

Tube Ventilation System

Installation and Maintenance Instructions.

THESE INSTRUCTIONS MUST BE READ FULLY BEFORE COMMENCING INSTALLATION.

Owner / installer: The life of this apparatus and its efficiency will be increased if its use and maintenance is carried out in accordance with these instructions and current statutory requirements. The installation and initial adjustments should be carried out by a qualified and competent technician. Hydor Limited should be consulted before substituting or fitting parts from another manufacturer. It is the responsibility of the installer to verify that the installation is in accordance with the following standards and the owner is given the current User's Manual.

Any modifications to the system or its installation, even the smallest modification, change or elimination of security components or pieces that influence the efficiency or loss of ventilation, will result in the CE Certification and Hydor's warranty being cancelled.

It is imperative to perform the cleaning and periodical maintenance.

1. General

- 1.1 These instructions cover only Hydor products and do not include the supply or installation of any safety equipment that may be required, e.g. proper electrical isolation.
- 1.2 Any declarations made by Hydor about product installation and safety, are dependent on the unit being used within installations which themselves meet the relevant Standards and Directives of your region.
- 1.3 The Unit is designed to operate in normal ambient temperature of up to 55°C and up to 90% RH. The unit is not suitable for corrosive or explosive atmospheres.
- 1.4 The installer should consider future maintenance and ensure the unit is easily accessed.
- 1.5 This product is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure they can use the product safely.

2. Description and Operation

- 2.1 Description of the HVSS630 Unit: The HVSS630 tube system composes of a Hydor 630mm diameter single phase fan, rigid downstream duct/air straightener, pre-wired to a inverter speed controller.
Plastic external weather cowl complete with integral bird mesh.
Catenary wire complete with tensioning turnbuckles and wire clamps.
Up to 100 ft polythene tube with hanging eyes and air discharge holes cut at customers requirements.
- 2.2 Description of the HVSS450 Unit: The HVSS450 tube system composes of a Hydor 450mm diameter single phase fan, rigid downstream duct/air straightener, pre-wired to a inverter speed controller.
Plastic external weather cowl complete with integral bird mesh.
Catenary wire complete with tensioning turnbuckles and wire clamps.
Up to 80 ft polythene tube with hanging eyes and air discharge holes cut at customers requirements.
- 2.3 Code of Practice: The unit should be installed by suitably qualified and competent personnel in accordance with all statutory regulations. It is the responsibility of the installer to ensure that the installation and maintenance instructions are given to the customer on the completion of installation.

3. Location and installation of HVSS630 and HVSS450

- 3.1 Upon receipt, the fan equipment, tube and inverter controller should be visually inspected to check for any damage. Ensure that the impeller of the fan is free to rotate.
- 3.2 Mount the fan with preconnected air straightener in position through an outside wall as shown using suitable fixings.

NOTE If no suitable outside wall is available, then the fan and air straightener should be mounted inside the building and a plywood duct made to the outside. Care should be taken when making such a duct not to restrict the airflow to the fan – avoid sharp bends and ensure that the cross section area of the duct is more than the area of the fan opening.

NOTE Tube to be protected from external weather conditions

- 3.3 Fit the wall cowl with bird mesh, to the outside wall with suitable fixings to provide guarding and ingress of water/foreign objects. We recommend the use of a silicon sealant.
- 3.4 Fix one fixing hook above the fan ring into the wall/wooden frame and the other eye to the opposite wall so that the wire is horizontal and at right angle to the fan.
Using the barrel tensioners and the four wire clamps, fix the straining wire

to the fixing hooks and tighten the tensioners. Support the wire at every truss or 15 feet intervals.

NOTE It is essential that the wire is as taut as possible. If the wire is slack, the duct will not be able to pass air along at low speed. It is important that the duct is mounted horizontally to ensure efficient air distribution.

