HERBAL HOUSE

# VENTILATION SET-UP

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# USER BOOK
## Imperial Ventilation Equipment

## 1. INTRODUCTION

Congratulations for purchasing your Imperial Ventilation Kit.
You are well on your way to growing your best yields yet in your grow tent. This guide will help you get everything set up and provides some helpful tips for using your equipment. If you need help or have any questions don't hesitate to give us a call or send us an email. We want you to succeed in your garden goals and are here for you!

**Matt@herbals.co.nz or call on 0508 44372257**

## 2. PRODUCT INFORMATION AND SPECIFICATION

Making sure your plants have adequate ventilation is a key component of indoor gardening. Just as plants need light for photosynthesis, they also need a good supply of fresh air and carbon dioxide. The three main pieces of equipment to include in a ventilation system are fans, filters and ducting.


Exhaust fans or extraction fans remove hot and humid air from your grow room. Inline fans also include filters to purify the air. Ducting removes this air from the room. Oscillating fans circulate fresh air, which helps with keeping soil and plants in optimal condition.

## TECHNICAL SPECIFICATIONS

### Inline Hydroponic Fan

| Module | D100 | D150 | D200 |
|---|---|---|---|
| Size | Φ 100 mm | Φ 150 mm | Φ 200 mm |
| Power | 40 W | 60 W | 100 W |
| Noise | 25/30 dB | 35/30 dB | 50/45 dB |
| Frequency | 50 Hz | 50 Hz | 50 Hz |
| Air Volume | 200 m3/H | 500 m3/H | 850 m3/H |
| Warranty | 2 Year | 2 Year | 2 Year |

### High-Flow Centrifugal Fan

| Module | D100 | D150 | D200 |
|---|---|---|---|
| Size | Φ 100 mm | Φ 150 mm | Φ 200 mm |
| Power | 68 W | 89 W | 127 W |
| Air Volume | 285m³/h @ 2500rpm | 695m³/h @ 2500rpm | 1016m³/h @ 2500rpm |
| Inline Centrifugal Fan | 4inch/100mm | 6inch/150mm | 8inch/200mm |
| Features | - Durable NSK Japanese Ceramic-Coated Bearings<br>- Heavy duty Molded Impeller | - Durable NSK Japanese Ceramic-Coated Bearings<br>- Heavy duty Molded Impeller | - Durable NSK Japanese Ceramic-Coated Bearings<br>- Heavy duty Molded Impeller |
| Optional | Speed Controller | Speed Controller | Speed Controller |
| Warranty | 2 Year | 2 Year | 2 Year |

### Mixed Flow Inline Fan

| Module | D150 | D200 |
|---|---|---|
| Size | Φ 150 mm | Φ 200 mm |
| Power | 25 W | 65 W |
| Air Volume | 390m³/h @ 2500rpm | 919m³/h @ 2500rpm |
| Inline Centrifugal Fan | 6inch/150mm | 8inch/200mm |
| Features | - Industrial Grade Aluminum<br>- Durable Ceramic-Coated Bearings<br>- Quiet Operation | - Industrial Grade Aluminum<br>- Durable Ceramic-Coated Bearings<br>- Quiet Operation |

### Carbon Filter Pure Air

| Module | | | | |
|---|---|---|---|---|
| Size | 100x250 mm | 100x500 mm | 150x500 mm | 200x600 mm |

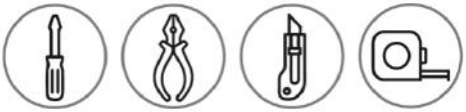
### Aluminum Ducting

| Module | | | |
|---|---|---|---|
| Size | Φ 100 mm | Φ 150 mm | Φ 200 mm |
| In kit | 2 clamps | 2 clamps | 2 clamps |

