

RT·FANS
Evaporative Air Cooler

Instruction Manual

RTF-25BL

RTF-35BL

RTF-45BL

RTF-60BL



RT·FANS
Save Energy, Stay Cool

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Preface

Thanks for your trust and support choosing RTFANS evaporative air cooler units. The appearance of the product your purchased might be different with the this manual. However , it won't affect the operation and use. To operate the unit better, read the instruction carefully before using it.

Basic principle

Evaporative air cooler units is a high-tech product introduced from Europe and American. Its basic principle is as follows: Water evaporation brings away the surrounding heat and causes the temperature to become low. Its working principle is that negative pressure occurs because of wind draining by exhaust fan. Air goes through the cooling pad and the water pump transmits water to the pipes of cooling pad at the same time. The water nourishes the touching surface evenly and the cooling pad angel makes water flow evenly to the side of wind inlet, absorbing amount of the heat from air, which cool the air in cooling pad and makes the wind cool, wet and fresh. The unevaporated water falls into the bottom, forming the water cycle. There is a water inductor in the bottom, so when the water falls to certain level, inlet valve will open automatically to add water; when water reaches the appointed level, the valve will close automatically.

Application

Manufacturing: textile, machinery, ceramic, refine chemical industry, metallurgy, glass, hardware and leather factories, etc.

Processing: plating, electronic, shoe making, painting, plastic, clothes making, etc.

Others: golf center, baking place, playground,hospital,waiting room, school,supermarket, washing room, kitchen, vegetable market, entertainment center, underground parking lot, park,greenhouse,poultry farms,garden, and places where air conditioning and ventilation fan has been installed but cooling is not enough.

Specification

Model	Max airflow (m/h)	Power consumption (KW)	Water capacity (L)	Outer Size LxWxH (mm)	Weight (kg)	Effective area (m ²)	Noise DB(A)
RTF-25BL	25000	5.5	65	1470x1490x1400	360	200-250	≤82
RTF-35BL	35000	7.5	80	1770x1800x1420	450	200-300	≤84
RTF-45BL	45000	11	100	2090x1970x1630	585	300-450	≤86
RTF-60BL	60000	15	100	2090x1970x1630	650	350-550	≤96

Attention: If the product you bought is different with specification, standard shall be object to the real fitting.

Accessories

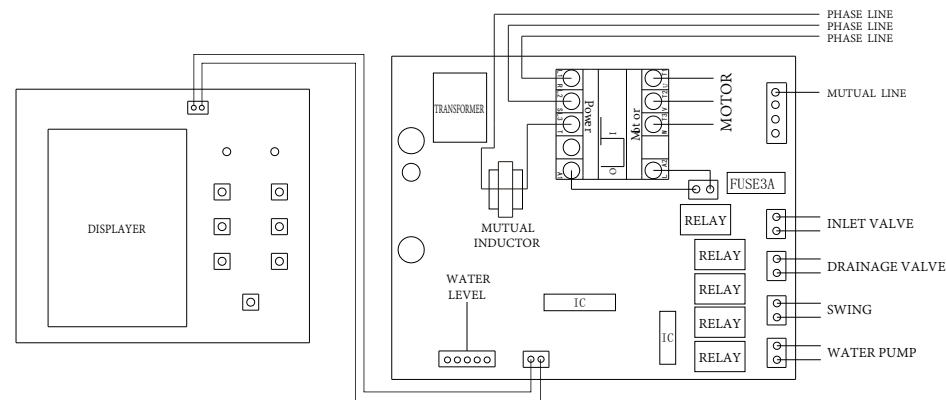
RTF-25BL/RTF-35BL Units Accessories List					
NO	Name	Specification	Unit	Quantity	Note
1	Copper gate valve	1/2 inch	Piece	1	With soft pipe
2	Plastic filter	1/2 inch	Piece	1	
3	Certificate of conformity		Piece	1	
4	Control box		Piece	1	
5	Operation instruction		Piece	1	

Accessories

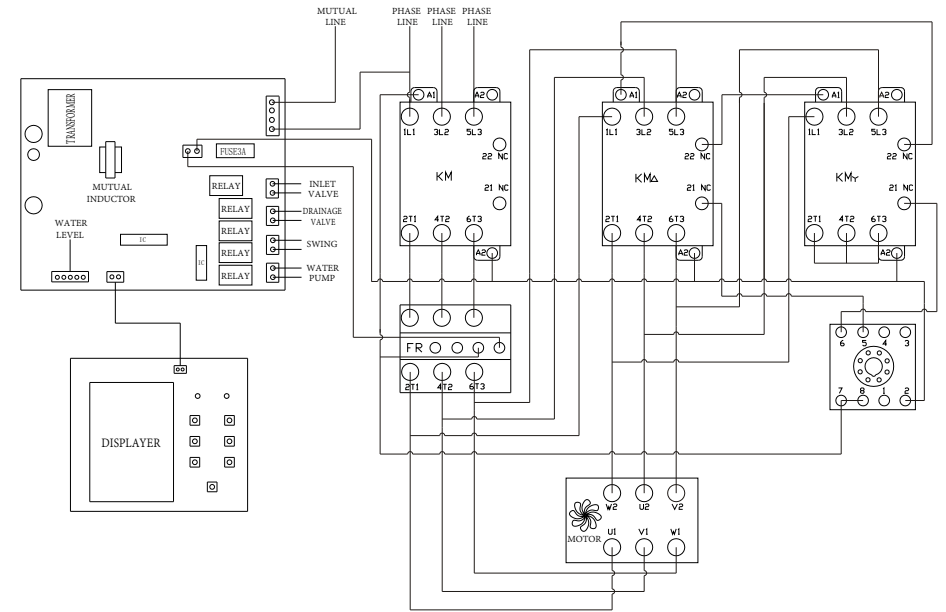
RTF45BL/RTF60BL Units Accessories List					
NO	Name	Specification	Unit	Quantity	Note
1	Copper gate valve	1/2 inch	Piece	1	With soft pipe
2	Plastic filter	1/2 inch	Piece	1	
3	Shockproof foot	Ø100*50	Piece	4	
4	Screw	M16*80	Piece	4	
5	Nut	M16	Piece	4	
6	Pats	Ø16	Piece	4	
7	Spring washer	Ø16	Piece	4	
8	Control box		Piece	1	
9	Operation instruction		Piece	1	

