

菱科冷却塔

LINKO COOLING TOWER

LKQ/RTC/RTD系列
LKQ/RTC/RTD Series



中国·广东飞扬实业集团有限公司

CHINA GUANGDONG FEIYANG INDUSTRIAL GROUP CO.,LTD



广东飞扬实业集团有限公司，是一家专注于冷却水塔与水泵产品的研发、生产、销售、提供水系统维保服务的大型民营企业，公司成立于1996年，注册资本一亿八千万元，集团总部坐落于广东省东莞市大岭山镇杨屋工业区，拥有三个生产制造基地，员工两百余人，并在全国主要省会城市设立办事机构，致力于品牌质量与服务的不断提升。

公司有雄厚的技术实力及几十年来较为深厚的生产经验沉淀，拥有自己的CNC加工车间、注塑、铸造、冲压、机加工、铁件焊接、填料制造等车间，确保设备的主要部件无需外购，提高零部件间的配合度，提高产品的质量与性价比优势。

产品广泛应用于制冷、注塑、化工、钢铁、电子、食品、药业、发电等领域。

Guangdong Feiyang Industrial Group is a first-line manufacturer integrating R&D, production and sales of cooling towers, water pumps and cooling tower accessories. It was founded in 1996 with a registered capital of 180 million RMB. The headquarters of the group Located in Yangwu Industrial Zone, Dalingshan Town, Dongguan City, Guangdong Province. Our group has three manufacturing bases, and more than 200 employees. And we have set up offices in major capital cities across the country, committed to brand quality and continuous improvement of services.

We have strong technical strength and decades of relatively deep production experience precipitation. We have our own CNC processing workshop, injection molding, casting, stamping, machining, iron welding, filler manufacturing and other workshops, to ensure that the main components of the equipment do not need to be purchased. Which can improve the degree of coordination between parts and components, and also improve the product quality and cost-effective advantages.

The products are widely used in refrigeration, injection molding, chemicals, steel, electronics, food, pharmaceuticals, power generation and other fields.

LKQ/RTC/RTD系列冷却塔为侧进风侧出风结构，具有其它形式冷却塔所不具备的优点：

●侧进风侧出风结构，大大降低了塔体的高度，非常适合安装在一般建筑和高层建筑的技术设备层或中间层，解决了冷却塔梯顶不便安装的问题。侧进风侧出风结构也使得安装于上述位置的冷却塔热空气的回流大大减少，提高了冷却塔的冷却效率。由于安装于中间层，降低了空调循环水系统的工作扬程，从而降低了空调系统的建设费用，大大节省了系统的运行费用。

●高效率、低漂水，本系列冷却塔选用高效节能风机，使设备能耗大为下降。另外因采用合适的汽水比及高效的散热填料，填料前后均匀设计有蜂窝状导风结构，使冷却塔进出风更为均匀、顺畅，冷却塔降温得到充分保证，使漂水率降到最低。

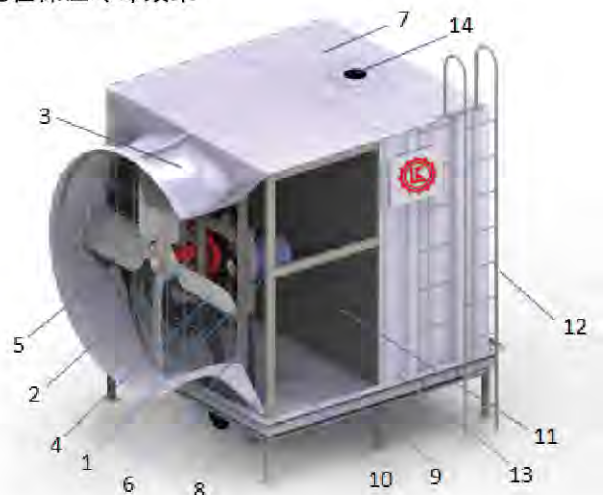
●耐腐蚀、寿命长，本系列冷却塔结构合理，坚固耐用。配件选用耐候性和防腐性能好的材料制造而成，如底盘、风箱、侧板等采用优质玻璃钢材料；所有钢结构件均经热浸镀锌防腐处理，大大提高了其耐腐蚀能力，延长了冷却塔使用寿命。

噪声低，本系列冷却塔采用高效超静宽叶轴流风机，使设备能在保证冷却效果所需风量的同时，最大限度降低运行时的噪声。

结构简图



- | | |
|-------------------------|--------------------------|
| 1. 马达(全封闭式) Motor(TEFC) | 8. 框架 Framework |
| 2. 皮带箱 V-Belt reducer | 9. 底盆 Basin(FRP) |
| 3. 风筒 Fan stack(FRP) | 10. 中心缸 Suction tank |
| 4. 风扇 Fan | 11. 填料 Infill |
| 5. 风扇网 Fan guard | 12. 梯 Ladder |
| 6. 马达架 Motor support | 13. 围板 Panel |
| 7. 洒水盆 Hot water basin | 14. 进水管 Water inlet pipe |





LKQ、RTC单侧进风侧出风冷却塔



RTD单侧进风上出风冷却塔

LKQ、RTC、RTD横流式冷却塔结构示意图 Structural Scheme of LKQ,RTC,RTD Cross Flow Industrial Cooling Towers

“菱科牌”冷却塔在产品热工性能、耗电指标、外观质量、飘水损失等项指标技术都比较成熟的今天，目前的焦点注重于噪声指标、价格、环境保护、周边建筑物景观相协调、减少占地面积和降低能耗及智能化管理的问题。

"Linko" cooling tower thermo technical performance, energy consumption, presentation quality, water losses are relatively mature technology today, the current focus is noise index, prices, environmental protection, coordination of the peripheral building landscape, reducing energy consumption, reducing land area and intelligent management.

