

室内洁净空气/新风/节能

//// 组合式恒温恒湿空调机组 ////



维护方便



静音节能



智能控制



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Product Profile

节能环保、健康空气、服务社会

Energy Saving ECO、Clean & Healthy Air、 Serve The Society

创意组合、灵活定制、商机无限

Innovative Combination、Flexible Custom-made、Infinite Business Opportunity

目录 Contents

一、空气处理机组

Air Handling Units

二、恒温恒湿机组

Constant Temperature & Humidity
Air Conditioner

三、大型直膨机组、屋顶机

Large Size Direct Expansion Air
Conditioner, Rooftop Units

四、节能、新风机组

Energy Saving Fresh Air Units

五、IAQ空气净化机组

IAQ Clean Air Units

六、灵活定制、非标机组

Custom Made, Non-standard
Equipments

七、工程案例

Job Reference

八、客户履历

Client List

公司简介 Company Profile

恒利特利空调设备有限公司是一家自主知识产权，专业制造各类中央空调设备的生产厂家，公司自1997年以来，一直秉承以产品质量为根本，为客户提供实实在在的产品和售后服务。随着社会的发展，市场对产品有相对应的要求，我们亦可按客户之要求，精准订制一些相关的非标产品。

响应新时代的到来，在产品的技术创新，特别在环保节能的应用上，我们不断推出功能更先进的，更强大的产品。目前，公司已推出带有板式或转轮式热回收节能机组，和带有热管热回收的节能除湿机组。在（IAQ）室内空气品质的应用上，我们也能为客户提供多种去除有害气体，降低室内PM2.5等多功能组合的产品。

企业在于服务社会，让广大的使用者从产品和服务中获得满足，我们会以客户的需求为己任，勇于进取，敢于创新，随着时代的步伐向前迈进。

Telewin, a professional manufacturer concentrates on central air conditioning system for more than 20 years. Hstars Telewin Air Conditioning Equipment Co., Ltd. has been endeavour to the product quality as fundamental, and provides excellent products, system solutions and after-services since year 1997.

Telewin, focuses on the technical innovation, especially on the application of environmental protection and energy saving, supplied Plate type and Rotary Wheel heat recovery energy saving units, energy saving dehumidifier unit with heatpipe heat recovery and provided various clean air handling units of modular multi-function to remove harmful gas, VOCs and reduce PM2.5 on the indoor air quality (IAQ) applications.

To serve the society, satisfy the users from our products and services, we will take customer demands as our responsibility, keep in advance and innovating, and keep pace with the times.



一、空气处理机组 Air Handling Units

- 1、机组结构、框架
Casing Structure/ Frame
- 2、盘管
Coil
- 3、加热、加湿
Heating/ Humidifying
- 4、风机、电机
Fan/ Motor
- 5、水盆、机组防腐
Drain Pan/ Equipment Corrosion Resistance
- 6、自控系统
Automatic Control System



2、盘管 Coil

Casings are fabricated with cold-bridge free high strength aluminum penta-post frame and double skin panels. Anodizing panel surface treatment for durable and pleasant appearance and corrosion resistance.



不锈钢框架（304#不锈钢面板）——可选项
Stainless Steel Frame Post and (SUS304) Panel -- Optional Available



我们采用专用盘管选型软件进行专门设计，以确保机组达到所需的工况。

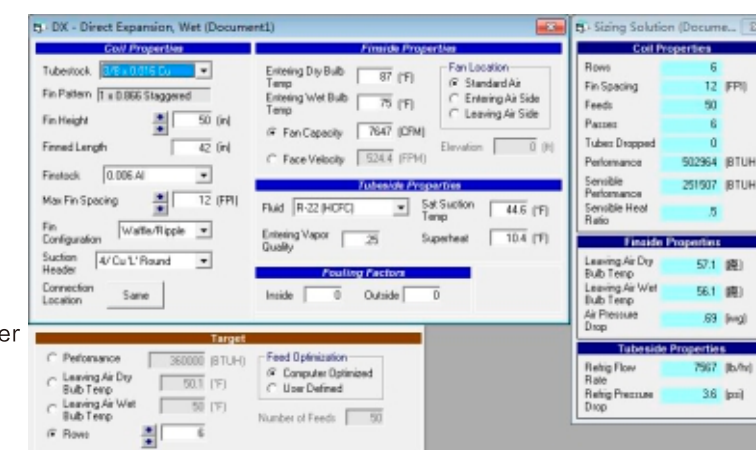
All coils design and calculation is selected by professional coil selection software to best match the units performance.

采用铜管、铝翅片、经机械胀接法使铜管与翅片紧密相连, 保证发挥最大换热效率, 铜管以交错方式排列, 配合铝翅片的正弦波纹设计, 从而保证盘管具有高的热传递性能和低的空气阻力, 所有盘管经过2.76Mpa的压力进行强度和泄漏检验。

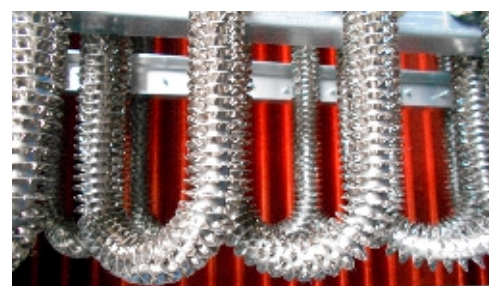
同时盘管段设有大排水坡度不锈钢水盘，便于冷凝水的排放，无积水现象。

In general, adopts high efficiency heat transfer copper tube with mechanical bonding sinusoidal wavy aluminum fin, counter flow heat transfer direction for maximum heat efficiency. Low coil air flow pressure drop design. Coils are pressure tested with 2.76MPa for leakage.

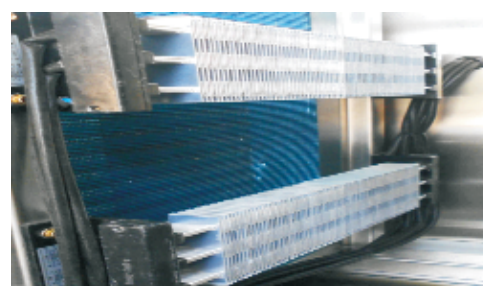
Built-in type high inclined drain pan slope to eliminate condensate accumulation remain.



3、加热、加湿 Heating/ Humidifying



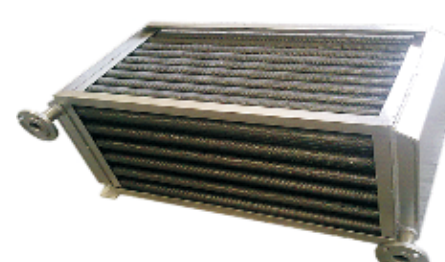
电加热
High Efficiency Electric Heater



PTC加热
Double Protection No Overheat PTC Type Heater



热水加热
Cu/Al or Cu/Cu Hot Water Coil



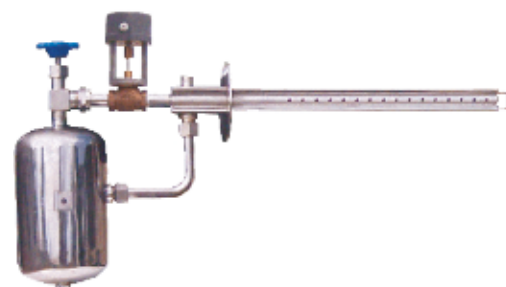
蒸汽加热盘管
Steam Heating Coil



电极加湿
Serviceable Electrode Humidifier



湿膜加湿
Wet Membrane Humidifier



蒸汽加湿
Steam Humidifier

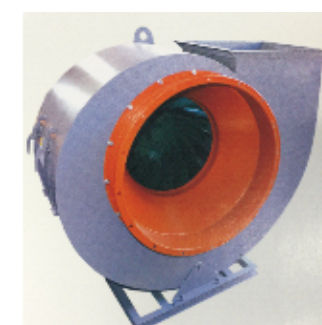


大型喷淋加湿
Spraying Humidifier

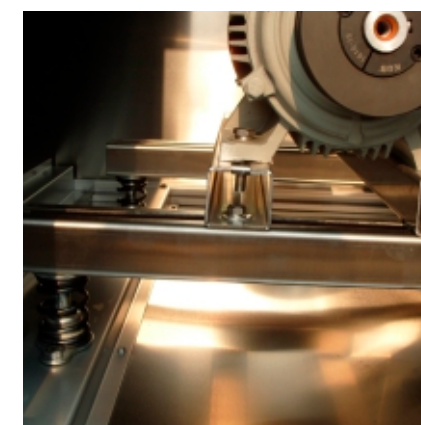
4、风机、电机、减震 Fan/Motor/Vibration Eliminator



