

Use of various fuels

Besides charcoal, other fuels can be used in the barbecue VerticookTM, like for example small tree branches or logs provided that they are small enough to enter easily in the firebox. Their calorific content should be high enough (coco nut briquettes are not convenient for example).

Flames that could appear in the firebox are not a problem since the fumes evacuate upwardly and vertically. Neither the flames nor the smoke they create will come in contact with the food. Thus, there is no need to use high quality charcoal which is usually expensive.

The barbecue VerticookTM is beneficial for the environment. Complaints of your neighbours for the thick smoke (containing PAH) and invasive smell created by the combustion of fat falling on incandescent embers will vanish for ever.

Consumption of charcoal is minimized thanks to the narrow fire box and the possibility to organize the cooking phase by setting the fire to a slow burning mode.

Under development

The barbecue VerticookTM V-100 will evolve. Additional parts to be added optionally to this model are being developed and will soon be available.

Support devices for rotary skewers. They will replace the cage grill supporting racks

Electric motor for rotating the skewers

Cooking skewers

Stainless steel trays for keeping food warm after cooking. Such trays will be put n top of the lighting chamber instead of the lid.

Disposable aluminum fat drip trays

Protecting cover

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A revolutionary barbecue



Verticook

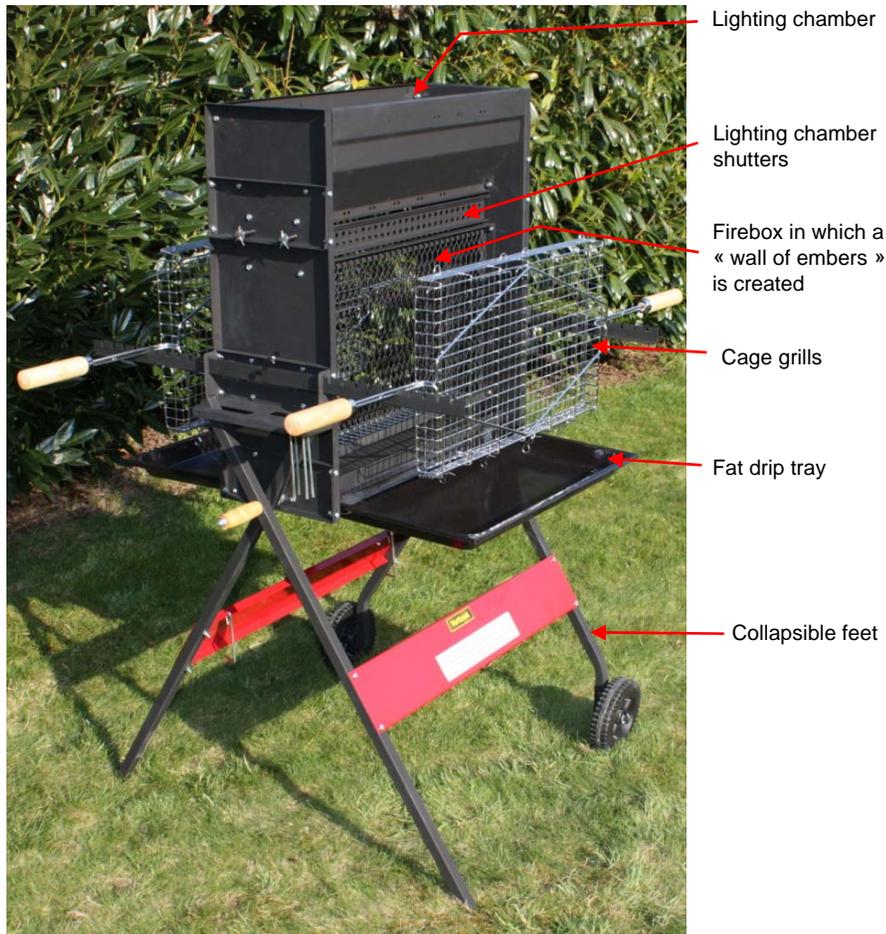
Healthy grilling

Easy lighting

Reduced storage space

Large and modular capacity

Stable and robust



Cage grills

To individually turn over the food again and again on a cooking grid is fastidious and dangerous: you can easily get burnt. Nothing similar applies to the barbecue Verticook™. The food, placed in large cage grills (30 cm x 51 cm), can be turned over in one step by manipulating the whole grill. The wooden handles designed for such purpose are positioned at the ends of the cage grill shaft so as to avoid overheating. Risks of getting burnt are thus considerably reduced.



