

HUBER Belt Dryer BT^{plus}



- Dry, granular, disinfected (Class A) biosolids product, easy and safe to handle
- Exhaust air deodorization
- Virtually dust-free product
- Energy-optimized process
- In compliance with European and international standards

Thermal sludge treatment with HUBER belt dryers

Drying of organic material, such as sewage sludge or fermentation residues, has to meet the conflicting demands between economic efficiency, eligibility for support, product availability and product quality.

Drying of sewage sludge minimizes its mass, volume and disposal costs. The produced dry and disinfected (Class A) biosolids are a valuable product that is well suited for its beneficial use.

The excellent product quality and reliability of the HUBER belt dryers are the result of our many years of experience in the entire field of sludge treatment.

The drying properties of the product substantially depend on the process steps applied prior to drying.

Well dewatered sludge is easy to handle and the basis for efficient drying. Belt dryers are perfectly suitable for drying material with a well-permeable structure. The feeding system of HUBER dryers is able to substantially improve the structure and significantly reduce the generation of dust within the dryer.

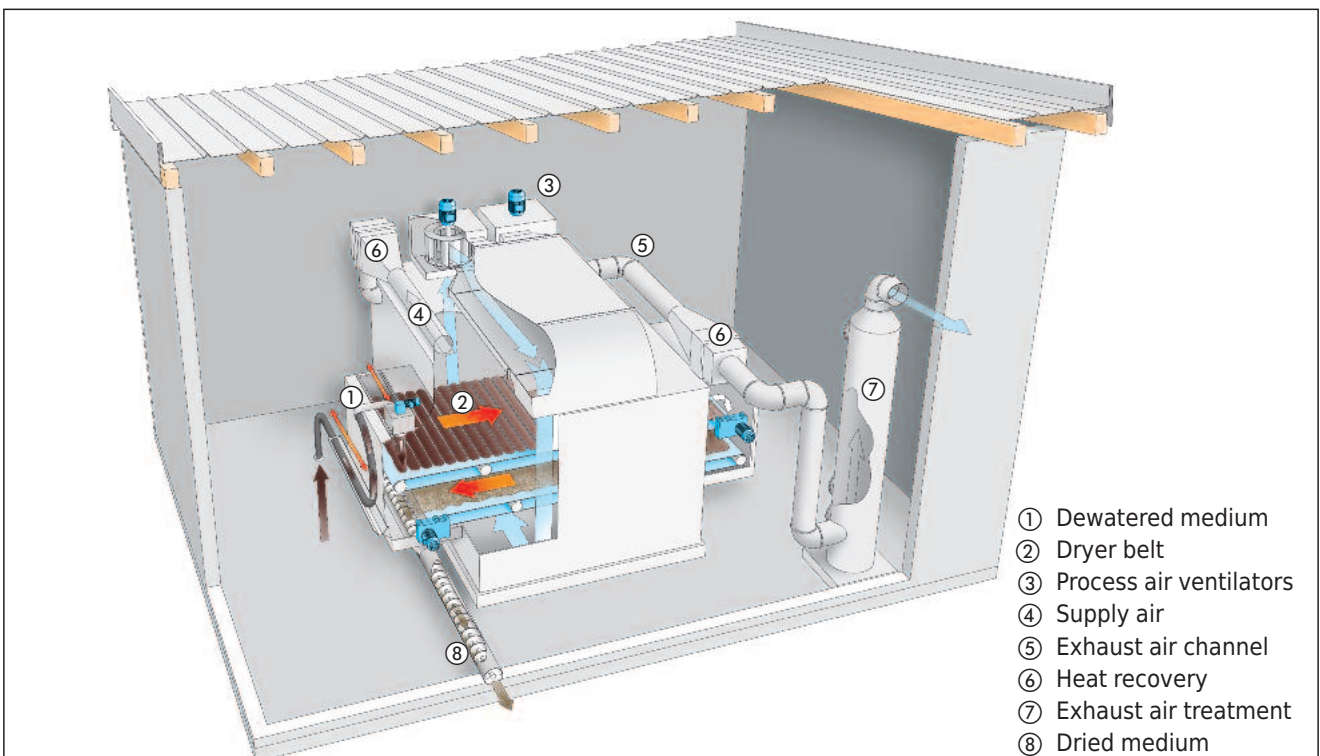
Our plant components are selected on the basis of their high availability and high quality of individual parts. The modular design of HUBER belt dryers permits to adapt them to meet specific customer requirements.