离心风机 Centrifugal Fan



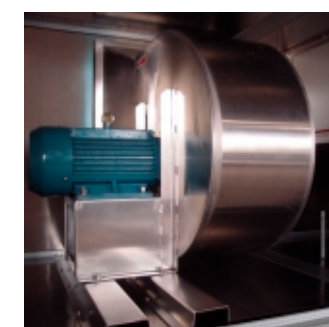
高压风机 High Pressure Fan



风机、电机、减震
Assembly of Fan & Motor Vibration Eliminator



无蜗壳风机 Plug Fan



不锈钢风机 Stainless Steel Fan



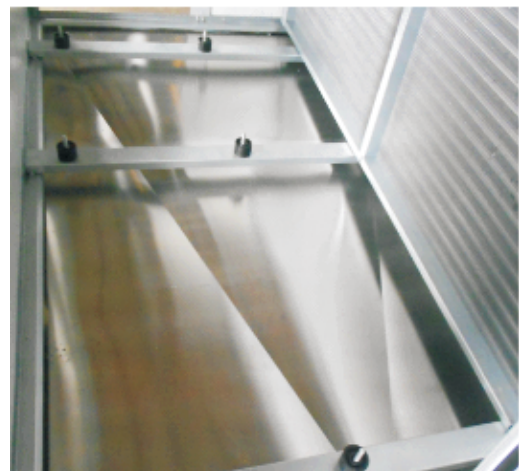
EC 风机（带安装架）
Electrical Commutation Fan with Mounting Bracket



EC风机 Electrical Commutation Fan

5、水盘、机组防腐

Drain Pan/ Equipment Anti-corrosion Application



抗菌水盆 Antimicrobial Drain Pan

抗菌涂料唯一获得美国环境保护局（EPA）注册，用于暖气、通风及空气调节系统（HVAC）的涂层，能防止细菌及霉菌生长及传播的异味。

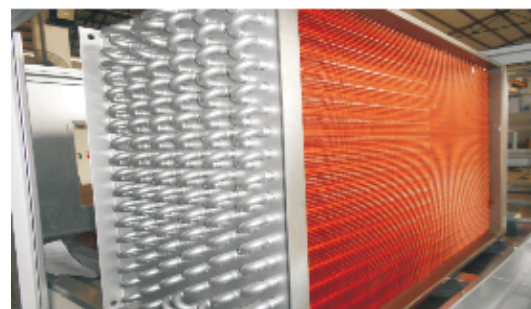
抗菌表面、高效耐用涂层、高抗锈蚀性能、无毒。

The drain pan is specially coated with antimicrobial coating approved by EPA to be used in HVAC system to eliminate drain pan contamination by bacteria and micro-organisms smells.
Antimicrobial surface/ Superior exterior durability/
Excellent corrosion resistance/ Non-toxic

不锈钢水盆，其形状为斜坡状，能保证冷凝水排放通畅，使接水盘始终处于干式状态。

水盘内不存水，排水流畅，能满足较高之卫生标准。

The stainless-steel drain pan is shaped with a slight downward slope towards the drain pipe to ensure complete drainage of condensate and keep the drain pan in a higher hygienic condition.



铜翅片
Copper Fins



Coil Guard涂层
Coil Guard Coating



电泳处理
Electrophoresis Treatment



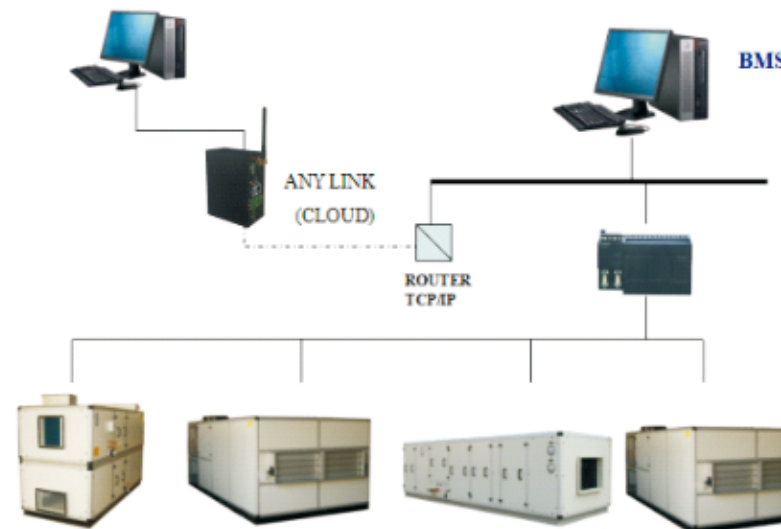
风冷室外机（全不锈钢外壳）
Air Cooled Condensing Unit (Full Stainless Steel Casing)

6、自控系统 Automatic Control System

自控系统有良好的通讯功能，可与中央监控系统连接，实现远程监控，并有与消防系统连锁功能。在一些特定项目中，自控系统还可以通过Ethernet TCP/IP网络进行联网监控和传输讯息。

主要分为DDC直接数字控制和PLC可编程控制器两个类别，显示屏有数字式和触摸屏式两个类别。

By common control communication protocol, our units are fully compatible to BMS central monitoring system for remote monitoring and control even linked to fire alarm system. We can also provide control via the Ethernet TCP/IP network. DDC and PLC controllers for option, digital and touch screen monitors available.





组合式空气处理机组性能参数（9个段）
Performance Parameters of Package AHUs (9 Sections)

型号 Model	表冷段 Cooling Coil		加热带 Heating Section	加湿段 Humidifying Section	风机段 Fan & Motor Section		外形尺寸 Dimension			混合段 Mixing Section	初效段 Pre-filter Section	表冷段 Cooling Coil Section	挡水段 Eliminator Section	电加热带 Electric Heating Section	加湿段 Humidifying Section	风机段 Fan & Motor Section	均流段 Diffusing Section	中效段 Medium Filter Section	出风段 Supply Air Section	总长度 Total Length
	排数 Row/FPI	额冷量(kW) Sensible Cooling	加热带(kW) Heating Capacity	加湿量(Kg/h) Humidifying Capacity	余压(Pa) External Static Pressure	电机功率 Motor Power	高H (mm)	宽W (mm)	长L (mm)											
TZK040	4R	26	12	5	600	2.2KW-2P	1050	900	3700	600	100	400	0	100	500	800	600	300	300	3700
	6R	32																		
TZK060	4R	40	18	10	600	4KW-2P	1250	1000	3800	600	100	400	0	100	500	900	600	300	300	3800
	6R	49																		
TZK090	4R	58	30	13	600	5.5KW-2P	1250	1300	4000	600	100	400	0	100	500	1100	600	300	300	4000
	6R	77																		
TZK120	4R	76	36	15	600	7.5KW-2P	1450	1400	4100	600	100	400	0	100	500	1200	600	300	300	4100
	6R	94																		
TZK150	4R	102	45	15	600	11KW-4P	1450	1650	4400	700	100	400	0	100	500	1200	700	300	400	4400
	6R	122																		
TZK180	4R	121	54	25	600	11KW-4P	1800	1550	4600	700	100	400	0	100	500	1400	700	300	400	4600
	6R	146																		
TZK220	4R	131	60	30	800	15KW-4P	1800	1800	4800	700	100	400	0	100	500	1500	700	300	500	4800
	6R	185																		
TZK250	4R	174	72	45	800	15KW-4P	2100	1800	4900	700	100	400	0	100	600	1500	700	300	500	4900
	6R	218																		
TZK300	4R	201	72	45	800	18.5KW-4P	2100	2100	5300	700	100	400	100	200	600	1700	700	300	500	5300
	6R	258																		
TZK350	4R	235	90	30x2	800	18.5KW-4P	2400	2100	5700	800	100	400	100	200	600	1800	800	300	600	5700
	6R	302																		
TZK400	4R	274	90	30x2	800	22KW-4P	2400	2300	5700	800	100	400	100	200	600	1800	800	300	600	5700
	6R	349																		
TZK450	4R	308	108	30x2	800	30KW-4P	2400	2600	5900	800	100	400	100	200	600	2000	800	300	600	5900
	6R	383																		
TZK500	4R	348	108	30+45	800	30KW-4P	2400	2800	5900	800	100	400	100	200	600	2000	800	300	600	5900
	6R	433																		

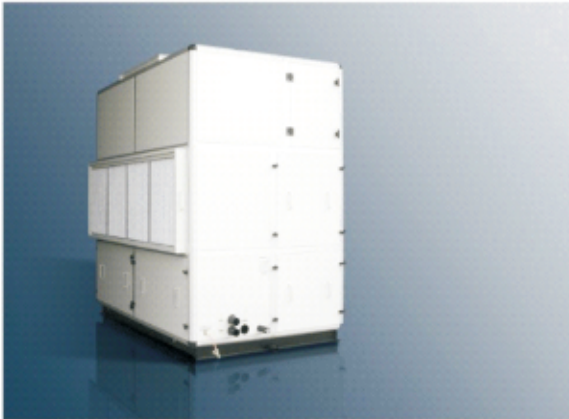
注：技术资料如有更改，恕不另行通知！ Note: Above technical parameters are subject to change without prior notice!

