



Eco Fire Pellets

Eco Biofuel





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Eco Biofuel PELLET

Eco Biofuel produces Industrial and Premium grade pellet from wood processing plant or urban waste wood as raw materials, such as wood shavings, sawdust, waste wood of furniture factory. Eco Biofuel produces Biomass pellet fuel based on wood processing plants or agricultural residues.

Purpose of Eco Fire Pellets

Biomass pellet fuel is used in industry as a furnace, gasifier, gasification process, as a boiler fuel and electricity generation. It is used for heat generation.

Compositions of Eco Fire Pellets

Eco Fire Pellets is made up of combustible qualitative, minerals and water, mainly contain carbon(C), hydrogen (H), and oxygen (O) and a small amount of nitrogen (N), sulfur (S) and chloride (Cl) and other elements and with ash and moisture.

Storage considerations for Eco Biofuel's Pellets

Eco Fire Pellets fuel gets damaged in humid environment. If it absorbs moisture then it becomes rotten and fluffy. So, we have to store and ship in dry container or package. Eco Fire pellet fuel storage of the main channel should be safe distance between stacking, may not be high storage. Eco Fire pellet fuel is combustible.

Important quality criteria of Eco Biofuel Pellets.

Parameter	Premium Grade	Industrial Grade
Length (mm)	10-30	10-30
Fines (% , mass)	≤1.0	≤3.0
Total moisture (% , mass)	≤5	≤10
Ash content (% , mass)	≤5	≤10
Volatiles (%)	≥75	≥70
Total sulfur (%)	≤0.03	≤0.15
Nitrogen (%)	≤0.4	≤1.00
Chlorine (%)	≤0.001	≤0.012
Oxygen (%)	≥40	≥40
Ash melting temp (°C)	≥1150	1220
Calorific value (kcal/kg)	4200	4000

COST SAVING by Eco Fire Pellets

The cost saving achieved by the wood pellets is very attractive, from 40 to 50% saving; quick ROI on conversion; saves great amount in yearly fuel cost; increases overall profit; reduces operational cost.





Eco Fire Pellets

"Eco Fire Pellets reduces Air Pollutions"

BENEFITS of PELLETS

CLEAN



- Free from contamination.
- Burns with low ash.
- Reduced carbon content



RENEWABLE

- Made from agro biomass and wood dust
- Promotes and enhance green culture



EFFICIENT

- Consistent in quality and moisture content



ECONOMICAL

- Attractive calorific value
- Low energy cost



SUPPLY

- Uninterrupted supply at your doorstep
- Available in 25 kg & 1 Ton Packing



FRIENDLY & SAFE

- Can be used in different type of furnaces
- Multiple applications
- Power generation
- Heating, cooking

Vision

To promote Green culture by providing cost saving and energy efficient Eco Fire Pellet heating solutions.

Mission

We at Eco Biofuel put in best efforts to provide Eco Fire Pellets, high-efficiency heating products and systems as a low-carbon, sustainable and affordable heating solution. We at Eco Biofuel seek to make pellets heating a cleaner and more efficient renewable energy option for all industrial and commercial requirements.

Why does the biomass pellet fuel belong to low carbon energy?

Combustion of biomass pellet fuel is given priority to with volatile flux; the fixed carbon content is only about 15%, so it is typical low carbon fuel.

How to realize the sulfur dioxide emission is biomass pellet fuel?

Biomass pellet fuel sulfur content is lower than diesel less than 0.05%, do not need to set the desulfurization device can realize the sulfur dioxide (SO₂) emissions.

How to realize the nitrogen oxides emission is biomass pellet fuel?

Biomass pellet fuel has low nitrogen content and high oxygen content, burning can effectively reduce the demand for air, reduce nitrogen oxide generated.

How is the biomass pellet fuel recycling?

The ashes of the furnace after biomass pellet fuel combustion can be used as organic fertilizer; promote plant growth, entering a new cycle, the steady supply of biological resources recycling.

Biomass pellet fuel keep in storage considerations

Because biomass pellet fuel is affected with damp, after hygroscopic expansion become rotten, so to rain moisture transport and storage, cannot open, stored in a cool, ventilated and dry environment.

Biomass pellet fuel storage of the main channel should be safe distance between stacking, may not be high storage.

Biomass pellet fuel combustible, In transportation and storage in the middle of all want to ban fire, away from fire.

**REDUCE YOUR
FUEL COST BY
INCREASE YOUR
PROFITABILITY BY** **50%**

Eco Biofuel PELLET BURNER

Eco Fire Pellets is Economical

Particular	Pellet (kg)	LPG (kg)	PNG (m3)	Diesel (ltr)
Calorific value (kcal)	4200	12000	9000	9100
Rate (Rs)	15.00	85.00	57.00	61.00*
Pellet consumption against fuel	1.0	2.9	2.1	2.2
Cost of Eco Fire Pellets (Rs)		43.50	31.50	33.00
Saving (Rs)		41.50	25.50	28.00
Saving (%)		50%	45%	46%

*As per current ratings.

BURNER

Operation Principle

Eco Fire wood pellets by automatically feeding into the burning chamber, burning produces high-temperature gas. In this process produce intermediate products H₂, CH₄, CnHm, Co and other combustible components, they are complete combustion in the high temperature chamber with sufficient oxygen, then release of heat energy.

