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[Heavy-medium separation and washing system installed and commissioned at BEZ Hochfranken](#)

## Heavy-medium separation and washing system installed and commissioned at BEZ Hochfranken

HUBER Longitudinal Grit Trap ROTAMAT® Ro6 Bio and HUBER Grit Washer RoSF G4E increase operating reliability and reduce operating costs

Bioenergiezentrum Hochfranken (BEZ) is an association of the town Rehau, the administrative districts Hof and Wunsiedel and some local companies supplying the town and districts with regenerative energy. Beside different plants from the companies involved, the biowaste fermentation plant is at the heart of the new concept. The fermentation plant treats the biowaste of the municipalities involved, covering nearly 40% of the local primary energy demand.



Fig. 1: HUBER Longitudinal Grit Trap ROTAMAT® Ro6 Bio (right) with downstream HUBER Grit Washer RoSF G4E (left)



Figure 2: Removed and washed heavy medium / grit

When the complete waste fermentation plant was planned and built, it turned out already after a short period of operation that the heavy medium was only very insufficiently separated from the treated substrate (comminuted biowaste mashed with water) and the biowaste still contained a very high amount of foreign material, from gravel and grit, stones and pieces of glass to metal waste.

This material accumulates on the bottom of the downstream fermenter and has to be removed regularly at high costs using mining techniques to ensure the performance of the overall plant is maintained. This was the reason why Bioenergiezentrum Hochfranken contacted HUBER.

After detailed examination and development of a concept, a HUBER Longitudinal Grit Trap ROTAMAT® Ro6 Bio was retrofitted in the fermenter and a HUBER Grit Washer RoSF4 G4E installed additionally. The sedimentation issue is in this way shifted from the fermenter to the HUBER Longitudinal Grit Trap where the heavy-medium and foreign matter is removed reliably.

The downstream HUBER Grit Washer returns the adhering organics into the bio-suspension so that the heavy medium to be disposed contains as few residual organics as possible. It is also important to select a residence time that ensures the heavy medium can settle but as little as possible of the biosubstrate gets lost and the plant is not silted up. The grit trap is therefore equipped with a suitable aeration system.

Since installation and start-up of the new plant mid 2018, no fermenter cleaning has been necessary. The heavy-medium separation works very well and reliably, contributing to the sustainable optimisation of system operation and plant stability.

**Related Products:**

- [HUBER Longitudinal Grit Trap ROTAMAT® Ro6](#)
- [HUBER Grit Washer RoSF G4E](#)

**Related Solutions:**

- [HUBER Solutions for Organic Waste Processing](#)
- [HUBER Solutions for Mineral Waste Utilization](#)

Huber Technology (Pty) Ltd

Company Reg. No.: 1992/006606/07

PO Box 9813  
George, 6530  
South Africa

Phone +27 44 874 4242  
Fax +27 44 874 3658  
[huber@lantic.net](mailto:huber@lantic.net)  
<http://www.hubersa.com>

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