二、恒温恒湿机组（风冷/水冷） Constant Temperature & Humidity Air Conditioner

风冷恒温恒湿(洁净型)空调机组
Air Cooled Constant Temperature and Humidity(Cleanliness)AHU



水冷恒温恒湿(洁净型)空调机组
Water Cooled Constant Temperature and Humidity(Cleanliness)AHU



总体说明 General Description

“特利”牌恒温恒湿洁净型空调机组是公司经过多年的研究和开发适用于对温度、湿度和洁净度都有严格要求的空调。

目前生产HSJ、HFJ系列恒温恒湿洁净空调机组能广泛满足于不同的用户对室内气候环境的温度、湿度、洁净度和清新度等各种要求，可广泛应用于精密机械、电子、光学设备、表面处理、医疗卫生、生物制药、食品制造、精品化工、各类计量及检测实验室等行业。

HSJ系列水冷恒温恒湿洁净型空调机组适用于水源充足，具备安装冷却水塔条件的地区；HFJ系列风冷恒温恒湿洁净型空调机组适用于水源缺乏或不适合安装冷却水塔的地方。

公司根据用户实际要求，专业设计、制造满足客户使用的非标准、大型恒温恒湿洁净型空调机组。

Constant Temperature and Humidity Air Conditioner Unit is one of “Telewin” hot sale products through the 20 years production continuous research and improvement experience.

The latest HSJ and HFJ series Constant Temperature and Humidity Clean Air Conditioner Unit is widely applicable in precision mechanical, electronic, optic, surface treatment process, medical instrument, bio-chemical laboratory, pharmaceutical, food, precious parts, standard testing laboratory and factory production lines.

HSJ units are high efficiency water cooled unit and HFJ units are simple operation air cooled units. With over 20 years of design and practical experience, Telewin is capable to design and build small and large special supply quality air units to meet client's clean room constant temperature and constant humidity air conditioner requirement to match their production quality standard.





HSJ水冷恒温恒湿洁净型空调机组
HSJ Water Cooled Constant Temperature and Humidity(Cleanliness) AHU

性能参数表 Performance Parameters Table

项目 Item		参数 Parameter	型号 Model	TZ020-3HSJ	TZ030-5HSJ	TZ045-7.5HSJ	TZ060-10HSJ	TZ072-12HSJ	TZ090-15HSJ
机组性能 Unit Performance	制冷量 Cooling Capacity	KW	9.7	16.1	22.1	32.2	36.2	44.2	
	循环风量 Air Flow	M³/h	2000	3000	4500	6000	7200	9000	
	机外静压 E.S.P.	Pa	400	450	450	550	550	550	
	机组噪音 Sound Level	DB(A)	≤60	≤62	≤62	≤65	≤66	≤67	
	温控范围 Temp Control	℃	(18~28)℃ ± 1℃						
	湿控范围 Humidity Control	%RH	(50~70)% ± 5%						
	电源 Power Supply		380V/3N/50Hz (As Requested)						
	总功率 Total Power	KW	12.3	17.9	24.6	34.4	38.1	50.3	
制冷系统 Refrigerating System	制冷剂 Refrigerant	工质名称 Refrigerant	R22/R134/R407c/R410a						
		节流方式 Flow Control	外平衡式热力膨胀阀 External Equalizing Thermal Expansion Valve						
	压缩机 Compressor (R407c)	类型 Type	全封闭式压缩机 Hermetic Compressor						
		功率 Power (kW)	2.2	3.7	4.4	7.4	10.1	11.1	
		数量 Quantity (Pcs)	1	1	1	2	1	3	
	蒸发器 Evaporator	类型 Type	铜管串铝翅片 Copper Tube with Aluminum Fins						
		翅片形式 Fins Type	波纹镀膜亲铝片 Corrugated Hydrophilic Aluminum Foil						
	冷凝器 Condenser	类型 Type	壳管式冷凝器 Shell and Tube Type Condenser						
		水流量 Water Flow (M³/h)	2.2	3.8	5.5	7.6	9.0	11.0	
		阻力 Resistance (KPa)	20	32	25	33	28	25	
		进出水管 Inlet/Outlet Pipe	DN20	DN20	DN25	DN40	DN40	DN50	
送风系统 Air Supply System		类型 Type	低噪音多翼离心式 Low Noise DWDI Centrifugal Fan						
		风机驱动方式 Fan Drive Type	皮带传动 Belt Driven						
		电机功率 Motor Power (kW)	1.1	1.5	2.2	3.0	4.0	5.5	
		空气过滤器 Filtration	50mm厚无纺布初效+袋式中效50mm Non-woven Fabric Primary Filter + Bag Type Medium Filter						
加湿器 Humidifier		类型 Type	电极式加湿器 Electrode Humidifier						
		功率 Power (kW)	3	3.7	6	6	6	9.7	
		加湿量 Humidifying Capacity (Kg/h)	4	5	8	8	8	13	
加热器 Heater		类型 Type	电热式加热 Electric Heating						
		功率 Power(KW)	6	9	12	18	18	24	
重量 Unit Weight (Kg)			250	280	390	450	580	650	

注：技术资料如有更改，恕不另行通知！ Note: Above technical parameters are subject to change without prior notice!

HSJ水冷恒温恒湿洁净型空调机组

HSJ Water Cooled Constant Temperature and Humidity(Cleanliness) AHU

性能参数表 Performance Parameters Table

项目 Item	参数 Parameter		型号 Model	TZ110-20HSJ	TZ145-25HSJ	TZ160-30HSJ	TZ210-40HSJ	TZ230-50HSJ	TZ300-60HSJ
机组性能 Unit Performance	制冷量 Cooling Capacity	KW	63	72.4	93	108.6	144.8	181	
	循环风量 Air Flow	M³/h	11000	14500	16000	21000	23000	30000	
	机外静压 E,S,P.	Pa	600	600	650	650	700	750	
	机组噪音 Sound Level	DB(A)	≤68	≤70	≤70	≤75	≤75	≤76	
	温控范围 Temp Control	℃	(18~28)℃±1℃						
	湿控范围 Humidity Control	%RH	(50~70)% ± 5%						
	电源 Power Supply		380V/3N/50Hz (As Requested)						
	总功率 Total Power	KW	65	78.5	83.4	106	113.9	138.4	
制冷系统 Refrigerating System	制冷剂 Refrigerant	工质名称 Refrigerant	R22/R134/R407c/R410a						
		节流方式 Flow Control	外平衡式热力膨胀阀 External Equalizing Thermal Expansion Valve						
	压缩机 Compressor (R407c)	类型 Type	全封闭式压缩机 Hermetic Compressor						
		功率 Power (kW)	13.8	15.8	20.7	23.7	31.6	39.5	
		数量 Quantity (Pcs)	2	2	3	3	4	5	
	蒸发器 Evaporator	类型 Type	铜管串铝翅片 Copper Tube with Aluminum Fins						
		翅片形式 Fins Type	波纹镀膜蓝波铝片 Corrugated Hydrophilic Aluminum Foil						
	冷凝器 Condenser	类型 Type	壳管式冷凝器 Shell and Tube Type Condenser						
		水流量 Water Flow (M³/h)	15.5	17.8	22.9	31	35.6	44.5	
		阻力 Resistance (KPa)	27.2	28	28.2	29	28	29.5	
		进出水管 Inlet/Outlet Pipe	DN50	DN50	DN65	DN65	DN65	DN80	
	送风系统 Air Supply System		类型 Type	低噪音多翼离心式 Low Noise DWDI Centrifugal Fan					
风机驱动方式 Fan Drive Type			皮带传动 Belt Driven						
电机功率 Motor Power (kW)			5.5	4x2	4x2	5.5x2	5.5x2	7.5x2	
空气过滤器 Filtration			50mm厚无纺布初效+袋式中效50mm Non-woven Fabric Primary Filter + Bag Type Medium Filter						
加湿器 Humidifier		类型 Type	电极式加湿器 Electrode Humidifier						
		功率 Power (kW)	9.7	9.7	9.7	17.3	17.3	24	
		加湿量 Humidifying Capacity (Kg/h)	13	13	13	23	23	32	
加热器 Heater		类型 Type	电热式加热 Electric Heating						
		功率 Power(KW)	36	45	45	54	54	60	
重量 Unit Weight (Kg)			750	1120	1250	1500	1550	1700	

注：技术资料如有更改，恕不另行通知！ Note: Above technical parameters are subject to change without prior notice!

