InStove
INSTITUTIONAL STOVE SOLUTIONS

+1-541-942-9519
info@instove.org
www.instove.org

PO Box 368
Cottage Grove
OR 97424 USA

60 Liter and 100 Liter Biomass Cookstoves

Our stoves use advanced "rocket stove" design principles to maximize fire power and fuel efficiency while minimizing harmful emissions including carbon monoxide and particulate matter by 90% or more. Each stove comes with an integral aluminum pot, lid and chimney. We offer two stove sizes: 60L and 100L. Stoves can be installed in a permanent location or moved easily to other locations as needed.

Field tested under demanding conditions in Africa, Haiti, and the Pacific Islands, our stoves consistently outperform other institutional stoves, and are both safe and popular with cooks. A single 60 Liter Stove can feed up to 400 people daily, and a 100 Liter stove can feed up to 700.

Attributes

- **Affordable** – savings in fuel costs can pay for a stove in a matter of months
- **Fast** – 60L stove boils 30 liters of water in 30 minutes; 100L stove boils 50 liters in 30 minutes
- **Efficient** – 60L uses 2 kg of fuel for two hours at peak temperature
- **Clean-burning** – Stoves reduce emissions by 90% compared to 3-stone fire and produce no visible smoke
- **User-friendly, portable, stable and safe** – Outer casing safe to touch during operation
- **Durable** – Designed to withstand years of tough use
- **Easy to repair** – Interchangeable parts allow for simple repairs in the field, extending stove life up to 10 years
- **Fuel flexibility** – Use wood, coal or biomass briquettes
- **Field tested** – In use in 23 countries worldwide

Specifications

	60L	100L
Weight	84 lbs/38 kg	110 lbs/50 kg
Stove body diameter	23 in./59 cm	27 in./67 cm
Stove body height	34.5 in./88 cm	34 in./86 cm
Boxed shipping weight	115 lbs/52 kg	139 lbs/63 kg
Boxed shipping dimensions	40 x 24 x 39 in. 101 x 61 x 98 cm	40 x 28 x 39 in. 101 x 69 x107 cm

100 and 60 Liter Institutional Stove Performance

In spring of 2013, InStove ran performance and emissions tests on a late prototype of the 100 Liter institutional stove and a production model of its 60 Liter stove. Tests were conducted in the Aprovecho Research Center labs. The average results for the three-test series are listed in the final two columns of the table below.

Results appear alongside the International Organization for Standardization/Volunteers in Technical Assistance (ISO/VITA) performance standards for the Water Boiling Tests (WBT), where Tier 0 is the lowest performance level, and Tier 4 the highest. A stove belongs to a Tier if all of its performance indicators meet the criteria for that Tier.

Test results from the lab and feedback from the field prove our stoves to be without parallel in the world.

ISO/IWA Water Boiling Test:

Performance Indicator	Units	Tier 0	Tier 1	Tier 2	Tier 3	Tier 4	Results	
							60-Liter	100-liter[1]
High Power Thermal Efficiency	%	<15	≥15	≥25	≥35	≥45	48.4%	46.7%
Low Power Specific Consumption	MJ/min/L	>0.05	≤0.05	≤0.039	≤0.028	≤0.017	0.0101	0.0088
High Power CO	g/MJd	>16	≤16	≤11	≤9	≤8	0.794	1.25
Low Power CO	g/min/L	>0.20	≤0.20	≤0.13	≤0.10	≤0.09	0.0154	0.0077
High Power PM	mg/MJd	>979	≤979	≤386	≤168	≤41	83.1	102
Low Power PM	mg/min/L	>8	≤8	≤4	≤2	≤1	0.55	0.475
Indoor Emissions CO	g/min	>0.97	≤0.97	≤0.62	≤0.49	≤0.42	0.00[2]	0.00[2]
Indoor Emissions PM	mg/min	>40	≤40	≤17	≤8	≤2	0.00[2]	0.00[2]

[1] Results are based on preliminary testing with a prototype stove. We are confident that all 100 Liter Stove metrics will meet or exceed those of the 60 Liter Stove once test results are available from a production model.
[2] Because these products are chimney stoves, the indoor emissions measurements are rated as 0.00 since CO and particulate matter emissions are directed outdoors and away from the cook.