



**GIRIRAJ**  
SERVING GREEN HEAT

Manufacturer of biomass fired heating systems

**Economical, Efficient and Eco-friendly**



## Mission

**"To deliver reliable, eco-friendly biomass heating systems that reduce energy costs, lower carbon emissions, and help industries move toward sustainable growth."**



## Vision

**"To be a trusted global partner in clean industrial heating, enabling businesses to operate efficiently, affordably, and responsibly with sustainable biomass energy."**



## Strategic Objective

**"To develop biomass heating solutions that lower fuel costs and CO<sub>2</sub> intensity compared to conventional fuels."**

## About us

Giriraj manufactures high-efficiency biomass fired heating systems that help industries to reduce energy costs and adopt cleaner, sustainable solutions by replacing fossil fuels to Biomass wood pellets. We specialize in pellet burners, hot air generators, Circular/Rectangular batch fryers, aluminium melting furnaces, and other heating systems built for reliable, long-term performance. Backed by strong leadership, skilled engineering teams, and a well-equipped manufacturing infrastructure, we ensure consistent quality, dependable service, and sustainable alternatives to conventional fuels.



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# WHY BIOMASS WOOD PELLETS/ Loose biomass?

- Renewable and carbon-neutral fuel, manufactured from wood waste and agro residues.
- Cleaner combustion with significantly lower CO<sub>2</sub>, NOx and SOx emissions than fossil fuels.
- Effective Calorific value 3,800-4,500 kcal/kg for delivering steady thermal output.
- Reduces Fuel Cost by 30-50% versus diesel, Oil (LDO/FO) and Gas (LPG/PNG/Propane).
- Low moisture (6-10%) ensures complete combustion and low ash (1-2%) reduces cleaning of system.
- Consistent Quality and Year-round availability of pellets across India.
- Easy to Store, Handle and Transport.



	Parameters	Pellet / (kg)	LPG / (kg)	Diesel / (ltr)	LDO / (ltr)
1	Calorific Value (Kcal)	4200	12000	11000	10200
2	Equivalent pellet consumption (kg)	-	2.86	2.62	2.42
3	Rate (Rs)	15	88	91	65
4	Cost of Pellet (Rs)	-	43	40	37
5	Tentative Savings (Rs)	-	45	51	29
6	Tentative Savings (%)	-	51%	56%	44%

# Wood Pellet Burner



## Product Overview

High-efficiency industrial pellet burner engineered for consistent thermal output and lower fuel costs. Designed for continuous heavy-duty use with optimized combustion, low maintenance, clean emissions, and an optional SS combustion chamber for high operating hours.



## Specifications

- Capacity Range: 1,00,000 to 15,00,000 kcal/hr
- Fuel Options: Biomass pellets / loose biomass
- Combustion Efficiency: Up to 92%
- Material of Construction: MS / SS with ceramic insulation
- Control Options: Digital / PLC automation



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# Wood Pellet Stove



## Product Overview

Compact, efficient pellet stove for controlled heating in commercial and small industrial spaces. Provides silent, clean operation, high thermal output, low running costs, and low emissions.



## Specifications

- Heating Capacity: 50,000/1,00,000 kcal/hr
- Fuel Options: Biomass pellets / loose biomass
- Thermal Efficiency: 90-95%
- Material of Construction: MS / SS with ceramic insulation



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# Batch Fryer - Circular / Rectangular



## Product Overview

Energy-efficient biomass heating batch fryers delivering uniform heating and precise oil-temperature control for snacks. Suited for food processing industries seeking consistent product quality and significant fuel savings versus diesel/LPG.



## Specifications

- Circular Batch Fryer Range: 24"-60" diameter
- Fuel Options: Biomass pellets / loose biomass
- Construction: SS 304 food-grade fry pan with MS/SS support structure
- Insulation: High-density ceramic wool
- Controls: Digital oil-temperature control



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# Hot Air Generator



## Product Overview

Industrial-grade indirect hot air generator designed for drying and controlled-heating applications. Provides uniform hot-air flow with reduced energy consumption. Offers high efficiency, stable temperature, low emissions and minimal maintenance.