HFJ风冷恒温恒湿洁净型空调机组

HFJ Air Cooled Constant Temperature and Humidity(Cleanliness) AHU

性能参数表 Performance Parameters Table

项目 Item	参数 Parameter	型号 Model	TZ020~3HFJ	TZ030~5HFJ	TZ045~7.5HFJ	TZ060~10HFJ	TZ072~12HFJ	TZ090~15HFJ
机组性能 Unit Performance	制冷量 Cooling Capacity	KW	8.8	14.6	20.3	29.2	34.4	43.8
	循环风量 Air Flow	M³/h	2000	3000	4500	6000	7200	9000
	机外静压 E.S.P.	Pa	400	450	450	550	550	550
	机组噪音 Sound Level	DB(A)	≤60	≤62	≤62	≤65	≤66	≤67
	温控范围 Temp Control	℃	(18~28)℃ ± 1℃					
	湿控范围 Humidity Control	%RH	(50~70)% ± 5%					
	电源 Power Supply		380V/3N/50Hz (As Requested)					
	总功率 Total Power	KW	13.2	19.1	26.9	36.5	38.8	52.9
	制冷剂 Refrigerant	工质名称 Refrigerant	R22/R134/R407c/R410a					
		节流方式 Flow Control	外平衡式热力膨胀阀 External Equalizing Thermal Expansion Valve					
	压缩机 Compressor (R407c)	类型 Type	全封闭式压缩机 Hermetic Compressor					
		功率 Power (kW)	参照室外机组参数表 Reference to Outdoor Unit Parameter					
数量 Quantity (Pcs)		1	1	2	2	1	3	
室内机 Indoor Unit	蒸发器 Evaporator	类型 Type	铜管串铝翅片 Copper Tube with Aluminum Fins					
		翅片形式 Fins Type	波纹镀膜蓝波铝片 Corrugated Hydrophilic Aluminum Foil					
	送风系统 Air Supply System	类型 Type	低噪音多翼离心式 Low Noise DWDI Centrifugal Fan					
		风机驱动方式 Fan Drive Type	皮带传动 Belt Driven					
		电机功率 Motor Power (kW)	1.1	1.5	2.2	3.0	4.0	5.5
		空气过滤器 Filtration	50mm厚无纺布初效+袋式中效50mm Non-woven Fabric Primary Filter + Bag Type Medium Filter					
	加湿器 Humidifier	类型 Type	电极式加湿器 Electrode Humidifier					
		功率 Power (kW)	3	3.7	6	6	6	9.7
		加湿量 Humidifying Capacity (Kg/h)	4	5	8	8	8	13
	加热器 Heater	类型 Type	电热式加热 Electric Heating					
		功率 Power(KW)	6	9	12	18	18	24
重量 Unit Weight (Kg)			220	240	320	380	450	550
配用室外机型号 Matching Model of Outdoor Unit			SW-03 x1	SW-05 x1	SW-04 x2	SW-05 x2	SW-12 x1	SW-05x3

注：技术资料如有更改，恕不另行通知！ Note: Above technical parameters are subject to change without prior notice!

HFJ风冷恒温恒湿洁净型空调机组

HFJ Air Cooled Constant Temperature and Humidity(Cleanliness) AHU

性能参数表

Performance Parameters Table

项目 Item	参数 Parameter	型号 Model	TZ110-20HFJ	TZ145-25HFJ	TZ160-30HFJ	TZ210-40HFJ	TZ230-50HFJ	TZ300-60HFJ	
机组性能 Unit Performance	制冷量 Cooling Capacity	KW	58.4	68.8	87.6	103.2	135.6	175.2	
	循环风量 Air Flow	M³/h	11000	14500	16000	21000	23000	30000	
	机外静压 E.S.P.	Pa	600	600	650	650	700	750	
	机组噪音 Sound Level	DB(A)	≤68	≤70	≤70	≤75	≤75	≤76	
	温控范围 Temp Control	℃	(18-28)℃ ± 1℃						
	湿控范围 Humidity Control	%RH	(50~70)% ± 5%						
	电源 Power Supply		380V/3N/50Hz (As Requested)						
	总功率 Total Power	KW	70.2	84.4	91.2	114.8	125.7	153.2	
	制冷剂 Refrigerant	工质名称 Refrigerant	R22/R134/R407c/R410a						
		节流方式 Flow Control	外平衡式热力膨胀阀 External Equalizing Thermal Expansion Valve						
压缩机 Compressor (R407c)	类型 Type	全封闭式压缩机 Hermetic Compressor							
	功率 Power (kW)	参照室外机组参数表 Reference to Outdoor Unit Parameter							
	数量 Quantity (Pcs)	2	2	3	3	4	5		
室内机 Indoor Unit	蒸发器 Evaporator	类型 Type	铜管串铝翅片 Copper Tube with Aluminum Fins						
		翅片形式 Fins Type	波纹镀膜蓝波铝片 Corrugated Hydrophilic Aluminum Foil						
	送风系统 Air Supply System	类型 Type	低噪音多翼离心式 Low Noise DWDI Centrifugal Fan						
		风机驱动方式 Fan Drive Type	皮带传动 Belt Driven						
		电机功率 Motor Power (kW)	5.5	4x2	4x2	5.5x2	5.5x2	7.5x2	
		空气过滤器 Filtration	50mm厚无纺布初效+袋式中效50mm Non-woven Fabric Primary Filter + Bag Type Medium Filter						
	加湿器 Humidifier	类型 Type	电极式加湿器 Electrode Humidifier						
		功率 Power (kW)	9.7	9.7	9.7	17.3	17.3	24	
		加湿量 Humidifying Capacity (Kg/h)	13	13	13	23	23	32	
	加热器 Heater	类型 Type	电热式加热 Electric Heating						
		功率 Power(KW)	36	45	45	54	54	60	
	重量 Unit Weight (Kg)			650	1020	1100	1420	1550	1700
配用室外机型号 Matching Model of Outdoor Unit			SW-20 x1	SW-25 x1	SW-30 x1	SW-40 x1	SW-25 x2	SW-40+SW-25	

注：技术资料如有更改，恕不另行通知！ Note: Above technical parameters are subject to change without prior notice!

三、大型直膨机组、屋顶机

Large Size Direct Expansion Air Conditioner, Rooftop Units



大型水冷直膨机组
Large Size Water Cooled Direct Expansion Unit



机组电控部分
Electrical Control Inside

直膨机组，冷媒在蒸发器直接膨胀，为空调系统提供冷源，取代冻水机、水箱、水泵等功能部件。由于没有二次传热，没有损耗，比较节能。

直膨机组型式多样，有风冷、水冷冷凝方式，并可添加一些功能部件，如中效袋式过滤。配套洁净无尘车间使用，亦可安装静电过滤器，气相过滤器等，改善室内空气品质。

直膨机组配备电控系统，使现场施工安装工作量减少，调试比较简单。我们的直膨机组，大部分采用多压缩机，独立回路设计，可分级启动，控制冷量，进一步降低能耗，在大部分的工况下，个别压缩机或部件维修、保养无需关闭整个系统。

Compact Package unit is simple operation air conditioner with direct expansion design that the refrigerant system expands directly in the evaporator, providing cooled air to the air conditioning space. The unit is simple because no need of water tank and water pump. No secondary heat transfer cooling effect is more effective and efficient.

There are various types of the package unit, including air-cooled and water-cooled type, supply air section can be installed with Medium Filter, Electrostatic Precipitator, Gas Phase Filter, etc. as required for clean room application and higher indoor air quality requirement.

The package direct expansion unit is built-in with electrical control system for easy installation and operation. For larger size package units, dual or multi-refrigeration circuits is designed to improve part load efficiency and stand-by capacity.



