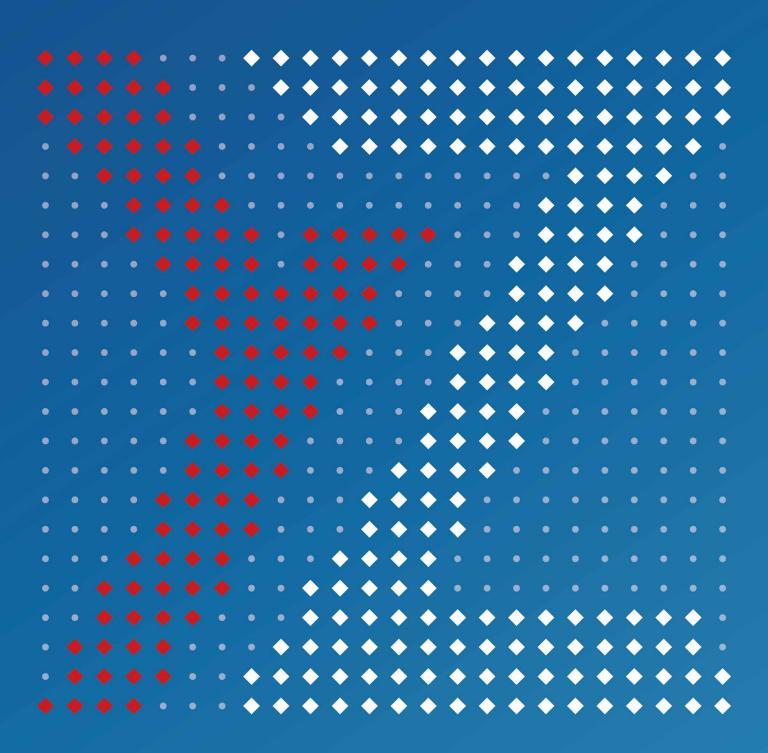


## 大空间节能除尘 空调系统专家

LARGE SPACE ENERGY-SAVING DUST REMOVAL AIR-CONDITIONING SYSTEM EXPERT





# YUZEN 宁波宇正科技有限公司 NINGBO YUZHENG TECHNOLOGY COLLED

NINGBO YUZHENG TECHNOLOGY CO.,LTD.

## 只用传统空调 *50%* 的电量

**ONLY USE 50% OF THE ELECTRICITY OF** TRADITIONAL AIR CONDITIONERS

公司致力于为大空间和特殊环境提供更高效、更节能、更舒适、更省心的空调产品。公司首创蒸发冷节能除尘中央空调,改善车间 恶劣环境、较传统空调节能50%以上。该产品广泛用于印刷行业、服装行业、电子行业、涂装行业、机械行业、塑料行业、五金行业、 汽车行业等领域。公司联合清华大学热工实验室,共同研发并获得国家发明专利一项、实用新型专利两项。公司注重产品质量,严格执 行ISO9001质量管理体系,核心部件选用国际最知名品牌(如:谷轮、爱默生、三花、东芝等)。针对工业空调不同应用环境,不断迭 代产品结构和性能。同时围绕节约能源、改善空间环境,以高科技高品质产品服务社会、创造价值,热忱欢迎新老客户前来考察洽谈合 作。

The company is committed to providing more efficient, energy-saving, comfortable and worry-free air conditioning products for large spaces and special environments. The company pioneered evaporative cold energy-saving dust removal central air conditioning, improve the poor environment of the workshop, more than 50% energy saving than traditional air conditioning. This product is widely used in printing industry, clothing industry, electronics industry, coating industry, machinery industry, plastics industry, hardware industry, automobile industry and other fields. The company united Tsinghua University Thermal Laboratory to jointly develop and obtain one national invention patent and two utility model patents. The company pays attention to product quality and strictly implements ISO9001 quality management system. The core components are selected from the most famous international brands (such as: Copeland, Emerson, Sanhua, Toshiba, etc.). For different application environments of industrial air conditioners, the product structure and performance are continuously iterated.At the same time around energy conservation, improve the space environment, high-tech high-quality products to serve the community, create value, warmly welcome new and old customers to visit and discuss cooperation.