Circuit Diagram

RTF-25BL/35BL Circuit Diagram



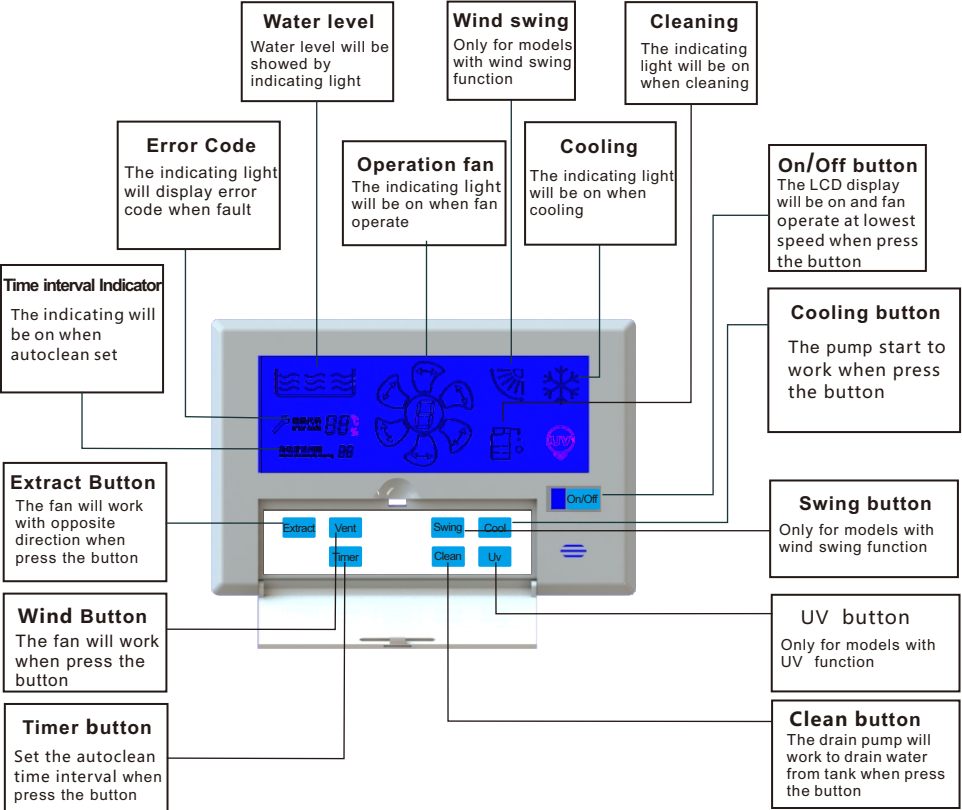
RTF-45BL/60BL Circuit Diagram



(Only for reference, for details please refer to switch box)

CONTROL PANEL & REMOTE CONTROL

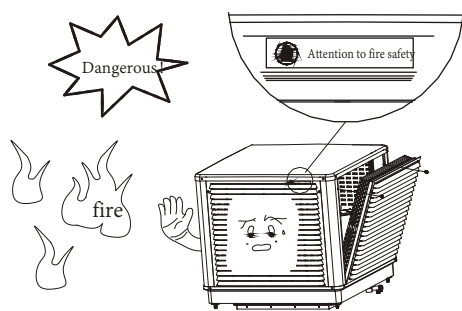
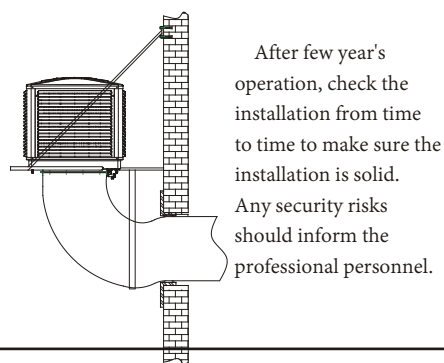
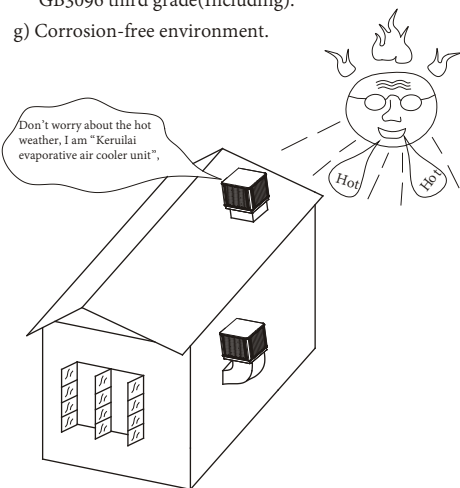
Three Phase



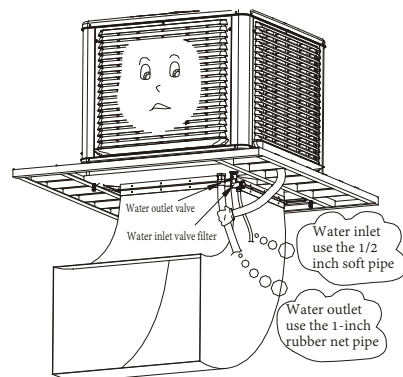
Before operating the unit, please read the following instructions carefully:

Running the unit correctly under the following items:

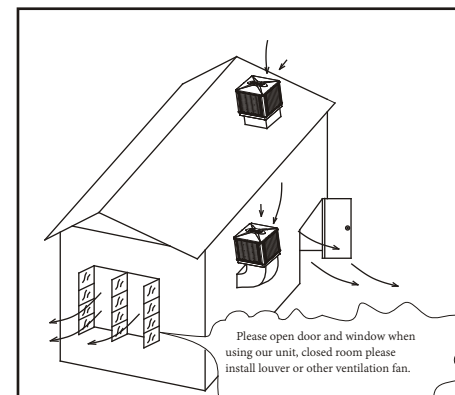
- Environmental temperature : 18-45°C.
- Environmental relative humidity: $\leq 85\%$.
- Atmospheric pressure : 86KPA-106KPA.
- The supplied water should be soft water, water temperature $\leq 45^\circ\text{C}$, water supply pressure: 0.15-0.6Mpa.
- Voltage tolerance $\pm 5\%$.
- Environmental Air quality should be no less than GB3096 third grade(Including).
- Corrosion-free environment.



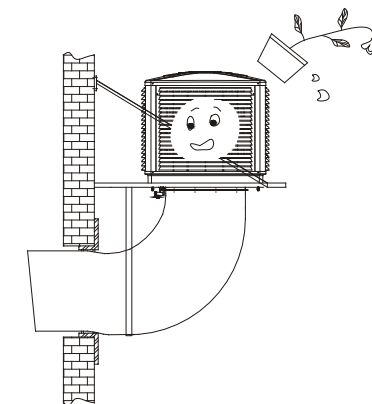
Keep far away from fire during transportation, installation and operation.