大型机组（风机段）
Large Size Unit (Fan & Motor Section)



大型机组（电加热段）
Large Size Unit (Electric Heating Section)

大型洁净空调机组
Large Size Clean Air Conditioner



屋顶式空调机组性能参数表：Performance Parameters of Rooftop Units

性能参数表 Performance Parameters Table													
项目 Item	参数 Parameter	型号 Model	TWK030-5F	TWK045-6F	TWK060-10F	TWK072-12F	TWK090-15F	TWK110-20F	TWK145-25F	TWK160-30F	TWK210-40F	TWK230-50F	TWK300-60F
机组性能 Unit Performance	制冷量 Cooling Capacity	KW	14.6	20.3	29.2	34.4	43.8	58.4	68.8	87.6	103.2	135.6	175.2
	风量 Air Flow	M³/h	3000	4500	6000	7200	9000	11000	14500	16000	21000	23000	30000
	机外静压 E.S.P.	Pa	200	200	300	300	300	350	350	400	400	450	500
	机组噪音 Sound Level	DB(A)	≤63	≤64	≤66	≤67	≤68	≤69	≤69	≤72	≤74	≤75	≤76
	电源 Power Supply		380V/3N/50Hz (As Requested)										
	总功率 Total Power	kW	5.1	6.5	10.4	12.6	15.9	20.5	24.2	29.2	37.8	47.5	61
	制冷剂 Refrigerant		R22/R134/R407c/R410a										
	节流方式 Flow Control		外平衡式热力膨胀阀 External Equalizing Thermal Expansion Valve										
送风系统 SA System	电机功率 Motor Power	kW	0.75	1.1	1.5	2.2	3	3	4	5.5	7.5	7.5	11
	空气过滤器 Filtration		1" 可清洗式铝网过滤器 1" Washable Aluminum Mesh Filter										
压缩机 Compressor (407c)	类型 Type		全封闭式压缩机 Hermetic Compressor										
	功率 Power	kW	3.75	4.5	3.75x2	4.5x2	3.75x3	7.5x2	9x2	9x2+3	9x3	9x4	9x5
冷凝风机 Condensing Fan	类型 Type		轴流风机 Axial Fan										
	电机功率 Motor Power	kW	0.35	0.41	0.85	0.85	1.1	0.85x2	0.85x2	1.1x2	1.4x2	0.85x4	(1.4+0.85)x2
外形尺寸 Dimension	宽度 Width	mm	1000	1000	1300	1500	1650	2150	2150	2150	2150	2150	2150
	长度 Length	mm	1400	1600	1800	1800	2000	1900	1900	2100	2100	3600	3800
	高度 Height	mm	1200	1400	1500	1550	1550	1500	1750	2050	2050	1900	2050

注：技术资料如有更改，恕不另行通知！ Note: Above technical parameters are subject to change without prior notice!

新风+节能+空气净化+中央空调

Fresh Air + Energy Saving + Air Cleaning + Central Air Conditioner

人生中，有大部分的时间在室内度过，室外空气污染物愈来愈多，经常雾霾，改善室内空气品质（IAQ），需补充新风；室外被污染的空气被引至室内，而室内的空气亦因为种种原因，如吸烟、细菌、霉菌、装修、物品散发的有害气体，叠加效应，现代人需经常生活在一种不利健康的空气环境中，同时，多种有害气体均无色无味，易被忽略，到确诊患病时，情况都比较严重。

随着科学技术的进步，产品功能的优化提升，通过一些新材料，新技术的应用，在新风处理上，不单可以净化和过滤空气，还可以采取不同的节能措施，降低新风处理的耗能。由于环境处理不同，污染的种类也不一样，采用不同的方法去过滤和净化空气会较为恰当。在安装上，不同的场地有不同的条件限制，可以用有针对性的定制产品去配合使用要求。

在以下的章节里，我们会介绍一些相关的功能部件和产品，我们亦可按实际使用情况，提供一些特殊定制的非标产品。

Human beings spend most of their lifetime at indoor spaces and indoor air quality (IAQ) becomes an important issue, however, essential continuous fresh air is added to indoor air and good quality fresh air contributes good IAQ.

We all note that today outdoor air is contaminated badly by industrial and vehicle discharge, smoke, haze, bacteria, mold, decoration, waste and harmful gases. And the fresh air would mix to our indoor air and polluted our indoor air spaces where we breathe.

Meanwhile, many harmful gases are colorless, tasteless and easy to be ignored unless the indoor is diagnosed, recent research reports show the situation is more serious in most of cases.

In the treatment of fresh air, it is not only to purify and filter air, but it takes various energy-saving measures to reduce the energy consumption as well. With the development of science and technology, and advance flexible customize design the optimization of product gives solution to fresh air treatment to meet different environmental treatments and installation requirement to ensure we have true IAQ.

New fresh air related functional components and products is shown as the following sections, and special customized non-standard products are available.

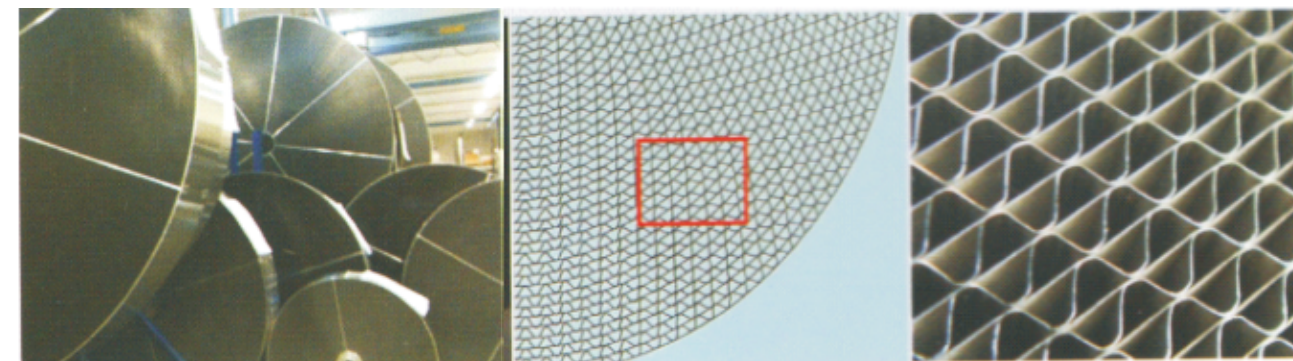
四、节能、新风机组

Energy Saving Fresh Air Units

热回收转轮 Heat Recovery Wheel

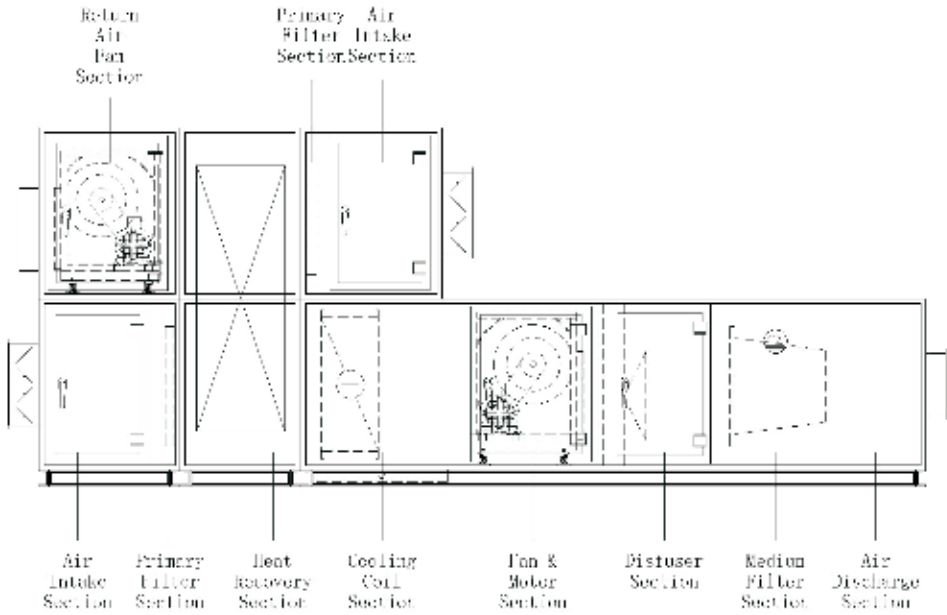
处理新风，特别在室内与室外温差较大的情况下，较处理循环回风，耗能较大。转轮式热回收器，利用排风与新风进行热交换，为新风预冷/预热，从而降低能耗。

In case where indoor and outdoor temperature difference is large, fresh air treatment process would consumes high energy. With heat recovery wheel, the fresh air is pre-heated(pre-cooled) by recovering the residual heat in the exhaust air, thus much reduce the energy consumption.



