



**An Introduction:**  
**"Ankur" Biomass Gasifier Systems**

We take this opportunity to introduce our product range of Biomass Gasifier Systems, which may be of tremendous interest to you. These systems can save you large quantities of diesel oil (HSD), LDO, Furnace Oil or other petroleum products through use of either rice husk or wood. We would like to inform you of the following basic considerations for utilization of our systems to substitute for liquid fuels:

1. We offer two different types of gasifier systems – our WBG series and our FBG series. WBG series is meant for firewood, wood waste or other wood-like materials while FBG series is meant for fine biomass materials like rice husk. Biomass may have to be cut to size (as specified by us) and moisture content has to be less than 20% (on wet basis) for woody biomass and 10% (on wet basis) for rice husk.
2. Our gasifier systems convert these biomass materials into a combustible gas which can either be burnt in an appropriate burner or which can be fed into diesel engines for saving of liquid fuels like F.O., LDO, HSD etc.
3. For most cases, one litre of oil can be saved through use of either 3.5 to 4 kg. of wood or approximately 5.5 kg. of rice husk. The economics in terms of reduction in fuel cost can be worked out by checking the likely price of the material to be used and also by knowing the cost of liquid fuels. These numbers can also be used to work out the requirement of the biomass for any given application.
4. In case of thermal application, the only limitation is the fact that maximum flame temperature using our gas can only be 1100°C if combustion air is not heated. In case of equipments where flue gas-to-air recuperators are used and combustion air is at relatively high temperatures, the flame temperatures could be higher. We therefore need to get complete technical details for the thermal energy equipment parameters to assess if our gas can really give the required temperatures.



5. In case of engine gensets, the specific details of engines are important as engine parameters play an important role in deciding if gas can be fed to such engines. In such applications, only about 65% to 70% of the normal diesel consumption can be substituted as some diesel is required to initiate combustion in the engines. This generally means that each unit of electricity requires about 80-100 c.c. of HSD and 0.9 kg. of wood or approximately 1.4 kg. of rice husk etc. Once again, the economics and biomass consumption can be worked out on the basis of data given above.
6. In case of engine gensets running on 100 % producer gas, the per unit consumption of woody biomass comes out to be just 1.5 kgs. Presently this engine runs on our WBG gasifier series. Available Ankur power pack models are GAS-4, 9, 11, 40, 60, 70, 120, 160, 250, 320, 425 where in model number suggests peak output KWe. Please refer our brochure for further information.
7. The smallest gasifier rating offered by us in WBG series is 3 kW/15,000 Kcal per hour and the largest single unit is 850 kW/2.125 million Kcal per hour. In case of FBG series, the smallest rating is 40 kW/100000 Kcal per hour and the largest is 400 kW/875000Kcal per hour.
8. Ministry of Non Conventional Energy Sources, (GOI) is giving handsome subsidies for our Gasifier systems. For power generation application, MNES gives subsidy of 1.5 lakh per 100 KW, for thermal application Rs.1.25 lakhs per 100 KW and for Power Generation application on 100 % producer gas based system Rs. 15 lacs per 100 KW.

There is more information on the website [www.ankurscientific.com](http://www.ankurscientific.com). You can also send us details about your requirements through the enquiry section there.

Alternatively you can directly contact us at:

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