菱科LKQ/RTC/RTD系列产品依据这一目标根据冷却塔散热焓湿平衡原理，积二十多年冷却塔行业生产经验及现场实际运行测试结果，通过独特斜纹设计的冷却塔填料，强劲的通风量及合理的冷却塔结构，增大水气热交换面积，延续热交换时间，充分提高水气热交换效率。同时利用国家冷却塔行业权威机构为菱科冷却塔专门开发出的《热力性能计算软件》验证和设计，冷却塔散热效果均可达到和超过冷却塔行业要求。

Linko LKQ/RTC/RTD series of products is based on this goal ~ under cooling tower heat enthalpy balance principle of equilibrium, 30 years of positive experiences of cooling tower industry and science actual run testing results, through unique twill design of cooling tower filling compound, strong ventilation and reasonable cooling tower structure, increasing water vapor heat exchange surface, lasting heat exchange time, increasing water vapor heat exchange efficiency. Meanwhile, using "operational software of thermodynamic property" specially developed by state authority of the cooling tower industry for Linko cooling tower to validate and design, radiating effect of the cooling towers can meet and exceed the requirements of cooling tower industry.

1、设计先进、稳固

Advanced design, soundness

冷却塔整体结构设计运用全新CAD/CAM(生产工艺软件)，外形线条大方、高档，多台组合(可单台运行达到节能的目的)节省空间、整体结构坚固稳重、刚性好、抗12级台风、8级地震、雪载荷200kg/m²。加之塔内设有花纹钢板检修通道和冷却塔醒目处贴有开、关机运行防触电防跌落标志，维护保养十分便利。

The design of overall structure of cooling towers using the latest CAD/CAM(Software OF production technology), shape lines in good taste, high-grade, multiple combinations(single operation can achieve the goal of energy saving) save space, the overall structure stable and steady, good Rigidity, 12-grade typhoon, 8-grade earthquake, load 200kg/m. Coupled with the pattern plate tower and cooling tower maintenance channel affixed prominently at the open, fall protection against electric shock sign off running, maintenance is very convenient.

钢支架：塔体选用国标Q195、Q235钢板折弯加工成型生产，表层防腐按照英国BS ENIS01461:1999标准热浸镀锌处理将氧化程度降至最低，坚固耐用。依使用环境要求还可提供不锈钢、SUS304或SUS306材质。

Steel bracket: the tower body adopts Chinese Standard Q195 and Q235 steel plate bending machine shaping production, surface layer preservation galvanizing by dipping treatment according to UK BS ENIS01461:1999 standard reduces the degree of oxidation to the lowest, stable and durable. According to the requirements of use environment, provide stainless steel, SUS304 or SUS306 materials.





玻璃钢外壳: 设计采用速度回转型节能风筒, 动能回收率30%以上, 降低风机全压, 减少电机功率, 达到节能降耗的目的。主要材料选用不饱和聚酯树脂配高强度无碱玻璃纤维毡手糊合成。优越的抗拉强度及导电绝缘性, 能抵抗天然因素、紫外线和化学物质侵蚀, 历久如新, 阻燃20年不褪色, 使用寿命长。外壳颜色还可配合周围建筑物任意选择。

Glass fibre reinforced plastic: the design adopts speed rotary type energy-saving wind-sock; recovery rate of kinetic energy is above 30% more. reduce total pressure of blower, reduce the power of motor, achieve the purpose of energy-saving and low loss. The main Materials are synthesized by unsaturated polyester resins allocating high-strength alkali-free glass fiber hand-pasting. The excellent tensile strength and conduction insulatibity can resist natural factors, UV and chemicals'erosion; The steel bracket can keep new ever, has the features of inflaming retarding and a long service life, does not fade for 20 years. The color of crust can be chosen arbitrarily coordinating with the surrounding buildings.



2、噪音最低、费用最省

The lowest noise, the lowest cost

风 机: 选用高强度铝合金新型大弦弧冷却塔专用风机, 风量大, 噪声低, 重量轻。表面做8级高附着着力喷涂防腐处理, 抗腐蚀, 抗氧化。可调叶片角度满足不同要求, 安装维护简单; 如冷却水含酸碱度高可采用高强度玻璃钢风机。

Fans: Great selection of new high-strength aluminum alloy arc chord dedicated cooling tower fans, air volume, low noise and light weight. Do 8 high adhesion surface corrosion protection coating, anti corrosion and oxidation. Adjustable blade angle to meet different requirements, installation and maintenance simple; such as cooling water, high pH can be used with high-strength glass fiber reinforced plastic fan.



电 机: 采用优质全封闭专用冷却塔电机, 防护等级IP54、IP55、IP56, 绝缘等级F级或更高级, 经使用十多年来, 性能出众, 效率高, 噪音低, 能耗少。如使用环境特殊, 还可提供多速电机和防爆电机, 变频电机。

Motor: The world famous ABB cooling tower or totally enclosed domestic special cooling tower motor with good quality, protective grade: IP54, IP55, IP56, insulation grade: For above, after 10 years' use, outstanding performance, high efficiency, low noise and low energy consumption, if the use of environment is special, we can provide multi-speed motor and explosion prevention motors, variable frequency motor.



