

废气吸附机组

目前新能源行业蓬勃发展，特别是电池行业发展迅猛。电池在某些制程中会产生一定量的废气，同时该废气具有毒性或腐蚀性不能直接排放，须经过处理，方可达到环保排放要求；

此类废气一般采用抽真空原理，前置+后置吸附剂，但效果有限，运行费用较高。

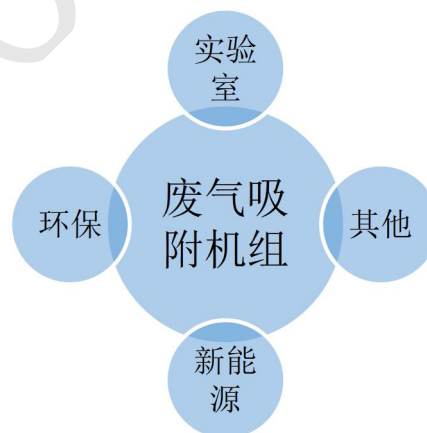
我们根据废气成分的不同，成分的物化性质，开发了新一代的废气吸附机组，经过测试，效果良好，再配合原先前后吸附剂，保护了真空泵运行可靠，同时废气达到环保排放要求；

设备特点：

- 1: 采用自复叠制冷技或多级复叠制冷技术；
- 2: 自复叠采用本公司自主研发制冷单元，制冷剂无泄漏，延长设备使用年限；
- 3: 采用原装进口压缩机，具有运行平稳，噪音低，功率小，能耗低，寿命长。
- 4: 超低温，降温稳定迅速；
- 5: 可连续长时间制冷输出，满足试验要求。
- 6: 西门子 PLC+HMI/Deepcold 开发专用控制器，全方位自动监控控制设备运行；保障设备运行可靠性，运行状态一目了然；

- 7: 具有温度、时间显示与设定功能，提供曲线记录数据保存等功能；
- 8: 特殊设计，制冷空间温度范围广，确保设备安全运行；
- 9: 可采用双冷阱工作，实现不停机连续长时间工作；
- 10: 吸附阱可采用内置式，亦可采用外置式，布局多样；
- 11: 控制系统可采用 PLC+HMI 或组态软件，操作安全可靠，简便，功能强大；
- 12: 可选配 RS485 或网络通讯，实现无人化操作设备；

应用行业图谱：



型号定义：

DC/EG①-②③/④/⑤/⑥/⑦/⑧/⑨/⑩/⑪/⑫

型号说明：

DC/EG: 蒂珀克[®] 废气吸附机组；

例如：DC/EG1-110/5/2/12/W/3/S/200/08/12/I

DC/EG	1	2	3	4	5	6	7	8	9	10	11	12	说明
蒂珀克													蒂珀克®超低温金属处理冷炉;
制冷原理	1												单机自覆叠
	2												双级覆叠
	3												三级覆叠
	4												单机双级覆叠
吸附温度 (°C):		080											表示制冷温度-80°C; 依此类推;
吸附量 (L/H)			1										03~3L/H; 15~15L/H, 依此类推;
吸附阱数量				1									1~1路吸附阱; 2~2路吸附阱; 依此类推;
机组名义功率 (HP):					15								15表示15HP; 依此类推;
冷凝方式							W						水冷
							F						风冷
系统电压 (V)								2					系统电压220V
								3					系统电压380V
压缩机形式								S					半封闭压缩机
								T					全封闭压缩机
吸附阱长度 (CM)										020			020~20CM; 100~100CM. 依次类推
吸附阱直径 (CM)											05		06~Φ6CM 60~Φ60CM; 依此类推;
吸附阱接口 (inch)												06	06~6 inch 10~10inch; 依此类推;
吸附阱安装方式													I 内置式
													0 外置式
DC/EG	1	2	3	4	5	6	7	8	9	10	11	12	说明

Waste Gas Adsorption Unit

Currently the new energy industry has been developing prosperously, especially the rapid development of battery industry. Battery will generate certain amount of waste gas during its production, and this gas can't be discharged directly due to its toxicity or corrosivity, which should be treated prior to reaching the discharging requirement of environmental protection;

This type of gas is usually treated by applying the vacuum extraction principle with front + rear adsorbent, but its effect is limited and operation cost is high.

Our company has developed the new-generation waste gas adsorption unit according to the different components of waste gas and their physical property, which has realized a good performance upon testing. It is able to protect the reliable operation of vacuum pump if combining with the previous front-rear adsorbent. Meanwhile, the waste gas will reach the discharging requirement of environmental protection;

Equipment Feature:

- 1: Using self-overlapping refrigeration technology or multi-level overlapping refrigeration technology;
- 2: The self-overlapping adopts the company's own refrigeration unit and refrigerant without leakage to extend the useful life

of equipment;

3: Adopting the original imported compressor with features of a smooth operation, low noise, low power, low energy consumption and long life.

4: Ultra-low temperature and stable and rapid cooling;

5: Having continuously long time cooling output to meet the test requirements.

