



ROTOR DEHUMIDIFIER UNIT

转轮除湿机组



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PRODUCT OVERVIEW

产品概述

The rotor dehumidifier unit is particularly suitable for application environments with special humidity requirements. In response to market demands, Ourui Rena Company has developed various models and specifications of units for customers to choose from, which are widely used in the following fields.

转轮除湿机组特别适用于对湿度有特殊要求的应用环境。欧莱瑞纳公司针对市场的需求，研发出多种型号和规格的机组供客户选择并广泛用于以下领域。

温湿度要求	Temperature and Humidity Requirements	转轮除湿机组特点	Features of Desiccant Rotor Unit	产品适用领域	Applicable Fields
有一般湿度控制要求的空调系统，特别适用于相对湿度 $\leq 50\%$ 的房间或新风量大的空调系统。	Air conditioning systems with general humidity control requirements, especially suitable for rooms with relative humidity $\leq 50\%$ or air conditioning systems with large fresh air volume.	新风系统采用该产品后，可节约能耗并提高系统湿度控制精度。	After the fresh air system adopts this product, it can save energy consumption and improve the accuracy of system humidity control.	如电子工业厂房、光盘生产线、计算机房、宾馆新风系统等。	Such as electronic industrial workshops, CD production lines, computer rooms, hotel fresh air systems, etc.
对湿度、温度、洁净度有综合要求，相对湿度为 10%–40%	Systems with comprehensive requirements for humidity, temperature and cleanliness, with relative humidity of 10%–40%	采用转轮除湿机配置冷冻除湿，组合成带转轮的恒温恒湿净化机组；可根据房间温度变化调节系统温度与除湿量，节约一定能量。	Configure the desiccant rotor unit with refrigerated dehumidification to form a constant temperature and humidity purification unit with a rotor; it can adjust the system temperature and dehumidification capacity according to room temperature changes, saving a certain amount of energy.	化学用品、食品蔬果、包装、印刷制品等。	Chemicals, food, fruits and vegetables, packaging, printing products, etc.
对环境空气有超低露点温度要求（露点温度一般在 -30°C 以下），常规除湿系统无法满足	For ambient air requiring ultra-low dew point temperature (generally below -30°C), conventional dehumidification systems cannot meet the demand	需采用转轮除湿机组成的除湿空调系统。	A dehumidification air conditioning system composed of desiccant rotor units is required.	金属锂制品、锂电池生产线	Lithium metal products, lithium battery production lines
生产中的工艺干燥系统空气除湿	Air dehumidification for process drying systems in production	能有效提供干燥空气，保障生产安全。	Can effectively provide dry air to ensure production safety.	感光材料、化纤或聚酯薄膜、木材及食品加工等。	Photosensitive materials, chemical fibers or polyester films, wood and food processing, etc.
对湿度要求不严格，但对最高湿度有一定限制的工程	Projects with no strict humidity requirements but certain restrictions on maximum humidity	采用单纯冷冻法空气除湿方案，不如采用“冷冻 + 转轮除湿”的组合方案更有效；四季湿度调节更方便，且能节约大量能量。	The simple refrigerated air dehumidification scheme is less effective than the combined scheme of "refrigeration + desiccant rotor dehumidification"; it is more convenient for seasonal humidity adjustment and can save a lot of energy.	精密仪器室、大型桥梁钢箱梁、船舶、博物馆、图书馆、胶片仓库等。	Precision instrument rooms, steel box girders of large bridges, ships, museums, libraries, film warehouses, etc.

PRODUCT FEATURES

产品特点

ROTOR CHARACTERISTICS

转轮特性

- LF series dehumidification unit mainly adopts high-efficiency silica gel runner, which can meet different dehumidification requirements.

- There is no limit on the humidity at the inlet of the dehumidification unit, Even if the humidity of the air at the inlet reaches 100%, the runner will not be damaged and the diluent will be precipitated. The runner material is firm and durable, and will not precipitate pollutants, and will not pollute the air after dehumidification,

- The runner can be used in wet environment, the runner is polluted, and it can be cleaned with water.

- The rack of LF series runner dehumidification unit adopts aluminum alloy frame. The aluminum alloy has compact structure, strong corrosion resistance, and adopts anti-cold bridge device, which effectively prevents the occurrence of dew condensation. Double insulation board structure with polyurethane insulation sandwiched in the middle, which has the best performance in terms of thermal insulation, fire resistance, strength, rigidity, cleanliness and sound insulation, When applied to various working conditions, there is no external condensation phenomenon. The unique self-tensioning device driven by the runner and the contact sealing system strongly guarantee the effective and reliable operation of the runner. The optional bypass device increases the total air volume of the system and reduces the volume of the unit.