The food is held tightly in the cage grill by clamping it between the bottom grid and the lid of the cage grill (refer to the cage grill drawing). The height of each lid (2 lids per cage grill) can be adjusted on 4 positions so as to allow the cooking of food having various thicknesses (from 10 to 30 mm).

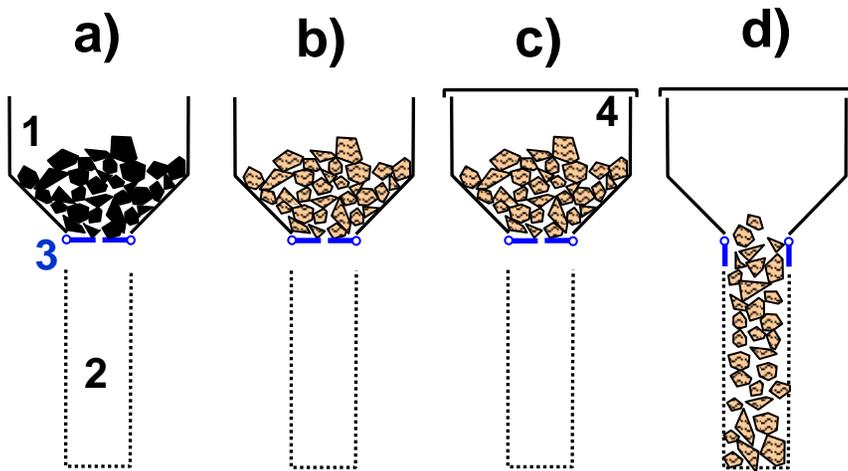
When the food is placed in the cage grill, the lids are usually clasped efficiently enough by the pressure they exert on the side rods of the cage grill. However, for ensuring that they will definitely not come apart, two blocking pins are inserted at the ends of the lids.

When grilling different sorts of food, the same ones should be grouped together and aligned vertically. By doing so, the fat from one kind does not drip on a different one and the various flavors are not mixed.

Fat drip trays

The fat is collected in large enamelled steel trays. Their tilted position ensures that the fat rapidly runs away from the firebox and does not burn.

Verticook



Closed shutters



Opened shutters

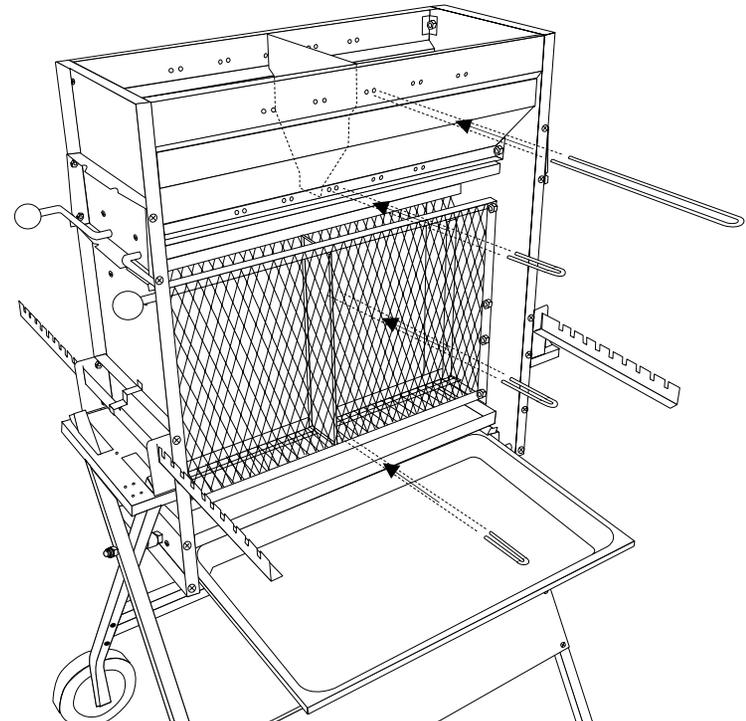
Modular capacity.

Modularity is another essential advantage of the Verticook barbecue. At maximal capacity, the surface of the firebox is 0,30 m² (2 x 30 cm x 51 cm), which is bigger than that of many traditional barbecues, even the largest ones. You can thus invite a bunch of people!

But this will not stop you from having a small family grill. The barbecue Verticook™ will adapt to different situations thanks to its modularity. You can decrease the size of the firebox to 75, 50, or 25 % of its maximal capacity. For doing so, two dividing partitions (one in the fire box and one in the lighting chamber) are inserted and blocked with U shaped rods.

When the partitioning has been made, the same lighting technique can be applied as if the whole firebox was used.

