hydor

CE

HPRC31 Heat Recovery Unit

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. It is strictly forbidden to submit or fit 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.

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

1. General

1.1 It is important these Installation and Maintenance Instructions are fully adhered to.

1.2 Full details of the unit supplied are shown on the product nameplate. If in doubt about any detail contact Hydor or its agents for clarification.

1.3 All electrical installation must be carried out by a suitably qualified and competent personnel in accordance with all current statutory requirements.

1.4 These instructions cover only the Hydor product and do not include the supply or installation of safety equipment that may be required for electrical isolation.

1.5 Any declarations made by Hydor about product installation and safety, are dependent on the equipment being used within installations which themselves meet the requirements of the Standards and Directives for your region.

1.6 The heat recovery unit is designed for use in an ambient temperature of up to 60°C and up to 90% relative humidity. The unit is NOT suitable for corrosive or explosive atmospheres.

1.7 The installer should provide easy access to the heat recovery unit to

facilitate future maintenance.

1.8 The installer should ensure the unit is adequately supported. Please refer to the following pages taking particular attention regarding the dimension and weights.

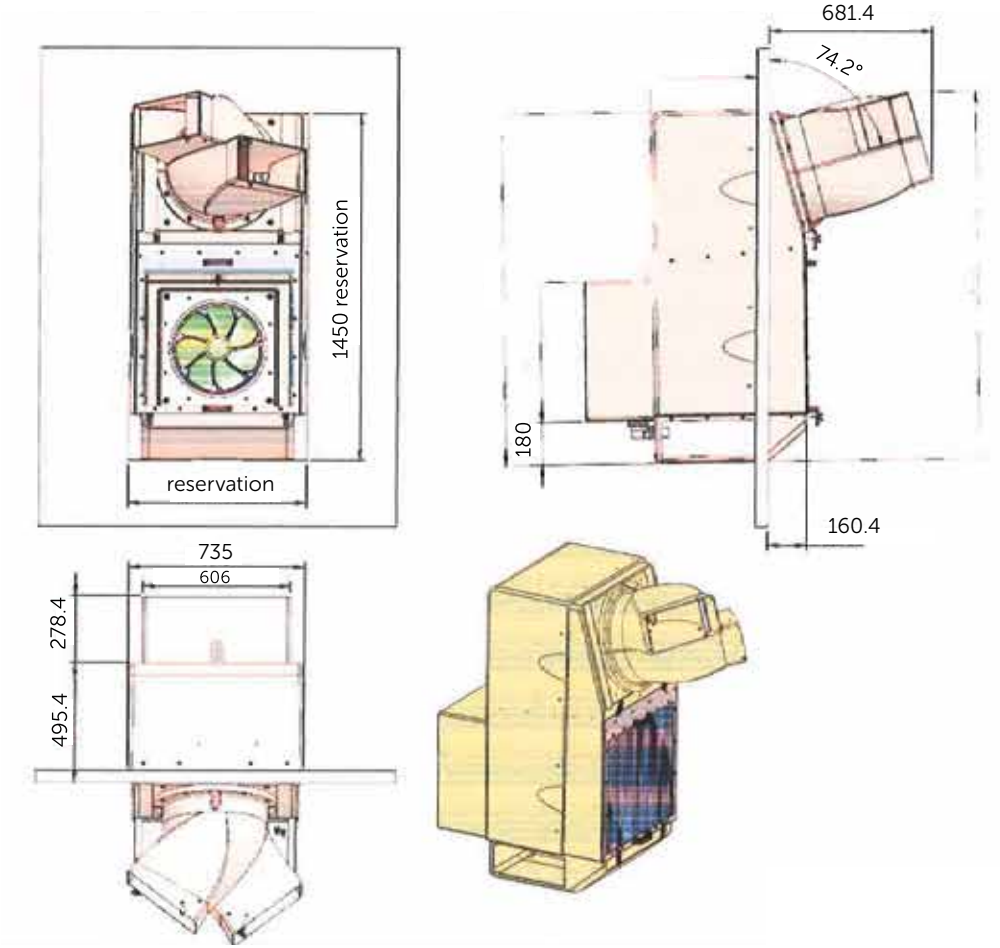
1.9 This product is not intended for use by young children or infirm persons Unless they have been adequately supervised by a responsible person to ensure that they can use the product safely. Young children should be supervised to ensure that they do not play with the appliance.

