

WASTE TO RDF – BRIQUETTING & PELLETIZATION

Rigel considers Solid Bio based Wastes as a potential resource. From the point of resource efficiency, various solid bio-origin wastes can be recovered and recycled and reused at every procedure of production and consumption. Generally, these solid bio-originated wastes are of following categories, such as municipal bio wastes, residential kitchen wastes, commercial organic wastes, industrial organic wastes etc.. Among them, residential bio waste is closely related with every citizens each day, which refers to the wastes generated by households living, including kitchen and gardens organic wastes, whereas recyclable waste such as paper, textile, plastics, etc, are derived from industries.

Almost around 80-90% of these total organic wastes go to landfill without efficient separation and recycling with high calorific value potential. Solid wastes are usually mixed with different waste components out of which some can be converted into fuel and some cannot be.

For high calorific solid wastes, briquetting is one of the ways to turn the wastes into treasure, the **Residue Derived Fuel (RDF)**. Briquetting technology is used to densify the loose combustible materials into solid composites of different shapes and sizes with the presence of pressure and binding. Pellets are smaller than briquettes.



There are a wide range of materials that can be used to make briquettes or pellets, such as waste paper, cardboard, water hyacinth, agricultural residues, coconut shells, rags & torn textiles, charcoal dust, and wood wastes like sawdust, etc.

Briquettes or Pellets as fuel are usually used in industries - boiler plants, heating plants, power stations and thermal power stations, even in individual customer's household use. It is also possible to use fuel briquettes/ pellets in the fireplaces and conventional boilers that once use coals or woods with or without a little modification. The increase price of the conventional fuels urges the demand for the briquettes fuel and affects briquette/ pellet fuel price and the briquette/ pallet machines price as the increased public awareness to the environment