Sludge feeding through our extruder is essential for the outstanding performance of our belt dryers



Porous sludge layer on the belt riding slowly and gently through the dryer; no mechanical stress is applied and virtually no dust generated



Process diagram of a HUBER Belt Dryer BT^{plus}

Different energy sources can be used to supply the thermal energy required for drying, whether innovative combinations of regenerative energy sources or conventional forms of energy.

Depending on which disposal option the customer has selected the sludge can be dried to only 60% to 85% DR or dried fully to a DR of 90% or even higher.

Due to the long residence time of the sludge inside the dryer and the selected process parameters the dried product is hygienically safe.

The intermediate storage of dried sludge depends on the residual moisture content. HUBER offers optimal solutions for long-term economical plant operation.

The exhaust air treatment system is designed individually to meet the specific requirements of the sludge to be dried. Contaminants and odours are removed from the exhaust air flow by means of single or multi-stage systems. The quality of the treated exhaust air complies with the requirements of approving authorities.



- ① aerobically digested sludge, fed through a pug mill
- ② blended and comminuted industrial and municipal sludge
- ③ anaerobically digested and extruded sludge
- ④ extruded waterworks sludge

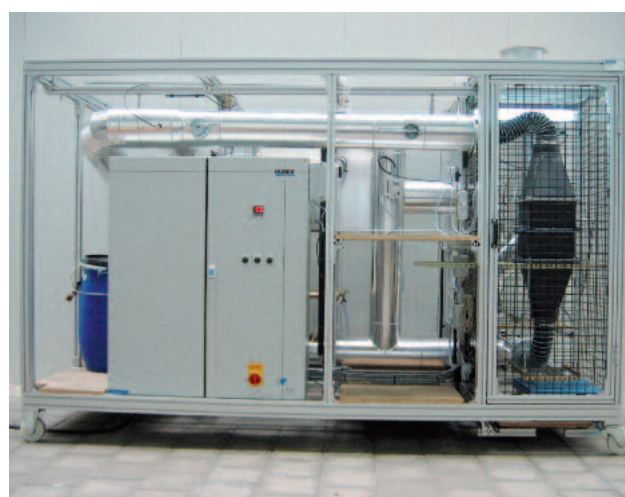
Operation, automation and safety

Operation of HUBER belt dryers is fully automated. Though the dryers are designed for 24/7 operation, it is always possible to interrupt its operation. Permanent control of the main process parameters ensures the safe operating status of the plant at any time.

Operator attendance is minimal. Dryer start-up and shut-down is easy. The main control parameter is the dryness of the sludge product, which is maintained within a small range.

Because the sludge is transported so gently through the dryer, very little dust is generated. The temperature within the dryer is moderate. There is virtually no danger of dust incineration or explosion.

The temperature is permanently monitored during the drying process. In addition, the carbon monoxide (CO) concentration in the exhaust air is monitored. Our dryers comply with EU and ATEX safety standards.



Small unit – high design security



Dried material storage as required for the selected sludge disposal option

►► Benefits

- Dry and disinfected (Class A) biosolids product
- Optimized product feeding due to our own pelletizer design
- Granular product, easy and safe to handle and store
- Small exhaust air volumes due to recirculation of dryer air
- Deodorized exhaust air due to customized exhaust air treatment
- Minimal dust generation, safe plant operation
- Virtually no noise and vibration
- Low energy consumption due to heat recovery and reuse of waste heat
- Low operation and maintenance costs
- In compliance with European and international standards
- Various disposal options due to the flexibly adaptable drying degree

►► Sizes

- Up to 20 t/h water evaporation capacity
- 1 to 5 modules with 2 or 4 belts per train

All HUBER belt dryers are individually designed and built to meet our customer's needs. They are installed in existing or new buildings.

►► Our scope of services

- Development of tailored concepts, design and layout of the entire plant
- Customised exhaust air treatment
- Delivery, installation, commissioning
- Maintenance of the plant including its integrated components

HUBER – expertise and experience in the entire field of sludge treatment provided by a professional partner.



Exhaust air treatment designed to meet specific customer requirements



Reliable operation and easy maintenance



Sludge drying solutions that meet the customer's expectations

HUBER SE

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