

Biomass Gasifier

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Problem addressed:

There are lots of villages in the world which are still not electrified or are receiving power erratically. Given the limited global supply of fossil fuels, search for renewable energy has been on the top of the sustainability agenda. Biomass gasification, a century old technology, is viewed today as an alternative to conventional fuel. In gasification process, wood, charcoal and other biomass materials are gasified to produce so called producer gas for power or electricity generation. Mr Rai Singh Dahiya observed that the users of biomass gas (producer gas) as a fuel generally complain about choking in the engine after running for a certain period of time. He solved this problem.

Product

The innovator has changed the conventional design of gasifiers specially the filters and cooling units to get clean gas and ensure smooth operation of engine at low operational cost. It is a down draft type biomass gasifier, compact and efficient system for converting Bio Mass into producer gas which is used as a fuel in running Diesel Engine by making little modification on engine. The Biomass is burnt in a furnace packed from all the sides and having one outlet to pass the gases to other chamber where these gases are cooled and then passed through the filter for filtration. This filtered gas is then feed to the engine, as a substitute to diesel or like other fuel, for its running.



Technical Specifications	<ul style="list-style-type: none"> • Capacity-5kw to 50 Kw, • Three Phase, P.F. 0.8, • water cooled, Two Cylinder, four cylinder, six cylinder and eight cylinder • Self Start, Alternator with complete standard accessories (without Battery).
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Key Competitive Advantage:	<p>Compact , mobile and a soundproof unit Extremely clean gas generated from the gasifier, making downstream cleaning systems simple. It converts the agricultural waste into the generation of the electrical power No need of continuous flow of water , easy to operate, no extra training or skill is required Reliable & rugged system, stand alone mobile system, can be used anywhere where we need power. All types of wood waste and fuel wood Stalks of cotton, pluses , coconut shells, coconut palm stalks, Maize cobs, Rice husk, Branches & twinges, briquettes of various agricultural residues, Certain Industrial wastes of paper mills, plywood industry etc can be used as a fuel. The fuel consumption is reported to be 1 kg/kVA, claimed to be almost 30-35 per cent lesser than conventional gasifiers and depending upon the feedstock it produce ash and charcoal (7-10%) as a by product.</p>
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Price:	Sr.No.	Model Name	Descriptions	Price		
				Basic Unit	Basic with Sound Proof	Mobile with Sound Proof
	1	ESB-R05	5kW sized biomass gasifier with genset	4,95,000.00	5,45,000.00	605,000.00
	2	ESB-R10	10kW sized biomass gasifier with genset	6,82,000.00	747,000.00	822,000.00
	3	ESB-R20	20KW sized biomass gasifier with genset	9,96,000.00	1,071,000.00	1,156,000.00
	5	ESB-R50	50kW sized biomass gasifier with genset	1,735,000.00	1,815,000.00	1,905,000.00
	6	ESB-R100	100kW sized biomass gasifier with genset	4,520,000.00		
Time to deliver:	One month after confirmed order with 75 per cent of the price as advance payment					
Achievements:	Innovator has been awarded in Fifth Biennial Award Function from National Innovation Foundation and also supported under MVIF scheme of NIF.					
IPR Status:	341/DEL/2012 (CS Filed)					
BD website link:	http://nif.org.in/innovation/biomass_based_gasifier/6					
For Business Enquiries, please contact:	Business Development, National Innovation Foundation - India Satellite Complex, Jodhpur Tekra, Premchand Nagar Vastrapur, Ahmedabad -380 015, Gujarat, India Phone: +91-79-2673 2456, 26732095; Fax: +91-79-2673 1903 E mail: bd@nifindia.org , Web: www.nif.org.in					