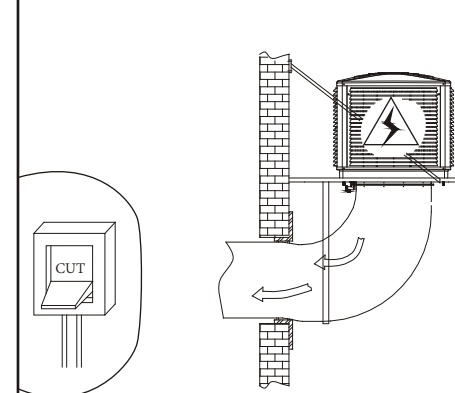
Please ensure the water inlet pipe and the water outlet pipe both in good connection, water leakage will cause damage.



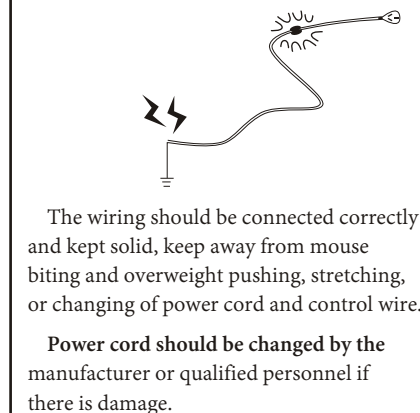
To ensure the best efficiency of our unit, please keep enough door and window open.



Don't stand or sit on the unit or put other things on it, it might cause damage.



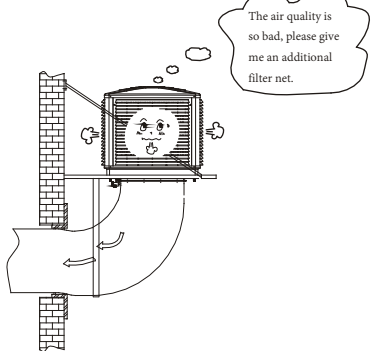
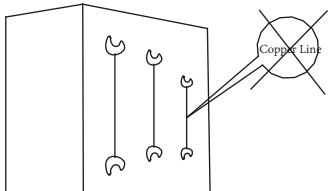
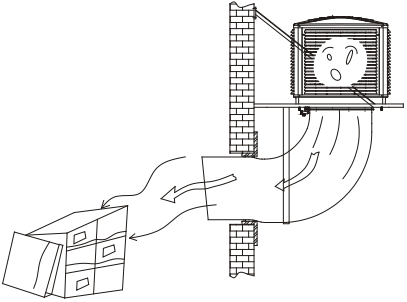
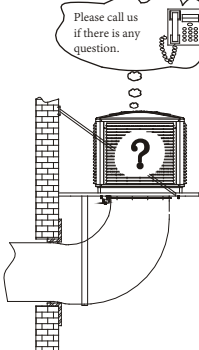
Don't open or repair the unit when it is working, make sure power supply is off before repair and maintenance .



Power cord should be changed by the manufacturer or qualified personnel if there is damage.



Grounding: Must be touched to ground! Grounding wire must be connected with the specially grounding board device of the building!

 To ensure the cooling efficiency, the filter net could be considered installing for protecting the unit.	 Don't use the incorrect fuse or other metal fuse, it might cause fire.
 If using the unit in the place where strict humidity and temperature needed, please install the unit under the guidance of professional personnel.	 Any abnormality occurred during operation, please stop using immediately and inform manufacturer or distributor.

Warning :



1. All users please operate under above instructions, if not, any fortuitous accident occurred, our company shall not take any responsibility.
2. Don't change, repair or move the unit as you wish. All the installation and repair should be done by professional personnel, otherwise accidents may occur.

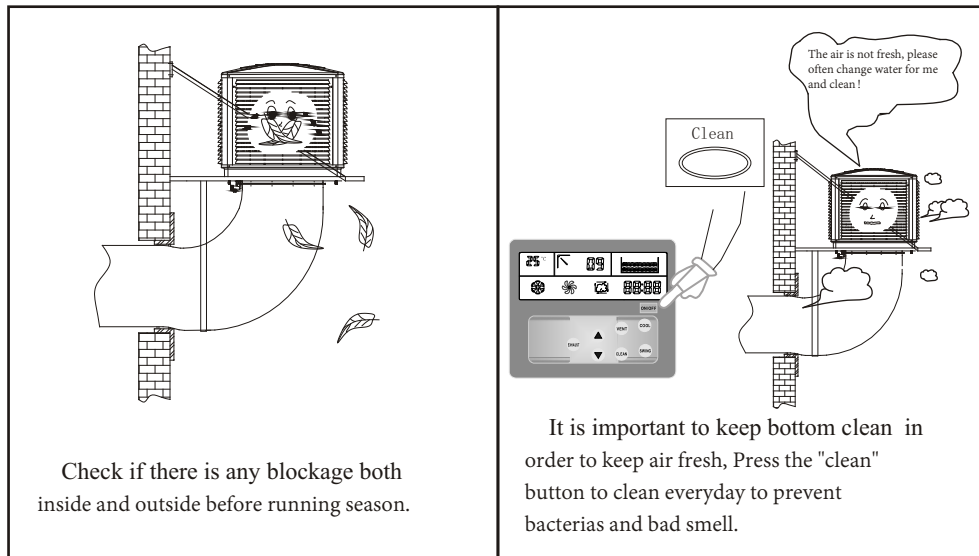
Troubleshooting

Malfunction	Reason	Solutions
1. The indicator doesn't light.	1. No power. 2. Signal wire cut or incorrect connection. 3. Master control board goes wrong. 4. Air switch of Master control board is cut and fuse is burnt. 5. Panel goes wrong.	1. Supply electricity; check the circuit. 2. Change the Signal wire or adjust circuit. 3. Change the master control board. 4. Close the air switch or change the fuse. 5. Change the panel.
2. The control failure.	1. Interfered by power. 2. Interfered by environment. 3. Panel goes wrong. 4. Control line is not connected well.	1. Power off, restart the machine. 2. Remove or keep far away from the interference. 3. Change the panel. 4. Connect the control line well.
3. Display normal, but without wind or wind speed is too low.	1. The fan runs in reverse order. 2. The fan gets stuck. 3. Main contactor is damaged. 4. Water screen or dust-net is brocked. 5. Fan is distorted. 6. Main board goed wrong.	1. Adjust the phase 2. Check the machine, fixing hoop and fan. 3. Change the main magnet. 4. Clean or change water screen or dust-net. 5. Change the fan. 6. Change the main board.
4. The motor is out of control.	1. The main magnet is damaged. 2. Main control board goes wrong. 3. The panel goes wrong. 4. The control line goes wrong.	1. Change the contactor. 2. Change the main control board. 3. Change the panel. 4. Change the control line.
5. Water lack indicator doesn't light, but the machine doesn't supply cooling air.	1. Water level detector is out of control. 2. The water pump goes wrong. 3. The main control board goes wrong. 4. The panel goes wrong. 5. The control line goes wrong.	1. Change the water-level detector. 2. Change the water pump. 3. Change the main control board. 4. Change the panel. 5. Change the control line.
6. Water lack indicator lights, but the machine doesn't supply cooling air.	1. No water in source. 2. The water can't pass though the inlet valve. 3. Main control board goes wrong. 4. Water-level detector is out of control.	1. Check the water source switch and water pressure. 2. Change inlet valve. 3. Change the main control board. 4. Change the water-level detector.
7. Water leak at draining valve.	1. Inlet valve is damaged. 2. Draining valve is damaged. 3. The main control board goes wrong. 4. Water-level detector is out of control.	1. Change the inlet valve. 2. Change the draining valve. 3. Change the main control board. 4. Change the water-level detector.
8. Fail to power off.	1. The indoor control board goes wrong. 2. The outdoor main control board goes wrong. 3. The main contactor goes wrong.	1. Change the inside control panel. 2. Change the main control board. 3. Change the main magnet.
9. Wind throat leakage.	1. Water pan leaks. 2. Wind throat is not well closed. 3. Water screen or dust-net is blocked.	1. Repair or change the water pan. 2. Close it again. 3. Clean or change the water screen or dust-net.
10. Too noisy.	1. Angle head bends too much. 2. Wind outlet is too small. 3. Blades touch the cover or are distorted. 4. Wear the axle bearing of motor.	1. Redo the angle head or put some acoustic material. 2. Enlarge the wind outlet to the standard. 3. Change or adjust the fan blade. 4. Change the motor.

