

## Waste Tyre Plastic Continuous Pyrolysis Refining Oil Plant Manufacturing Process



At present, the most commonly used pyrolysis process in the tire plastic market is still the external rotating intermittent or continuous pyrolysis reactor, which has many drawbacks

1. The external rotary pyrolysis equipment uses an inner wall spiral fixed guide plate for feeding. The equipment is prone to coking, which affects the thermal conductivity, energy consumption, production capacity, and service life of the equipment. It will be shut down and cleaned in a short period of time. Our company's new equipment is a fixed reactor, and the interior of the reactor is a flexible high-temperature scraper conveying system. While the material is pushed forward, the flexible thruster continuously cleans the inner wall of the reactor, completely solving the drawbacks of coking and cleaning in rotary heating reactors.
2. The problem of equipment leakage: Currently, most of the reactors used in the market are external rotary heating reactors, and large-diameter dynamic and static connections are generally sealed with graphite

packing. Under high-temperature operation conditions, it is easy to cause liquid leakage of high-temperature oil and gas, and the fire hazard is extremely high. At the same time, the severe odor causes great pollution to the environment. Our company's new equipment is a small-diameter high-temperature mechanical seal for the transmission shaft, which avoids the problem of equipment leakage, safety, environmental protection, and easy maintenance.

3. Oil quality issue: Traditional external rotating production equipment outputs oil and gas as the axis, especially during the entire equipment's micro negative pressure operation process, it is easy to carry out small carbon black powder and suspended particles with the oil and gas, resulting in poor oil quality, heavy color, strong taste, and multiple colors. Our company's new equipment is a fixed pyrolysis reactor, with a gas collection tower installed at the upper end of the reactor. Oil and gas are purified from the reactor through the gas collection tower and settling tower, avoiding the problem of carrying carbon black powder and small suspended particles, thereby ensuring the quality of the produced oil products.

4. Oil component grading problem: Our company's equipment is designed for the tower, which does not require secondary steaming anchor to achieve the separation and cutting of light and heavy component oil in one go, avoiding the equipment investment for secondary steaming and

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grading, saving costs, and achieving one-step results.

5. Our company's hot air heating system has obtained multiple technologies, and the entire equipment operation heating avoids the damage of open flame direct burning to the equipment. At the same time, the hot air system burns fully, saves energy and reduces emissions, and is safe and environmentally friendly.

6. Our company adopts a negative pressure air supply system for equipment and material entry and exit, and the entire conveying process is carried out in a closed pipeline without dust or odor.

7. The unique desulfurization and denitrification tail gas purification device ensures that emissions meet standards, and the entire production process is smoke-free, odorless, and dust-free, truly achieving safety, low consumption, and environmental friendliness.