减速箱: 冷却塔专用减速装置设计, 内配高精度国内著名品牌或进口日本NTN轴承, 保险油封, 连接轴做防腐镀铬处理, 内槽加工平滑, 经静平衡校核, 运行平稳, 防水性能佳, 重量轻, 安装保养方便。再加配进口日本三星或加拿大狮王(耐高温、耐强酸碱)皮带, 传动系统负荷轻、功效高、节能降耗。根据使用状况和维护管理要求还可选择齿轮减速箱。

Gearbox: Special deceleration devices cooling tower design, with famous brands or imported high-precision Japan NTN Bearing, insurance, oil seals, chrome-plated connecting shaft anticorrosion treatment, the smooth groove processing, the static balance checking, smooth, waterproof performance good, light weight, easy installation and maintenance. Together with imports from Japan or Canada Samsung Lion (high temperature, strong acid and alkali resistant) belt, drive the load light, high efficiency, energy saving. Depending on conditions and maintenance requirements can also choose to gear box.



3、散热效率高、飘水小

High radiating efficiency, small floating water

填 料: 选用优质聚氯乙烯(PVC)材料, 真空吸塑成型, 材质强度柔韧性高、抗紫外线、不易脆裂、无刺激性气味环保、阻燃、抗老化寿命长。加之散热介质纹路采用三角曲形斜纹设计, 能有效地延长高温水与冷却风在塔内的接触时间, 风阻小, 亲水性好, 散热效率高。末端自带蜂窝收水装置使飘水损失降至0.001以下%。(工作水温-50°C~50°C, 超过此数值请选用P.P材质耐高温填料);

Filling: high quality new PVC(PVC) materials, vacuum forming, materials with high flexibility and strength, anti-ultraviolet, hard brittle, odorless green, fire-retardant, anti-aging and long life. Combined cooling medium lines with curved triangular shape Xiewen design, can eddectively extend the hot water and cooling air in the tower of the contact time, air resistance is small, hydrophilic, high thermal efficiency. End of the device comes with cellular water to float the water close to 0.001 the following% loss. (Working temperature -50°C~50°C, more than this number, please use high temperature packing material PP);





4、布水均匀、维护方便

Even water distribution, ease to maintain and no blockage

洒水系统:

采用洒水盆池式配不转动喷嘴布水, 进塔水压低, 节能、洒水均匀, 无动部件。加之塔体中间配备检修通道维修保养更为方便。

Sprinkler system:

Basin pool with water spray nozzle with water distribution does not turn, water down into the tower, energy. water spray unifotmity, no moving parts. Coupled with the middle tower maintenance channel maintenance more convenient.

5、耐腐朽、寿命长

Resistance to decay-resisant, long service life >>>>

外接管部件铁索结: 选用特殊铸铁材质, 具有较佳的刚度和强度, 外接管安装方便; 索管接口密封性高, 驳口受力均匀; 表层做8级高附着着力喷涂防腐处理, 抗腐蚀, 抗氧化;

Components of external connection tube iron hitch:

Special cast iron alloy maerial, good rigidity and strength, light weight, concenient installation of external connection tube; high interface of connection tube, average force of split mouth; 8-grade spraying high adhesive attraction spray painting prevention of corrosion treatment of surface layer, corrosion resistant, oxidation resistance;



6、使用环境温度条件不受限制

Conditions of use of environmental temperature are not restricted >>>>

高温或污水环境: 循环水温度超过50℃, PH值超过6-8含强酸强碱及水质总固体超过5000mg/L, 含油(焦油)超过10mg/L或含有直径大于5mm的机械性杂质时, 需特别设计生产。

High temperature or sewage environment: recycling water temperature are more than 50℃, PH, which is above 6-8 contains alkali, strong acid water quality total solid are more than 5000mg/L t, more than 10 mg/l of oil(tar) or containing mechanical impurity, whose diameter is lager than 5 mm need to be designed specially when producing.

低温环境: 冬天低温结冰环境不间断使用时需提出, 可特别设计加装电加热器及淋水导流环, 不使水流到百叶上, 预防结冰。

Low temperatures: low-temperature freezing environment of winter uninterrupted use need to raise and can install specially designed electric heater and spraying diversion ring, and not allow water flow to louver to prevent freezing.



7、可提供附件配件:

Can provide additional accessories: >>>>

- | | |
|-----------|--------------------------------|
| ★PP高温填料 | ★PP paching heat |
| ★角度导风曲 | ★Qu different angle wind guide |
| ★不锈钢支架 | ★Stainless steel bracket |
| ★不锈钢紧固件 | ★Stainless steel fasteners" |
| ★变频器 | ★Drive |
| ★铜/银离子杀菌器 | ★Copper/silverion sterilizer |
| ★杀菌剂 | ★Fungicide |
| ★自动报警补水系统 | ★Automatic Alarm Water System |
| ★加热器 | ★Heater |
| ★减震器 | ★Shock Absorber |
| ★安全笼 | ★safety cage |

LKQ方形横流单侧进风侧出风冷却塔性能参数及外形示意图 (冷吨)