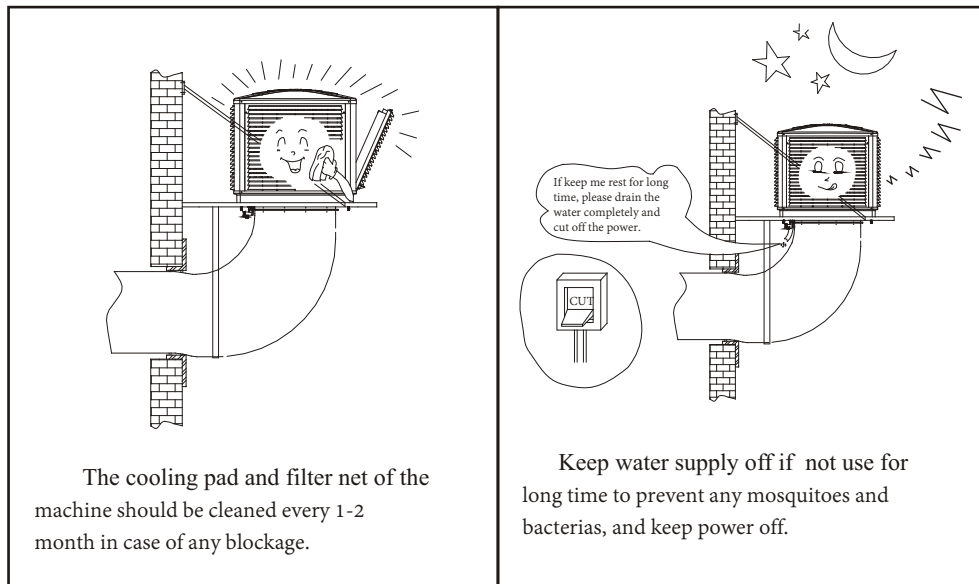
Note: The form is only for reference. If any help shall turn to distributor or manufacturer.

Maintenance

A. Maintenance before running season



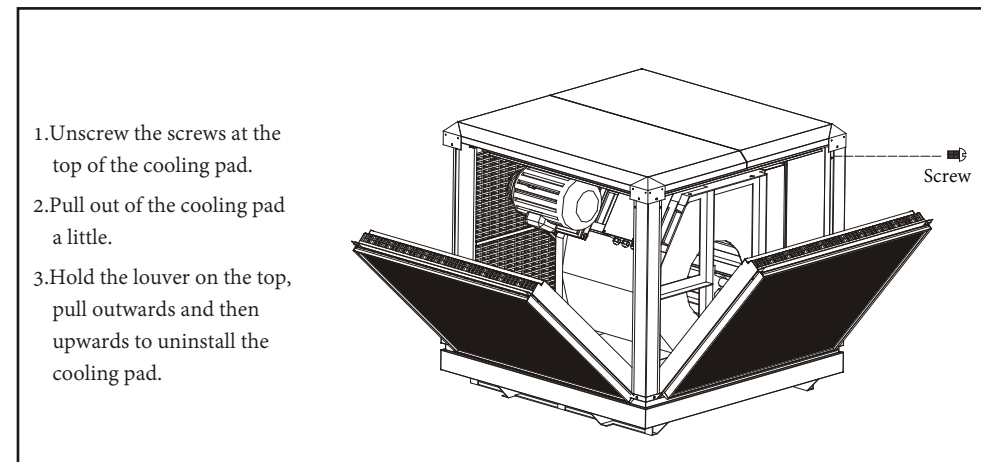
C. Maintenance from time to time



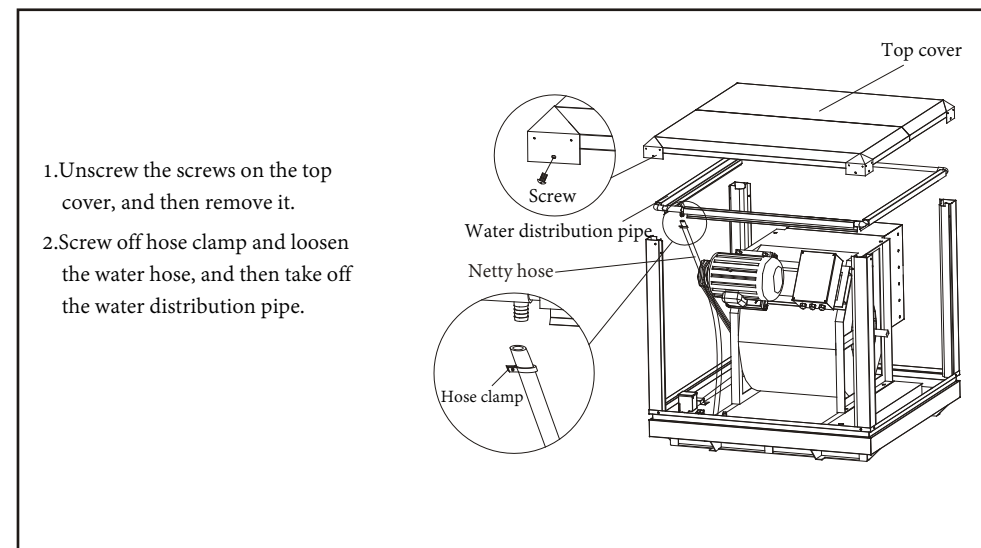
E. The inner cleaning of the machine

Completely cleaning every 1 or 2 month is recommended to make sure high cooling efficiency.

