

### Briquetting of fines from municipal waste processing with a RUF 600

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**Municipal waste can be incinerated or become landfill. Beforehand the waste can be pre-treated. This gives rise to a dusty fine fraction that must be burnt. However this preparation causes problems. These problems could be solved with briquetting; since the end of 2013 a RUF 600 runs trouble free in a city North of Berlin.**

In 2013, a RUF 600 was sold to be used for a special application of briquetting fines from mechanical biological waste processing. The system is operated in northeastern Germany, about 150 km north of Berlin.

Digression: Mixed municipal and commercial waste must be disposed of. This can

- be landfill (without pre-treatment in Germany not allowed since years)
- be burnt (total capacity in Germany 20 million tonnes)
- be treated with mechanical biological processing plant (MBA)  
(total capacity in Germany 5 million tonnes)

Mechanical biological treatment of waste is not a standalone method of disposal. It divides the residual waste into different fractions and prepares them for further recycling or disposal.

In the MBA procedure, first metals and calorific items are separated for recycling. What remains is a so-called landfill fraction, which is deposited, through a biological treatment (rotting, fermentation) with a very low biological residual activity, in a landfill site. Alternatively, substitute fuels (stable) are generated. The residual waste is dried in the biological process by the heat of reaction and thereby prepared for further treatment. The dried waste can be divided into recyclable fractions (substitute fuels, ferrous and non-ferrous metals, etc.).

Within the framework of this separation of dried waste fractions there is besides other fractions also a fine part, mainly from organic material, but contains also a sand fraction. This fine part must be burnt.

Combustion in an incinerator proved improvingly difficult, as the dusty material creates problems in the storage, the material feed, as well as the combustion chamber itself.



These difficulties should be overcome by the compacting of the material. Regarding this we first conducted a press test, which was successful. Additionally, a rental press ran problem free for four weeks straight from the first day of use. The resulting briquettes were used for burning-tests in the power plant. These were successful and the problems were resolved. On the basis of this we created a RUF 600 (standard version but with form 150x70) in the middle of 2013, which went into use in December 2013.



**Fine part from the house waste processing: Loose and briquetted**

To date, the machine still shows a low number of operating hours (18.Oct.16/ 1125 h). Therefore, an exact estimate of the operating cost cannot be made. However, the operation of the machine itself is still problem free.