设计工况: 干球温度TDB=31.8℃ 湿球温度WBT=27℃ 进水温度T1=37℃ 出水温度T2=32℃ 水温降 Δ TS=5℃ 大气压力P=99400P
 Design Condition: Dry bulb Temp=31.8℃ Wet bulb Temp=27℃ Inlet Water Temp T1=37℃ Outlet Water Temp T2=32℃ Temperature differen P=99400P

型号 MODEL	循环水量		风机	电机	外形尺寸			重量		进塔水压	噪音
	CAPACITY		FAN	MOTOR	TOWER DIMENSING			WEIGHT		WATER PRESURE	NOISE
	m ³ /h		直径 Diam wter	功率 Motor	长 Length L	宽 Width W	高 Height H	净重 Dry weight	运行量 Wet weight	Kpa	DB(A)
	27℃	28℃	mm	KW	L	W	H	Kg	Kg		
LKQ-8L	6.2	5.4	600	0.37	1250	840	1540	110	350	20	63
LKQ-10L	7.8	6.8	600	0.55	1250	840	1540	110	350	24	63
LKQ-15L	11.7	10.3	730	0.55	1540	1080	1540	156	390	26	56
LKQ-20L	15.6	13.7	730	0.75	1540	1080	1540	165	400	26	56
LKQ-25L	19.5	17.1	730	0.75	1550	1120	1580	192	490	30	56
LKQ-30L	23.4	20.5	890	1.5	1895	1320	1895	450	1000	30	63
LKQ-40L	31.2	27.3	910	1.5	1935	1320	1895	480	1060	33	63

LKQ系列侧出风低噪音单风机冷却塔外形示意图

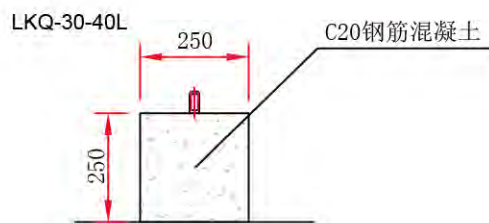
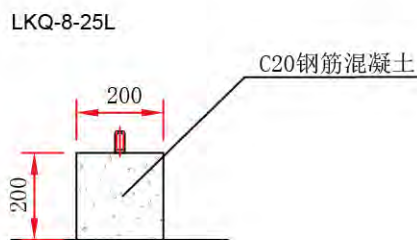
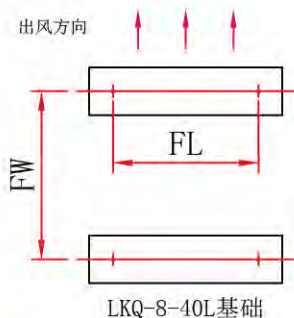
LKQ-10-40L



LKQ系列侧出风冷却塔基础及配管尺寸图表

设计工况: 干球温度TDB=31.8℃ 湿球温度WBT=27℃ 进水温度T1=37℃ 出水温度T2=32℃ 水温降 Δ TS=5℃ 大气压力P=99400P
 Design Condition: Dry bulb Temp=31.8℃ Wet bulb Temp=27℃ Inlet Water Temp T1=37℃ Outlet Water Temp T2=32℃ Temperature differen P=99400P

型号 MODEL	基础尺寸(FOUNDATION DIMENSION)				配管尺寸(PIPING SIZE)			
	FL	FW	WI	WO	OF	FV	DN	
	mm	mm	mm	mm	mm	mm	mm	
LKQ-8L	610	705	40	40	25	15	25	
LKQ-10L	610	705	40	40	25	15	25	
LKQ-15L	820	960	50	50	25	15	25	
LKQ-20L	820	960	50	50	25	15	25	
LKQ-25L	800	970	80	80	25	15	25	
LKQ-30L	960	1290	80	80	25	15	25	
LKQ-40L	960	1290	80	80	25	15	25	



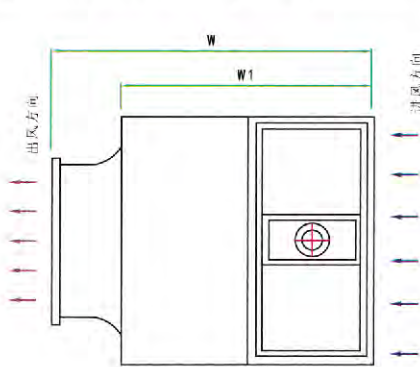


RTC 方形横流单侧进风侧出风冷却塔性能参数表及外形示意图 (水吨)

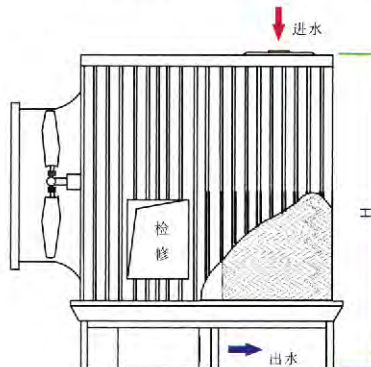


设计工况：进水温度-T1=37℃ 出水温度-T2=32℃ 湿球温度-WBT=28℃ 水温降 $\Delta TS=5^\circ C$ 大气压力P=99400Pa

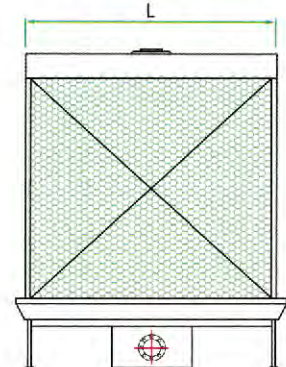
Design Condition: Enter water Temp-T1=37℃ Outlet Water Temp T2=32℃ Wet bulb Temp=28℃ Wet ball Temp-WBT=28℃ Temp.Diff $\Delta Ts=5^\circ C$ Atmospheric pressure-P=99400Pa