### 整体降温方案

**OVERALL COOLING SCHEME** 





临沂新华物流集团精装车间(面积约2500m2,层高5.1米),该车间原使用7台10P风冷柜机空调,降温效果不明显。

2018年,按每平64w冷量,配置2套蒸发冷机组,实现效果明显的整体降温。经前后对比,采用蒸发冷节能除尘中央空调相比传统柜机空调可节约50%以上的电能。

Linyi Xinhua Logistics Group hardcover workshop (area about 2500m2, floor height 5.1 meters), the workshop originally used 7 sets of 10P air-cooled cabinet air conditioning, cooling effect is not obvious

In 2018, two sets of evaporative cooling units will be configured according to the cooling capacity of 64w per unit to achieve obvious overall cooling effect. Compared with the traditional cabinet air conditioning, the central air conditioning with evaporative cooling and energy saving dust removal can save more than 50% of electric energy.

#### 两种空调结构能源消耗对比

Comparison of energy consumption between two air-conditioning structures

节电**50%** electricity saving

空调名称 Scheme	数量 Quantity	制冷量 Refrigerating capacity	耗电量 Power consumption
蒸发冷机组 (ZFKT88II)	2套	80KW*2=160KW	20KW*2=40KW
三菱重工 10P柜机(RF28)	7套	28KW*7=168KW	11.5KW*7=80.5KW

### 定点降温方案

**FIXED-POINT COOLING SCHEME** 





宁波依森纸制品有限公司二楼车间(面积约8000平方米,层高4米, 印后设备30台套,约60个员工工位)

2020年,按每工位4000w冷量,配置3套蒸发冷机组,实现全车间所有工位定点空调效果。经指标对比,采用定点降温方案比整体降温方案可节约75%以上的电能。

Workshop on the second floor of Ningbo Yisen Paper Products Co., Ltd.(area of about 8000 square meters, floor height of 4 meters, 30 sets of post-printing equipment, about 60 staff stations)

In 2020, 3 sets of evaporative cooling units will be configured according to the cooling capacity of 4000w per station to realize the fixed-point air conditioning effect of all stations in the whole workshop. Compared with the whole cooling scheme, the fixed-point cooling scheme can save more than 75% of electric energy.

#### 两种降温方式能耗对比

节电**75%** 

Comparison of energy consumption between two cooling methods electricity saving

方案 Scheme	机组数量 <sub>机组ZFL80II</sub>	制冷量 Refrigerating capacity	耗电量 Power consumption
局部降温 local cooling	3套	90KW*3=270KW	19KW*3=57KW
整体降温 overall cooling	12套	90KW*12=1080KW	19KW*12=228KW

### 数据对比

**DATA COMPARISON** 

### 蒸发冷节能除尘中央空调

Evaporative cooling energy-saving dust removal central air conditioning

每月电费比较 Monthly Electricity Cost Comparison				
<b>YZKJ-90II(1套)</b> YZKJ-90II (1 set)	<b>5P</b> 5P air-cooled cabine	<b>风冷柜机(8套</b> ) t machine (8 sets		
制冷量 100KW Cooling Capacity	制冷量 Cooling Capacity	12 x 8 =96KV		
耗电量 22KW Consumed Power	耗电量 Consumed Power	5 x 8 =40KV		
覆盖范围 500 SQM Coverage	覆盖范围 Coverage	500 SQ1		
电费 Electricity Tariff KW/h RMB 1.20 KWh	电费 Electricity Tariff KW/h	RMB 1.20 KW		
每天10小时 X 300天 10 hrs/day X 300 days RMB 79200	每天10小时 X 300天 10 hrs/day X 300 days	RMB 14400		