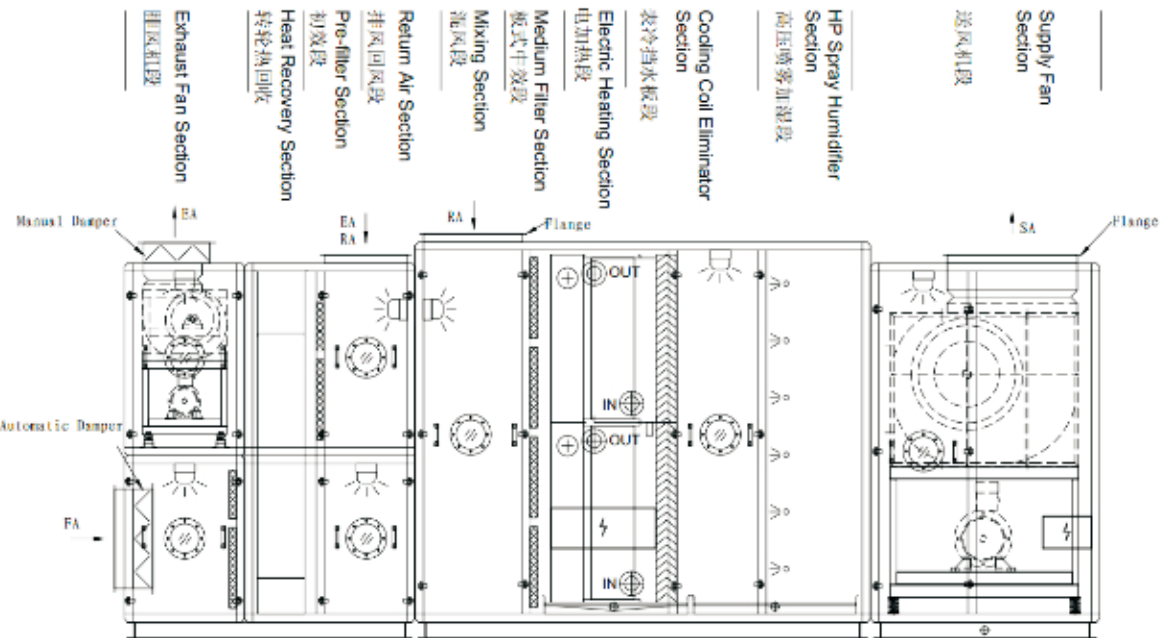
带转轮式热回收空气处理机组

Air Handling Units with Rotary Heat Recovery Device



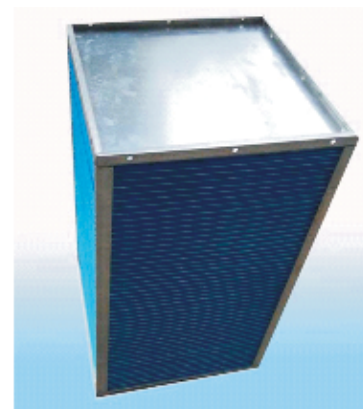
带转轮式热回收空气处理机组

Air Handling Units with Rotary Heat Recovery Device

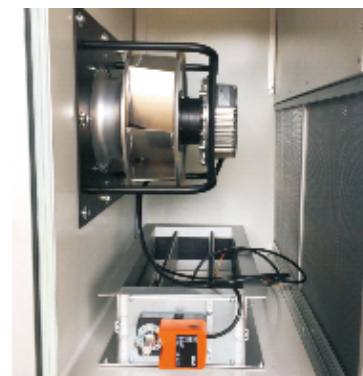


板式新风热回收机组

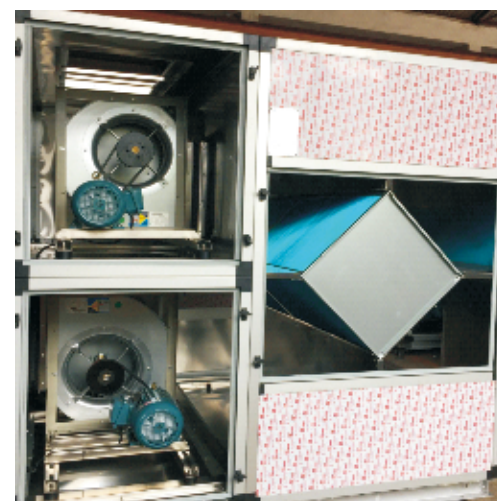
Plate Type Heat Recovery Fresh Air Units



板式铝芯
Plate Type Heat Exchanger
(Recommended to the smaller size units)



EC风机 EC Fan



带空调制冷功能的热回收一体式机组

All-in-One Heat Recovery Units with Direct Expansion Cooling System



为使用场所补充足够的新风，同时保证室内空气有高的品质，保障民众身体健康，是空调工作者应尽的一份责任。在处理新风的过程中，如何减省耗能，除了采用热交换外，尚有多种方式方法，如变风量送风，区域控制，焓差控制，分段降温提高COP值，热管除湿，系统能源综合利用等等。可按实际场地情况，灵活实施，做到更佳的效果。

A HVACR engineer is responsible to design and provide adaptive fresh air supply and IAQ to an air conditioned space to ensure the health of the air conditioning occupants.

There are many other alternative solutions to reduce energy consumption in fresh air processing excluding the heat exchanger application such as design of various air flow system, regional control, enthalpy difference control, segmented cooling to improve COP, heatpipe dehumidification, comprehensive utilization of system energy and so on. We are pleased to offer fresh air solution to actual condition and criteria of the special sites to configure and achieve better results.

五、IAQ空气净化机组 IAQ Clean Air Units

室内空气品质的好坏，不单影响个人健康，亦关乎企业效益和国家经济，要处理好空气的质量，有其针对性，不同的使用场所有不同的污染源，也就需要采用有效的部件去处理，同时，风量的选配要有其合理性。此外，按污染物的份量，所采用的滤材、滤料亦应具备足够的容尘量或吸附降解能力，使设备能长时间地有效运作。

Indoor air quality, it is not only affecting personal health, it also pays an important role to the productivity efficiency for enterprise and country economic growth. There are different types of pollutants in different fields, to best cope with the air quality with effective components, and reasonable air quantity is required. In addition, according to the amount of pollutants to configure valuable right filters and filter medias with sufficient dust holding capacity or adsorption and degradation to make the units operate effectively for a long time.

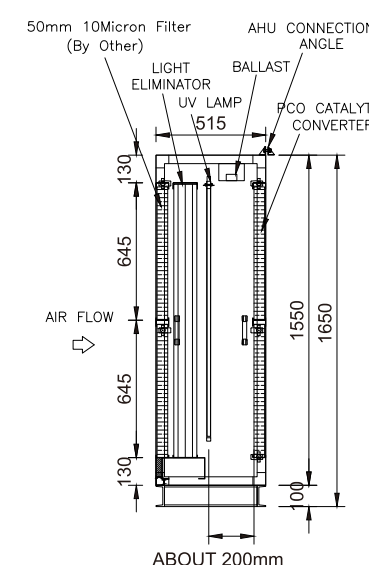
- 1、回风口（法兰或圆筒接驳）
Return Air Intake (Flange or Round Connection)
- 2、初效过滤
Primary Filter
- 3、双效静电过滤器
Double-effect Electrostatic Precipitator
- 4、气味+臭氧过滤器（可选项）
Odor + O₃ Filter (Optional)
- 5、气相过滤器
Gas Phase Filter
- 6、变速风机
Variable Speed Fan
- 7、高效过滤器
HEPA Filter
- 8、控制屏
Control Panel
- 9、动态除菌除霉
Active Sterilization Mold Removal
- 10、送风口（法兰或圆筒接驳）
Supply Air Outlet (Flange or Round Connection)



卧式室内空气净化机组 Floor Standing Indoor Clean Air Unit



空气处理机组，回风空气净化功能段 Return Air Purifying Section of Air Handling Unit



光催化空气净化
Photo Catalytic Oxidation Air Purifying (PCO)

精密实验室空气净化机组

Precision Laboratory Special Clean Air Unit

功能：恒温恒湿机组，高洁净度除臭，除VOCs和有毒气体

Function: Constant temperature and humidity unit; remove unpleasant smell, remove VOCs and harmful gas



吊顶式空气净化机组 Ceiling Mounted Clean Air Unit



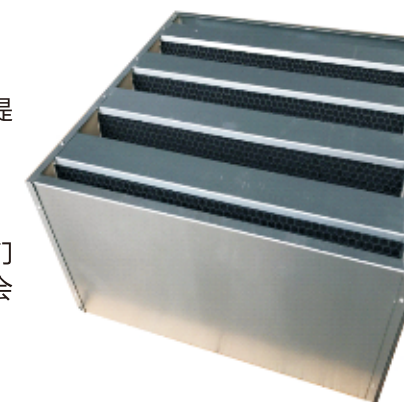
天然美国火山石

美国火山石是一种拥有独特三维孔状结构的结晶水合硅酸铝。这个结构创造了一系列超过总面积50%且互相连接的通道和气孔。因此，美国火山石作为分子筛，能够拦截和吸附不同大小的粒子。这些特点为它提供独特的吸收、吸附和阳离子交换能力。

美国火山石是一种天然的、无毒的矿物，它提供了一个安全高效的手段来吸收水分，过滤有害物质和去除气味。我们提供的为97%纯净度的天然火山石，它有别于一般空气清新剂，天然美国火山石不会掩盖它们的气味，而是去除它们。由于它的多孔性和阳离子交换能力，有毒气体会从周围环境中被摘除出来。

Special Volcanic Rock is a crystalline hydrated aluminosilicate that possesses a unique three-dimensional honeycomb framework. This structure creates a series of interconnecting channels and pores that account for over 50% of its total surface. As a result, special volcanic rock acts as a molecular sieve that traps and binds particles of various sizes while allowing others to pass through. These characteristics provide it with exceptional absorption, adsorption and cation exchange capabilities.