2. Dimensions

Technical characteristics

Electric connection	230V - 50Hz
Operating temperature	-30°C / +60°C
Acoustic level for one fan dB (A)	63
Electrical power for one fan W	170
Electrical current for one fan A	0.8
Electrical power total W	340
Net weight kg	100
Air flow m^3/h	2500
Capacitor uF	6
Speed r/min	1380

Dimensions


681.4
74.2°
1450 reservation
reservation
180
160.4
735
606
278.4
495.4

3. Installation

3.1 Upon receipt, the HPRC31EV Heat Recovery Unit is delivered on a cardboard pallet, surrounded by a cardboard box and plastic film. This should be carefully removed and the unit visually inspected to check for any damage. The unit is normally supplied as a complete unit with accessories.

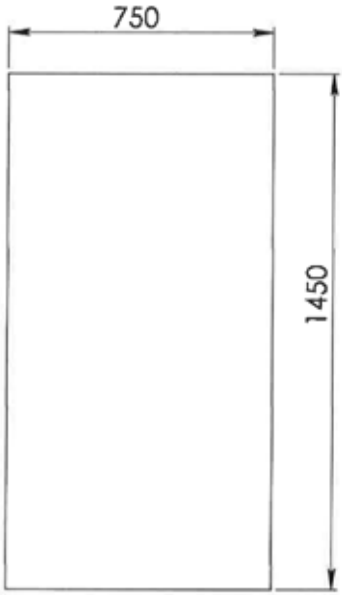
3.2 If there are any queries concerning the equipment, Hydor should be contacted prior to the installation. Dispose of the packaging responsibly with respect to the environment.

3.3 The HPRC31EV Unit should be installed vertically, fixed to the outside wall. They are designed to blow directly into the house and are equipped with an input and an extract axial fans.

3.4 Ensure that the wall is strong enough to support the unit and there is free space around the unit for efficient and safe operation and for future maintenance and repair.

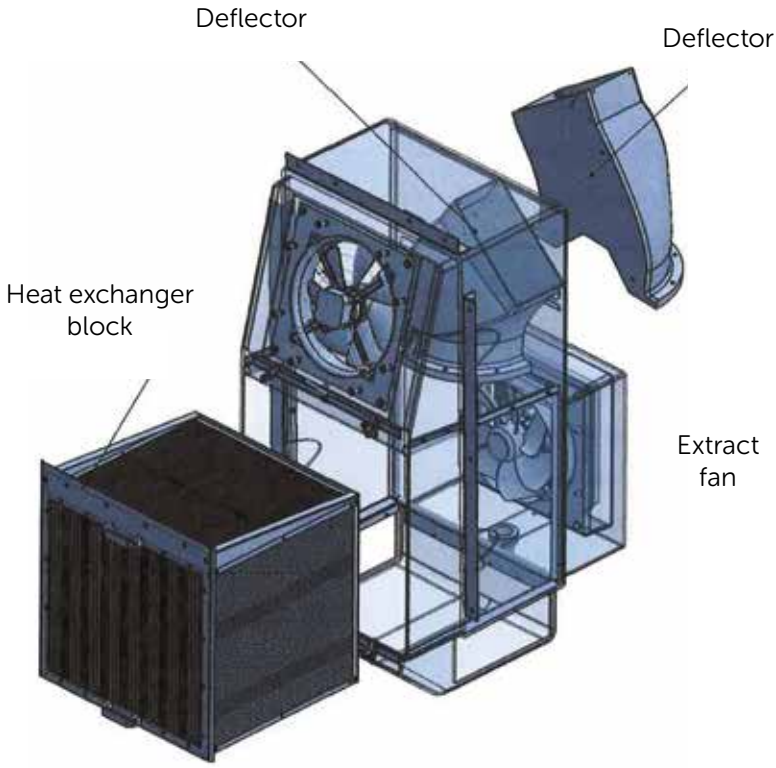
3.5 It is necessary to cut a hole into the wall to accept the unit, as per the dimensions in drawing [1].

[1] Dimensions of aperture in wall



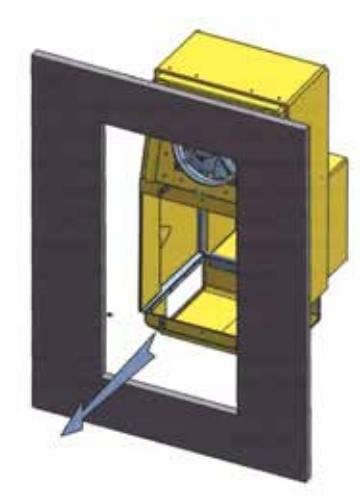
3.6 The Unit should be partially dismantled, by removing the heat exchanger, the two outlet deflectors and the extract fan unit, as per drawing [2].

