

## **Waste Tire Pyrolysis Plant**

**Item Number: KWRE** 



## Introduction

The waste tire refining pyrolysis plant produced by our company adopts a new type of pyrolysis technology, which makes tires heated under the condition of complete anoxic or limited oxygen supply so that high molecular polymers and organic additives are degraded into low molecular or small molecules compounds, thereby recovering tire oil.

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| Step 1: Feeding                              |                         | Put the waste tires into the pyrolysis axe. This process can be fed by manual feeding, flat conveyor feeding and hydraulic feeding machine and other feeding methods. Most factories usually use a hydraulic feeder to feed materials. Because of its high production efficiency, labor cost savings, and safety, it is widely used by many factories. Close the loading door after loading.  |  |
|--|-------------------------|---|--|
| Step 2: Heating                              |                         | You can use tire oil or non-condensable gas (excess non-condensable gas produced during the pyrolysis process of several other equipment) to heat the reactor evenly. When the temperature reaches 80°C, some Gas precipitation (most of the gas at this time is water vapor, the liquefied part is water, and the non-liquefiable gas reaches the combustion chamber through the gas circulation system for combustion). When the temperature reaches 120°C, the combustible gas is precipitated and enters the gas distribution bag. The residual oil (contains part of the residue, which can be used as fuel to heat the main furnace) sinks to the residual oil tank, while the light oil automatically enters the condenser and liquefies. into light oil tanks. In this way, heavy oil and light oil (for heating and heating of the whole project) can be obtained. |  |
| Step 3: Non-<br>condensable gas<br>treatment |                         | Non-condensable gas (C1-C4 components) flowing into the oil tank together with the oil, the gas that cannot be condensed, has passed through two safety water seals (one for standby and one for use, water The role of the seal is to prevent the open flame from returning from the combustion chamber to meet the exhaust gas, and to prevent the gas from flowing back), and return to the heating chamber as fuel to heat the furnace. Therefore, at the beginning of equipment operation, the fuel is fuel oil or natural gas. When the temperature continues to rise, the non-condensable gas generated can be used as fuel.   |  |
| Step 4: Smoke and dust treatment             |                         | All the smoke and dust produced by combustion are pumped by the induced draft fan to the general dust removal system for treatment.<br>The treated smoke and dust are white water vapor without black particles, and then the water vapor will enter the industrial purification<br>device Carry out standard discharge treatment to ensure that the emitted smoke and dust discharge meets the emission standards<br>required by environmental protection.   |  |
| Step 5: Slag discharge                       |                         | After the slag is discharged, the pyrolysis process is over. The steel wire and carbon black we need are in the main furnace. The equipment adopts a fully automatic sealed slag discharge system. Furnace screw, slag outlet sealer and slag remover are used for slag removal. Carbon black is mainly used for ink, pigment, reinforcing agent, additive, etc.  |  |
| Step 6: Steel wire                           |                         | The steel wire is pulled out by the tractor, which saves labor and achieves automatic production of equipment. When the steel wire is discharged, it cooperates with ventilation and dust removal equipment to ensure no dust.  |  |
| Model  | Host<br>volume          | Daily throughput  |  |
| 2600*6000                                    | 31.8<br>cubic<br>meters | 8 tons  |  |
| 2600*6600                                    | 35 cubic<br>meters      | 9 tons  |  |
| 2800*6600                                    | 40.6<br>cubic<br>meters | 12 tons   |  |
| 2800*7500                                    | 46.2<br>cubic<br>meters | 15 tons   |  |
|  |                         |   |  |