- Regeneration heater has electric heating and steam heating, and is equipped with valve for adjusting regeneration air volume. Steam heater has high heat exchange efficiency, small volume and convenient

- LF 系列除湿机组以高效硅胶转轮为主，能满足不同的除湿量要求。

- 除湿机组进口湿度没有限制，即使进口空气湿度达到 100%，也不会破坏转轮和析出稀释剂。

- 转轮材料牢固耐久，不会析出污染物，对除湿后的空气不会造成污染。

- 转轮可在潮湿的环境下使用，转轮受到污染，还可用水进行清洁。

- LF 系列的转轮除湿机组的机柜采用了铝合金框架。这种铝合金结构紧密、抗腐蚀性能强，且采用防冷桥装置，有效的防止了“结露”现象的发生。

- 采用双层保温板结构，中间夹有聚氨酯保温材料，这种结构在保温防火、强度、刚性、洁净度和隔声等方面都具有最佳性能，在应用于各种工况时均无外部凝水现象。

- 独特的转轮驱动自张紧装置和接触性密封系统，有力的保证了转轮有效可靠的运行。可选装旁通装置，增加了系统的总风量，减小了机组的体积。

- 再生加热器有电加热和蒸汽加热两种，并配有可调节再生风量的阀门。蒸汽加热器换热效率高，体积小，安装方便。

再风入口为耐高温过滤器，抽屉式的设计使得过滤器维护方便，保证机组的整体美观。

UNIT CHARACTERISTICS

机组特性

The drying rotor has high dehumidification efficiency, and the dew point temperature at the dry air outlet can be as low as -60°C .

Regenerative heaters are available in both electric heating and steam heating options, with steam heating significantly reducing sub-operating costs.

The aluminium frame and double-layer insulation board make the unit small in size and light in weight.

Modular combination for easy and quick assembly.

Optional more powerful electrical control systems for enhanced system reliability

- 干燥转轮除湿效率高，干空气出口露点温度最低可达 -60°C 。
- 再生加热器有电加热和蒸汽加热两种选择。蒸汽加热，大大节约了运行成本。
- 铝合金框架和双层保温板，使得机组体积小，重量轻。
- 模块化组合，可方便迅速的组装。
- 可选更强功能的电气控制系统，提高系统的可靠性

UNIT CLASSIFICATION

机组分类

LF series drying rotor dehumidifiers can be classified by structure into miniature, basic and combined types. Micro dehumidifiers consist of a dehumidification section (including a drying rotor, regeneration

fan, regeneration heater, regeneration filter), a processing fan, and an electrical control box.

The combined dehumidifier can bend the dehumidification section according to the requirements of different industries. It consists of the front surface cooler section, the rear surface cooler section, the primary (medium, high) efficiency filter section, the processing fan section, the mixed air section and the silver control box, etc.

