

超低结露点气体机组

设备采用原装进口压缩机、自复叠制冷技术，制冷能力强，温度低，制备气体结露点 -50°C ~ -120°C ，气体流量 $0\sim 300\text{L}/\text{min}$ 制冷剂采用复配环保型制冷剂，制冷单元采用本公司自行研发的单元，制冷快，节能环保；气体流道采用特殊密闭式换热结构，承压高，流量大，换热快，温度低。主要适用于科研院所，军工，汽车、半导体行业；

功能可选配：流量控制、压力控制、定时除霜等功能；

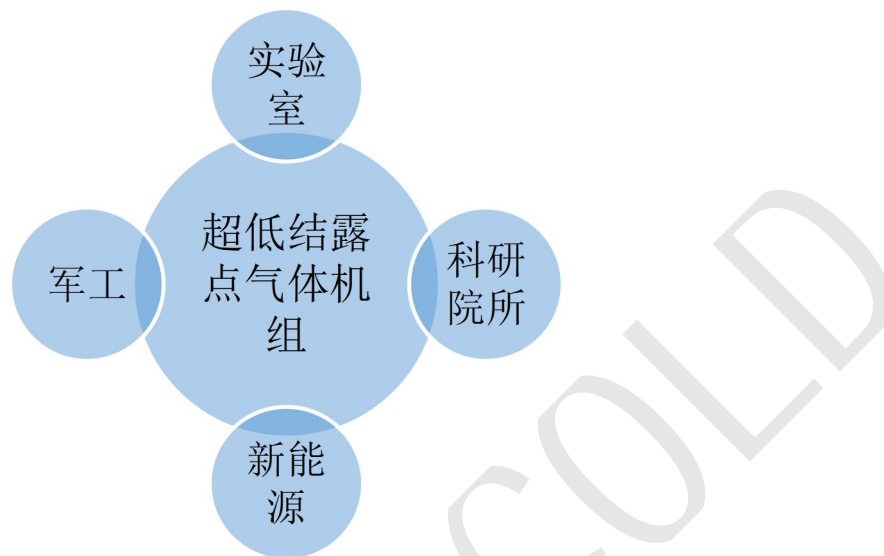
特殊需求请咨询本公司。本公司接受定制需求；



设备特点

- 1: 采用自复叠制冷技术;
- 2: 自复叠采用本公司全新研发制冷单元, 该单元换热快、体积小、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: 自行研发设计高效油过滤器, 分离效果达到 99.9%以上, 提高制冷效率;
- 5: 蒸发器与气体通道整体设计, 采用全封闭 SUS304 结构, 无泄露, 制冷效果好; 可选配真空绝热定制, 节能, 制冷效果更佳;
- 5: 超低温, 气体结露点温度可低至 $\leq -100^{\circ}\text{C}$; 降温稳定迅速;
- 6: 可连续长时间制冷输出, 满足试验要求。
- 7: 可选配流量调节、计量等功能; 可选配大流量机组;
- 8: Deepcold 专业开发的控制系统, 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;
- 9: 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;
- 10: 可选配电热回温装置, 排气温度为常温;
- 11: 可选配自动排水装置; 可选配 RS485 通讯或其他联机方式, 实现无缝远程控制;

应用行业图谱：



型号定义：

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

型号说明：

DC/GD: 蒂珀克® 超低结露点气体机组；

备注：①~⑤为基础型号，⑥~⑫为扩展型号；

例如：DC/GD1-080/01/03/F/2/T/H/L/N/A

DC/GD1-100/05/15/W/3/S/S/L/T/N/E

DC/GD	1	2	3	4	5	6	7	8	9	10	11	12	说明
蒂珀克													蒂珀克®超低结露点气体机组;
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
露点温度(°C):	080												080~-80°C; 依此类推;
气体流量(*10 ³ L/Min)	30												03~3L/min(10 ⁰ *3=3); 11~10L/min(10 ¹ *1=10); 00<1L/min, 依此类推; (气体体积以标方计算)
机组名义功率(HP):	03												03表示3P; 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
结露点设定功能	S												带设定功能
	N												无设定功能
出气温度	L												表示低温排气, 不带电热装置
	H												表示高温(常温)排气, 带电热装置
进出气接口方向	L												左侧进出气
	R												右进出气
	B												后进气
	T												上进出气
	F												前进出气;
	0												其他指定方向进出气
化霜功能	D												带化霜功能
	N												无化霜功能
排水功能	A												自动机械排水
	M												手动排水
	E												电动定时排水
DC/GD	1	2	3	4	5	6	7	8	9	10	11	12	说明