#### 与116Kw水冷机组比较

节电 45%

Comparison with 116Kw water-cooled unit electricity saving

空调名称 Type	制冷量 Cooling Capacity	耗电量 Consumed Power	配套 Supporting Facilities
水冷机组 Water-cooled unit	116KW	45.5KW	含水泵水塔 10KW Waterpump
蒸发冷空调 Evaporative Cooling	116KW	25.2KW	_

#### 与2039Kw离心式冷机组比较

**节电 46%** 

Comparison with 2039KW liquid chilling air conditioning system electricity saving

空调名称 Type	制冷量 Cooling Capacity	耗电量 Consumed Power	配套 Supporting Facilities
水冷机组 Water-cooled unit	2039KW	815KW	水泵 Waterpump 300KW 风机 Fan   120KW
蒸发冷空调 Evaporative Cooling Air Conditioner	2039KW	442KW	_

#### 与10P风冷柜机比较

**节电 47%** 

Comparison with 10P Air-cooled Cabinet

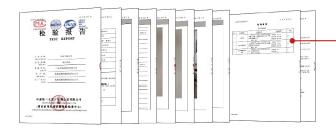
空调名称 Type	制冷量 Cooling Capacity	耗电量 Consumed Power	配套 Supporting Facilities
风冷柜机 Air-cooled cabinet	28KW	13KW	_
蒸发冷空调 Evaporative Cooling Air Conditioner	28KW	6.08KW	_

相比传统 节能50% 风冷空调 节能50%

50% less energy than traditional air-conditioner

### 检测报告

**TEST REPORT** 



通过国家检测报告,按照 GB/T 17758-2010 的规定的方法,计算性能系数

### 制冷性能系数EER

4.6

According to the national test report and the test method specified inGB/T 17758-2010, the refrigeration Coefficient of performance is 4.6

### 制冷模式

**REFRIGERATION MODE** 

### 氟利昂直膨冷却

Freon direct expansion cooling

### 风冷却

Wind Cooling

### 集成四套 制冷模式

Integrate four sets of refrigeration modes

#### 蒸发冷却

**Evaporative Cooling** 

#### 水冷却

Water Cooling

### 通过多套制冷模式相互 衔接,实现更高效更快 速的降温,从而节能

By connecting multiple refrigeration modes, more efficient and faster cooling can be achieved, thus saving energy.

### 专利介绍

#### PATENT INTRODUCTION



空调三级防尘过滤结构原理

Air conditioning three-stage dust filter structure principle



#### 蒸发冷防尘节能中央空调

Evaporative cold dustproof energy-saving central air conditioning

- ◆ 空调系统室内机回风采用双层过滤网和湿帘过滤,分级过滤不同颗粒灰尘,保护蒸发器清洁,保证换热效率及系统寿命。
- ◆ 针对印刷包装行业灰尘、纸毛和喷粉颗粒直径分别设计不同目数的滤网做到有效过滤。
- ◆ The return air of indoor unit of air conditioning system adopts double-layer filter net and wet curtain filtration, which filters different particles of dust in stages to protect the cleanliness of evaporator and ensure heat exchange efficiency and system life
- ◆ For printing and packaging industry dust, paper wool and powder particle diameter were designed with different mesh filter to achieve effective filtration.
- ◆ 高效能蒸发式冷凝器,充分利用水蒸发吸热的物理原理,蒸发式冷凝器形成的系统冷凝温度低,使压缩机运转功率小,耗电少, EER值可达4.0以上(普通风冷热泵空调EER值2.3),可实现压缩机 节能运转。
- ◆ 节流后的低压液态冷媒吸热蒸发,进一步降低进风温度,双级降温提高了空调系统的综合能效(制冷综合EER可达4.5左右)相比传统风冷空调节能45%。
- High efficiency evaporative condenser, make full use of the physical principle of water evaporation and heat absorption, evaporative condenser system formed by low condensation temperature, so that the compressor running power is small, power consumption is low,EER value can reach more than 4.0 (ordinary air-cooled heat pump air conditioning EER value 2.3), can realize compressor energy-saving operation.
- ◆ After throttling, the low pressure liquid refrigerant absorbs heat and evaporates, further reducing the inlet air temperature, and the two-stage cooling improves the overall energy efficiency of the air conditioning system (the comprehensive EER of refrigeration can reach about 4.5). Compared with the traditional air-cooled air conditioner, the energy saving is 45%.