俯视图



主视图



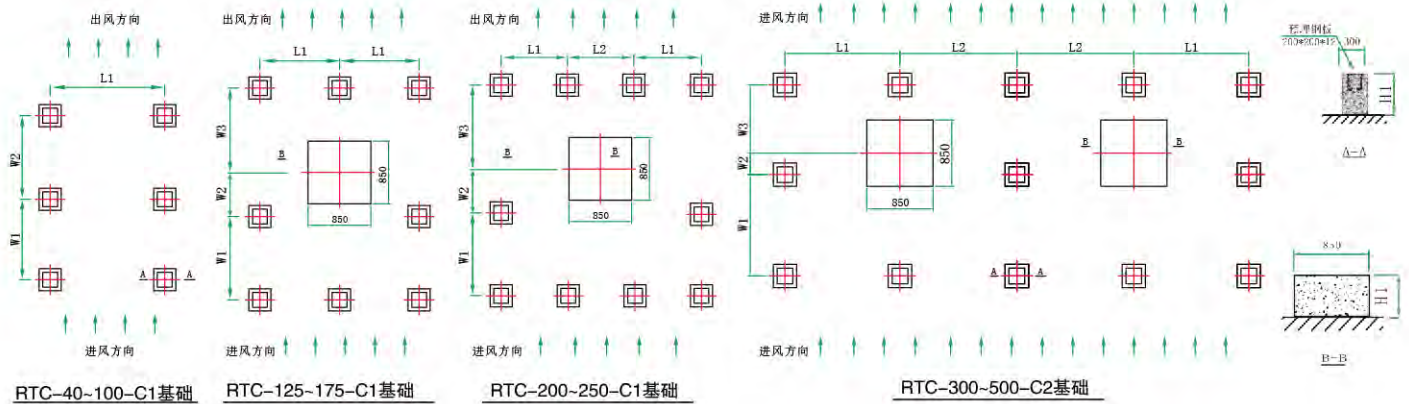
进风方向视图

参数 型号	循环水量	冷却能力	外形尺寸 mm				风扇直径	电机功率	供水压力	标准点噪音	净重	运行重
	m ³ /h	Kcal/h	L	W	W1	H	mm	KW	Kpa	dB(A)	kg	kg
RTC-40L-C1	40	200000	1450	2660	2250	2180	1300	1.5	25	58.2	550	1160
RTC-50L-C1	50	250000	1450	2660	2250	2180	1300	2.2	25	58.8	630	1270
RTC-60L-C1	60	300000	2000	2950	2250	2180	1500	3	25	59.3	720	1650
RTC-70L-C1	70	350000	2000	2950	2250	2180	1500	4	25	59.8	760	1720
RTC-80L-C1	80	400000	2000	3200	2500	2780	1500	4	30	60.2	800	1850
RTC-100L-C1	100	500000	2500	3200	2500	2780	1500	4	30	60.5	930	2250
RTC-125L-C1	125	625000	3000	3200	2500	3200	1800	4	36	60.8	1150	3050
RTC-150L-C1	150	750000	3000	3200	2500	3200	2120	5.5	38	61.1	1250	3230
RTC-175L-C1	175	875000	3500	3200	2500	3200	2120	5.5	38	61.5	1370	3630
RTC-200L-C1	200	1000000	3750	3200	2500	3800	2400	7.5	42	61.8	1670	4100
RTC-225L-C1	225	1125000	3750	3200	2500	4400	2400	7.5	48	62.2	1850	4350
RTC-250L-C1	250	1250000	4000	3200	2500	4400	2400	7.5	48	62.5	1950	4620
RTC-300L-C2	300	1500000	6000	3200	2500	3200	2120	5.5X2	38	62.6	2500	6460
RTC-350L-C2	350	1750000	7000	3200	2500	3200	2120	5.5X2	38	63.0	2740	7260
RTC-400L-C2	400	2000000	7500	3200	2500	3800	2400	7.5X2	42	63.3	3340	8200
RTC-450L-C2	450	2250000	7500	3200	2500	4400	2400	7.5X2	48	63.7	3700	8700
RTC-500L-C2	500	2500000	8000	3200	2500	4400	2400	7.5X2	48	64.0	3900	9240
RTC-600L-C3	600	3000000	11250	3200	2500	3800	2400	7.5X3	42	64.2	5010	12300
RTC-700L-C4	700	3500000	14000	3200	2500	3200	2120	5.5X4	38	64.5	5480	14520
RTC-800L-C4	800	4000000	15000	3200	2500	3800	2400	7.5X4	42	64.8	6680	16400
RTC-900L-C6	900	4500000	18000	3200	2500	3200	2120	5.5X6	38	65.0	7500	19380
RTC-1000L-C5	1000	5000000	18750	3200	2500	3800	2400	7.5X5	42	65.3	8350	20500

说明：1、外形仅以单台示例，当冷却塔多风机组台式，长度L成倍增加，详细外形图请向销售商或厂家索取。
2、RTC-40~100L-C1冷却塔外形中没有单独水缸，外接管均直接在集水盆底部。