[2] Removing the exchanger and deflectors



3.7 Offer up the unit to the aperture in the wall and mount the unit to the wall using the three mounting angles with twelve M8 x 16mm Bolts and twelve M8 Washers. Ensure these bolts are securely fixed and tight. As per drawings [3 & 4].

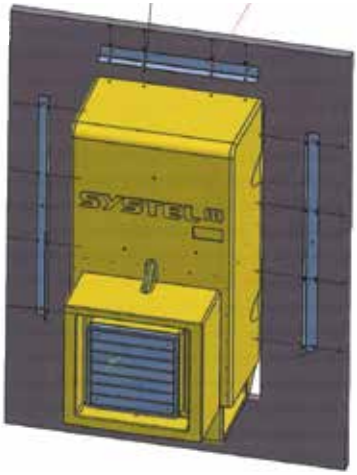
[3] Entering the HPRC3IEV into the aperture



[4] Fixing the HPRC31EX

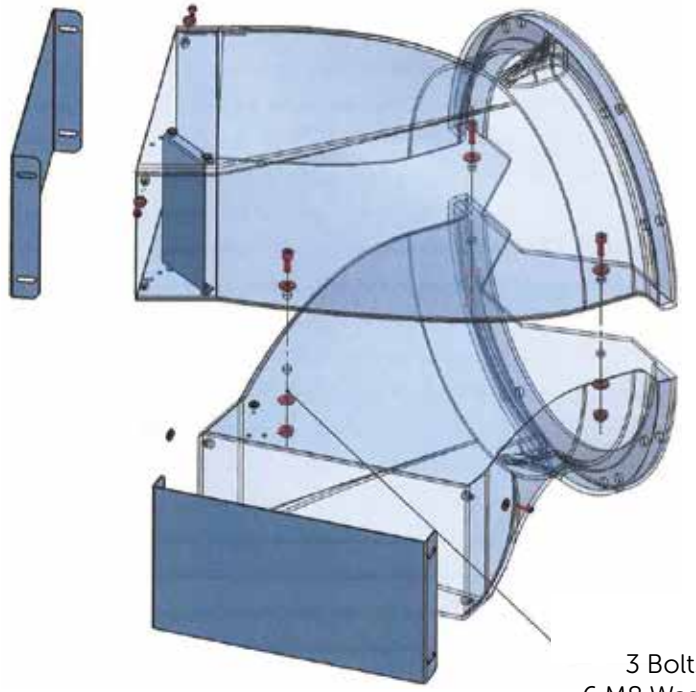
Secure using
12 - M8 x 16 Bolts
12 - M8 Washers

