

# 泰州工业废气处理活性炭吸附脱附加催化燃烧专业解决

产品名称	泰州工业废气处理活性炭吸附脱附加催化燃烧专业解决
公司名称	常州天环净化设备有限公司
价格	100000.00/个
规格参数	品牌:蓝阳 型号:LY-02 产地:常州
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## 产品详情

### 一、概述

活性炭吸附再生系统（即活性炭吸附脱附装置）吸附-催化燃烧法：此法综合了吸附法及催化燃烧法的优点，采用新型吸附材料(蜂窝状活性炭)吸附，在接近饱和后引入热空气进行脱附、解析，脱附后废气引入催化燃烧床无焰燃烧，将其彻底净化，热气体在系统中循环使用，大大降低能耗。具有运行稳定可靠、投资省、运行成本低、维修方便等特点，适用于大风量、低浓度的废气治理，是目前国内有机废气处理方法中较为成熟、实用的方法。

二、用途 大风量、低浓度、经济型喷漆废气处理可处理混合类有机废气，主要用于化工、机械、电子、电器、涂装、制鞋、橡胶、塑料、印刷及各种化工车间里挥发或泄漏出的有害有机废气的净化及臭味的消除，不宜采用直接燃烧、催化燃烧法或吸附回收法处理有机废气。

三、工作原理 工业废气净化本净化装置是根据吸附（效率高）和催化燃烧（节能）两个基本原理设计的，即吸附浓缩—催化燃烧法。该设备采用双气路连续工作，设两个或多个吸附床可交替使用。一个催化燃烧室，先将有机废气用活性炭吸附，当快达到饱和时停止吸附操作，然后用热气流将有机物从活性炭上脱附下来使活性炭再生；脱附下来的有机物已被浓缩（浓度较原来提高几十倍）并送入催化燃烧室催化转化成CO<sub>2</sub>和H<sub>2</sub>O排出，当有机废气浓度达到2000mg/m<sup>3</sup>以上时，有机废气在催化床可维持自燃，不用外加热，燃烧后的尾气一部份排入大气，大部份送往吸附床，用于活性炭的脱附再生。这样能满足燃烧和脱附所需的热能，达到节能的目的，再生后的活性炭可用于下次吸附；在脱

附时，净化操作可用另一个吸附床进行，既适合于连续操作，也适合于间断操作。

四、催化性能特点 1、采用吸附浓缩+催化燃烧组合工艺。整个系统实现了净化、脱附过程封闭循环，与回收类有机废气净化装置相比，无须配备压缩空气等附加能源，运行过程不产生二次污染，设备投资及运行费用低。

2、该设备设计原理先进、用材独特、性能稳定、操作简便、安全可靠、节能省力，无二次污染。 3、设备占地面积小、采用新型的活性炭吸附材料—蜂窝状活性炭。与粒状相比具有优越的动力学性能，极适合于大风量下使用。 4、催化燃烧室采用陶瓷蜂窝体的贵金属催化剂，阻力小，活性高。当有机蒸汽浓度达到2000PPm以上时，可维持自燃。 5、耗电量小。由于床层阻力小，用低压风机就可以，不但耗电少而且噪音小。有机物催化燃烧前，需启动电加热，当有机物在催化床开始催化燃烧时，其燃烧热足以维持其反应所需的温度，此时电加热自行停止，启动电加热时间大约1小时左右。 6、吸附有机物废气的活性炭床，可用催化燃烧后的废气进行脱附再生，脱附后的气体再送催化燃烧室进行净化，不需外加能量，运转费用低，节能效果显著。

7、采用微机集中控制系统，设备运行、操作过程实现全自动化，运行过程安全、稳定

First, an overview

QFC activated carbon adsorption regeneration system (activated carbon adsorption and desorption device) adsorption-catalytic combustion method: this method combines the advantages of adsorption and catalytic combustion method, using a new type of adsorption material (honeycomb activated carbon) adsorption, near saturation after the introduction of hot air for desorption, analysis, desorption exhaust gas into the catalytic combustion bed without The flame is burned and purified thoroughly. The hot gas is recycled in the system, which greatly reduces energy consumption. It has the characteristics of stable and reliable operation, low investment, low operation cost and convenient maintenance. It is suitable for the treatment of waste gas with high air volume and low concentration. It is a mature and practical method in domestic organic waste gas treatment at present.

Two, use

Mixed organic waste gas can be treated by high air volume, low concentration and economical spray paint waste gas treatment. It is mainly used in chemical industry, machinery, electronics, electrical appliances, painting, shoemaking,

rubber, plastics, printing and other chemical plants to purify the volatile or leaking harmful organic waste gas and eliminate the odor. Direct combustion and catalysis are not suitable. Treatment of organic waste gas by chemical combustion or adsorption recovery.

### Three, working principle

Dongtai industrial waste gas purification unit is designed according to two basic principles of adsorption (high efficiency) and catalytic combustion (energy saving), namely adsorption concentration - catalytic combustion method. The equipment is operated continuously with two gas paths, and two or more adsorption beds can be used alternately. In a catalytic combustion chamber, the organic waste gas is adsorbed by activated carbon, and the adsorption operation is stopped when it is nearly saturated, and then the activated carbon is regenerated by desorbing the organic matter from the activated carbon with hot air flow. When the concentration of organic waste gas is above 2000mg/m<sup>3</sup>, the organic waste gas can maintain spontaneous combustion in the catalytic bed without external heating. Some of the burned exhaust gas is discharged into the atmosphere and most of it is sent to the adsorption bed for the desorption and regeneration of activated carbon. The regenerated activated carbon can be used for the next adsorption, while the purification operation can be carried out in another adsorption bed, which is suitable for both continuous operation and intermittent operation.

### Four, Taicang catalytic performance characteristics

- 1, the adsorption concentration + catalytic combustion combined process. The whole system realizes closed cycle in the process of purification and desorption. Compared with the recovery type of organic waste gas purification device, it does not need to equip with additional energy such as compressed air.
2. The equipment has advanced design principle, unique materials, stable performance, simple operation, safety and reliability, energy saving, no secondary pollution.
- 3, the equipment occupies a small area and uses a new activated carbon adsorption material, honeycomb activated carbon. Compared with granular, it has superior dynamic performance and is suitable for use under large air volume.
4. Noble metal catalyst with ceramic honeycomb used in catalytic combustor has small resistance and high activity. When the concentration of organic vapor reaches above 2000PPm, it can maintain spontaneous combustion.

5, low power consumption. Because the bed resistance is small, it is possible to use low pressure fans, which not only consume less electricity but also have less noise. Before the catalytic combustion of organic compounds, it is necessary to start the electric heating. When the organic compounds start the catalytic combustion in the catalytic bed, the combustion heat is enough to maintain the temperature needed for the reaction. At this time, the electric heating stops by itself and the starting time is about an hour.

6. The activated carbon bed for adsorbing organic waste gas can be regenerated by desorption of the waste gas after catalytic combustion. The desorbed gas is sent to the catalytic combustion chamber for purification without additional energy. The operation cost is low and the energy saving effect is remarkable.

7. Adopting microcomputer centralized control system, the equipment running and operating process are fully automated, and the operation process is safe, stable and reliable.