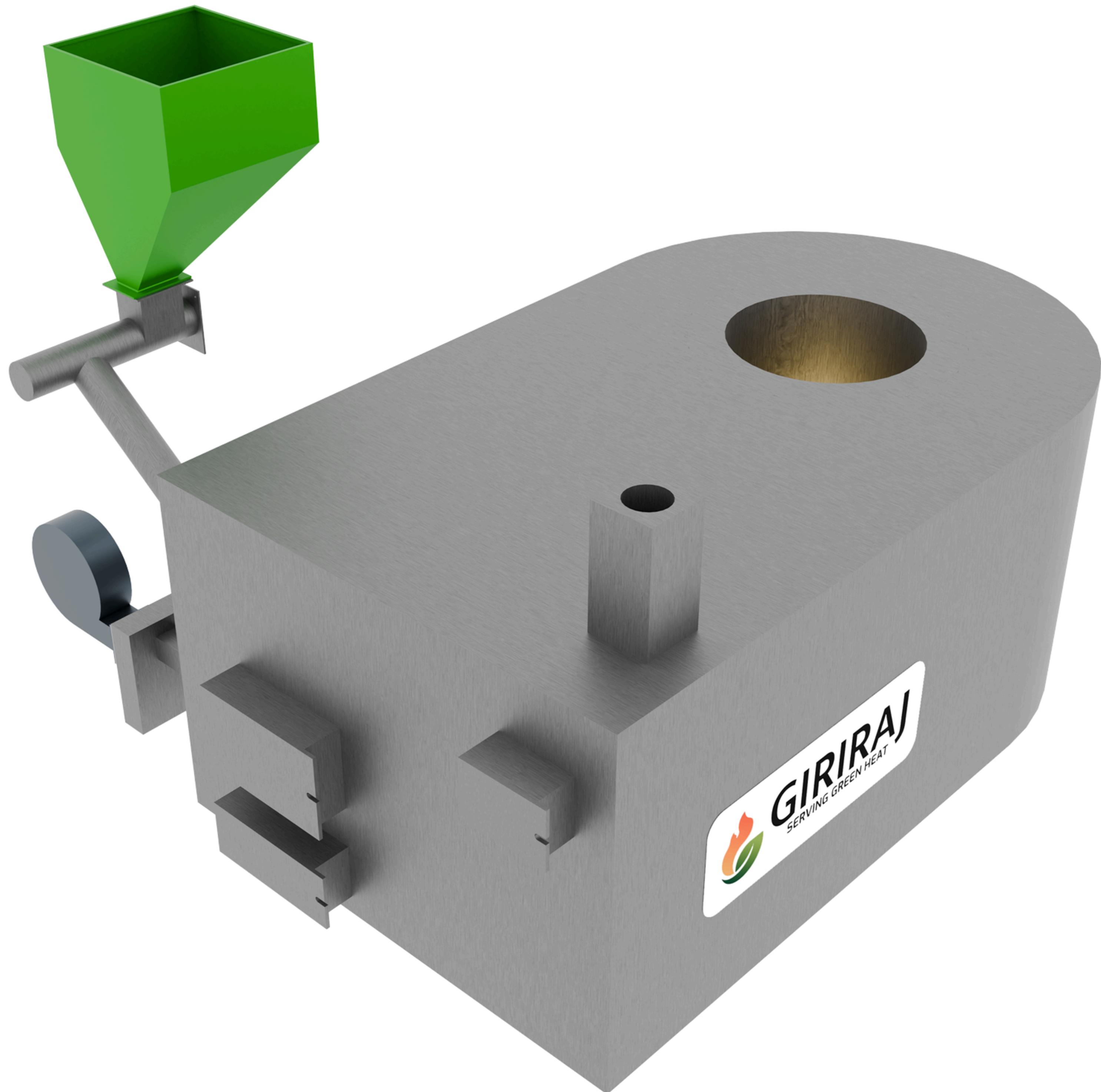
## Specifications

- Capacity Range: 1,00,000 - 10,00,000 kcal/hr (based on air-flow and pressure requirement)
- Temperature Output: Up to 250°C clean hot air
- Fuel Options: Biomass pellets / loose biomass
- Heat Exchanger: MS/SS multi-pass high-efficiency design
- Insulation: High-grade ceramic wool
- Control Panel: Digital / PLC-based



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# Aluminium Melting Furnace



## Product Overview

Aluminium melting furnace designed for melting and recovering aluminium from scrap. Delivers uniform heating, lower fuel consumption and long refractory life.



## Specifications

- Melting Capacity: 200-500 kg/batch (custom sizes available)
- Max Temperature: Up to 1500°C
- Fuel Options: Biomass pellets / loose biomass
- Material of Construction: MS outer body
- Refractory Lining: High-alumina refractory with ceramic backup insulation



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# Sectors We Cover

Serving diverse industries with customized biomass heating solutions

Food Processing

Textile

Pulp & paper industry

Cement industry

Packaging & Printing

Pharmaceuticals

Chemical

Foundry & Metallurgical

Dairy & Milk Processing

## Our Gallery

Browse through our installations



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# Why Choose Us

- Robust and Efficient design.
- Developer and sole manufacturer of SS combustion chamber-based pellet burner series, which ensures durability, efficiency, and long service life.
- 8+ years of successful installations across India.
- Led by a qualified technical leader with 10+ years of experience.
- With advanced production, active R&D and strong quality assurance to deliver reliable and efficient solutions.
- Proven reliability with 700+ installations running effectively.
- 24/7 technical support from a trained engineering team.



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## CONTACT US



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