### 专利证书

#### **LETTERS PATENT**











### 产品优势及原理

#### PRODUCT ADVANTAGES AND PRINCIPLES



#### 节能原理

NERGY-SAVING PRINCI

集成四套制冷模式 高效散热节约电能

INTEGRATED FOUR SETS OF COOLING MODE, EFFICIENT HEAT DISSIPATION AND ENERGY SAVING



#### 大空间适用原理

PRINCIPLE OF LARGE SPACE APPLICATION

能效高、制冷量足 送风距离最高可达100米

HIGH ENERGY EFFICIENCY, SUFFICIENT COOLING CAPACITY AIR SUPPLY DISTANCE UP TO 100 METERS



#### 自洁净原理

SELF-CLEANING PRINCIPLE

使用冷凝水冲刷湿帘,带走湿帘吸附 的灰尘,保证换热效率及系统寿命

USE CONDENSED WATER TO FLUSH THE WET CURTAIN AND CARRY AWAY THE DUST ADSORBED BY THE WET CURTAIN TO ENSURE HEAT EXCHANGE EFFICIENCY AND SYSTEM LIFE



#### 防尘原理

DUSTPROOF PRINCIPLE 双层过滤网+湿帘

分级过滤不同颗粒灰尘 DOUBLE-LAYER FILTER + WET CURTAIN GRADED FILTRATION OF DIFFERENT PARTICLES OF DUST







### 型号及参数

**MODEL AND PARAMETERS** 

### YZKJ-90II双系统单冷型

YZKJ-90II Dual System Single Cooling Type

	制冷额定功率	防触类	型	防水等级	冷媒
Rated cooling capacity	Refrigeration Rated Power	Electric	Shock	Waterproof	Refrigerant
100KW	22KW	1级		IPX4	R22/410A
制冷电流	风机功率		循环风	.量	水泵功率
Refrigerating Current	Fan Power		Air Volume		Water Pump Power
40A	5.9KW		10000	m³/h*2	1.1KW
40/4	3.9KW		12000m³/h*2		1.1 KVV
额定电源	内机尺寸		外机尺寸		整机重量
Power Supply	Internal Size		External Size		Weight
380V/3PH/50HZ	1200*860*18	80mm	1931*	1370*2222mm	1800kg

### YZKJR-90II(N)/(S)双系统冷暖型

YZKJR-90II(N)/(S) dual system cold and warm type

制冷额定能力 Rated cooling capacity	制冷额定功率 Refrigeration Rated Power	制热额定能力 Heating rated current	制热额定功率 Heating rated power
100KW	22KW	60KW	21KW
制热电流 Heating current	防触类型 Electric Shock	防水等级 Waterproof	冷媒 Refrigerant
39A	1级	IPX4	R22/410A
制冷电流 Refrigerating Current	风机功率 Fan Power	循环风量 Air Volume	水泵功率 Water Pump Power
40A	5.9KW	10000m³*2/h 12000m³*2/h	1.1KW
额定电源 Power Supply	内机尺寸 Internal Size	外机尺寸 External Size	整机重量 Weight
380V/3PH/50HZ	1200*860*1880mm	2280*1440*2950mm	1800kg