## 3. INSTALLATION

### 3.1 INSTALLATION PREPARATIONS

**Tools You Will Need:**
- Flat-head Screwdriver
- Pliers with Wire Cutter
- Utility Knife or Scissors
- Measuring Tape

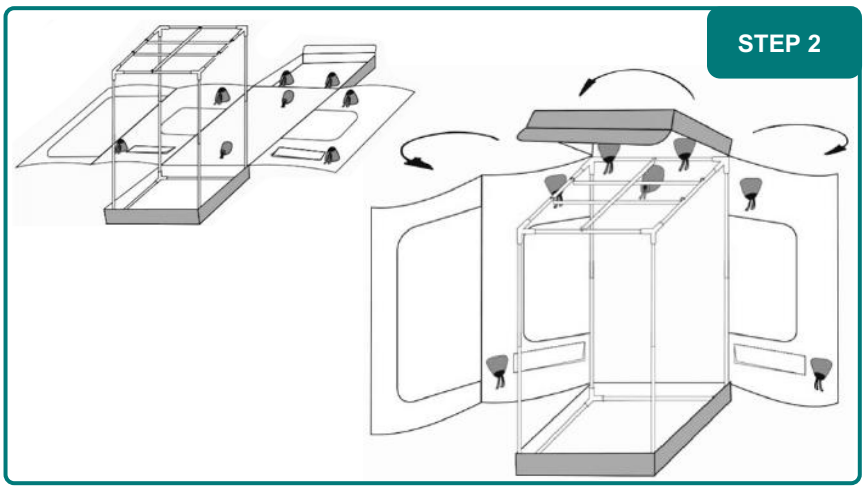


### 3.2 INSTALLATION STEPS

**Step 1. Un-box and Take Inventory of All Products**
Before you start to assemble, it's a good idea to remove all products from the shipping packages to ensure you received everything you ordered. Depending on the tent package you purchased you may have different products than are shown in this guide.

#### TENT ASSEMBLY

**Step 2. Assemble Grow Tent by Following the Included Instructions**
It is helpful to have someone to help you when setting up a grow tent. You also want to ensure you have enough room to position the tent in your desired location after it is fully assembled. Be sure to read the instructions carefully and ensure each tent pole is seated firmly into the connecting joints. You will build the tent frame first, un-zip each zipper, and then wrap the canvas cover around it before zipping it all back up.



**It's important!**
You'll want to position your tent so your vent ducting will exhaust easily to your desired location through one of the top ducting ports. The mesh vents near the bottom of the tent will be used only when your plants are in the vegetative stage. During the flowering stage you will close them to prevent light pollution causing issues with flower growth. During flowering you can install a short piece of the ducting through a bottom duct port and shape it into a "U" to create a light-proof intake!

## SETTING UP VENTILATION EQUIPMENT


**Step 3. Prepare the Carbon Filter**
Unpack the carbon filter and ensure that the fabric prefilter is completely surrounding the mesh area of the filter and is secure.
A small amount of loose carbon particles in the packaging are normal.

**Step 4. Install the Carbon Filter**
Determine the direction of airflow and which port you will exhaust through. You will point the flange of the carbon filter towards this port.

Loop and secure both of the adjustable fabric straps around the desired roof cross bar. Be careful to thread the strap through the buckle correctly so it will hold weight and allows adjustment. Loosen the straps so that the loops are larger than the circumference of the carbon filter.


Pick up the carbon filter and insert the non-flanged end through the loops. Lower the carbon filter so that the straps hold its weight. One-by-one, adjust the straps until the carbon filter is hung level and secure. It's helpful to have help when installing large carbon filters.

**Step 5. Install the Inline Filter**

Unpack and inspect the inline fan taking note of the hanging bracket and the label showing the direction of air-flow.

You will install the fan so that the air will flow away from the carbon filter and outside the tent. You can slide one of the roof cross bars through the one side of the hanging bracket on the fan and connect to another with zip ties. Adjust the carbon filter hanging height and position it so the flange lines up with the in-line fan flange.

Note the direction of airflow in the fan


Hang the fan over a cross bar in the tent

**Step 6. Install the Fan Speed Controller**

Pass the power cord of the in-line fan through a duct port or electrical port. Plug the in-line fan into the socket on the fan speed controller. Set the dial to medium initially.

**Warning:** You may want to run your ventilation only while the lighting is on by plugging your fan speed controller into a timer. However, if signs of excess humidity appear, it is OK to run the fan 24/7 at a lower setting to keep your tent dry and plants free from mold and mildew!

**Step 7. Measure and Cut Ducting**

Be careful when working with ducting, the inner wire coil can be sharp! Measure the lengths of ducting you need to complete your ventilation system. You will need one piece between the filter and fan, and another from the fan through your exhaust port and to the final exhaust location. Give yourself a couple of extra inches to account for the ducting sliding over the flanges of the fan and filter.

Once you have determined the lengths you need, cut the ducting with a blade in the flexible part of the ducting around the circumference. Then snip the internal wire to separate the two pieces with wire cutters.


Measure twice, cut once!