Secure using the 3 mounting brackets



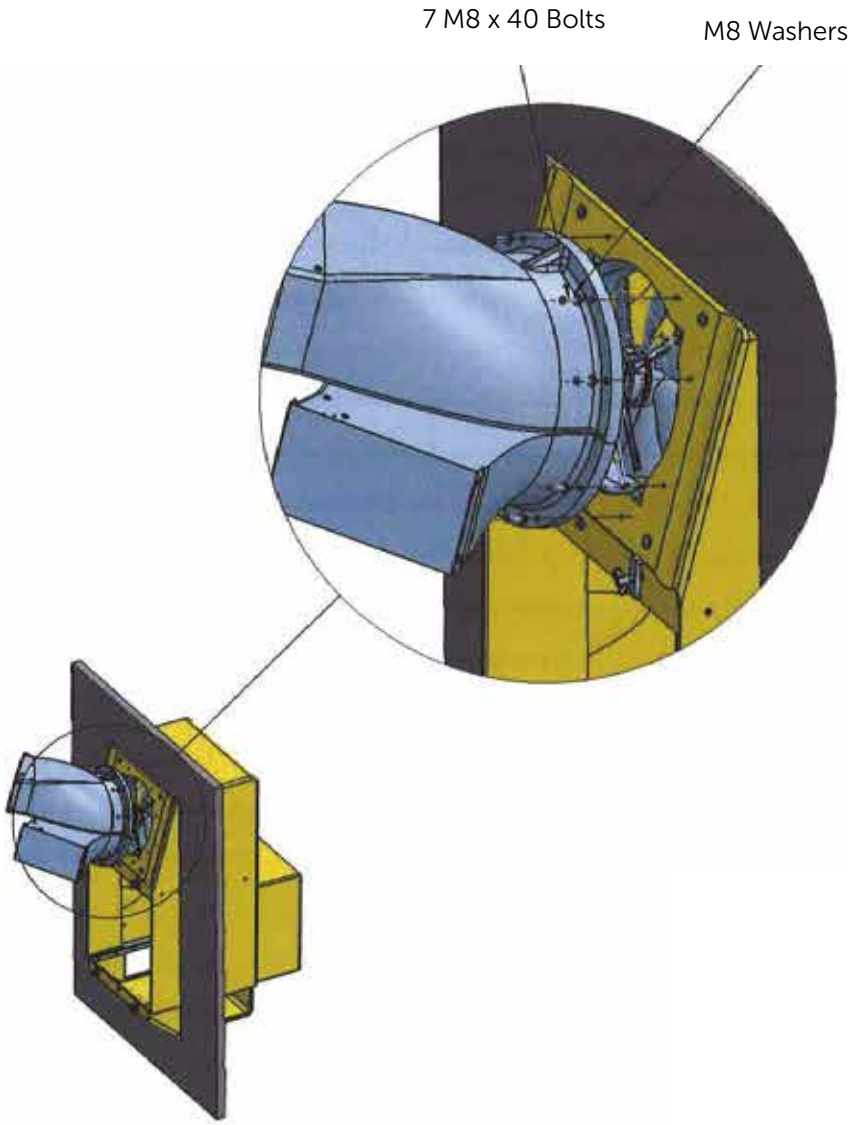
3.8 Reassemble the outlet deflectors and mount these onto the HPRC31EV Unit, as per drawings [5 & 6].

[5] Re-assemble the deflectors



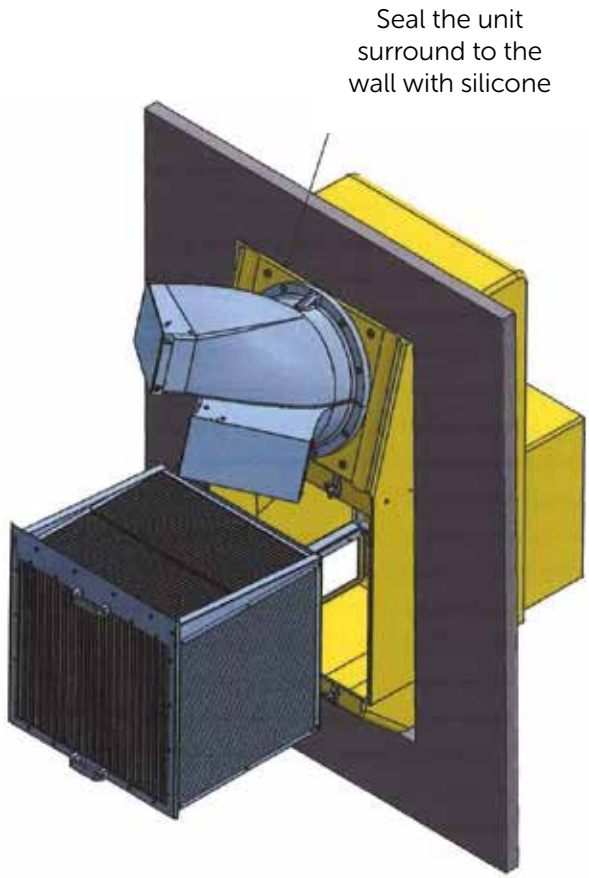
3 Bolts
6 M8 Washers
3 Nutes

[6] Mounting the deflectors



3.9 Mount the extract fan and re-insert the heat exchanger block to the unit, as per the drawing [7].

[7] Remounting the extractor fan and re-inserting the heat exchanger block



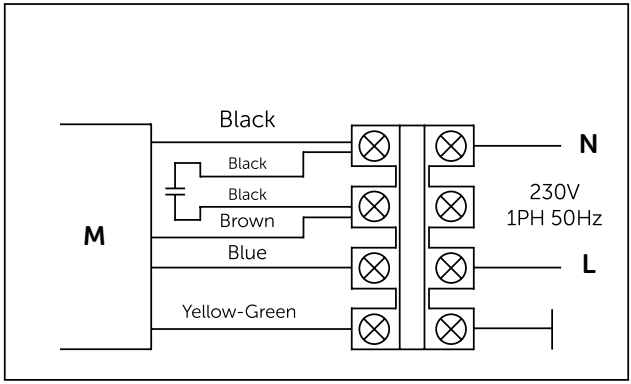
3.10 Finally, seal the surround of the unit and the wall with silicone sealant, as per the above drawing. [7]

4. Electrical connection

4.1 Check the details on the motor rating plates to ensure that the correct power supply [voltage, frequency and phase] is available. An incorrect power supply will lead to permanent damage of the fan motors.

