

# QUICK START GUIDE (BARS - SERIES TTG FANS INSTALLATION NOTES)

## RULES FOR THE CORRECT INSTALLATION OF BARS – SERIES TTG FANS

In order to guarantee the correct and reliable operation of the transformer ventilation system, follow the instructions supplied in this document about the installation.

### REQUIREMENTS

#### ATTENTION:

Read the manual carefully before starting to use the product. Keep the instructions for future reference.

Do not touch/move bar or fans while they are in operation: **RISK INJURY**.  
The product must be installed in a location with limited access to qualified technician.  
Any work on the appliance must be left to a qualified repair technician.

Do not touch the motor or power cables: contact with a voltage of 230/120 Volts AC can be fatal.  
To reduce the risk of electric shock, do not disassemble or modify in any way the fan motor. Before connecting the device to make sure that all connections have been made correctly.  
Always disconnect the fan from power supply before performing any type of maintenance.

Never touch the fan motor, burns danger: **RISK INJURY**.

Failure to follow these instructions can cause damage, fire or electric shock, with possible serious injury!

### POWER SUPPLY

Before using it make sure that the power supply wires are not damaged, kinked or crushed. Do not tamper with the power supply wires. Never disconnect the power supply by pulling the cable, avoid touching the pins. Do not perform connection/disconnection operations with wet hands. Do not use objects as levers to disconnect the power supply of the system. Disconnect the power immediately if it is evident that the system gives off a burning smell or smoke: please contact technical support Tecsystem.

### LIQUIDS

Do not expose the product to dripping or splashing liquids. Do not allocate in places where humidity is over 90% (non-condensing) and never touch with wet hands.

### CLEANING

Before cleaning the fan always disconnect the power supply. To avoid malfunctions, cleaning the fan only using compressed air to remove dust and dirt. Do not use oils or fats of any kind.

### OBJECTS

Never push objects through the air inlet or outlet. If this happens, disconnect the fan and call a technician.

### RESTRICTED USE A COMPETENT PERSON

The product is a sophisticated electromechanical system, absolutely not suitable for use by untrained personnel. All work must be performed by a qualified technician.

### ACCESSORIES

Do not use accessories or replacement parts that are not original, it could cause damage to the fan and put at risk the safety of the user. In case of failure, contact technical support.

### LOCATION

Install the fan indoor protected from splashing water and sunlight. Do not place near heat sources exceed the parameters specified in this manual. Place the fan in a horizontal and stable surface. The product must be installed in a location with limited access to qualified technician.

### REPAIR

Do not repair or adjust the fan. If any fault occurs always contact a qualified technician. Opening the fan tampering involves the automatic invalidation of the warranty.

### PRODUCTION

The date and the batch production of the product are shown on the label attached on the fan. Removing the label implies the automatic invalidation of the warranty.

### FAN MOUNTING

Fix the fans using the holes on the back, do not change the mounting holes of the fan (figure 2).

If the fan is mounted on board of a transformer the working position of the fan must comply with the safety distance, indicated in the manual of the transformer, on which you are installing the fan.  
The fan must be positioned in the horizontal plane, always make sure, through the help of a level, that the fan is positioned correctly.

For the installation on the transformer, place the central fan by matching the spacing of the impeller with the wheelbase of the central winding of the transformer (figure 1).

Fixing the fan to the bar with the screws present in the box (N.2 M4x10 + N.2 nuts M4), as shown in figure 3.

Measure the distance between the windings of the transformer and place, one at a time, the side fans on the bar by matching the center of the impeller with the center of the side windings.

Note: all screws must be tightened with an electric screwdriver.

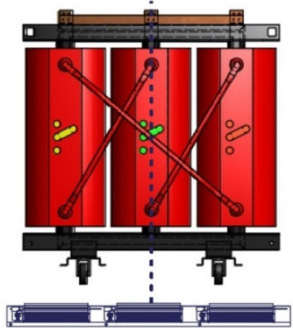


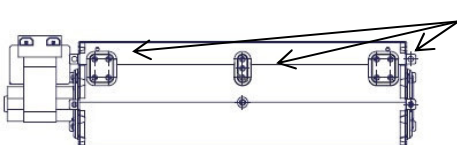
Figure 1

#### WARNING:

Mounting the fan trying not blocking the air inlet/outlet. The possible occlusion of the mouth of air can cause malfunctions.

During the handling of the fans avoid deforming the fins of the impeller.

Never change the motor positioning.



