NEWIN Adiabatic Cooler

NWFL-VA SERIES

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NWFL-VA Series

NEWIN V Type Adiabatic Cooler

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NWFL-VA series is the V type dry air cooler designed with **Adiabatic Cooling System**. Efficient cooling throughout the year, **free cooling solution** suitable for data center and other facilities, and **water consumption is greatly reduced** compared with evaporative cooling.

- **V type design and adiabatic cooling system,**
  High cooling efficiency with low water consumption.

- **Optimal efficient components, like EC motor**
  Maximum system efficiency and energy saving;

- **Large redundancy available,**
  Eliminating thermal performance loss ;

- **High reliability and Ease maintenance.**

NWFL-VA series
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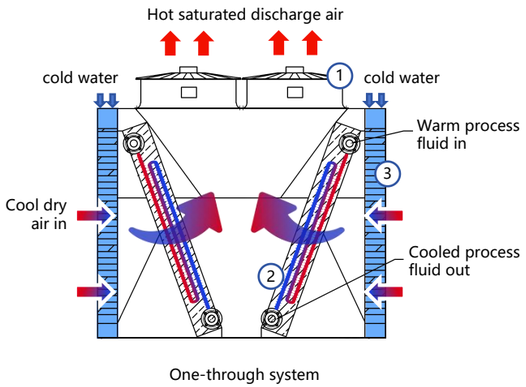
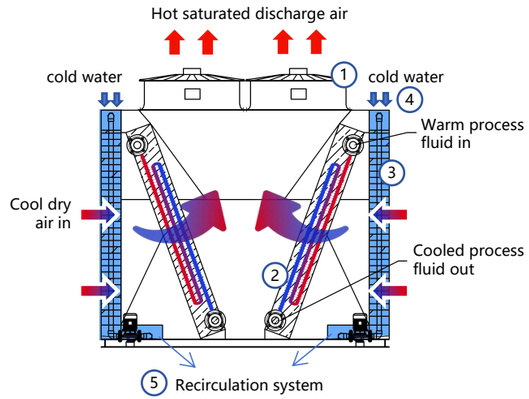


One-through system



Recirculation system

▸ When NWFL-VA adiabatic cooler is in operation:

Cold water will flows from the top of the cooler and evenly through **the evaporative cooling pads**. The **cool dry air** will be drawn into by **EC axial fan** over the pads and precooled. This adiabatic precooling of the air has larger cooling capacity for cooling the warm process fluid.

Working Principle & Parameter **NWFL-VA** series **Adiabatic Cooler**

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Series	Type	Capacity	Fan Drive System	Heat Exchange System	Adiabatic Pre-cooler
NWFL-VA	V	Range	EC axial fans (1)	Finned coil (2)	Evaporative cooling pads (3)
	Maximum thermal performance	300~ 1680kw	Intelligent frequency conversion, more energy saving	Maximum heat transfer surface	Precooling the ambient air temperature, improving higer cooling efficency
	* The wake up is on the top of the pads can ensure the cool dry air in adiabatic precooling process when the pump is not running. (4)				
	* Recirculation system is designed for further reduce the total water consumption. (5)				
Adiabatic cooling system	**Exceeding 90%** annual water saving compared to normal cooling tower				
Application	Small to medium industries & HVAC; The places with limited water consumption; High temperature industrial cooling process etc.				

Model	Configuration Mode	Flow	Cooling Capacity	Dimension (mm)			Nos of Fins	Fan Diameter	Power
	F/V	m3/h	kw	L	W	T	nos	mm	kw
NWFL-300VA	V	52	300	4000	1290	198	2	EC900	7.6
NWFL-600VA	V	104	600	4000	1290	198	4	EC900	15.3
NWFL-520VA	V	90	520	4500	1786	198	2	EC800	12.6
NWFL-1040VA	V	180	1040	4500	1786	198	4	EC800	25.3
NWFL-600VA	V	105	600	4000	2280	198	2	EC900	15.3
NWFL-1200VA	V	210	1200	4000	2280	198	4	EC900	30.6
NWFL-840VA	V	144	840	5500	2777	198	2	EC900	19.1
NWFL-1680VA	V	288	1680	5500	2777	198	4	EC900	38.2

* This table sample only contains the data when issued, please do not use for engineering construction. Please further to confirm with sales and engineer about the detailed data before purchasing.

