



Miike System: Sludge valorisation

Solid fuel production from sewage sludge and other end-of-life waste

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Starting in 1953 with the sawdust recycling system, the company works strictly with the valorisation of various waste types. How can we effectively utilise unused resources called « waste » is their only interest. The company designs and manufactures all equipment and machines for each recycling plant to make sure that their machines can perform to its maximum. With its extensive experiences and history, Miike knows how to create valuable resources out of your waste.

Sewage sludge typically contains a high level of biomass but this potential biomass is rarely utilized as an energy source due to its high water content. Miike developed a depressurised sludge dryer that decreases the water boiling point to 55 to 70° C to effectively vaporise the water out of sludge (water content of approx. 20%). The dryer utilizes the heat produced by the biomass boiler specifically developed by Miike for biomass types such as RDF.

By mixing the dried sludge with end-of-life waste such as plastics, garden waste, or sawdust, solid fuels can be obtained (in forms of briquettes and granulates).

With a constant production rate of sewage sludge and the plastic waste in urban areas, these troublesome waste problems can become valuable energy resources.

	Dried sudge	Mixed sludge*
Heating value range	5940-4830 kcal/kg	6890 - 6380 kcal/kg
Ash content	40,77 %	16,67 %
Water content	18,44 %	3,55 %
Chlorine content	0,38 %	0,15 %
Sulfur content	1,38 %	0,34 %