The cage grills are filled up partially so as to have the food positioned in front of the part of the firebox being used.



Verticook

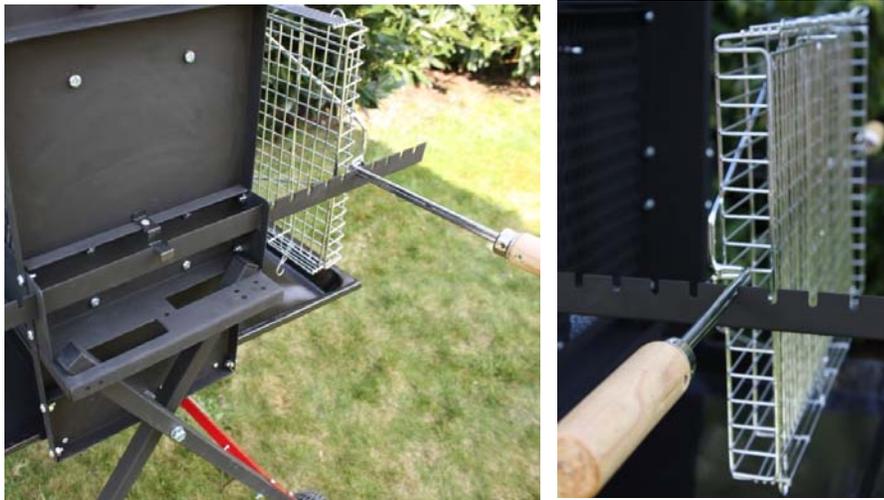
Exceptional robustness and stability

The barbecue Verticook™ is designed for robustness and durability. All metal sheet parts have a thickness of at least 1 mm.

The lateral sides have 3 reinforcement brackets for providing sufficient rigidity and resistance to heat expansion.

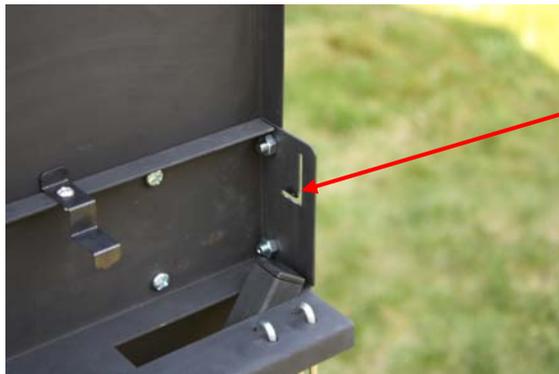
The cage grill support racks are pushed through slots in the reinforcement brackets and clipped in central position. They are thus firmly fixed on the main body of the barbecue.

The set of grooves on the support rack allow to adjust the distance between the cage grills and the firebox.



The legs can be folded according to a unique folding scheme which, besides allowing storage of the barbecue in a minimal space, also provides an exceptional stability to it.

There is no risk of seeing the barbecue Verticook® tumble over at the slightest push!



Slots for introducing the support racks

Healthy eating

Isn't your health worth all your care? Therefore, best look after it!

The barbecue Verticook™ V-100 is designed for always cooking food with your welfare in mind.

By grilling horizontally, traditional barbecues, although popular, have a tendency to overlook the health aspects. Their heat source is located directly under the food. As a result, when the temperature rises during cooking, the fats contained in the food liquefy and drip onto the heat source. It is difficult to keep this fat from burning spontaneously, especially when the heat source is glowing embers. The result is often the appearance of unwelcome flames and/or fumes! Does this remind you of something? Never happened to you?

It is a well known fact that the burning of fats generates carcinogen substances called PAH (1). They end up in your barbecued food! The actual amount of PAH can be measured (2, 3).

Thus traditional horizontal barbecue cooking is not the best for your health. On the other hand, vertical cooking is much safer. The fats never drop onto the glowing embers, with no risk of generating carcinogenic substances. It is evident from scientific studies (2, 3) that the amount of PAH (1) measured in food cooked with a vertical barbecue is 10 to 30 times lower than with a horizontal one.

This is all described in Hervé This' paper entitled « [Ne grillez pas la viande, cuisez-la aux infrarouges](#) ». It is very instructive. Other references are mentioned below (4 - 6).



