



# **BT / QT Series Galvanized box fan**

# **User Manual**

Guangdong Fans-tech Agro Co.,Ltd



## BT / QT Series Galvanized box fan



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Models: ● BT915B2-077-00 ● BT1270B2-081-00

● QT915B2-077-00 ● QT1270B2-081-00



Note

To achieve the best performance and longest service life, please read the user manual carefully before installation and operation.



Storage and transportation

- The fan should be kept in original package for storage and transportation; the condition of the fan should be checked when the package is damaged.
- The fan should be stored in a dry and ventilated environment of -40°C to 60°C.



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# Installation >>>

## 1.1 Preparation

A. Check the fan to avoid any friction, collision, deformation, and connection parts loosen during transportation.

B. Ensure the reserved opening on the wall be square and flat. The specific dimensions of opening are shown as Figure 1.

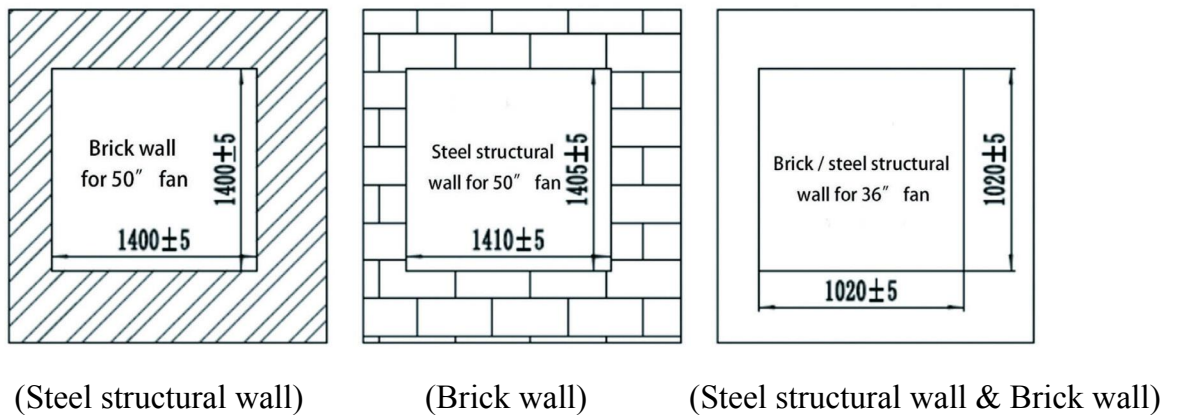


Figure 1

## 1.2 Installation

### 1.2.1 Brick wall installation (as shown in Figure 2)

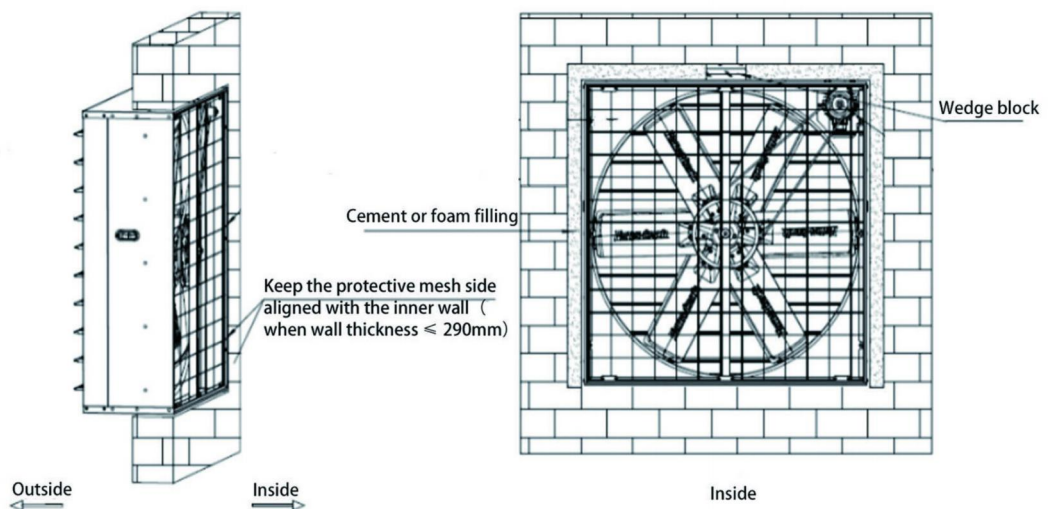


Figure 2

## 1.2.2 Steel structural wall(as shown in Figure 3)

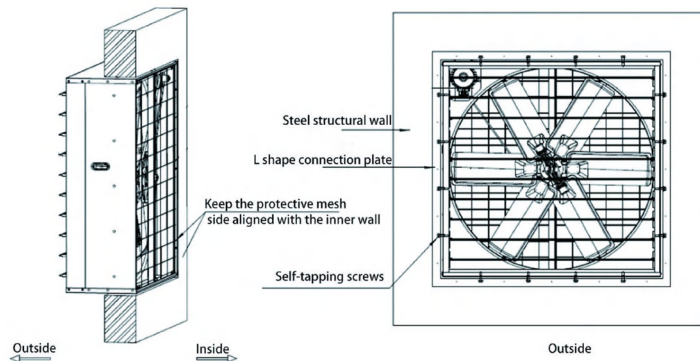


Figure 3

**⚠ Caution:** DO NOT force hard objects into gaps, when the gaps on the four sides exceed 3cm, fill up by 2 times.

## 1.2.3 Wiring

- A. Power supply: three phase AC 380V/50HZ, voltage fluctuations CANNOT exceed  $\pm 10\%$ ;
- B. All wiring should be installed in accordance with the national standard of the place of use or the local electrical code;
- C. The fan must be connected to a separate circuit;
- D. Overload protection measures shall be equipped for each fan(as shown in Figure 4);
- E. Each fan should be independently connected to a safety break switch.

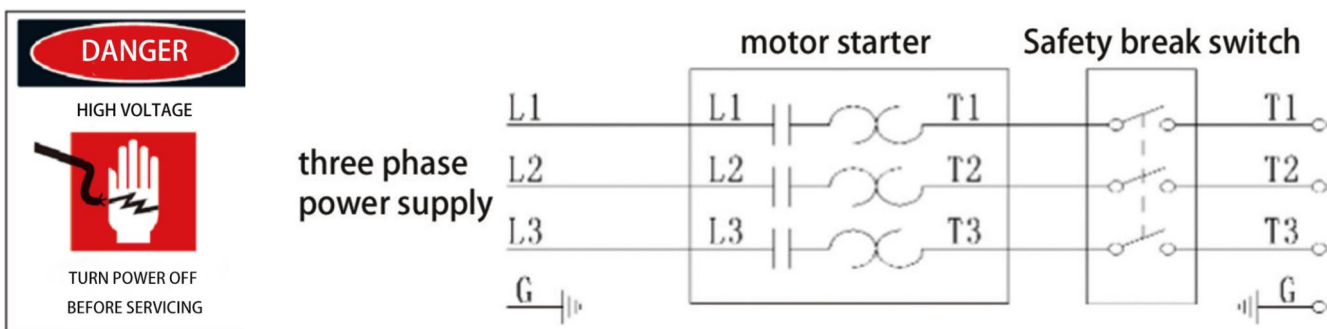


Figure 4

## 1.3 Tests and checks before start up

- A. Check the fan visually, verifying that there are no particular mechanical irregularities or foreign bodies inside the structure;
- B. Check the protective structures (protective mesh) are correctly positioned and fixed;
