

# **motozero**

## **THE FIRELESS COOKER**



## **Benefits of a Fireless Cooker**

- Completes cooking of all types of food
- Conserves 50% of cooking energy
- Increases household's disposable income
- Conserves the environment by reducing deforestation
- Keeps food hot for 8 hours
- Keeps water hot for more than 12 hours
- Reduces stress for the cook
- Allows more time for children to study
- Reduces cooking fire related accidents
- Reduces the time of exposure to indoor energy related air pollutants

## **Principles of Fireless Cooking**

- Food accumulates initial energy from heating for a short period of time on any type of fire
- When food is transferred to the fireless cooker, the heat energy stored in the food and water continues to cook the food for the normal period of time that it would take on a direct fire
- The filler material which is a bad conductor of heat allows very little heat loss

## How to use the Fireless Cooker

- Prepare food as usual
- Cook the food on any fire until it boils then simmer for the recommended period of time (see Table 1)
- Remove food from the fire
- Wrap in a clean cotton cloth
- Place in the fireless cooker ensuring that there is no air space
- Cover the fireless cooker with its top
- Press the top to cover the pan tightly
- Leave the food in the fireless cooker to cook for the recommended time (also see Table 1)
- Remove and serve hot or leave it in the fireless cooker until when you are ready to serve

## Things to note for Effective Fireless Cooking

- Match the size of pan with the quantity of food. The food should be at least three quarters in the pan to minimize the air space
- The food in a pot must always be covered with a lid that fits well
- For grains like maize and beans, water must be above the food
- The fireless cooker should **not** be opened before the recommended time of cooking is over
- Food should **not** remain in the fireless cooker for more than eight hours because the temperature will fall below the recommended level of 49°C

## Recommended Simmering and Fireless Cooking Time and the Energy Saved

Type of Food	Simmering Time (Minutes)	Fireless Cooking Period (Hours)	Energy Saved (%)
Maize meal	Until Uniform	1.0	88
Presoaked dry maize and beans	30	3.0	83
Pre-soaked beans	30	2.5	80
Pre-soaked lima beans (Njahi)	30	2.5	80
Stripe (matumbo)	10	2.0	71
Cassava	10	1.0	67
Sweet potatoes	5	1.0	67
Unsoaked dry maize & beans	40	3.0	66
Green maize	10	1.0	53
Pre-soaked dry peas	20	2.5	50
Irish potatoes	5	0.7	50
Beef stew	5	1.5	39
Pre-soaked green grams	10	2.0	36
Rice	1	0.5	33
Mashed bananas	5	0.7	30
Kale (sukuma)	5	0.3	30
Un-soaked green grams	20	2.0	18
Chicken	5	1.5	18
Arrow-roots	5	0.8	18
Boiled eggs	1	0.3	-
<b>Average</b>	-	-	<b>50</b>

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