

Dehydrator



This construction will dehydrate fruits and vegetables, helping preserve them and concentrating their flavour.

What you will need

- A kitchen floor cabinet
- A good quantity of empty drink cans
- Food safe mastic and skeleton gun for application
- A sheet of Perspex, around 2 millimetres thick
- A louvre style vent
- Extra sheet material. Plywood, MDF etc
- Some baking, or oven racks
- A screwdriver, or similar pointed instrument for making holes in the can bases
- Black paint and brushes
- Marking tools. A measure, square and straight edge
- Drill
- Jigsaw

Personal Protective Equipment

- Safety glasses

Safety notes Always take care when using power tools and, as a precaution, have a first aid kit to hand. Work on a stable surface, in good light. Wear all personal protective equipment and suitable clothing. Construction can take place indoors, especially if the weather is inclement. If any injuries occur seek medical advice.

When using your dehydrator, ensure all your dehydrating is completed within 24 hours to prevent your fruit or vegetables going bad.



The cans are formed into tubes, using the mastic to fix them end to end and each tube to others. The sun will heat the air that is held within them. The set of cans will be tilted, so that the warm air rises through them and enters the cabinet. Holes in the base of each can lets the air move and painting them black increases the effectiveness of the solar heating.



Next, prepare the cabinet.



Without a worktop above it, the top of a kitchen cabinet is normally open. This will need to be filled with our section of sheet material. You will need to be able to control the flow of warm air through the cabinet, so this top will also hold the louvre vent.



A Perspex covered hole in the side of the cabinet, will hold in the warm air, whilst increasing the amount of solar heating. When cutting this, also cut a hole, in which to insert the can tubes you have made already.



With the cabinet painted black to absorb all the sun's heat and the tubes inserted, place it in strong sunshine. The sun doesn't get hot enough in northern climes to dry food in the open air, as can be done closer to the equator. So this is a brilliant way of dehydrating food safely.

The dehydrator helps capture more of that reduced solar radiation and protects your food from insects, such as fruit flies. To prevent insects gaining access via the can tubes, their ends can be covered with a fine mesh, such as stockings, or tights.

The racks will support the food in the cabinet and allow warm air to flow around it. Remember to make thin slices of your fruit and veg. Dehydrating times will depend on the amount of sunshine available and the moisture content of the food.



General Safety Guidelines

FLAMES

When lighting fires, using naked flames or tools that can generate sparks, please ensure that there is adequate space in the surrounding area and that there are no dry or flammable surfaces nearby. Having water on hand or a sand bucket is a good safety precaution.

SOLVENTS

When using glues or other solvents, it is important to ensure that they do not come into contact with your skin or food surfaces and ensure that they are used in a well ventilated area as they can be toxic. Be sure that they have dried so that all solvents have evaporated before preparing food.

FOOD PREP

Please clean all surfaces thoroughly before serving food and ensure raw food preparation areas are not also used for cooked food serving and presenting.

TOOLS

When using power tools, please ensure that you have read the instructions carefully and that you have the correct Personal Protective Equipment to operate them safely. If you are not experienced at using them seek help or advice from those more experienced on how to use them safely.

HEAT

Please be mindful that metal gets incredibly hot when heated so please be careful around hot surfaces, make sure others are kept at a safe distance and that you use the correct Personal Protective Equipment (PPE) including protective clothing when handling or working near these builds.