Configuration

Applicable Fuel 6-10mm pellet fuel

Output Power 0.2-6.0 million kcal

Feeding System Automatic/ Manual

Ignition System Automatic/ Manual

Damper Adjustment PLC

Start-Stop System Auto/ Smart

Combustion Chamber Cooling Mode Air

Combustion Chamber Temp. <1700 °C

Spray Temp. <1100 °C

Flame Length <2500mm

Burner Tube Material 310S / 316 SS



MANUFACTURED FOR ECO BIOFUEL BY AIRIER NATURA PVT. LTD

Application

In the transformation, no need to change the entire existing energy systems, directly replace the original burner or combustion system can achieve the desired effect.





Technical Data for Pellet Burner

Item	ECO 20-P	ECO 30-P	ECO 45-P	ECO 60-P	ECO 80-P	ECO 100-P	ECO 120-P	ECO 180-P	ECO 240-P	ECO 360-P
Output Power	200000 kcal	300000 kcal	450000 kcal	600000 kcal	800000 kcal	1000000 kcal	1200000 kcal	1800000 kcal	2400000 kcal	3600000 kcal
Fuel	WOOD PELLETS								WOOD PELLETS	
Fuel Size	6-10 mm								8-12 mm	
Consumption	55 kg	82 kg	123 kg	165 kg	218 kg	273 kg	330 kg	492 kg	660 kg	1000 kg

Advantages

1. Good Insulation Properties

The chamber is the key part of the burner, it always suffer a high temperature of about 1000 °C. We use imported special high temperature material (can stand 1,800-degree heat). And adopt advanced production technology, its multi-protection, not only to ensure the quality of the burner, but also improve its heat efficiency. The heat efficiency is up to 92% while burner surface temperature close to room's temperature.

2. Quick fire up, high efficiency

The device uses a streamlined design of the fire, the burner fire out without resistance, higher combustion efficiency. And unique direct-fired semi-gasification combustion with swirl secondary air supply to make 2nd combustion, greatly improving its thermal efficiency.

3. PLC control and VFD control of feeder and blower

Feeding speed and air supply controlled by VFD. Simply input the required temperature, then feeding and blower ratio will be set automatically.

4. High-quality accessories (stable & durable)

Feeding motor and blower are provided by Taiwan or China well-known brand suppliers.

5. Stable performance of control system

France Schneider, Japan RKC, China well-known brands, stable performance, less trouble.

6. Unique feeding system design, no get stuck, no fireback

Flexible power transmission, smoothly conveying, easy maintenance and fir back prevent.

7. Automatic alarm system

The machine will be automatic alarm when lack of fuel or improper operation, safe.

8. Three times oxygen supply

This machine adopts 3 times oxygen supply so that more complete combustion, less ash and more friendly & energy saving.

9. High-temperature resistant burner tube

Burner tube material is special stainless steel, heat-resistant temperature up to 1100 degree, long use time (generally the ordinary stainless steel or seamless steel pipe, only can stand 400-800 degrees and short use time).

10. Beautiful shape & practical design

Nice appearance, practical design, carefully making, with metal paint spraying, frame rack with lifting pole and sliding rails for easy installation and maintenance.



Eco Biofuel Hot Air Generator

Product Details

Biomass hot blast stove is based on biomass as fuel and air as the medium, new and efficient heat transfer equipment. It can provide continuous temperature, constant pressure and dust-free clean hot air.

Product Features

- 1) The equipment is simple, automatic feed, automatic temperature control, high security, easy maintenance, operating costs is significantly reduces compared coal, oil equipment.
- 2) Boiler insulation to reduce the overall heat loss, but also improve the thermal efficiency of the boiler.
- 3) The overall structure of a compact boiler, small size, no noise, no need to set up the tall chimney, easy installation, very low failure rate.
- 4) Only a small amount of powdered ash residue after the complete combustion of fuel, easy to handle.
- 5) Is widely used in textile dyeing, rubber-coated heat setting; Indian iron paint drying room, the metal surface rust and paint drying after treatment drying, drying the paper industry, grain feed, grain, fish meal, tea, tobacco, etc. drying; plywood, gypsum board forming dry, wood drying, chemical materials, plant and animal oils and industrial spray drying plant heating and so on.

Hot Air Generator



Technical Data for Hot Blast Stove

Item No.			Eco-20-H	Eco-30-H	Eco-45-H	Eco-60-H	Eco-80-H
Rated Heat	Kcal		20X104	30X104	45X104	60X104	80X104
Efficiency	%				90%		
Inlet	mm		200X250	250X300	300X350	350X400	550X600
Outlet	mm		245	300	350	400	550
Flue Terminal	mm		180	180	220	220	270
Power Consumption	KW		8	15	20	25	40
	L	mm	2000	2100	2250	2400	3800
Size	W	mm	800	860	960	1060	1860
	H	mm	2000	2100	2200	2350	2300
Gross Weight	kg		1350	1570	2200	3600	3200
Fuel Consumption	k		55	83	125	167	222





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Survey No.175, Plot No.1, Village: Panchpipla, Tal.: Jetpur, Dist.: Rajkot (Gujarat)

Tel: 02823 - 294959 **Cell:** Jignesh - +91 9824815080, Bhavesh - +91 9909461777

Email: info@ecobiofuel.in **Web:** www.ecobiofuel.in