- C. Check the emergency stop function actuator.




## Commissioning >>>

 The fan CANNOT be used without commissioning. Check below point by commissioning.


- A. The rotation direction of the propeller is consistent with the sign;
- B. The wiring is correct;
- C. Non-overload of power;
- D. Neither abnormal vibration nor noise.



## Operation >>>

- A. Please make sure the commissioning is normal before operating the fan;
- B. When abnormal vibration or noise occurs, an emergency shut down is required for inspection. DONOT restart before troubleshooting;
- C. Frequently starting and stopping the fan might cause the motor burn out (consecutive starts not exceed 3 times);
- D. DONOT use the fan partially obstructed.
- E.  Any touching of rotating parts (including but not limited to propeller, hub, belt, pulley) during operation will cause personal injury.



- F.  Shut down the fan and cut off the power before periodical inspection or maintenance.
- G. If stock or stop using period exceed 6 months, a thorough inspection is needed to confirm all the parts are normal before start.



# Maintenance



3. Replace push-pull device (as shown in Figure 7)

- A. Loose the bolts and nuts pointed by red circle, and take out the push-pull device;
- B. Install the new push-pull device in the reverse steps of above.



Figure 7

4 .Tension the belt

- A. Loose the bolts and nuts pointed by red circle;
- B. Move the motor outward until the belt been tensioned, and fasten the nuts.



5. Tending

- A. Keep the fan clean, regularly clear the dust on the propeller and shutter;
- B. Make sure no debris at the air inlet and outlet;
- C. DONOT wash the motor and the centre bearing of the fan blade with water directly;
- D. When the fan is stored outside, protective measures are needed; excessively humid, rainy or exposed place is forbidden.

1 Replace the belt(as shown in Figure 5)

A.Remove the protection mesh by loosening the self-tapping screws;

B.Remove the belt from the big and small pulleys in turn, put the belt over the blade one by one and pull it in front of the propeller.