- 3.5 Using plastic cable ties suspend the polythene tube on the eyes provided. Tip: Use the first tie wrap to take the weight, while you slide the duct 2/3 of the way on to the straightener, then tape on with small pieces of duct tape (not included) at 3, 6, 9 & 12 o'clock positions.
- 3.6 Mount the inverter variable speed controller in a dry sheltered position. The unit is supplied with a 3 pin plug which should be connected to a suitably rated protected single phase electrical supply. Do not install in close proximity to a heat source or in areas of high humidity. The maximum ambient temperature for the controller must not exceed 40°C (104°F).
- 3.7 Switch on the mains supply to the controller. Switch ON the fan by turning on the isolation switch and adjust the fan speed required by means of the speed control knob. The fan is switched OFF by turning the isolation switch. Should the inverter trip out, check the motor current or connections as an overload condition has occurred, indicating misconnection, faulty motor or capacitor, or a jammed impeller.

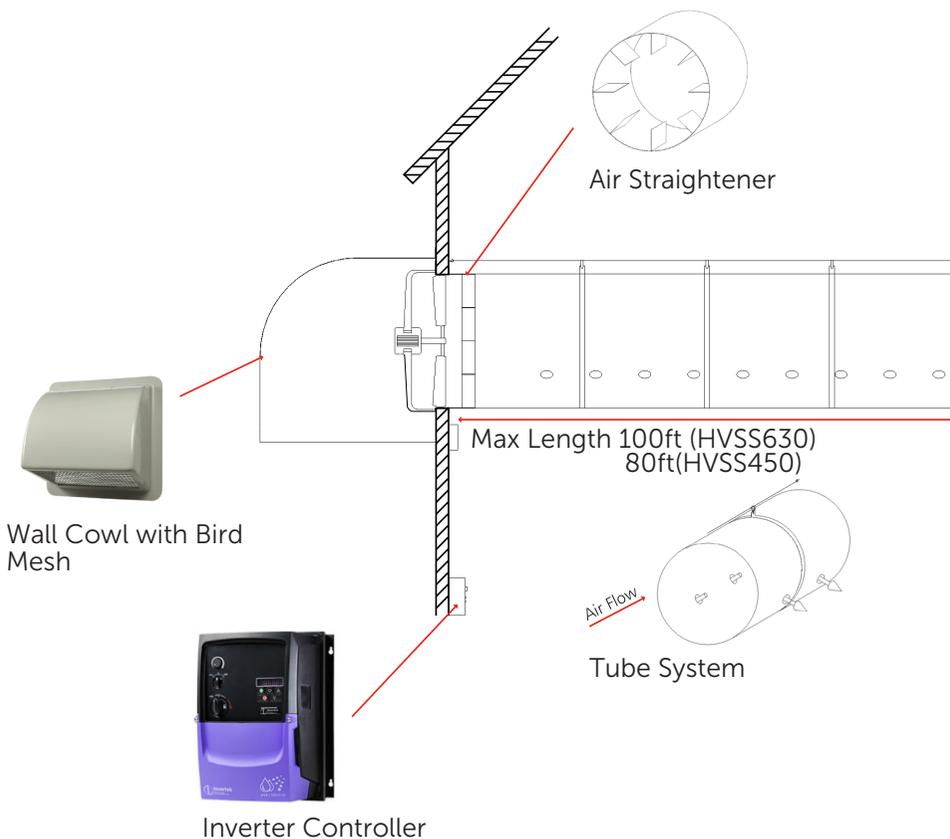
NOTE It is important that the controller is never set below 20%.

Power the fan up for the first time, when running at full speed unstick the duct tape and pull the duct on another 30mm or so, if needed. This will take any ripples out of the start of the duct. Then, place two bands of tape (not included) half on the duct and half on the straightener, this will hold the duct in place. Make sure the duct is taut; if the duct is slack violent flapping may occur at the fan end.

4. Maintenance

- 4.1 Inspection of the fan at least once every 12 months is recommended to ensure that the motor, fan blades, and supporting guards, are clean. Any build up of dust and deposits on the blades or guards should be removed using a non-abrasive cleaner.
- 4.2 All fastenings should be checked for tightness. In addition, all rotating items should be checked.
- 4.3 Bearings are of the 'sealed for life' type and will not need a detailed inspection.

4.4 Minimal maintenance of the controller is required, but it should be kept clean and free from dust. Ensure that all connections are as tight as possible as part of a routine maintenance programme.



Guarantee

Hydor or its agents will, within a period of one year from the date of dispatch from their works, at its option, replace any goods, which are proven to have defects as a result of defective materials or workmanship. The goods must be inspected by a Hydor official and if necessary returned, with a Returns Note Number, carriage paid, for further examination.

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