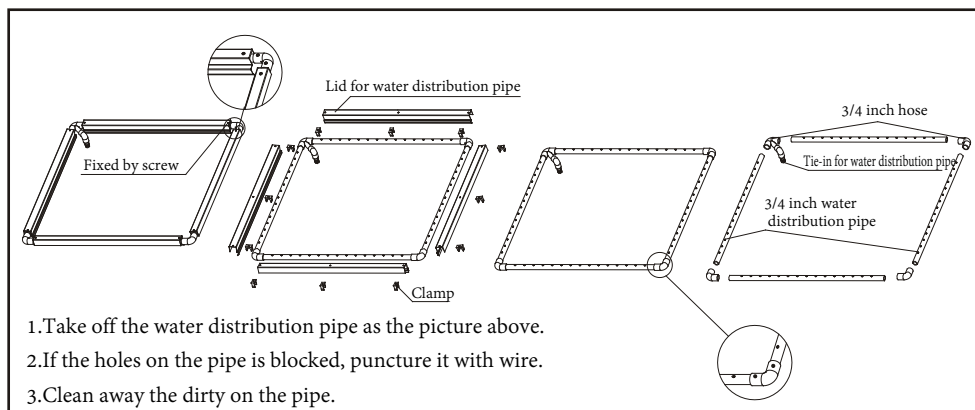
First: uninstall the cooling pad (total 4 pieces and regardless of order)



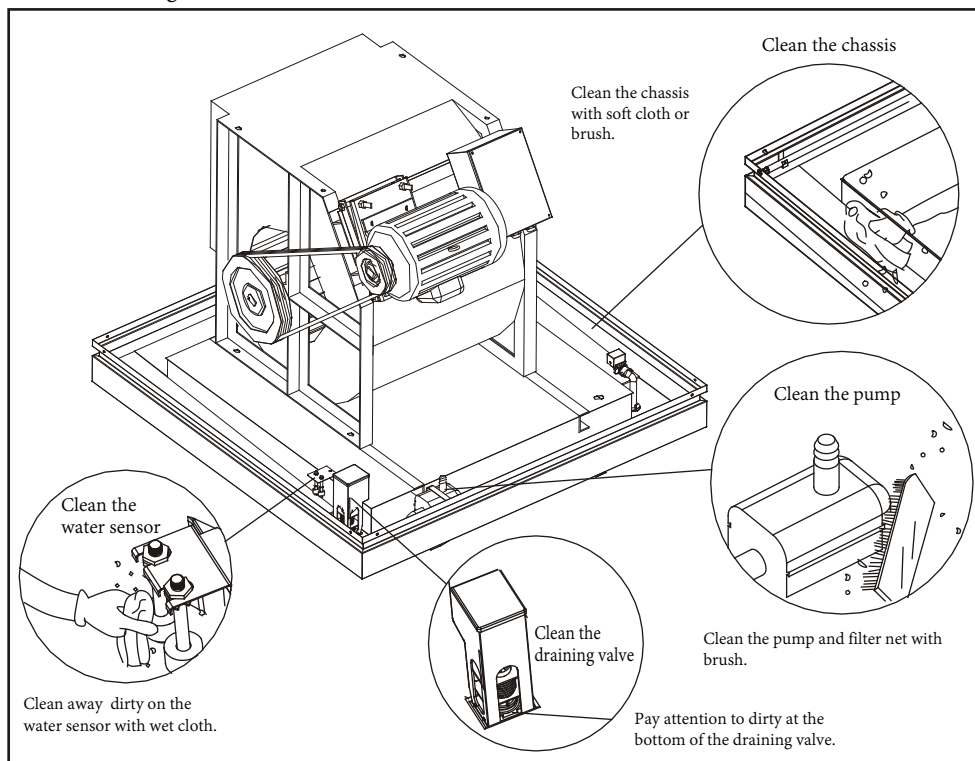
Second: Uninstall the top cover and water distribution pipe.



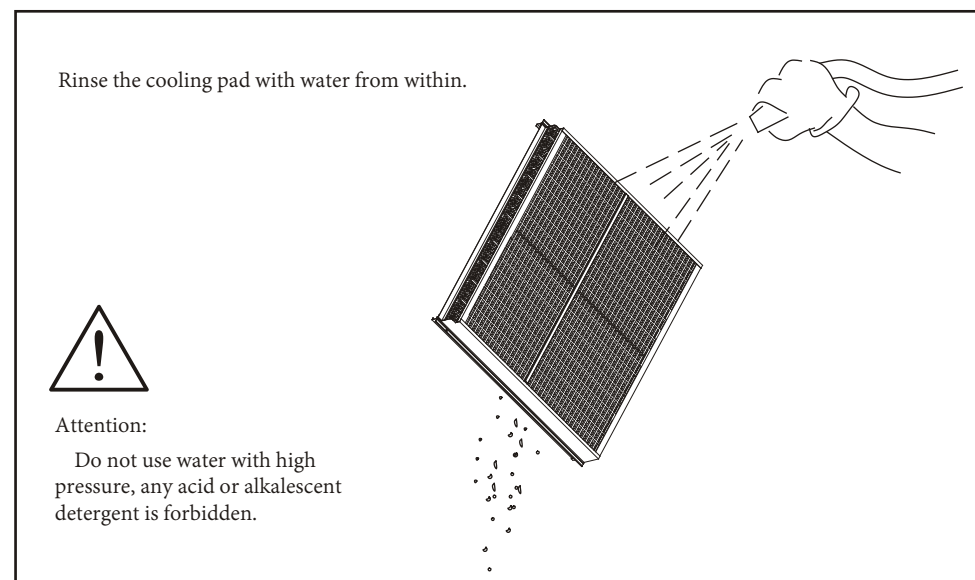
Third: Cleaning of water distribution pipe



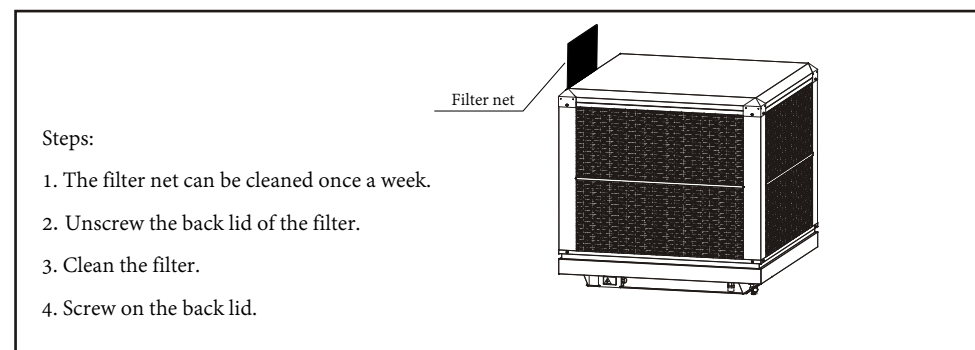
Fourth: Cleaning of chassis and accessories.