Fixing holes

Figure 2

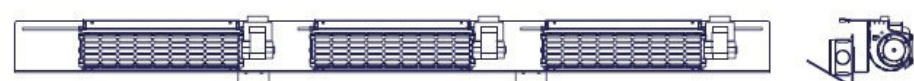


Figure 3

## MOUNTING THE BAR ON THE TRANSFORMER

Loosely secure the bracket 60° (figure 4), to the bar using the hardware present in the box of the electrical connection (N.4 M5x18 + N.4 nuts M5), adjust the height of the bar, depending on the distance of security provided by the manufacturer of the transformer and select one of three pre-set heights in the bracket.

After adjusting the height of the bar, place the bar so as to bring the two brackets with the side members of the transformer (figure 1), tighten the screws of the bracket.

Place the bar on the transformer, adjust the length of the bar from the transformer and set the bar on the side members using two of the three holes in the bracket (figure 5).

Check that the bar is properly installed on the flat using a spirit level.

Add the fans, by sliding along the slots so that the axis of the coils of the transformer is aligned with the axis of the fan impellers (figure 6).



Figure 4

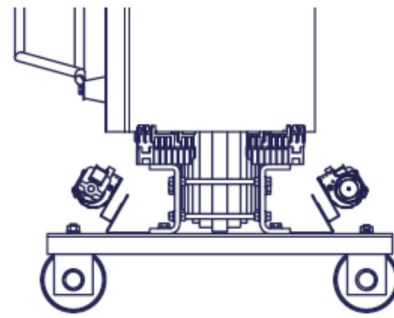


Figure 5

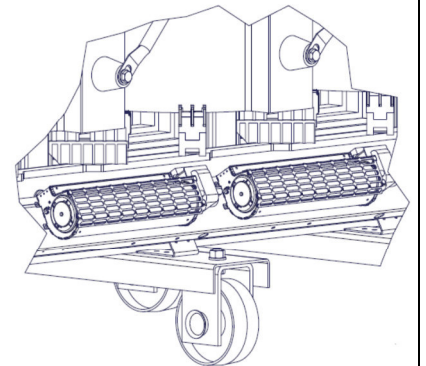


Figure 6

CAUTION: always keep a safe distance from the windings of the transformer specified by the manufacturer.

#### NOTE:

It is not recommended to install the fans in marine environment, if not after treatment of metal parts.



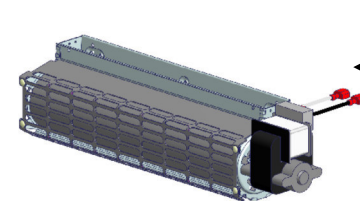
Before connecting the power supply to the fan always check the parameters of voltage and frequency indicated on the label of the fans.

## SCHEDULED MAINTENANCE AND NOTES ON THE INSTALLATION OF THE VENTILATION SYSTEM.

In order to protect the fan efficiency, the following instructions must be taken into account:

- Clean the fans periodically (every 6 months), using only compressed air (do not use lubricants or greases of any kind).
- Make sure the air inlet/outlet are not blocked; any total or partial occlusions of the air openings can cause malfunctions.
- If the fans remain idle for a prolonged period of time, enable the HFN function of the Tecsystem control unit, setting a working fan cycle every 12 hours. Prolonged inactivity might be the cause of fan faults.
- We recommend the VRT series control units for fan monitoring. The diagnostics offered by the VRT will allow you to avoid unwanted downtime, helping you to plan your maintenance.
- Check the condition of the wiring and the correct positioning/fixing of the fans periodically (every 12 months).
- While installing, always use the holes on the back of the fan to fix it to the relative bar; do not modify the fan fixing holes.
- While handling or maintaining the fans, avoid deforming the impeller blades.
- Do not modify the position of the motor for any reason.
- The fan operating position must comply with the safety distance stated in the manual of the transformer.
- The fan must be placed on a flat surface; check its position with a spirit level.
- Always comply with the conditions of use stated in the manual.
- The maximum vibration level allowed is 60Hz.
- Always check that the fan supply matches the manufacturer's label.
- The maximum harmonic content accepted according to the EN 61000-3-2 standard is: 5% 3rd, 6% 5th, 5% 7th, 1.5% 9th, 3.5% 11th, 3% 13th, 0.3% 15th, 2% 17th.
- If the fans are connected to the Tecsystem VRT control units, remember that an anomaly in the VRT operation might be due to the fan malfunctioning. Do not reprogram the control unit without previously checking the fans and carrying out their maintenance (cleaning with compressed air).

TO DOWNLOAD THE COMPLETE INSTRUCTION MANUAL USE\* THE QR CODE ON THE PRODUCT OR CONNECT TO THE TECSYSTEM WEBSITE ([www.tecsystem.it](http://www.tecsystem.it))



#### INSTRUCTION



#### MANUAL

#### TECHNICAL INFORMATION:

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