Petro product range covers all the **automotive & industrial segments and application areas**. To facilitate the process of innovation and development, we have a state-of-the-art R&D Centre at Chennai which helps to deliver to our customers the latest generation products.

Our technical competence is borne by the fact that we have been the trendsetters in various product segments such as **4T, Diesel Engine Oil, Transmission Oils, Compressor Oils, Hydraulic Oils and Metal Working Fluids etc.**

We have well defined Quality Systems and this is backed with an extensive Quality Control network with comprehensive lube testing labs at Chennai & Silvassa. Both our lube blending plants are **ISO 9001-2008 accredited**.

Our R & D center is approved by Dept of Scientific & Industrial Research Ministry of Science & technology ,New Delhi .

## **RAJ PETRO SPECIALITIES PVT. LTD.**

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