RTC 方形横流单侧进风侧出风冷却塔外接管径及基础示意图 (水吨) | >>>>

设计工况参数: 进水温度-T1=37℃ 出水温度-T2=32℃ 湿球温度-WBT=28℃ 水温差 $\Delta T_s=5^\circ\text{C}$ 大气压力-P=99400Pa
 Design Condition: Enter water Temp-T1=37℃ Outlet Water Temp-T2=32℃ Wet bulb Temp-WBT=28℃ Temp.Diff $\Delta T_s=5^\circ\text{C}$ Atmospheric pressure-P=99400Pa

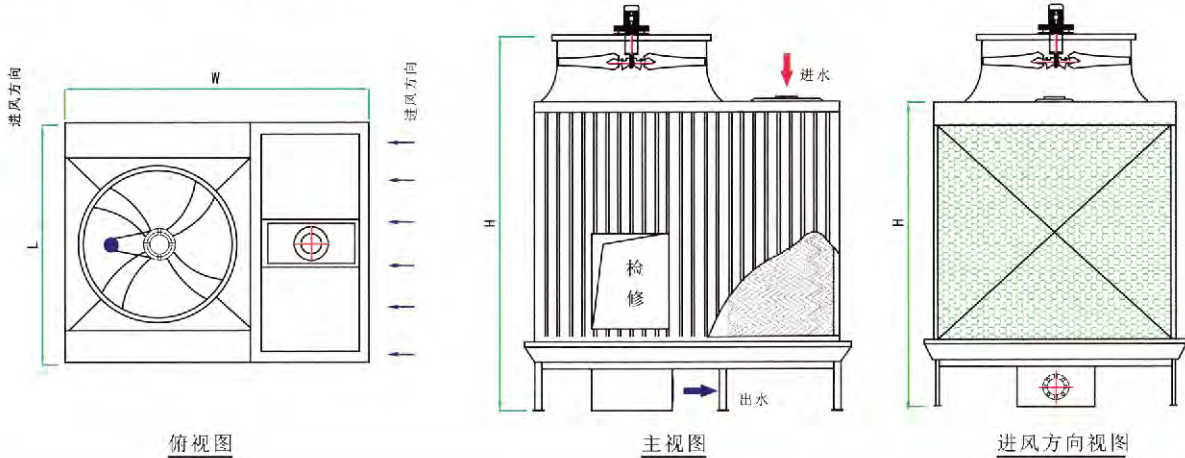


参数 型号	基础尺寸 mm						外接管径 mm					
	L1	L2	W1	W2	W3	H1	进水	出水	满水	排污	自动补水	手动补水
RTC-40L-C1	1400		1100	1100		600	100	100	40	40	20	
RTC-50L-C1	1400		1100	1100		600	100	100	40	40	20	
RTC-60L-C1	1950		1100	1100		600	100	100	40	40	20	
RTC-70L-C1	1950		1100	1100		600	100	100	40	40	20	
RTC-80L-C1	1950		1225	1225		600	100	100	40	40	20	
RTC-100L-C1	2450		1225	1225		600	125	125	50	40	25	
RTC-125L-C1	1475		1300	275	875	300	150	150	50	40	25	25
RTC-150L-C1	1475		1300	275	875	300	150	150	50	40	25	25
RTC-175L-C1	1725		1300	275	875	300	200	200	50	40	25	25
RTC-200L-C1	1225	1250	1300	275	875	300	150X2	200X1	80	50	25	25
RTC-225L-C1	1225	1250	1300	275	875	300	150X2	200X1	80	50	25	25
RTC-250L-C1	1310	1335	1300	275	875	300	150X2	200X1	80	50	25	25
RTC-300L-C2	1475	1500	1300	275	875	400	150X2	150X2	50X2	40X2	25X2	25X2
RTC-350L-C2	1725	1750	1300	275	875	400	200X2	200X2	50X2	40X2	25X2	25X2
RTC-400L-C2	1225	1250	1300	275	875	400	150X4	200X2	80X2	50X2	25X2	25X2
RTC-450L-C2	1225	1250	1300	275	875	500	150X4	200X2	80X2	50X2	25X2	25X2
RTC-500L-C2	1310	1335	1300	275	875	500	150X4	200X2	80X2	50X2	25X2	25X2
RTC-600L-C3	1225	1250	1300	275	875	500	150X6	200X3	80X3	50X3	25X3	25X3
RTC-700L-C4	1725	1750	1300	275	875	500	200X4	200X4	50X4	40X4	25X4	25X4
RTC-800L-C4	1225	1250	1300	275	875	500	150X8	200X4	80X4	50X4	25X4	25X4
RTC-900L-C6	1475	1475	1300	275	875	500	150X6	150X6	50X6	40X6	25X6	25X6
RTC-1000L-C5	1225	1250	1300	275	875	500	150X10	200X5	80X5	50X5	25X5	25X5

说明: 1、基础图仅以单台示例, 当冷却塔多风机组台式, 详细基础图请向销售商或厂家索取。
 2、做基础时需首先确认冷却塔进出风方向, 并且出风方向前还需预留相应距离放置出风筒, 详情参见外形图。

RTD 方形横流单侧进风顶出风冷却塔性能参数表及外形示意图 (水吨)

设计工况参数: 进水温度-T1=37℃ 出水温度-T2=32℃ 湿球温度-WBT=28℃ 水温降ΔTS=5℃ 大气压力-P=99400Pa
 Design Condition: Enter water Temp-T1=37℃ Outlet Water Temp-T2=32℃ Wet bulb Temp-WBT=28℃ Temp.DiffΔTs=5℃ Atmospheric pressure-P=99400Pa



