

# RTO

## RTO蓄热式焚烧技术

### Regenerative Incineration Technology

#### | 概述 | Overview



蓄热式氧化炉设备简称RTO，全称（Regenerative Thermal Oxidizer），基本原理是在高温条件下（ $\geq 760^{\circ}\text{C}$ ）将有机废气（VOCs）氧化生成 $\text{CO}_2+\text{H}_2\text{O}$ ，净化效率高达99%。氧化产生的高温气体流经特制的陶瓷蓄热体，使陶瓷体升温而“蓄热”，下个过程是废气从已经“蓄热”的陶瓷经过，将陶瓷的热量传递给废气，有机废气通过陶瓷作为换热器载体，反复进行热交换，从而节省废气升温的燃料消耗，降低运行成本，热回收效率高达95%。在中高浓度的条件下，RTO可以对外输出余热，通过蒸汽、热风、热水等形式加以利用，在满足环保目标的同时，实现经济效益。

Regenerative Thermal Oxidizer equipment is abbreviated as RTO, and its full name is (Regenerative Thermal Oxidizer). The basic principle is to oxidize organic waste gases (VOCs) under high temperature conditions ( $\geq 760^{\circ}\text{C}$ ) to generate  $\text{CO}_2+\text{H}_2\text{O}$ , with a purification efficiency of up to 99%. The high-temperature gas generated by the oxidation flows through the special ceramic regenerator, causing the ceramic body to heat up and "storage heat". The next process is that the waste gas passes through the "heat-storage" ceramics, transferring the heat of the ceramic to the waste gas, and the organic waste gas passes through Ceramics serve as a heat exchanger carrier and repeatedly perform heat exchange, thereby saving fuel consumption for exhaust gas heating, reducing operating costs, and the heat recovery efficiency is as high as 95%. Under medium and high concentration conditions, RTO can output waste heat to the outside and utilize it through steam, hot air, hot water, etc., to achieve economic benefits while meeting environmental protection goals.

#### ① 可以实现的热量回收率高达95%-97%

Heat recovery as high as 95%-97% may be achieved

#### ⑥ 采用人性化设计，可迅速安装，并且便于维修

User friendly design for rapid installation & ease of maintenance

#### ② VOC 销毁率从 $\geq 98\%$

VOC destruction rates of  $\geq 98\%$

#### ⑦ PLC 自动化控制

PLC automatic control

#### ③ 低氮氧化物NOx 燃烧器

Low NOx Burners

#### ⑧ 变频器减少电力消耗

Variable frequency drive(VFD) for reduced power consumption

#### ④ 可靠的阀门设计可使VOC 去除率达99%

Reliable valve design enables VOC removal rates of up to 99%

#### ⑨ 集成VPN可用于远程故障诊断，获取实时运行情况

Integrated VPN for remote troubleshooting & view of real time operations

#### ⑤ 可设计生产多塔式RTO 系统

Multiple-chamber RTO systems can be designed and manufactured

#### ⑩ 极少NOx生成

Very low NOx generation

型号 Model	温度 °C Temperature	处理风量 Nm <sup>3</sup> /h Treated air volume	规格尺寸 mm Specification
AR-RTO3Q-10K	760~950	10000	6200*2500*5100
AR-RTO3Q-15K		15000	7100*2500*5300
AR-RTO3Q-20K		20000	9000*2500*5500
AR-RTO3Q-25K		25000	9800*2500*5500
AR-RTO3Q-30K		30000	9400*3000*6000
AR-RTO3Q-35K		35000	10500*3000*6000
AR-RTO3Q-40K		40000	9400*4000*6200
AR-RTO3Q-50K		50000	11200*4000*6400