As special volcanic rock is a natural and non-toxic mineral, it provides a safe and effective means to absorb moisture, filter toxins, increase nutrient intake and remove odors. Above and beyond these features, we are set apart in the industry because our natural clinoptilolite special volcanic rock is 97% pure. Unlike others air cleaning materials, special volcanic rock does not mask odors, it removes them. Because of its porosity and cation exchange capacity, noxious odors are trapped inside its crystalline structure and removed from the surrounding environment.



火山石过滤器
Special Volcanic Rock Filter

Ak净化——双极离子集压技术功能 Pro-Active Air Purification



双极离子集压技术功能：是以两极离子化技术特性在室内的空气中产生正负离子，令空气中的悬浮粒子聚结成块，形成较大体积的粒子，并顺着气流经过滤系统过滤，因而有效强化尘埃过滤系统，改善空气素质。

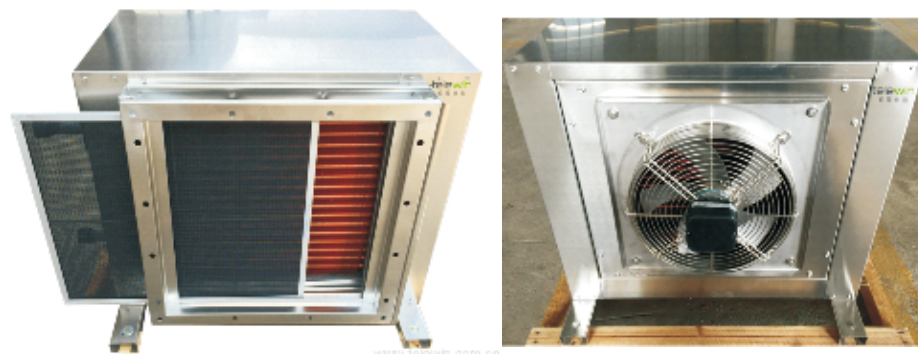
此外，其含五种金属混合而成的核心，辅以紫外线照射，能消除异味、空气中的污染物，挥发性有机化合物（化学性异味）、烟味、霉菌、病菌及病毒。作主动式的空气净化，洁净室内空气。

The Air Knight IPG Air Purification System uses a unique bi-polar ionization system providing indoor air with both positive and negative ion technology that encourages particles in the air to gather together forming as larger particles, and be filtered by the filter system along the airflow, making even the existing air filter system better and more efficient than before. In addition to the IPG feature, PX5 technology consisting of UV light energy combined with a 5-metal, quint-metallic core, these dual technologies combine to reduce odors, air pollutants, VOC's (Chemical odors), smoke, mold, bacteria and viruses, purifying the indoor air with active air scrubbers.

六、灵活定制、非标机组

Custom Made, Non-standard Equipments

吊顶式冻水风机 Ceiling Mounted Chilled Water Air Cooler



机组由冻水盘管和轴流风机组成。另配有温度控制和电控箱。

The unit is composed of chilled water coil and axial fan, configured with temperature controller and electrical control box

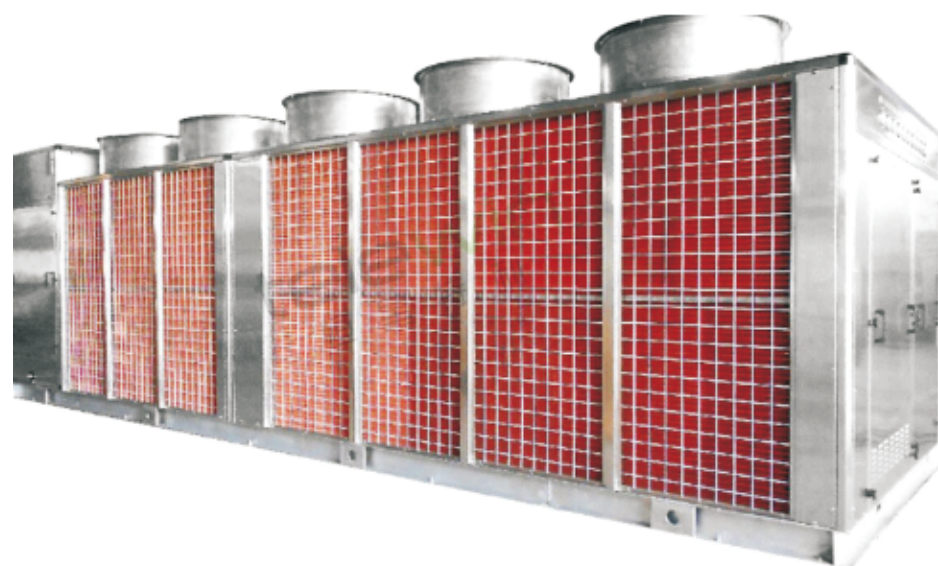
可区域控制温度，无需安装风管，材质方面，外壳可选用不锈钢或锌铝板，风机可选用单连或三连风机。

Zone temperature control
Ductless design, easy installation
Stainless steel and Galvalume steel casing as option
Single-phase and Three-phase fan as option.



钻油平台一体式机组

All in One Air Conditioner for Oil Dripping Platform



卧式射流送风机组

Horizontal AHU with Jet Discharge



立式射流送风机组

Vertical AHU with Jet Discharge



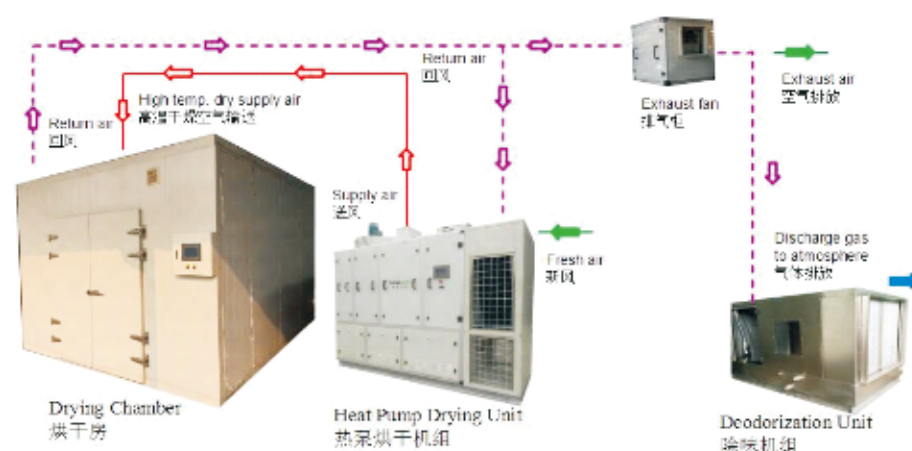
空气冷却塔

Radiator



双效节能热泵烘干机组

Double-effect Energy-saving Heat Pump Drying Unit

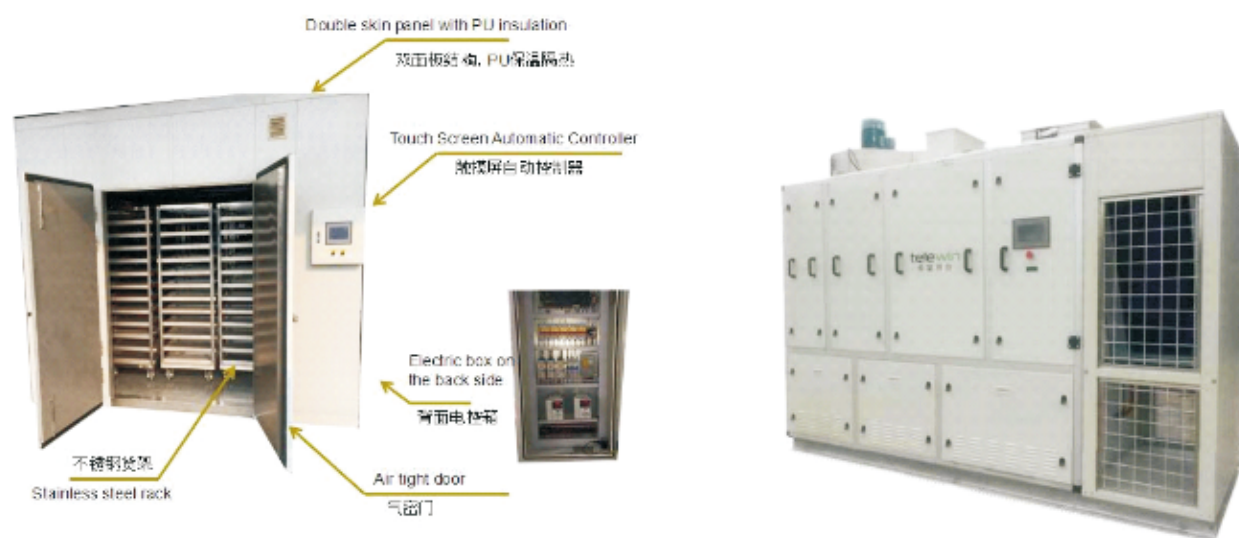


热泵烘干机组内置了先进的热回收装置，在系统预冷和预热方面都更节省能耗，机组安装了自控阀件，在烘干的过程中，可以自动控制调节排风量和鲜风量，进一步节省能耗。机组采用名牌部件和配置，性能稳定、维护简单。烘房内壁及天花采用了不锈钢面板，清洁卫生。

The newly developed drying heat pump unit is built-in with heat recovery to save energy for the pre-cooled and pre-heat drying air stream. During the drying process, energy saving is further achieved by means of automatic control of incoming fresh air and discharge of exhaust air. Telewin selects well-known brand components for unit stable and reliable operation. Drying chamber interior surface is stainless steel panel for easy cleaning hygienic maintenance.