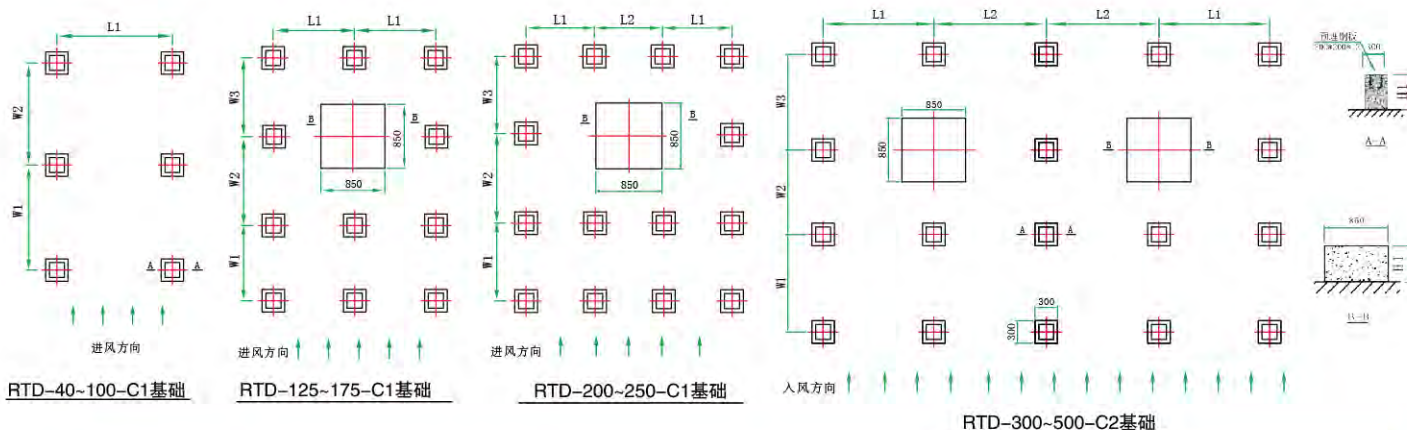
参数 型号	循环 水量 m ³ /h	冷却能力 Kcal/h	外形尺寸 mm				风 扇 直 径 mm	电 机 功 率 KW	供 水 压 力 Kpa	标 准 点 噪 音 dB(A)	净 重 kg	运 行 重 kg
			L	W	H	HO						
RTD-40L-C1	40	200000	1450	2600	2590	2180	1300	1.5	25	58.6	700	1300
RTD-50L-C1	50	250000	1450	2600	2590	2180	1300	2.2	25	59.2	780	1410
RTD-60L-C1	60	300000	2000	3100	2880	2180	1500	3	25	59.7	870	1840
RTD-70L-C1	70	350000	2000	3100	2880	2180	1500	4	25	60.2	910	1910
RTD-80L-C1	80	400000	2000	3100	3480	2780	1500	4	30	60.6	950	1980
RTD-100L-C1	100	500000	2500	3100	3480	2780	1500	4	30	60.9	1080	2360
RTD-125L-C1	125	625000	3000	3450	3900	3200	1800	4	36	61.2	1300	3310
RTD-150L-C1	150	750000	3000	3750	3900	3200	2120	5.5	38	61.5	1400	3580
RTD-175L-C1	175	875000	3500	3750	3900	3200	2120	5.5	38	61.9	1520	4030
RTD-200L-C1	200	1000000	3750	4150	4500	3800	2400	7.5	42	62.2	1820	4720
RTD-225L-C1	225	1125000	3750	4150	5100	4400	2400	7.5	48	62.6	2000	4960
RTD-250L-C1	250	1250000	4000	4150	5100	4400	2400	7.5	48	62.9	2100	5270
RTD-300L-C2	300	1500000	6000	3750	3900	3200	2120	5.5x2	38	63.0	2800	7160
RTD-350L-C2	350	1750000	7000	3750	3900	3200	2120	5.5x2	38	63.4	3040	8060
RTD-400L-C2	400	2000000	7500	4150	4500	3800	2400	7.5x2	42	63.7	3640	9440
RTD-450L-C2	450	2250000	7500	4150	5100	4400	2400	7.5x2	48	64.1	4000	9920
RTD-500L-C2	500	2500000	8000	4150	5100	4400	2400	7.5x2	48	64.4	4200	10540
RTD-600L-C3	600	3000000	11250	4150	4500	3800	2400	7.5x3	42	64.6	5460	14160
RTD-700L-C4	700	3500000	14000	3750	3900	3200	2120	5.5x4	38	64.9	6080	16120
RTD-800L-C4	800	4000000	15000	4150	4500	3800	2400	7.5x4	42	65.2	7280	18880
RTD-900L-C6	900	4500000	18000	3750	3900	3200	2120	5.5x6	38	65.4	8400	21480
RTD-1000L-C5	1000	5000000	18750	4150	4500	3800	2400	7.5x5	42	65.7	9100	23600

说明: 1、外形仅以单台为例, 当冷却塔多风机组台式, 长度L成倍增加, 详细外形图请向销售商或厂家索取。
 2、RTD-40~100L-C1冷却塔外形中没有单独水缸, 外接管均直接在集水盆底部。

RTD 方形横流单侧进风顶出风冷却塔外接管径及基础示意图 (水吨)