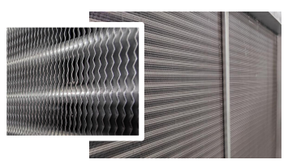
* If need muti- cells, please consult the manufacturer to provide the solutions. NEWIN reserves the right to change the parameters or dimensions of the table without notice.

• Heavy-duty Construction

The galvanized steel panel with **NWN-Armour anti-corrosion coating have excellent resistance and corrosion resistance approaching the characteristics of stainless steel**, allows the equipment to work with higher concentration cycles and thereby reduce water consumption. The coating can be easily repaired if damaged.

• V Type Finned Coil Heat Exchanger

The finned coil heat exchanger made with copper tubes and aluminum fins adequately spaced to ensure the best performance in heat exchange. The copper tubes are fixed to the coil headers by brazing and to the finned coil by flaring, to ensure maximum continuity in thermal conduction.



• EC Axial Fan

- EC motor straight-shaft drive, motor protection grade is IP55, insulation grade is F, **suitable for long-term operation in hot and humid environments, with smooth operation. The energy efficiency of EC motors can reach IE4 or above**.

- The fan bearings adopt tapered roller bearings, which have large load-bearing capacity and long service life, with a rated service life of more than 20,000 hours.

- Through static and dynamic testing during the production process, noise is minimized while meeting the heat exchange performance of the cooler; using PFC to keep harmonics below 35%, the EC fan system can maintain high static efficiency, even at low speeds.

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Components& Options
NWFL-VA series
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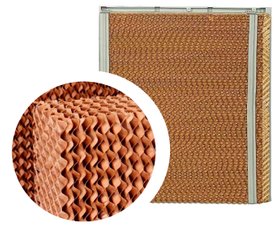
• Adiabatic Pre-cooler

- **Evaporative cooling pads** are made of cellular materials of **impregnated cellulose** with different flute and constructed in heavy gauge stainless steel framework. Water distribution from top of the pads for complete wetting.

- **Evaporative cooling pads with water circulation pump can help to achieve designed conditions in peak summer.**



• Adiabatic Intelligent controls

- **EC fans Intelligent frequency conversion** to meet different working conditions on site, save more energy.

- **Force unit in dry operation** in case water usage is prohibited.

• Options

- **Increase the coil's resistance ability**
- **Coil freeze-up safeguard**
- **Low noise upgrade**
- **Increase the degree of redundancy**

If any customized requirements, please contact NEWIN sales representative.

CONTACT US

NEWIN COOLING TOWER 钮盈·冷却
网址 Web: www.newincoolingtower.com

NEWIN Singapore Company 新加坡公司
地址 Add: 1 Corporation Dr. #08-13 REVV West Enterprice Hub, Singapore 619775.
电话 Tel: +65 8354 6427　传真 Fax：+65 6957 0779
邮箱 Email：singapore@newinmachine.com

NEWIN Russia Company 俄罗斯公司
地址 Add: 150 корп.2. Варшавское шоссе，Москва，Россия.
150 bldg.2. Warsaw Highway,Moscow,Russia.
邮箱 Email：russia@newinmachine.com

NEWIN Shenzhen Company 深圳公司
地址 Add: 深圳市龙岗区平湖华南城铁东12栋5楼
No.510, Building 12. Tiedong, China South City, Pinghu, Shenzhen, China.
电话 Tel: 0755-23077266
邮箱 Email: sales@newinmachine.com

NEWIN Manufacturing Base 制造基地
地址 Add: 广东省惠州市博罗县石湾镇铁场村钮盈工厂
Newin Factory, Tiechang Village, Shiwan Town, Boluo County, Huizhou City, Guangdong Province, China.
电话 Tel: 400 808 1026

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