内/外循环式热泵高效烘干系统

High Efficient Internal/External Circulation Heat Pump Drying System



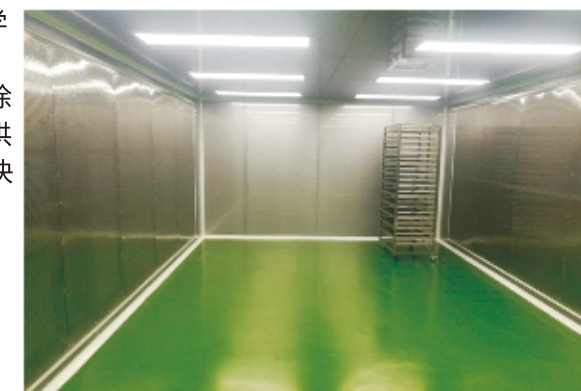
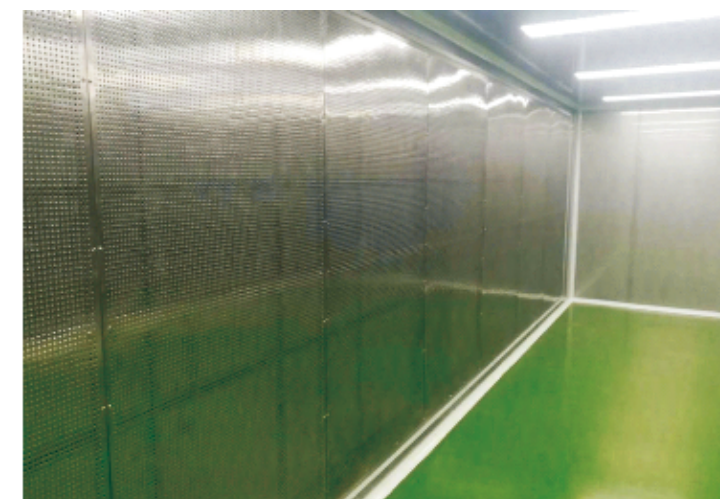
中药药丸精密烘干机组（低温烘干）

Precision Drying Unit for Chinese Medicine Pills (Low Temperature Drying)

在一些干燥过程里，温度过高会导致产品在物理或化学性能的改变，使产品无法满足工艺或外观上之要求。因此，为保证产品质量，干燥过程里温度不能调得太高，但烘干除湿效率有所降低，对烘干产能有所影响。我们的低温热泵烘干机组，内置了转轮除湿功能，可以在30~40℃工况下，快速烘干，同时不影响产品的性能外观。

In the drying process industry, over heated condition will deteriorate the treatment product property both physically and chemically. Thus the drying process cannot fulfill the workmanship and appearance requirement. Therefore, for product drying quality assurance, the drying process heating temperature cannot set too high. But under mild heating temperature drying, the de-humidifying efficiency will be decreased and the drying process overall efficiency is adversely affected.

Telewin drying unit is installed with desiccant wheel so that our unit can work under temperature condition of 30~40℃ with high de-humidifying efficiency. Fast drying without sacrificing product quality of property and appearance.



七、工程案例 Job Reference



联合利华
Unilever(China) Limited Conghua Branch



广东喜之郎集团
Guangdong Strong Group Co.,Ltd.



广东美味鲜调味食品有限公司（厨邦酱油）
Guangdong Meiweixian Flavoring Foods Co., Ltd.



广州白云山制药厂
Baiyunshan Pharmaceutical Co., Ltd.



广州益力多乳品有限公司



百益药业

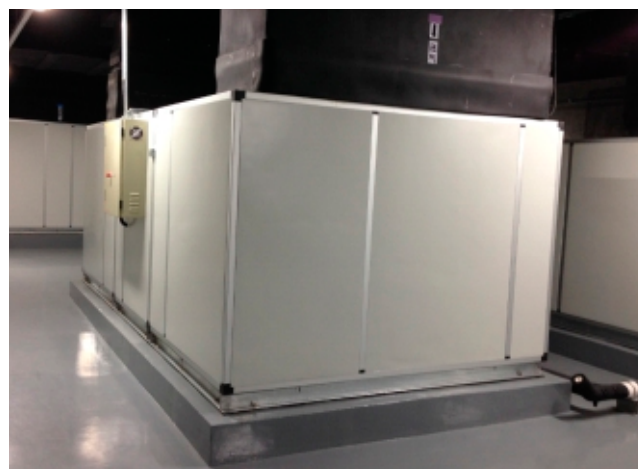
百益药业
BEYEL PHARM



兆科药业
ZHAOKE PHARM



广州益力多乳品有限公司 Guangzhou Yakult



山东淮海集团项目
Shandong Huaihai Group





船用机组（用于英国北海石油补给船）
Marine Air Conditioner (for British North Sea Oil Supply Ship)



屋顶机组（用于波多黎各商场）
Rooftop Air Conditioner (for Puerto Rico Shopping Mall)



南海塑料厂
Nanhai Plastic Factory



华南理工大学
South China University of Technology



喜德来集团（家具喷涂烘干）
Sedlay Group (Furniture Painting Dryer)



香港小磨刀岛上工程项目（全不锈钢）
Hong Kong Siu Mo To Island Project (Full Stainless Steel)

公司 部分荣誉客户 Client List

（医药行业）Pharmaceuticals Industry



广州白云山中一药业有限公司
广东康臣药业有限公司
安徽济人药业
湖南华纳大药厂
湖北科益药业股份有限公司



吉林修正药业集团股份有限公司
广州何济公制药厂
广东顺峰药业有限公司
广西玉林制药集团有限责任公司
广州香雪制药股份有限公司



食品行业 Food & Beverage Industry



太古可口可乐公司
广东汤臣培健食品有限公司
杭州娃哈哈集团公司
江门市天地一号饮料有限公司
广东厨邦食品有限公司阳西调味厂



无锡益力多乳品有限公司
南京喜之郎食品有限公司
海南椰树（集团）公司
康师傅（广州）饮品有限公司
湖南裕丰祥食品科技有限公司



工业、科技行业 Science & Technology Industry



浙江省正泰集团
惠州TCL王牌电视
广东万和新电气股份有限公司
神舟科技园
正新橡胶（中国）有限公司



广州万孚生物技术有限公司
普利司通轮胎厂
深圳康佳集团
深圳比亚迪工厂
湖北武汉钢铁集团



大型商场及其他行业 Shopping Mall / Others



广州白云机场
广东海伦堡地产集团有限公司（产业园二期）
香港汇丰银行
上海浦东机场
香港友诚商业大厦



深圳万科国际会议中心
喜德来集团
广州万菱汇
香港渣打银行
中华总商会大厦

日化、电子行业 Cosmetics/Electronics



广州高露洁有限公司

松下电子（中国）有限公司

广州宝洁有限公司

广州雅芳化妆品有限公司

广州立白企业集团有限公司

惠州市澳宝化妆品有限公司

安利(中国)日用品有限公司

广东步步高电子工业有限公司

深圳富士康电子有限公司

深圳康佳集团

浙江弘晨光伏能源有限公司

广州邦普电脑科技开发有限公司

浙江纳爱斯日化有限公司

广州日丽化工有限公司

文教、酒店行业 Culture、Education/Hotel



佛山市顺德区图书馆

深圳大学

广州暨南大学

香港文化中心

香港中文大学

安徽省出版总社

香港博物馆

广东电视台

上海同济大学

中国科技大学

深圳职业技术学院

香港太空馆

江苏大学

香港文化中心