设计工况参数: 进水温度-T1=37℃ 出水温度-T2=32℃ 湿球温度-WBT=28℃ 水温降 $\Delta T_s=5^\circ\text{C}$ 大气压力-P=99400Pa
 Design Condition: Enter water Temp-T1=37℃ Outlet Water Temp-T2=32℃ Wet bulb Temp-WBT=28℃ Temp.Diff $\Delta T_s=5^\circ\text{C}$ Atmospheric pressure-P=99400Pa



参数 型号	基础尺寸 mm						外接管径 mm					
	L1	L2	W1	W2	W3	H1	进水	出水	满水	排污	自动补水	手动补水
RTD-40L-C1	1400		1275	1275		600	100	100	40	40	20	
RTD-50L-C1	1400		1275	1275		600	100	100	40	40	20	
RTD-60L-C1	1950		1525	1525		600	100	100	40	40	20	
RTD-70L-C1	1950		1525	1525		600	100	100	40	40	20	
RTD-80L-C1	1950		1525	1525		600	100	100	40	40	20	
RTD-100L-C1	2450		1525	1525		600	125	125	50	40	25	
RTD-125L-C1	1475		1300	975	1125	300	150	150	50	40	25	25
RTD-150L-C1	1475		1300	1125	1275	300	150	150	50	40	25	25
RTD-175L-C1	1725		1300	1125	1275	300	200	200	50	40	25	25
RTD-200L-C1	1225	1250	1300	1325	1475	300	150X2	200	80	50	25	25
RTD-225L-C1	1225	1250	1300	1325	1475	300	150X2	200	80	50	25	25
RTD-250L-C1	1310	1335	1300	1325	1475	300	150X2	200	80	50	25	25
RTD-300L-C2	1475	1500	1300	1125	1275	400	150X2	150X2	50X2	40X2	25X2	25X2
RTD-350L-C2	1725	1750	1300	1125	1275	400	200X2	200X2	50X2	40X2	25X2	25X2
RTD-400L-C2	1225	1250	1300	1325	1475	400	150X4	200X2	80X2	50X2	25X2	25X2
RTD-450L-C2	1225	1250	1300	1325	1475	500	150X4	200X2	80X2	50X2	25X2	25X2
RTD-500L-C2	1310	1335	1300	1325	1475	500	150X4	200X2	80X2	50X2	25X2	25X2
RTD-600L-C3	1225	1250	1300	1325	1475	500	150X6	200X3	80X3	50X3	25X3	25X3
RTD-700L-C4	1725	1750	1300	1125	1275	500	200X4	200X4	50X4	40X4	25X4	25X4
RTD-800L-C4	1225	1250	1300	1325	1475	500	150X8	200X4	80X4	50X4	25X4	25X4
RTD-900L-C6	1475	1475	1300	1125	1275	500	150X6	150X6	50X6	40X6	25X6	25X6
RTD-1000L-C5	1225	1250	1300	1325	1475	500	150X10	200X5	80X5	50X5	25X5	25X5

说明: 1、基础图仅以单台示例, 当冷却塔多风机组式, 详细基础图请向销售商或厂家索取。
 2、RTD-300~450L-C1冷却塔基础需在中间增加两个小基础墩, 总共16个小基础墩(上图14个), 详细请询厂家。



安装: >>>>

- 1、参考冷却塔运行重量及实际安装系数，校核安装地基承载能力。
- 2、冷却塔应安装在通风良好，无建筑物影响的地方。
- 3、进风口与建筑物应有一定距离，保证有足够的新鲜空气进入和避免湿热空气回流。
- 4、冷却塔安装现场如使用气焊、电焊，应有消防安全设施，以防火灾发生。
- 5、冷却塔尽量避免安装在温度较高且有热源、粉尘、腐蚀气体、异物集中的地方。

使用: >>>>

- 1、开机前打开水盆底部排污阀门，对进、出水管、水盆和其它部件附置的杂物进行全面冲洗，以免杂物进入塔内堵塞主机。
- 2、运转前检查冷却塔各连接点的螺栓是否拧紧，特别是驱动系统部件必须紧固安全，用手拨动风机，手感目睹是否灵活，叶片不得刮碰风筒内壁。
- 3、叶片尾端与风筒间隙均匀，风机叶片安装角度应一致，避免冷却塔运行时产生震动。
- 4、风机运转时从风筒往下看，应向顺时针方向旋转。风机运转正常后，需检查电机的电流、电压是否在正常范围内，如有异常，应及时进行调整。
- 5、风机运转正常后，先打开出水阀，后打开进水阀，同时，注意调整好进出水阀门的位置，保证循环水量符合冷却流量要求。
- 6、循环水泵吸入部分位置应低于冷却塔水盆水面位置。

维护: >>>>

- 1、应定期清除塔内残留物，检查进塔水质不含油脂和其它浑浊物，否则，要配套使用水处理；争化设备。
- 2、对长期不使用的冷却塔，应切断电源，松开皮带，水塔内无残留水，同时应加外罩保护，防止脏物进入以及日晒雨淋，导致塔的老化。
- 3、冷却塔的冷效受冷却水量、进水温度、当地气象环境的影响，注意作好上述参数变化的日记录工作。
- 4、冷却塔在运行时，应有专人管理，发现问题应及时排除。



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CHINA GUANGDONG FEIYANG INDUSTRIAL GROUP CO.,LTD
