

# 'Burkina Mixte' Stove

## Burkina Faso



### Type

Portable metal household stove for one pot with fixed diameter

### Name

"Burkina Mixte"

### Fuel

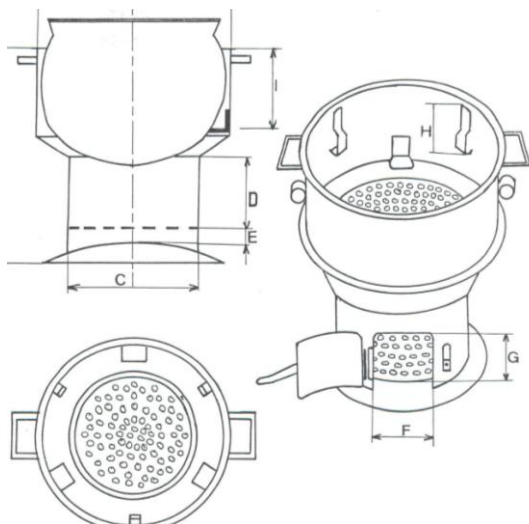
Wood fuel and charcoal

### Country of origin / Dissemination area

Burkina Faso

Developed in 1985 by the "Institut Voltaïque d'Énergie", currently called "Institut de Recherche en Sciences Appliquées et Technologies" (IRSAT).

The dissemination within the project FAFASO<sup>1</sup> started in 2006. By December 2010, about 9,000 stoves had been produced and sold country-wide.



### General description

Portable metal stove for one pot:

- Vertical skirt customized to fit snugly around a certain pot size: Available for pot no. 2 - 10, not usable for bigger pots than the designed ones
- Two metal grates for fuel support:  
The lower grate (for wood fuel) is fixed. It is raised above the stove-bottom to enable under-current of air in order to enhance the combustion of wood.  
The upper grate (for charcoal use) is removable and needs to be removed if wood fuel is used
- Door to close firewood-inlet for air regulation when used with charcoal.
- Handles

### Stove dimensions

Nine stove sizes are sold on the market (pot no. 2 - 10, most common pot no. 3 and 4).

Dimensions for an average stove (pot no. 3):

- Diameter: 29 cm
- Height: 32.5 cm



### Users

Rural and urban households, countrywide

### Estimated lifespan

At least two years

<sup>1</sup> Foyers Améliorés au Burkina Faso

### Materials used

At least 1 mm thick metal sheet either from scrap or new material

### Performance

Water Boiling Tests indicate potential fuel savings of 51% as compared to a three-stone-fire, while Controlled Cooking Tests indicate fuel savings of 35% compared to a three-stone-fire.



### Production / Supply

The stove is produced by local tinsmiths.

Standardized templates are used to outline the different stove parts on a metal sheet; then they are cut out along the indicated lines.

The use of templates allows the producers to maintain standard sizes and adhere to a certain quality standard. It also increases their productivity. The cut pieces are assembled without electricity.

An artisan can produce about three improved stoves per day.

An intense quality control system supported by the research centre and associations of artisans ensures the quality of the stove and the customers' satisfaction.

### Price (2011)

The price for a stove used with pot no. 3 is 3.80 € (2,500 FCFA).

Depending on the availability and the costs of raw materials, the price can change in the different regions of the country.

### Strengths and weaknesses

#### Positive

- + Efficient stove if used with the correct pot
- + For both fuelwood and charcoal
- + Portable
- + Decentralised production
- + Availability of local raw materials (e.g. scrap like fridge doors, etc.)
- + Standardized templates allow high quality
- + Well recognised branding
- + Enhances local production
- + High degree of users' satisfaction

#### Negative

- A stove fits to one pot only
- Cannot be produced for big pots (above 25 litres)

### Available documents

- Tests des foyers Roundé (IRSAT, 2009) :  
[https://energypedia.info/index.php/File:Tests\\_des\\_performance\\_des\\_foyersR\\_OUMDE\\_IRSAT.pdf](https://energypedia.info/index.php/File:Tests_des_performance_des_foyersR_OUMDE_IRSAT.pdf)



Last Source of pictures: GIZ Burkina Faso  
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