

# Thermal Desorption Purification Technology of Oil-Polluted Soil by Using Circulating Hot Air of Regenerative Combustion Device(RTO) and a Stepwise Rotary Kiln

<b>New Technology</b>	Thermal Desorption Purification Technology of Oil-Polluted Soil by Using a Circulating Hot Air of Regenerative Combustion Device(RTO) and a Stepwise Rotary Kiln	<b>Certificate</b>	GT-12-00054
<b>Model Name</b>	-	<b>Application Part</b>	Restoration of polluted soil
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## 1. Outline

- Ground treatment technology that volatilizes and desorbs the adsorbed pollutants by heating the soil to a certain temperature in a controlled environment

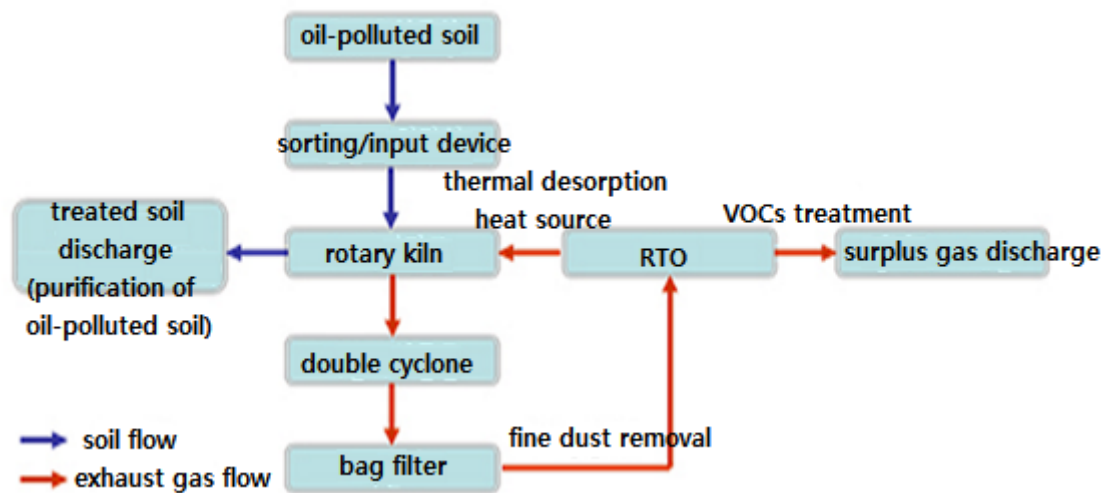
## 2. Characteristic

- Technology to put the polluted soil which is excavated into a thermal desorption device and to treat it
- Consisting of input conveyor, rotary kiln, double cyclone, bag filter, and RTO
- Separation of pollutants from the soil by using heat without decomposing organic components
  - Generation of secondary products in the gas phase, depending on the temperature of the system and the existence of certain organisms.
  - Processing the gaseous materials by the secondary treatment device(bag filter, etc.) before being released into the atmosphere
- Improving the energy recycling efficiency by the recirculation of hot air by the regenerative combustion device (RTO)
  - The effect of reducing carbon dioxide (CO<sub>2</sub>) emissions by energy recycling and of

preventing global warming

- Preventing soil aggregation and maximizing heat transfer efficiency by using bucket-type blade-mounted rotary kiln

### 3. Introduction



[Figure1] Technical Process Diagram

### 4. Application

- Field of application: Restoration of polluted soil
- Development stage: Development completed
- Technology coverage
  - Oil pollution of soil (gasoline, jet fuel, heavy oil, light oil, heating oil, and lubricant)