Ultralow Dew point Gas Unit

This equipment applies the original imported compressor and auto-cascade refrigerating technology with a strong refrigerating capacity and low temperature. The dew point of prepared gas is $-50\sim-120^{\circ}\text{C}$ with the gas flow is $0\sim 300\text{L}/\text{min}$. Its applies the compound environment-friendly refrigerant, and applies the unit independently researched and developed by our company as its refrigerating unit with a fast refrigeration, energy saving and environment protection; Gas channel applies the special closed heat exchange structure with a high pressure-bearing, large flow, fast heat exchange and low temperature. It is mainly applicable to the research institutes, military engineering, automobile and semiconductor industry; Functions are optional: flow control, pressure control, timing defrosting etc.

Please consult our company for any special demand. We are willing to accept any of your customized requirement.

Equipment Feature

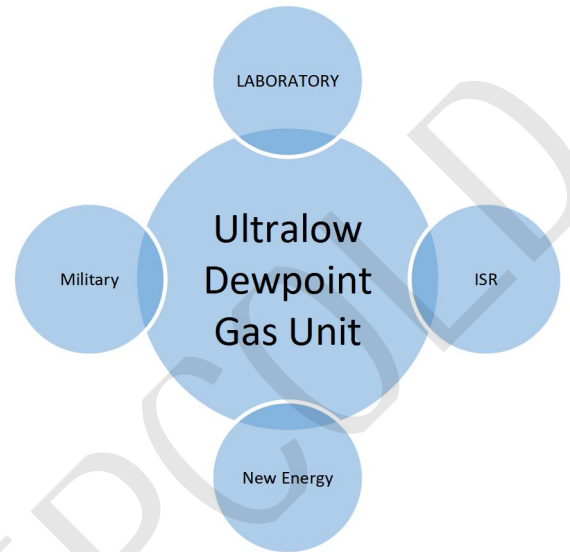
- 1: Apply the auto-Refrigerating Cascade (ARC) technology;
- 2: Apply the refrigerating unit of independent research and development for ARC with no leakage of refrigerant and extension of service life for equipment;
- 3: Adopting the original imported compressor with features of a smooth operation, low noise, low power, low energy

consumption and long life.

- 4: High-efficiency oil filter of independent research and development can realize a separation effect over 99.9%, enhancing the refrigerating efficiency;
- 5: Integral design for evaporator and gas channel, apply fully-enclosed SUS 304 structure without any leakage but a better refrigerating effect; Optional vacuum vacuum insulation customization with a energy saving and better refrigerating effect;
- 5: Ultralow temperature, gas dew point temperature can be as low as $\cong -100^{\circ}\text{C}$ with a stable and fast temperature reduction;
- 6: Ultralow temperature with a stable and rapid temperature reduction;
- 7: Optional functions e.g. flow regulation, metering etc.; Optional mass flow unit;
- 8: Controlling system professionally developed by Deepcold can realize an all-around automatic monitoring and controlling of equipment operation; Ensure a reliable operation of equipment and a transparent operation status;
- 9: Configured with temperature, time display and setting function, provide the functions e.g. curve record and data saving etc.
- 10: Optional electric reheating device, and the discharge temperature is normal;

11: Optional automatic drainage device; optional RS485 communication or other on-line modes, realizing a seamless and remote control;

Applicable Industry Guide:



Model Definition:

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

Model Instruction:

DC/GD: Deepcold[®]; Ultralow Dew point Gas Unit

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

Example: DC/GD1-080/01/03/F/2/T/H/L/N/A

DC/GD1-100/05/15/W/3/S/S/L/T/N/E

DEEPCOLD

DC/GD	1	2	3	4	5	6	7	8	9	10	11	12	Remarks
Deepcold													Deepcold®Ultralow Dew point Gas Unit
Ref. Prin.	1												ARC
	2												Double-Stage Cascade
	3												Three-Stage Cascade
	4												Single-Machine Double-Stage Cascade
Dew Point Temp. (°C)	080												For example:080~-80°C; and so on:
Gas Flow (*10 ⁿ L/min)		11											03~3L/min(10 ⁰ *3=3); 11~10L/min(10 ¹ *1=10);00<1L/min, And so on;(Gas volume shall be calculated by standard cubic feet)
Unit Nom. Power(HP):			03										For example: 03 indicates 3HP; 15 indicates 15HP, and so on;
Condensation Mode													Water Cooling
													Forced-air Cooling
System Voltage(V)													220Vac
													380Vac
Compressor Mode													Semi-Hermetic Compressor
													Total-Hermetic Compressor
Dewpoint Setting Function													Setting function
													No setting function
Outlet Temperature													L Low temperature discharge without electric heating device
													H High temp. (normal temp.) discharge with electric heating device
Air inlet/outlet interface direction													L Left-side inlet/outlet,
													R Right-side inlet/outlet
													B Back-side inlet/outlet
													T top-side inlet/outlet
													F Front-side inlet/outlet
													O Other designated directions for air inlet/outlet
Defrosting Function													D Defrosting by hot fluorine
													N Non-Frosting Function
Drainage function													A Automatic mechanical drainage
													M Manual drainage;
													E Electric timing drainage;
DC/GD	1	2	3	4	5	6	7	8	9	10	11	12	Remarks

配置说明: Configuration Table

型号规格 Model	DC/GD1-00	DC/GD1-11	DC/GD1-15	DC/GD1-22	DC/GD1-24	DC/GD1-28
气体最大流量 (L/Min) Gas Flow	1	10	50	200	400	800
温度 (°C) TEMP.	-60°C~-120°C, (≦-120°C请咨询厂商, 本表以-80°C标准编写)					
压缩机名义功率 (HP) Compressor power	3/4	1	2	5	7	15
压缩机品牌 Compressor brand	泰康、恩布拉科 Tecumseh/Embraco			泰康/富士豪 Tecumseh/Frascold	富士豪/比泽尔	Frascold/Bitzer
冷凝方式 Condensation Mode	风冷/水冷 Forced-air Cooling/Water Cooling			水冷 Water Cooling		
制冷剂 Refrigerants	DC/GD1型制冷剂均为DEEPCOLD环保混合型制冷剂 DC/GD1 refrigerants are all DEEPCOLD environment-friendly compound refrigerants					
加热功率 (W) (输出常温) Heating power	50 (24VDC)	150 (24VDC)	450 (24VDC)	1500 (220V)	2500 (220V)	3500 (220V)
露点温度精度 Dew Point Temp. Precision	±5°C					
控制方式 Control system	Deepcold自开发系统+5寸/7寸/10寸HMI (选配) Deepcold independently developed system +5 inch/7 inch/10 inch HMI					
数据记录 Data record	温度历史曲线记录、参数设定、报警记录、设备运行状态记录; 选配项目: 远程控制、配方设置; Temperature historical curve record, parameter setting, alarm record, equipment operation state record; Optional item: Remote control, formula setting;					
安全防护 Safety Protection	相序错相断相保护、漏电保护器、压缩机内保护、过载保护; 系统压力保护, 过热保护装置、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.					
总功率 (KW) Total Power	1.2 (220/380V)	1.8 (220/380V)	2.0 (220/380V)	5.5 (380V)	7 (380V)	16 (380V)
框架 Framework	标准: 冷轧板钣金喷塑; 选配: SUS304钣金 Standard: Cold-Rolled Sheet Metal Plate Spraying Plastics; Optional: SUS304 Metal Plate					
外形尺寸 (MM) (L*W*H) External Dimension	750*800*1200	750*800*1200	750*900*1200	800*1000*1350	800*1200*1500	1000*1350*1750
其他选配 Other Options	尺寸仅供参考, 尺寸大小与制冷机组布置方式有关; Dimension shall be for reference only, dimension is relating to arrangement form of refrigerating unit; 1: 加热控温采用SSR (SCR); 2: 自动排水功能; 3: 自动除霜功能; 4: 其他按照客户需求定制配置; 1. Heating temperature control applies SSR; 2. Automatic drainage function; 3. Automatic defrosting function; 4. Anti-explosion function; 5. Other customized configuration as per customers' demand;					