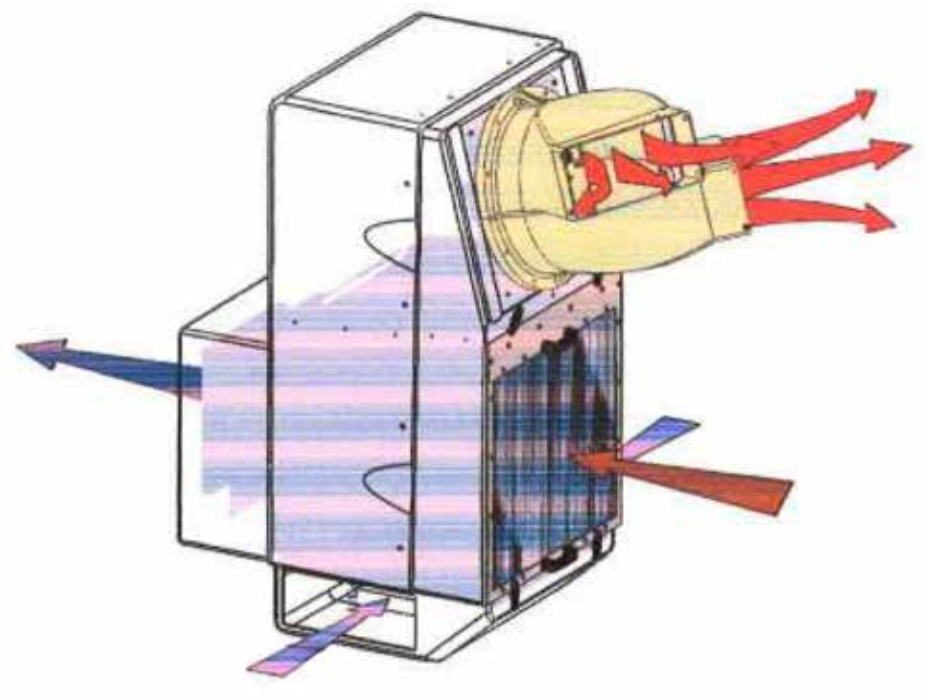
4.2 Connect the HPRC31 EV as per the diagram below, using the correct sized cables for the application

Single phase wiring diagram



5. Operation

5.1 The operation of the Unit is illustrated diagrammatically below. Warm air is extracted from the poultry house and passes through the heat exchanger block and expelled from the building. Cold external air is drawn from the outside and passed through the heat exchanger block, heated and expelled into the poultry house.



5.2 Before operating the Unit, check there are no obstructions blocking the inlets or the outlets, the deflectors are installed and the heat exchanger is in place.

5.3 Switch on the HPRC31EV Unit. After a short while, check the Units is operating correctly.

6. Maintenance

Any Maintenance should be carried out with the Unit isolated from the Electrical Supply by a competent person. To maintain the highest efficiency and operation of the Unit a routine Maintenance Program should be adhered to.

6.1 Daily Mainteance;
Check for free passage of air to the inlet and outlet.
Check that the integrity of the fixtures are secure.
Check that the heat exchanger block grid is free and clear of dust. If necessary, this can be cleaned with a soft hand brush or dry compressed air.

6.2 Periodic Maintenance.
The Unit should be checked and cleaned at the end of each crop cycle.
Isolate the Unit for the electrical supply.
Remove the heat exchanger block. Clean the block with high pressure water
[80 bars, do not use rotating nozzles]. It is possible to place the heat exchanger block in a tank on clod water.
Remove and dismantle the inlet deflectors and clean. Check for free movement of the vanes.
Clean the outside and the inside casing of the Unit.

WARNING **Do not use hot water. Do not spray high pressure water directly onto the fans. These are IP54 rated and should be wiped clean. Do not use cleaning products that can damage the appliance.**

Notes

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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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