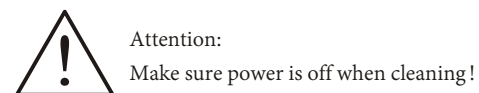
Fifth: Cleaning of cooling pad



Sixth: Cleaning of water filter and filter net

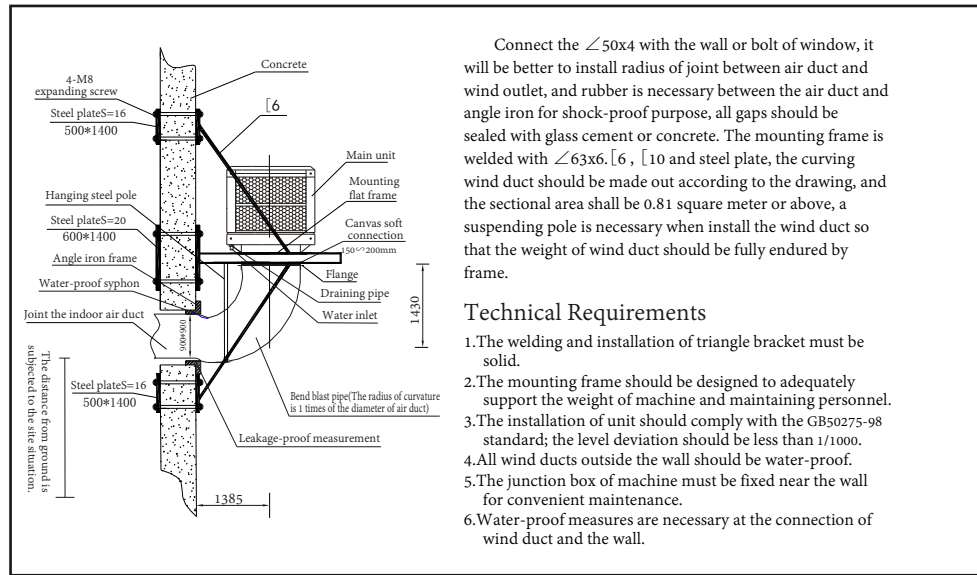


Seventh: Assemble the machine according to the converse sequence of disassembly.

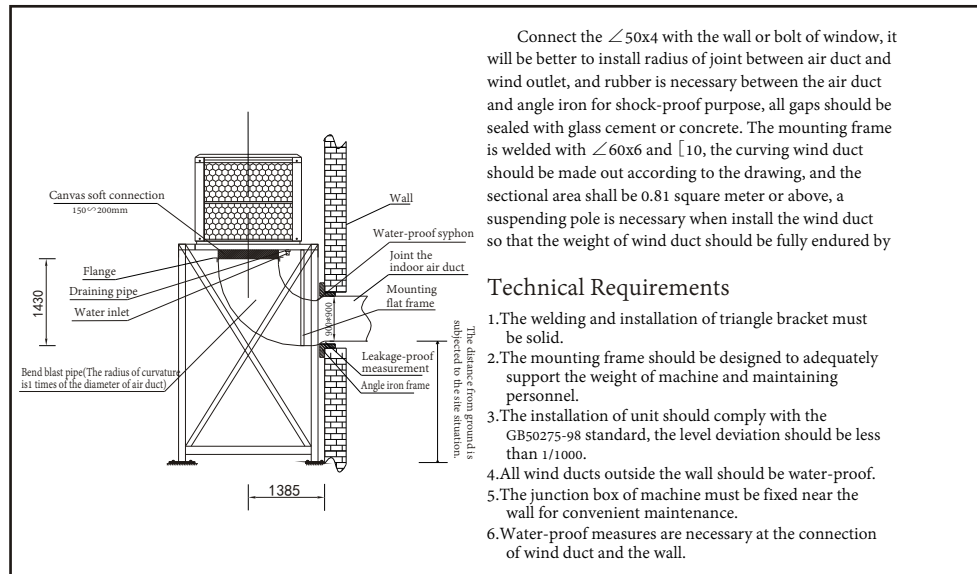


Wall installation graph for bottom wind out units

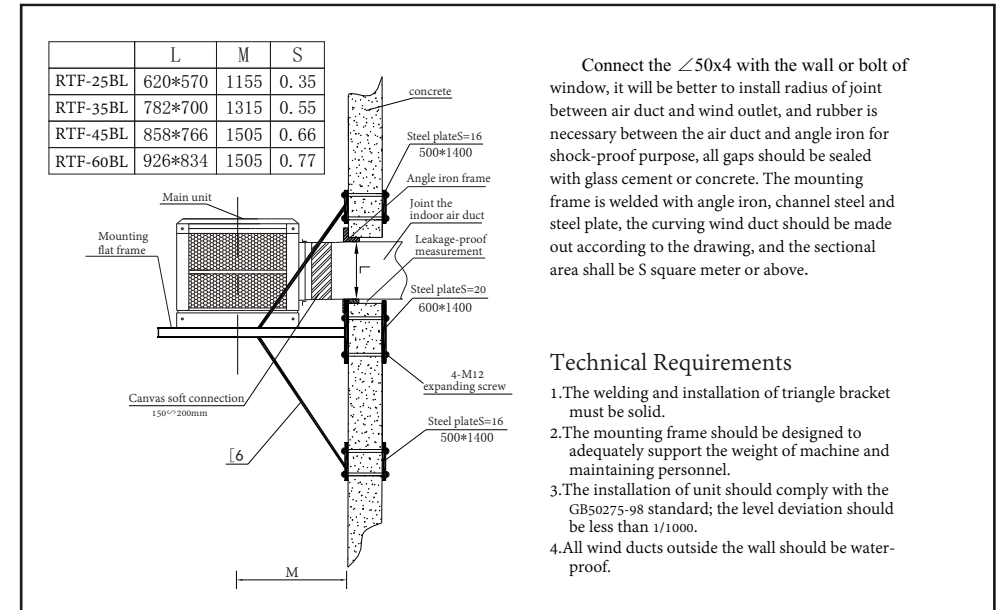
(RTF-45BL)



