

What are the five basic refining processes?

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Oil plays a very important role in our daily life. When it comes to oil. The first thing everyone thinks of is fuel for vehicles . Such as cars and airplanes. In fact. Many of the raw materials used in our daily life include Petroleum. Such as plastics. Asphalt. Clothing. Cosmetics. And some synthetic rubbers, etc. Generally speaking. Petroleum plays a very important role in our daily lives.

Not only oil. But edible oil is very important to us. Our diet in life is inseparable from oil. Without oil. Our life will become extremely bleak. Not only is there a lot of choices in diet. If you can't drive or fly when you go out. It will make our lives go backwards for many years in an instant. Now that everyone has realized . That oil is very important to us. Do you know how oil is produced?



What are the five basic refining processes?

The professional technical article in the top three. [Oil refining production lines](#) in 2021 shows. That all aspects of our lives are inseparable from oil. And the amount of oil used is increasing. The industry has always been closely related to us. The basic process of oil refining refers to the process of refining crude oil into products. Such as fuel oil . And lubricating oil. Also known as petroleum refining methods or petroleum processing methods. Including primary processing . And secondary processing. The former refers to the direct distillation process of crude oil. The latter refers to the reprocessing of straight-run products.

The specific five processing techniques are as follows:

Atmospheric . And vacuum distillation

After the crude oil pretreat by desalting . And dehydration. It heat to $360-370^{\circ}\text{C}$. And distilled in an atmospheric tower to obtain atmospheric gasoline. Kerosene. Diesel. And heavy oil. Then the heavy oil heat to $380-400^{\circ}\text{C}$. And distilled in a vacuum tower to obtain vacuum diesel. And residual oil.

Catalytic cracking

The atmospheric . And vacuum distillate oil heat in a fluidized bed reactor containing a catalyst at $460-530^{\circ}\text{C}$. And a pressure of $1-2\text{kg}/\text{cm}^2$ to obtain high-octane gasoline. Diesel, etc. The catalyst usually uses silicic acid aluminum.



Catalytic reforming

The gasoline fraction use as the raw material. In the presence of a catalyst . And hydrogen. Maintaining a certain pressure ($25-30\text{ kg}/\text{cm}^2$) . And temperature ($490-530^{\circ}\text{C}$) . To carry out a structural reforming reaction to convert non-aromatic hydrocarbons into aromatic hydrocarbons. Refined to obtain high-octane gasoline. Benzene. Toluene. Xylene, etc.

Hydrocracking

Using heavy oil as raw material. In the co-existence of hydrogen and catalyst. Maintaining a certain temperature . And pressure. Cracking. Hydrogenation. Isomerization . And other complex chemical reactions occur to obtain high-quality light oil. Or lubricating oil. The method has the advantages of wide range of raw materials. Good product quality. High yield. And full utilization of a large amount of hydrogen produced. By the catalytic reforming process.

Further processing

The purpose of treatment is to eliminate impurities . Such as sulfur. Nitrogen. Oxygen. Water. Dissolved metals . Inorganic salts . And other organic compounds. After treatment. The processed products can be mixed into various products. Eventually. These products are transported to the dock via ships. Pipelines. Trains or trucks to perform their functions.



The above are the five basic processes required in the petroleum refining process. Through these five processes, petroleum can be refined into various products that we need daily. It is of great significance to us. Edible oil is also of great significance to us. Now many manufacturers are producing edible oil. The improvement of the public economy has caused the demand for oil to continue to increase. Using the Refining oil production line can produce high-quality edible oil.

Shandong Loyal Industrial Co., Ltd. is a professional food machinery manufacturer. With many years of R&D experience and a very high reputation. The biscuit production line. Corn flakes production line. And baby food production line are sold at home and abroad. Helping many The company has expanded the market. Our Refining oil production line also has a very high cost performance. Very reliable quality. And can be used for a long time . When made with high-quality raw materials. The failure rate is low. The operation is simple. And the price is low. The manufacturer can use the lowest. It is our corporate goal . In order to get the highest return on investment . And help companies expand the market . And get more profits.

Regardless of whether it is petroleum or edible oil. The refining process is very rigorous. It is the crystallization of the efforts of many engineers over the years. We have the most advanced production technology today and represent the most advanced productivity in the world. If you need it. Please contact us!