### YZKJ-45II单系统单冷型

YZKJ-45II Single System Single Cooling Type

制冷额定功率 Refrigeration Rated Power	防触类型 Electric Shock	防水等级 Waterproof	冷媒 Refrigerant
12KW	1级	IPX4	R22/410A
风机功率	循环风	量	水泵功率
Fan Power	Air Volume		Water Pump Power
2 2KW	10000	10000m <sup>3</sup> /h	
J.JKW	12000m³/h		0.75KW
内机尺寸	外机尺寸		整机重量
Internal Size	Externa	l Size	Weight
1200*860*188	0mm 1200*9	20*2920mm	1000kg
	Refrigeration Rated Power  12KW  风机功率 Fan Power  3.3KW  内机尺寸 Internal Size	Refrigeration Rated Power Electric Shock  12KW 1级  风机功率 循环风 Air Volu  3.3KW 100000 1200000 内机尺寸 外机尺 小机尺寸 Liternal Size External	Refrigeration Rated Power Electric Shock Waterproof Water Proof Rated Power I I I I I I I I I I I I I I I I I I I

### YZKJR-45II(N)/(S)单系统冷暖型

YZKJR-45II(N)/(S) Single system cold and warm type

制冷额定能力 Rated cooling capacity	制冷额定功率 Refrigeration Rated Power	制热额定能力 Heating rating	制热额定功率 Heating rated power
50KW	12KW	30KW	10.5KW
制热电流 Heating current	防触类型 Electric Shock	防水等级 Waterproof	冷媒 Refrigerant
19.5A	1级	IPX4	R22/410A
制冷电流 Refrigerating Current	风机功率 Fan Power	循环风量 Air Volume	水泵功率 Water Pump Power
20A	3.3KW	10000m³/h 12000m³/h	0.75KW
额定电源 Power Supply	内机尺寸 Internal Size	外机尺寸 External Size	整机重量 Weight
380V/3PH/50HZ	1200*860*1880mm	1200*920*2920mm	1000kg

### 工程案例

#### **PROJECT CASE**















### 服务客户

#### **SERVING CUSROMERS**



























- ◆ 中国华裕集团
- ◆ 浙江三禾厨具有限公司
- ◆ 慈溪思韵印刷
- ◆ 浙江睿麟科技有限公司
- ◆ 余姚新明星彩印
- ◆ 宁波达华印刷

- ◆ 无锡天彩印务
- ◆ 江苏荣晖文化发展有限公司
- ◆ 江苏屹邦净化工程有限公司
- ◆ 常熟高专印刷有限公司
- ◆ 苏州丰丝恒纺织有限公司
- ◆ 江苏新裕彩包装科技有限公司
- ◆ 山东济南华东彩印有限公司
- ◆ 山东裕同科技有限公司
- ◆ 山东鼎旺包装彩印有限公司
- ◆ 山东和瑞包装有限公司
- ◆ 山东新麒印刷物资公司
- ◆ 枣庄海扬中泰服装有限公司
- ◆ 台儿庄汉庭酒店
- ◆ 江苏奥博彩印
- ◆ 深圳市佳汇印刷有限公司
- ◆ 喜尔美厨具
- ◆ 成都金桥印刷
- \* \* \*

### 质量保证

#### **QUALITY GUARANTEE**

#### 整机提供2年的免费保修服务

The whole machine provides a 2-year free warranty service

#### 不属于保修范围的情况:

Conditions not covered by warranty:

- ◆ 消费者因使用、维护、保管不当造成损坏的。Damage caused by improper use, maintenance and storage by consumers.
- ◆ 非宇正服务商所安装、维修造成损坏的(包括消费者自行安装或拆动维修损坏的)。Damage caused by installation and maintenance by non-Yuzheng service providers (including damage caused by installation or disassembly by consumers themselves).
- ◆ 因不可抗拒的自然灾害或使用环境恶劣造成损坏的。Damage caused by irresistible natural disasters or adverse operating environment.



### 宇正工业空调

## 更高效、更节能、更舒适、更省心

### 首创蒸发冷节能除尘中央空调

YUZHENG INDUSTRIAL AIR CONDITIONING IS MORE EFFICIENT, ENERGY-SAVING, COMFORTABLE, AND WORRY FREE, PIONEERING EVAPORATIVE COOLING ENERGY-SAVING DUST REMOVAL CENTRAL AIR CONDITIONING

### 宁波宇正科技有限公司

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