

## PROMOTING THE CONSTRUCTION AND USE OF ROCKET MASS HEATERS STOVES IN ARGENTINA

The [Province of Santa Fe in Argentina](#) promotes the construction and use of *Rocket mass heater stoves* for the heating of rooms.

The Rocket biomass heaters represent an innovative heating system for rooms with high energy efficiency. These stoves manage to use up to 70% of the heat contained in the wood, in comparison with the common stoves that only transfer 30% of the energy to the environment, losing the rest through the chimney.

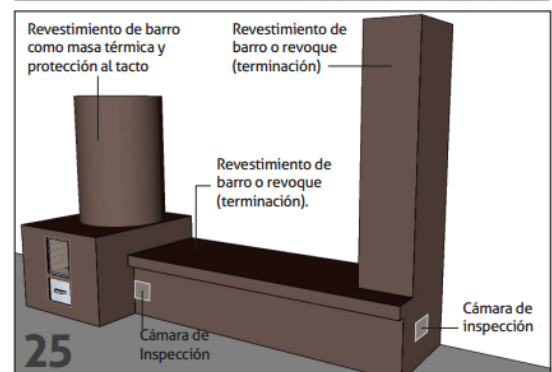
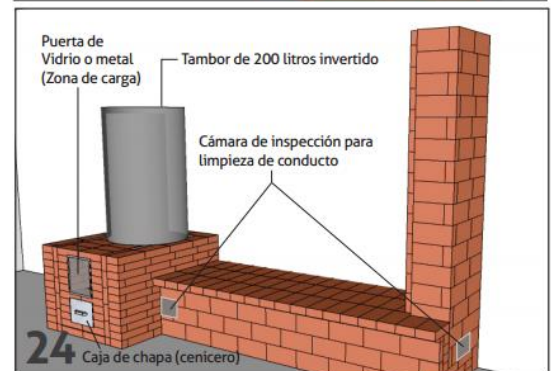
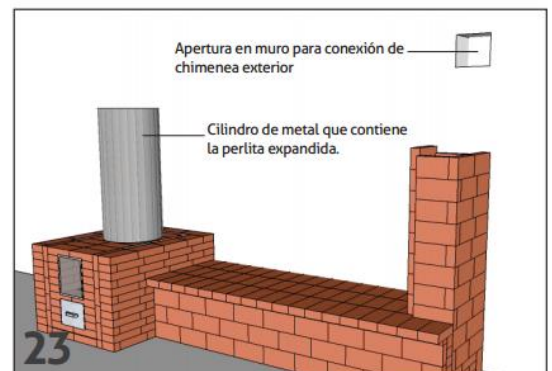
To promote the *Rocket mass heater stoves* in the territory, through the *Construyendo Calidez* program, the Province of Santa Fe has produced a [Manual for the construction](#) written in simple language, illustrated with images and tables, and a [technical sheet with the description "step by step"](#) of the construction method. These didactic tools, available online, can be used in all the territories and countries interested.

An important feature of these stoves is that they work very well with small pieces of wood, such as branches and firewood from pruning operations. This waste, which in rural areas is produced in relevant quantities, is usually destined for final disposal in controlled landfills.

Rocket mass heaters represent a device of high environmental value because they allow to reduce the amount of waste, taking advantage of this renewable resource to generate thermal energy. These stoves can improve the quality of life in many homes, by dramatically reducing the packed gas consumption and the energy costs for heating.

The Manual explains that Rocket mass heaters achieve high efficiency thanks to two main characteristics:

- They have a high temperature chamber (600 or 700°C in contrast to 300°C of conventional ones), which also allows to burn combustion gases and solids suspended in them, which are usually lost through the chimney in the form of smoke, wasting its caloric content and polluting the air.
- They have a thermal mass made of the thermal bank (accumulator bank) and walls that surround the combustion chambers, allowing the subsequent accumulation of generated heat. This allows the thermal mass to continue radiating heat several hours after the stove has been turned off, saving wood.



These mass heaters provide a high level of safety because in normal operating conditions the system manages to oxidize the combustion gases completely and their exit to the outside.

*Rocket* mass heaters are easy to build and accessible for the modest cost of the materials used. They can be built by bricklayers of the territory, with the support of skilled artisans in construction or architects. The purpose of the Manual is to make available to these artisans an instructional material on the fundamentals of this technology to adapt each mass heater to the needs of users and households.

The production of the Rocket mass heater allows to valorise the local workforce and opens perspectives to develop new enterprises within the framework of the most advanced trends for a green and circular economy, which can attract new generations.

The Province of Santa Fe, in its policy for sustainable and socially equitable energy development based on the implementation of renewable sources, carries out a set of actions to promote the biomass stoves with high energy efficiency in the territory: information, demonstrative workshops, training initiatives. The objective is to considerably reduce the consumption of bottled gas and electric energy for heating and reduce the amount of waste. The Manual is delivered to the Municipalities and Communes, so that in turn they make it available to the interested actors. The Municipalities invest in this new energy policy by recycling the pruning waste of streets, parks and gardens, saving the expenses for their transportation to the landfills for the final disposal.

The designs and operating principles of Rocket mass heaters are based on models of inertia stoves that have been used for more than 400 years in Russia and northern Europe. Nowadays these devices, improved in their technological characteristics to ensure higher yields, are built in many countries to heat the rooms with an ecological approach.

Another relevant aspect is that the ecological companies and the skilled artisans in their construction, manage to create designs of functional Rocket mass heaters with a high aesthetic value for the rooms, creating very pleasant living spaces when it is cold outside.

### To know more

[Government of Santa Fe website](#)

[Manual for the construction](#)

[Technical sheet step by step](#)

[Article in lacasat.com.ar](#)

[Article in ellitoral.com](#)

[Article in taringa.net sitio web](#)

[Article in maracodigital.net](#)

[Rocket stove mass heater in Appropedia](#)

[Rocket mass heater in Wikipedia](#)



[Rocket mass heater in Ecoinventos.com](http://Ecoinventos.com)

[Rocket.es web site](http://Rocket.es)

[Manual eon construirtv.com](http://Manual.eon.construirtv.com)

[Manual in about-haus.com](http://Manual.in.about-haus.com)

[Rocket mass heater in permaculture.co.uk](http://Rocket.mass.heater.in.permaculture.co.uk)

[Article in naturalhomes.org](http://Article.in.naturalhomes.org)

[Article in permaculturemag.org](http://Article.in.permaculturemag.org)

[Article in bensnaturalbuildingblogspot.com](http://Article.in.bensnaturalbuildingblogspot.com)

[Articles in rocketstoves.com web site](http://Articles.in.rocketstoves.com)