Slide the ducting over the flanges and secure

**Step 8. Install Ducting with Duct Clamps**

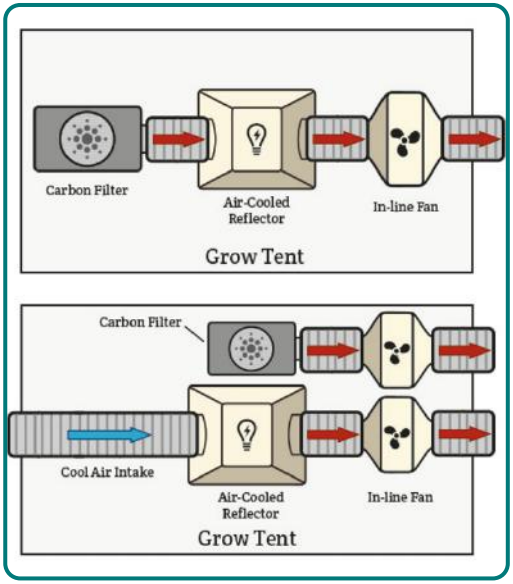
Slide the ducting over the flanges and secure with a duct clamp. Do not over-tighten. Run your exhaust ducting to a desired location. If ducting to the exterior of a building consider installing a screen or grate to prevent pests or animals from entering the ducting.

## SPECIAL VENTILATION SETUPS

**Air-Cooled Lighting**

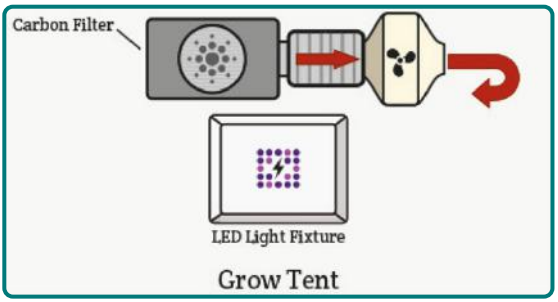
Air-cooled HID light fixtures have duct flanges you can easily connect a fan and ducting to. You can see an example setup in the diagram to the right. This setup pulls air through the carbon filter, then through the light fixture and finally out of the tent.

Note: A great upgrade for air-cooled lighting is to use a separate in-line fan just for the lighting ventilation. This will make both your light cooling and your carbon filter work more efficiently. Review the diagram to the right to see an example.




**Closed Loop CO2 Ventilation**

When using CO2 producing equipment inside of a tent, you want to avoid allowing that CO2 to exhaust from the tent. Therefore, you want a “closed loop” system which will filter the air of odors by recirculating the air in the tent through a fan and filter. It is recommended to utilize LED or air-cooled lighting to avoid heat buildup in the tent. Air conditioning is recommended for larger tents using CO2.



## 4. WARRANTY

**You are covered when you buy from Herbal House**
We ensure that all of our products undergo rigorous quality testing and extensive packaging to reduce the chance of any defects, however, in the unlikely circumstance that there is a failure with your purchased goods, simply take a deep breath and get in touch. **2 Year Warranty Included on each product**. This warranty applies to all physical goods, and only for physical goods purchased from Herbal House LTD.

**What does this warranty cover?**
This warranty covers any defects in material or workmanship under normal use during the warranty period. During the warranty period, Herbal House Ltd will repair the faulty products by replacing the failed components, if the product has undergone a major fault where it is unable to be repaired, Herbal House Ltd will replace the product for you, whether it is a major fault or minor fault is only determined by Herbal House upon inspection of the faulty product at their Auckland facility.

**How long does the coverage last?**
The Warranty Period for Physical Goods purchased from Herbal House is 2 years (730 days) from the date of delivery as confirmed by Courier post tracking information.

**What is the process if I have a faulty product?**
If you experience a fault in your product, we will email you a return label and organize for the courier to collect the faulty product from your desired location or you can drop the item at your local post shop.
Once the item has been successfully received in to our Auckland facility we will test the product to help diagnose the potential faults, if it turns out the product is not faulty you will need to pay for the courier cost to and from our warehouse.
If a fault is found we will cover courier expenses both ways and will proceed to repair your product with new genuine parts.
If the fault cannot be repaired to a standard than allows the product to work as it previously did, otherwise known as a major fault then we will replace your product with a new model.

**What happens if I am unable to send the product back to you because I am still needing to use it for my grow?**
If you unable to send the product back because you are unable to interrupt your current grow, then you are welcome to pay a bond equal to the product that is

faulty, we will then send you an equivalent product to use while you send your faulty item back for repair or replacement. As you can understand, without inspecting or confirming any faults we are unable to send a replacement or send loaner products before receiving the bond or receiving the faulty product simply due to the risk of theft, which unfortunately has happened in the past.
Once you have paid the bond we will send you a product to use which will allow your grow to continue without disruption while we solve the problem with your product, once we have your product fixed and returned to you and the loaner product back to our facility we will refund your bond no hassles at all.

**For more information please contact us:**
**Matt@herbals.co.nz or call on 0508 44372257**