C.Remove the two bolts on the middle shutter, and take out the belt through the front of the shutter;

D.Install the belt according to the reverse procedure above;

E.The belt is recommended to replace once a year.

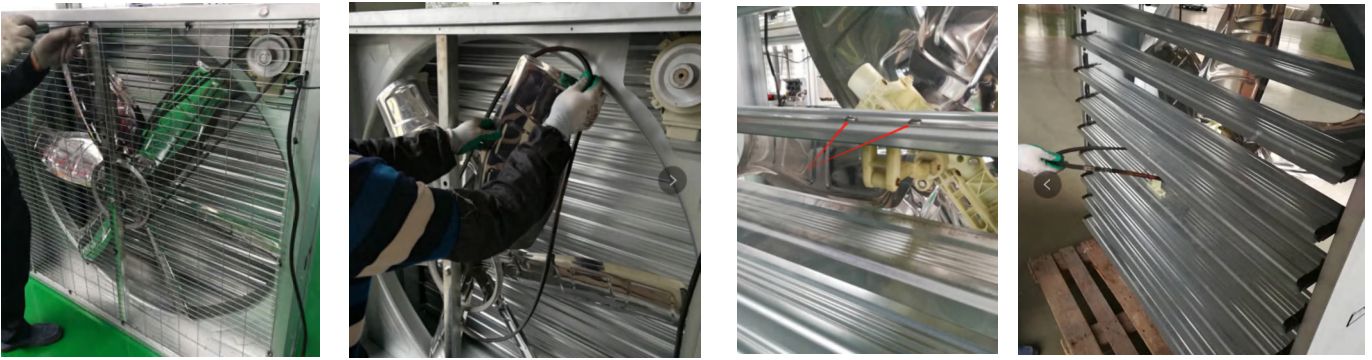


Figure 5

2.Replace the motor (as shown in Figure 6)

A.Remove the protection mesh and belt in accordance with 4.1;

B.Remove the bolts pointed by red arrow as shown in Figure 6;

C.Remove the motor from the fan with two hands (Note: handle the motor carefully due to its heavy weight);

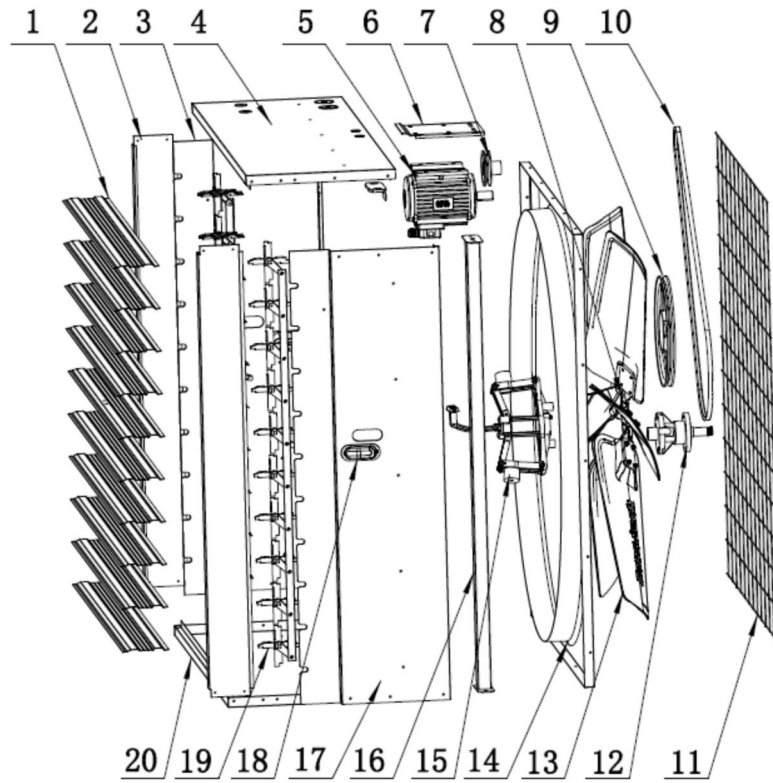
D.Install the new motor in the reverse steps of above.



Figure 6



# Appendix (exploded view) >>>



No.	Components	Quantity	No.	Components	Quantity
1	shutter	10	11	Protection mesh	1
2	Box panel(small)	2	12	bearing block	1
3	Box panel(right)	1	13	Propeller	6
4	Box panel (top)	1	14	Venturi nozzle	1
5	Motor	1	15	Shutter opener	1
6	Motor bracket	6	16	Column	1
7	Motor pulley	1	17	Box panel (left)	1
8	Hub	1	18	Handle	1
9	Belt pulley	1	19	Shutter plastic accessories	10
10	Belt	1	20	Box panel (Bottom)	1