1. PAH means : polycyclic aromatic Hydrocarbon, as for example benzopyrene.
2. Study carried out by a swedish Institute (Institutet för Livsmedel och Bioteknik AB) and published by Testfakta which compares the PAH content in foodstuff grilled with horizontal and vertical barbecues.
3. Saint-Aubert, B. Cooper, J. F., Astre, C., Spiliotis, J., and Joyeux, H. *Evaluation of the induction of polycyclic aromatic hydrocarbons (PAH) by cooking on two geometrically different types of barbecue*. Journal of Food Composition and Analysis, 1992, Volume 5, page 257-263

Verticook

Storage

Indoor storage of a conventional barbecue is usually not very easy, in particular if its capacity is large because the storage room which is required is directly proportional to the cooking surface.

This rule does not apply to the barbecue VerticookTM V-100.

The legs can be folded over and blocked in the folded position

The fat drip trays can be removed and their supporting frames collapsed vertically

The cage grill supporting racks can be removed from their support devices

Such handling is easy and requires no tool.

The ground space required for storage of the VerticookTM V-100 is very small. Against a wall, it will only use 24 cm in width. It can typically be stored in the garage beside the car.

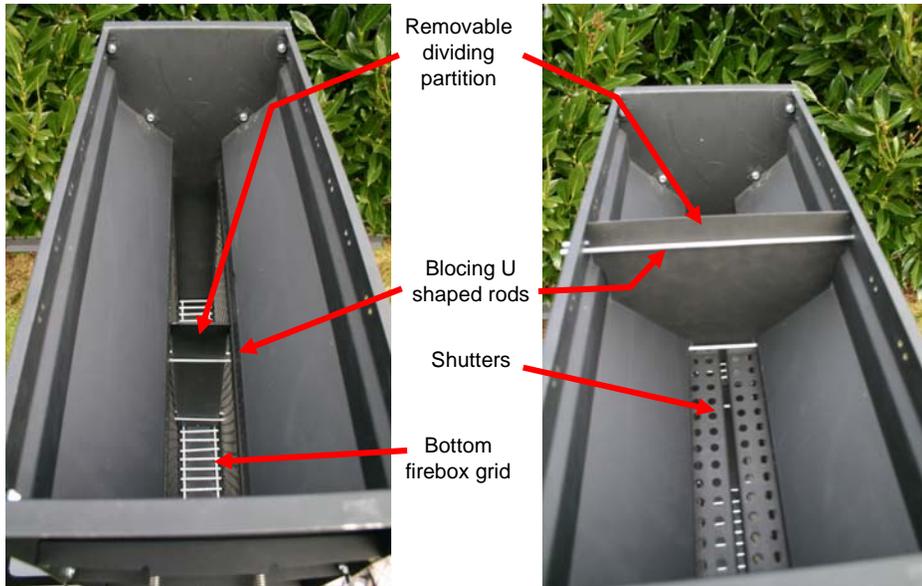
When unfolded, the barbecue VerticookTM can be moved around very easily thanks to its wooden handle and two wheels (15 cm diameter).



Dimensions (cm)	l	L	h
Box	26	36	95
In operation	72	78	122
Collapsed	24	78	132

Weight: 28 Kg

Verticook



Opened shutters

Closed shutters

When not use, the blocking U shaped rods can be stored on the barbecue.



Lighting and organization

Lighting a vertical barbecue is not easy because embers need to be generated in a particularly narrow firebox so as to reduce fuel consumption. The narrowness of the firebox makes the loading of the charcoal rather difficult. In addition, when it is lit from the bottom, the time required to propagate the fire uniformly in the fire box to generate a "wall of glowing embers" is usually long and rather unpredictable. The rate of propagation of the fire varies a lot with the size distribution of the charcoal pieces.

The barbecue VerticookTM is designed to solve this problem. It has two separate chambers: a large one for the lighting phase (1) and a narrow one for the grilling phase (2). The two chambers are separated by two shutters (3) which can be opened or closed. The cross-section view shows the principle of operation.

- The fire is lit in the lighting chamber (1) with the shutters (3) being closed.
- Glowing embers are formed in the lighting chamber (1).
- At this stage, if the cooking phase has to be postponed, the lid (4) is placed on top of the lighting chamber. Combustion will thereby be reduced drastically without nevertheless being stopped. For resuming, the lid is simply removed. The hot air convection draught will reactivate combustion rapidly. You can thus plan conveniently the timing of the cooking phase.
- Whenever sufficient embers have been formed, the shutters (3) are opened. This causes the embers to fall in the firebox and creates a "wall of embers". The cooking/grilling can then start.

Reloading and continuous operation

Once the "wall of embers" has been generated, it can be maintained in activity by adding combustible from the top in the lighting chamber, while maintaining the shutters (3) opened. The lighting chamber can thus be used as a hopper for loading the firebox.