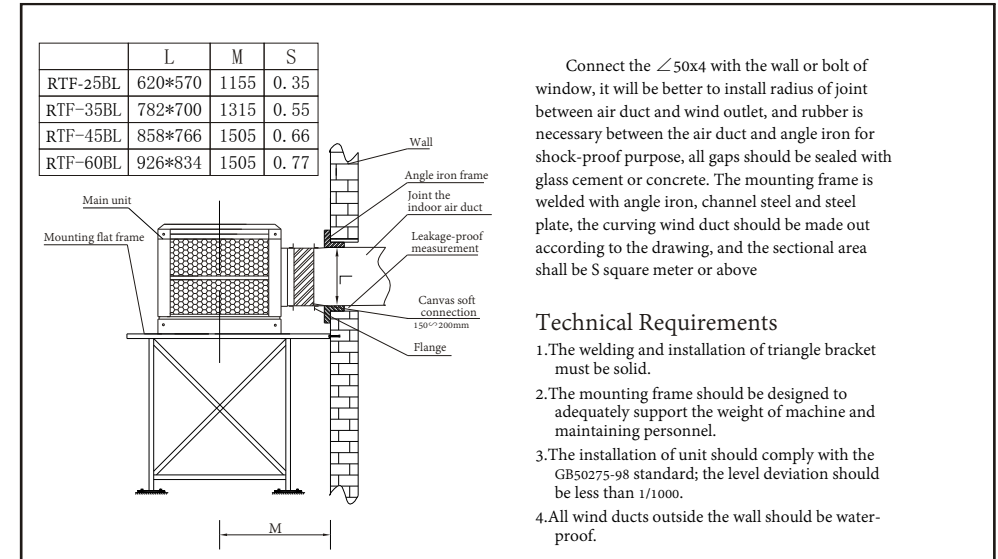
On-ground installation graph for bottom wind out units (RTF-45BL)



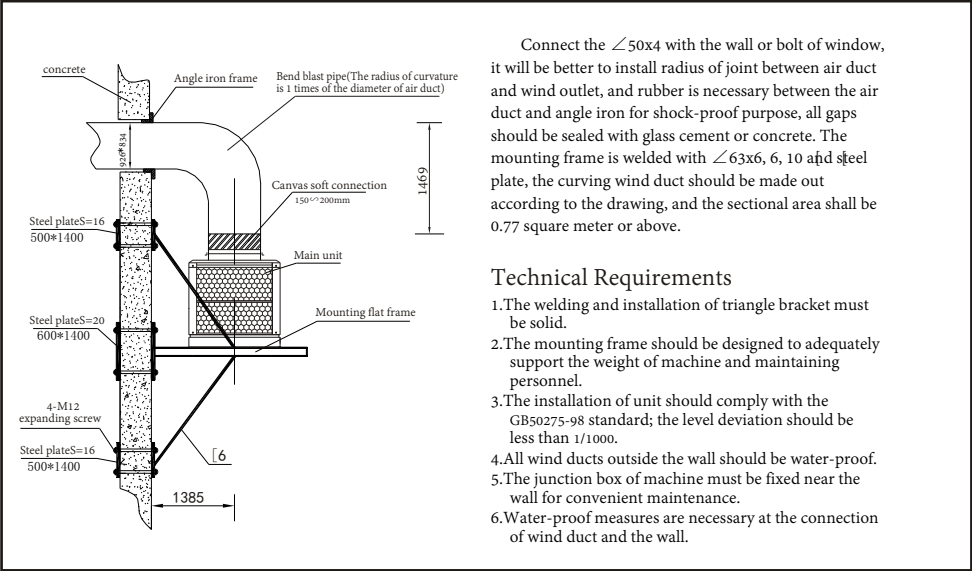
Installation diagram of floor stand top wind outlet unit (RTF-25BL/RTF-35BL/RTF-45BL/RTF-60BL)



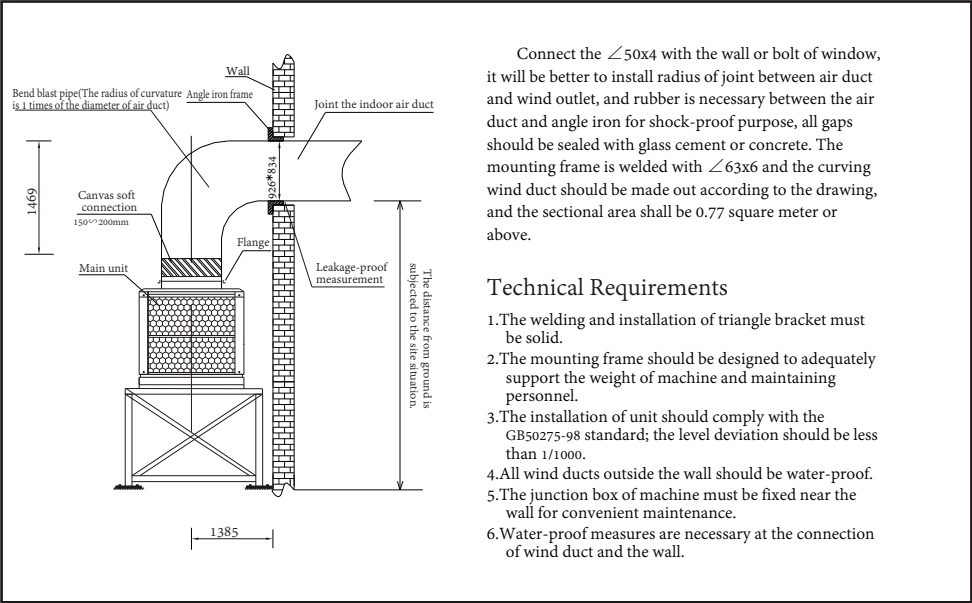
Installation diagram of floor stand side wind outlet unit (RTF-25BL/RTF-35BL/RTF-45BL/RTF-60BL)