- LF 系列干燥转轮除湿机组按结构可分为微型、基本型和组合式。微型除湿机由除湿段（包括干燥转轮、再生风机、再生加热器、再生过滤）、处理风机和电气控制箱组成。

- 组合式除湿机可根据不同业主要求，由除湿段、前表冷段、后表冷段、初（中、高）效过滤段、处理风机段、混风段和电气控制箱等组成。

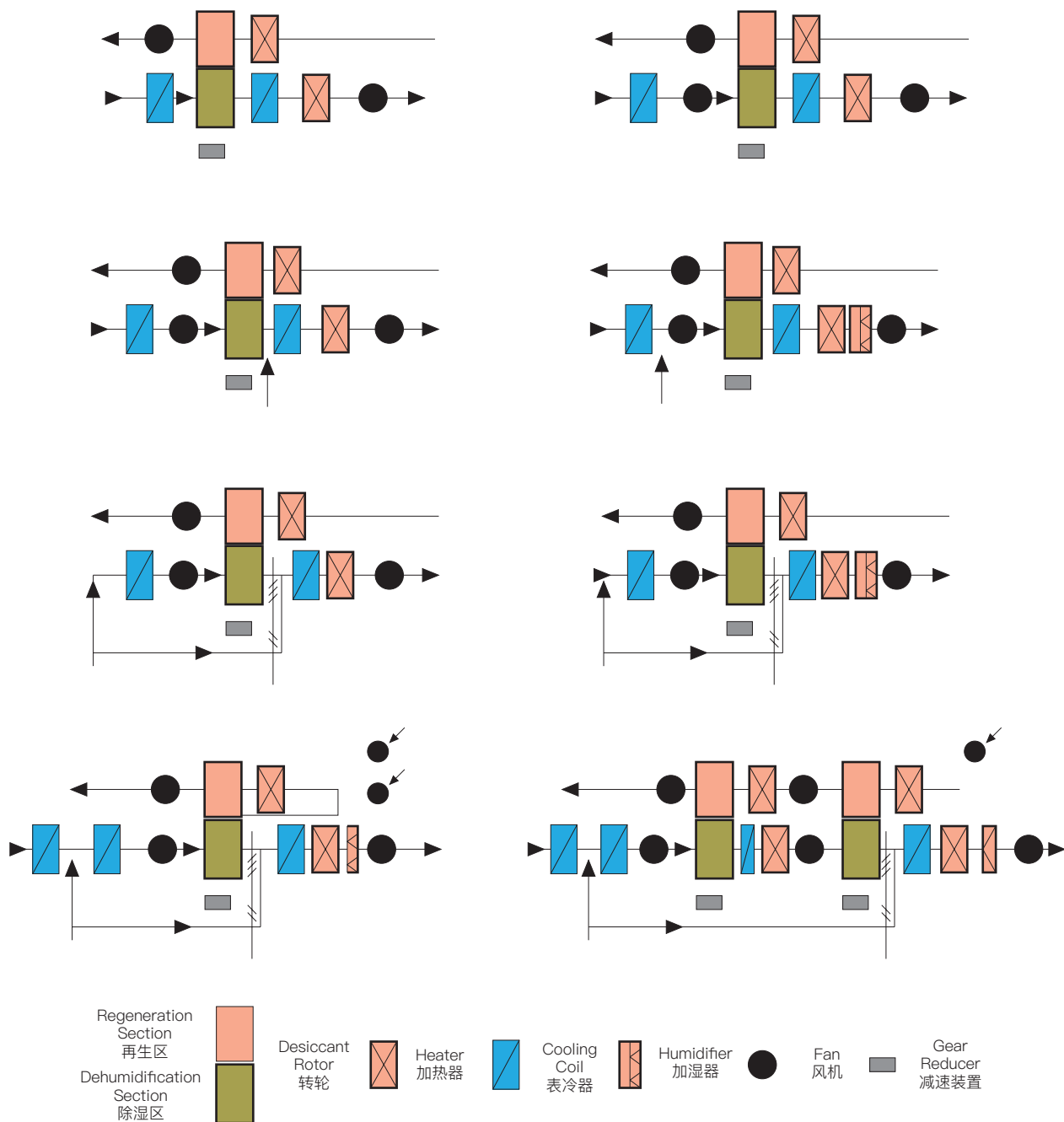
MAIN TECHNICAL PARAMETERS TABLE OF BASIC-TYPE ROTOR DEHUMIDIFIERS

基本型转轮除湿机主要技术参数表

Project model	TRated dehu-midification capacity	Rated Treatment Ar volume	Proce ssing fan power	Regen eratioi fan power	Reoen erative addition Thermalp	bwer moto Power	Runner drive rgnner specification Middle	Size	Weight	Project model	Rated dehu-midification capacity
	(kg/h)	(m/h)	(KW)	(KW)	(KW)	(KW)	(mm)	LxWxH (mm)			(kg/h)
项目型号	额定除湿量	额定处理风量	处理风机功率	再生风机功率	再生加热功率	转轮驱动电机功率	转轮规格中	尺寸 LxWxH	重量	项目型号	额定除湿量
	(kg/h)	(m/h)	(KW)	(KW)	(KW)	(KW)	(mm)	(mm)			(kg/h)
GRC-12D/Q	1.5	1600	0.25	15.6	32	0.1	550	1200×750×800	220	GRC-12D/Q	1.5
GRC-200/Q	21	2500	0.37	27	55	0.2	770	1300×950×950	300	GRC-200Q	21
GRC-25D/Q	24.5	2900	0.55	27	60	0.2	850	1300×1000×1000	380	GRC-25DQ	24.5
GRC-35D/Q	33.6	4000	0.75	36	85	0.2	965	1400×1100×1100	420	GRC-35DQ	33.6
GRC-40D/Q	42	5000	1.1	54	113	0.2	1050	1400×1200×1200	500	GRC-40D/Q	42
GRC-55D/Q	53	6300	1.5	63	138	0.2	1220	1400×1400×1400	650	GRC-55D/Q	53
GRC-65D/Q	65.5	7800	2.2	72	160	0.4	1370	1400×1500×1500	850	GRC-65D	65.5
GRC-900/Q	92.5	11000	3	108	208	0.4	1525	1400×1700×1700	1200	GRC-900Q	92.5
GRC-1350/O	134.4	16000	4	276	276	0.4	1940	1500×2100×2100	1500	GRC-1350/Q	134.4

SCHEMATIC DIAGRAMS OF VARIOUS COMBINED CONFIGURATIONS OF ROTOR DEHUMIDIFIERS

转轮除湿机各种组合形式示意图





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