6: Siemens PLC + HMI full range of automatic control and control equipment to run; to ensure the reliability of equipment operation, running at a glance;

7: It has functions of temperature, time display and setting, providing curve, recording and saving data;

8: It is designed specially with a wide range of cooling space temperature, to ensure safe operation of equipment;

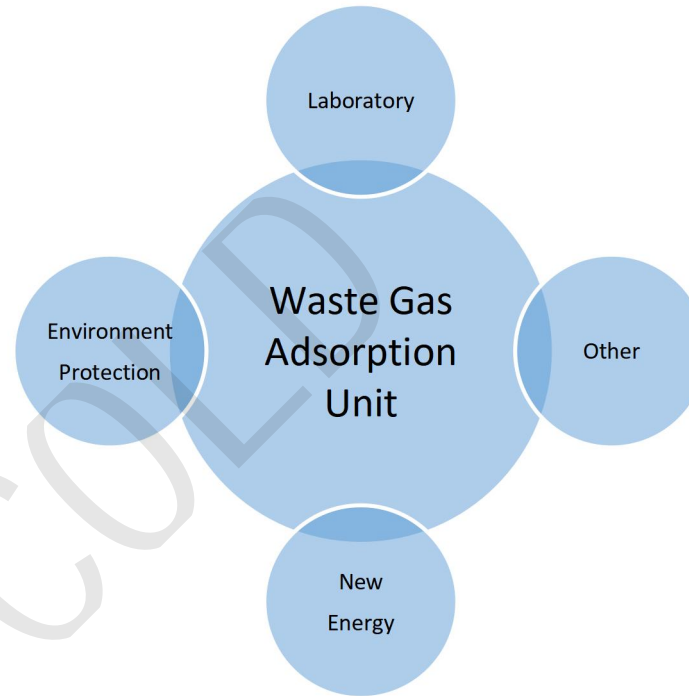
9: Apply dual cold trap to continuously work for a long time without shutdown;

10: Adsorption trap supports both inner mounting and outer mounting with various arrangements;

11: Siemens PLC + HMI or configuration software, control panel, Safe and reliable operation, simple and convenient, Powerful;

12: Optional RS485 or network communication can realize a multi-machine, continuous and integral production;

Applicable Industry Guide:



Model Definition:

DC/EG ① - ② ③ / ④ / ⑤ / ⑥ / ⑦ / ⑧ / ⑨ / ⑩ / ⑪ / ⑫

Model Definition:

DC/EG:Deepcold[®]Waste Gas Adsorption Unit

Remarks: ①~⑤ are basic models, ⑥~⑫ are expanding model;

Example: DC/EG1-110/5/2/12/W/3/S/200/08/12/I

DC/EG	1	2	3	4	5	6	7	8	9	10	11	12	Remarks
Deepcold													Deepcold®Waste Gas Adsorption Unit
Ref. Prin.	1												ARC
	2												Double-Stage Cascade
	3												Three-Stage Cascade
	4												Single-Machine Double-Stage Cascade
Temp. (°C) :		080											For example:080~-80°C; and so on;
Cap. of LWD (L/H)			01										For example:03-3L/H, 15-15L/H, and so on;
Num. of Trap				1									For example :1-1;2-2;and so on;
Unit Nominal Power					15								For example, 03 indicates 3P; 15 indicates 15 and so on;
Condensation Mode							W						Water Cooling
							F						Forced-air Cooling
System Voltage								2					220Vac
								3					380Vac
Compressor Mode									S				Semi-Hermetic Compressor
									T				Total-Hermetic Compressor
Length of Adsorption Trap(CM)										020			For example:020-20cm; 300-300cm;and so on;
Diameter of Adsorption Trap(CM)											05		For example:06-6cm; 60-60cm;and so on;
Interface of Adsorption Trap(inch)												06	For example:06~6inch; 10~10inch;and so on;
Installation Mode of Adsorption Trap													I Inner Mounting
													O Outer Mounting;
DC/EG	1	2	3	4	5	6	7	8	9	10	11	12	Remarks

配置说明: Configuration Table

型号 Model	DC/EG1-080/01	DC/EG1-100/01	DC/EG1-080/03	DC/EG1-110/03	DC/EG1-080/08	DC/EG1-100/08
制冷温度 (°C) Ref. Temp.	-80	-100	-80	-100	-80	-100
吸附量(L/H) Adsorption Cap. of LWD	3		5		10	
吸附阱数量 Number of Trap	1		1~2		2	
吸附阱直径 (MM) Diameter of trap	300		400		450	
吸附阱高度 (MM) Length of trap	500		650		800	
吸附阱接口 (inch) Interface of trap	6		8		10	
压缩机功率 (HP) Compressor power (HP)	5	7	7	10	10	15
制冷工质 Refrigerants	新型环保多元混合制冷剂 DC/EG1 refrigerants are all DEEPCOLD environment-friendly compound refrigerants					
冷却水管径 (inch) Cooling water pipe diameter	1/2	3/4		1		1 1/2
冷却水流量 (L/min) Cooling water flow	12	30		35		50
预冷时间 (min) Precooling time	≤30					
总功率 (KW) Total Power	2.5	4	6	8	12	16
控制系统 Control system	西门子PLC+HMI/Deepcold开发专用控制器+HMI (选一) RS485(选配) Siemens PLC+HMI controls OR Controlling system professionally developed by Deepcold; (Optional) RS485					
数据记录 Data record	温度实时曲线记录、温度历史曲线记录、报警记录、设备运行状态记录, 远程控制; Temperature historical curve record, parameter setting, alarm record, equipment operation state record; Remote control, formula setting;					
安全防护 Safety Protection	相序错相断相保护、压缩机内保护、过载保护; 压力保护, 过热保护装置、冷凝温度保护、传感器故障保护等多种安全保障功能 Configured with various safety protection functions e.g. phase sequence, phase dislocation, open-phase protection, electric leakage protection, compressor inner protection, overload protection, overheat protection device, sensor failure protection etc.; Configured with various safety protection functions e.g.					
电器指标 Electrical indicators	AC380V*3PH*50/60Hz					