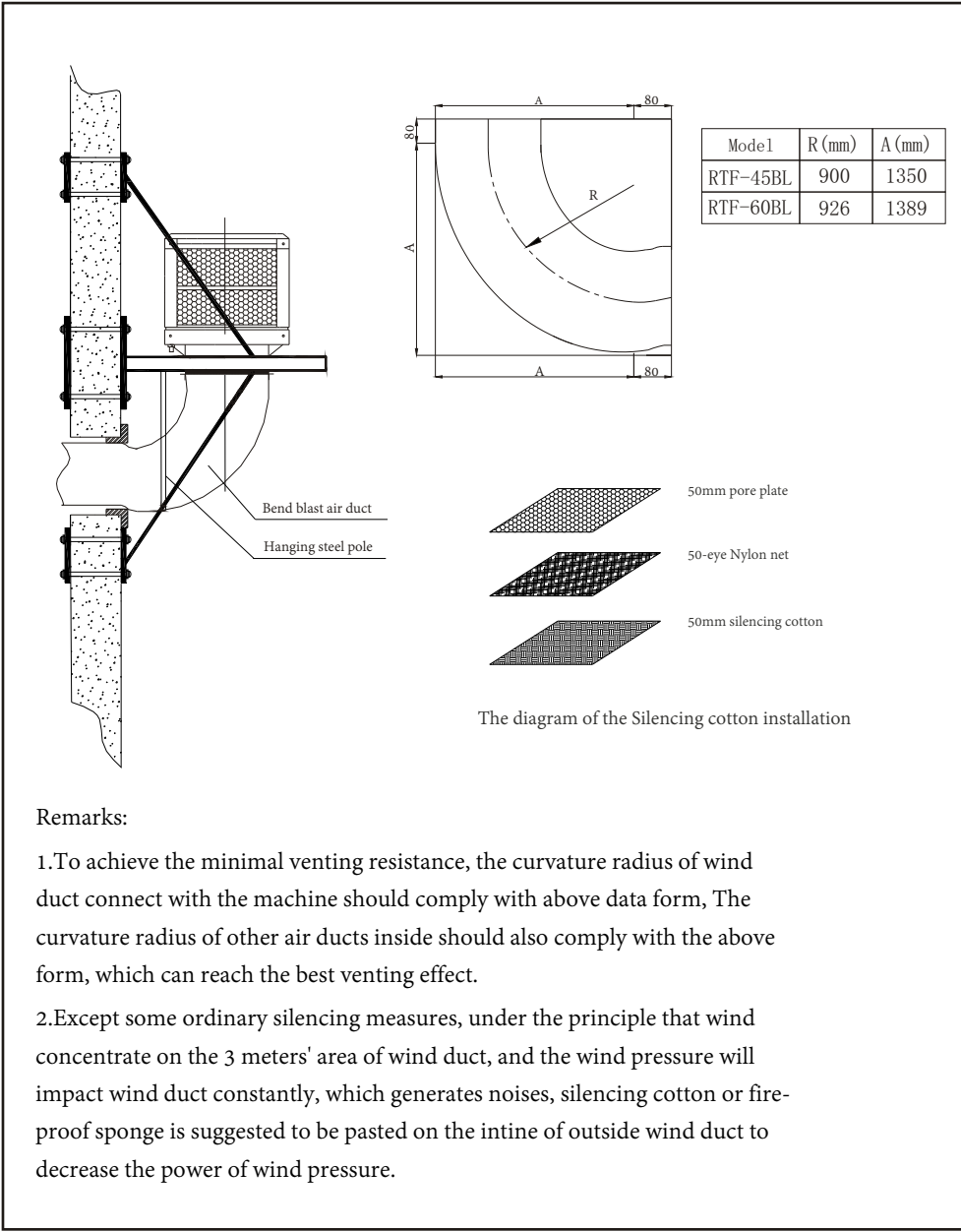
Installation diagram of wall-type top wind outlet (RTF-60BL)



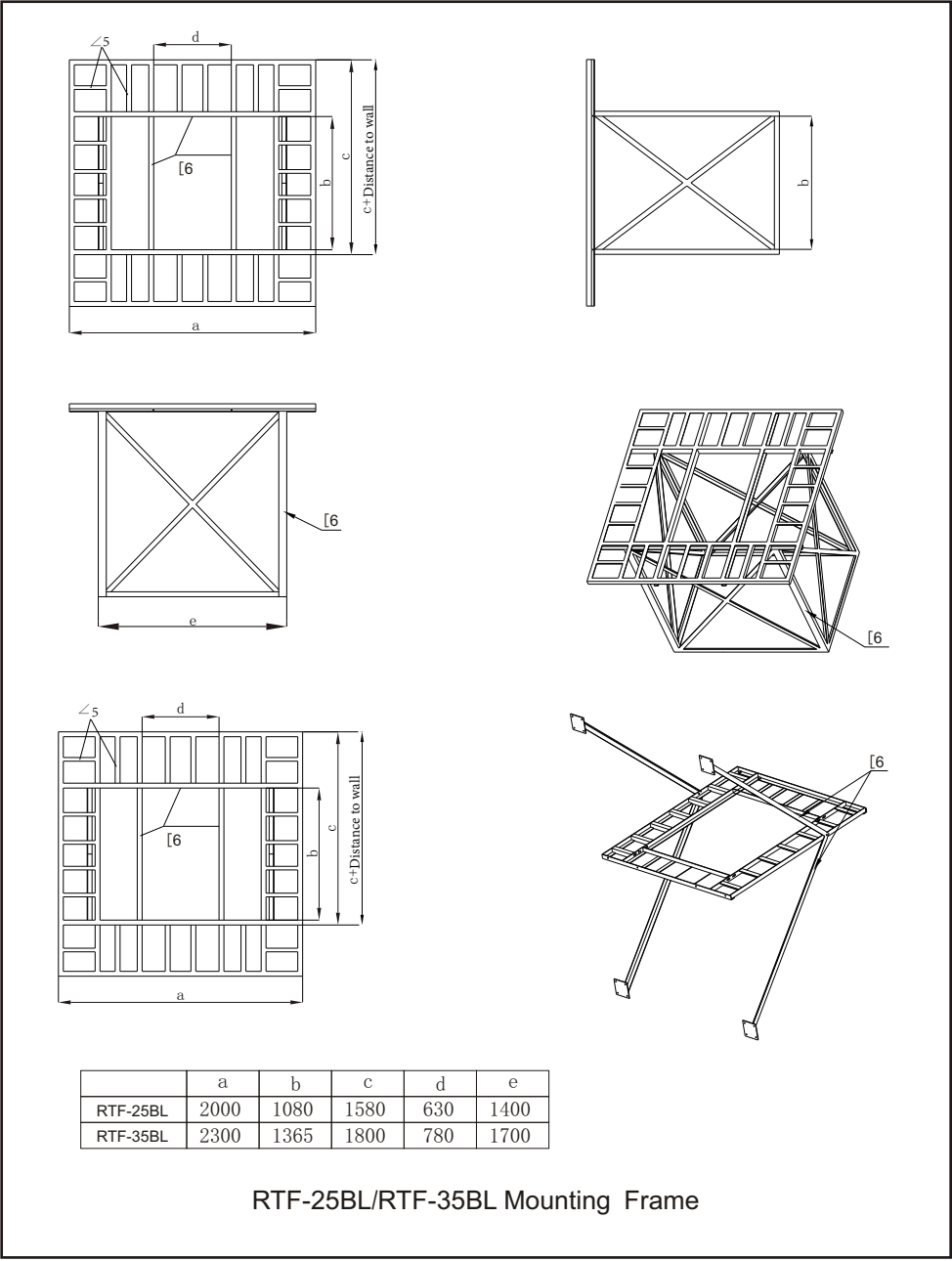
Installation diagram of floor stand side wind outlet unit (RTF-60BL)



Specification diagram of the air duct



The diagram of the bottom frame and the shock-proof foot



The diagram of the bottom frame and the shock-proof foot

