



HUBER

Disc Dryer RotaDry®

Contact dryer for sewage sludge

- ▶ Partial drying of sewage sludge for recycling in fluidised bed incineration plants

More information,
downloads and
current news



Contact drying of sewage sludge

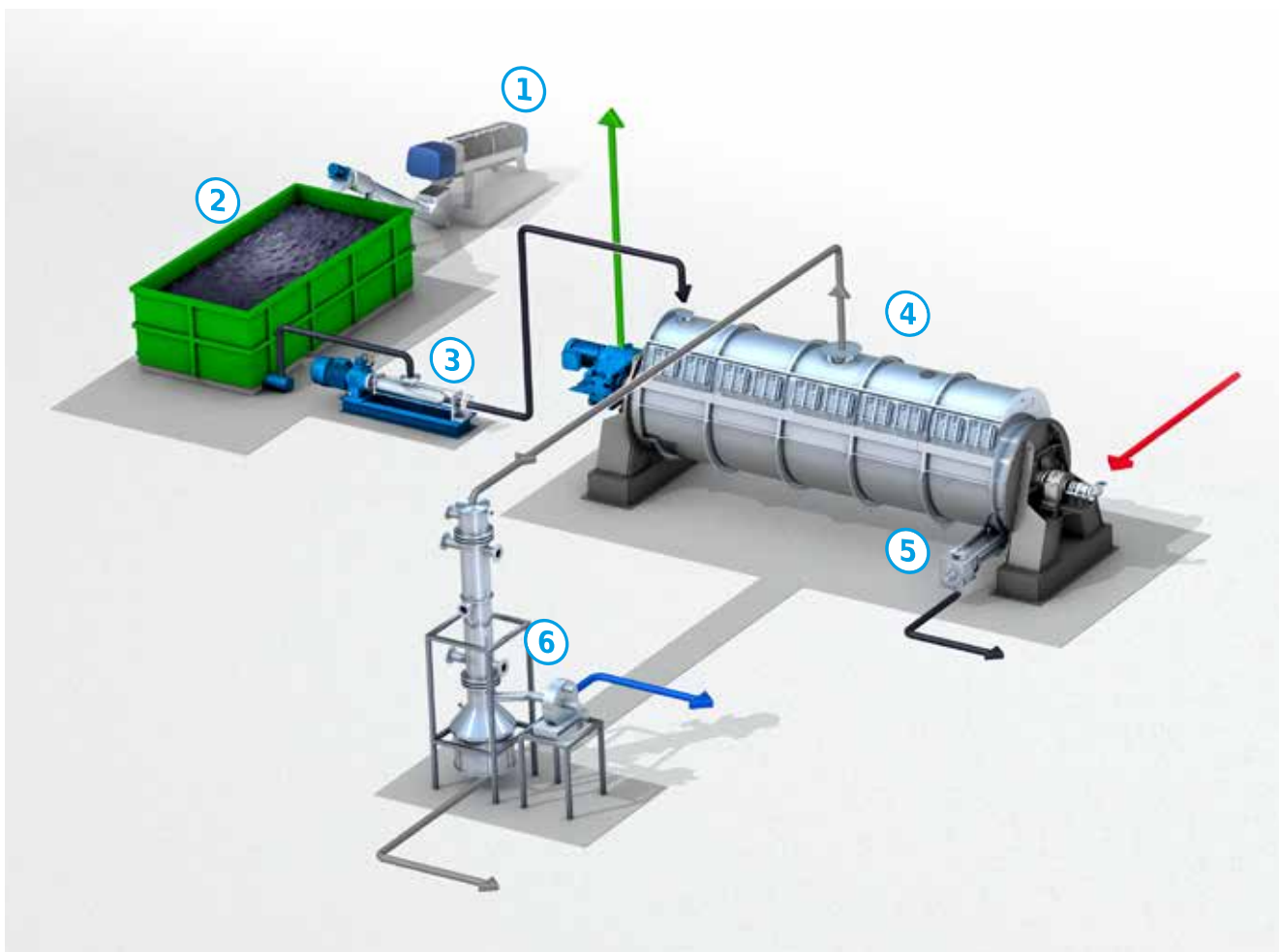
The HUBER Disc Dryer RotaDry® is designed for homogeneous partial drying of dewatered sewage sludge. Due to its compact design and high specific water evaporation, it is ideally suited not only for use in new sewage sludge mono-incineration plants, but also for capacity expansions or replacement of existing plants. The dryer can dry exactly to the required DR content, thus enabling self-sustaining combustion in the fluidised bed incinerator.

The HUBER Disc Dryer RotaDry® is available in different sizes, so that a water evaporation of around two to six tons per hour and dryer can be achieved. By using different disc diameters and numbers of discs, the heating surface can be optimally adapted to the amount of sludge produced and the dryer can be operated in the ideal capacity range.

Thermal drying of sewage sludge is an indispensable process component to ensure the sewage sludge has the right dry residue. The subsequent mono-incineration of the sewage sludge achieves an enormous reduction in volume and mass and provides for the recovery of phosphorus. At the same time, the heat required for drying is provided and, depending on the size of the plant, electricity is also generated by means of a steam turbine.

A reliable condensate drainage system, a disc design with maximum service life, process and customer oriented support and a maintenance friendly drying concept make the HUBER RotaDry® disc dryer apart as the perfect sewage sludge dryer in combination with a mono-incineration plant.

i We would be pleased to advise you individually, and you are also welcome to send your inquiry to sludge@huber.de.



- | | | |
|--------------|---------------------------|--------------------|
| ① Dewatering | ③ Sewage sludge transport | ⑤ Discharge screw |
| ② Bunker | ④ Disc dryer | ⑥ Vapour condenser |

HUBER Disc Dryer RotaDry® with upstream and downstream peripherals.

Advantages of the disc dryer

► Compact design

The HUBER Disc Dryer RotaDry® convinces by its compact design, which allows the dryer to be installed even on a small footprint or to be integrated into existing plants.

► Proven and durable technology

The many years of successful use of disc dryers in combination with sewage sludge incineration plants demonstrate the robust technology of the process.

► High specific water evaporation capacity

By heating the rotor discs and optionally the jacket, a high volume-specific water evaporation can be achieved.

► Competent partner

Thanks to the cooperation between HUBER and OESTERGAARD, the customer is offered the best possible solution, both in terms of process and design.

► Maintenance-friendly dryer

Minimal effort for operating personnel thanks to automatic grease lubrication and low-maintenance direct drive

► Extended service life

By using a special welded construction for the discs, the minimum permissible residual wall thickness can be reduced. The service life of the rotor is thus extended to a maximum.

► Control concept adapted to mono-incineration plants

In the event of fluctuating sludge quality, the DR measured online can be included in the control

► Secure condensate drainage

Reliable condensate drainage from the discs due to the omission of a syphon pipe



Robot-manufactured discs ensure identical high quality.



A disc dryer is lifted into place with the help of a heavy-duty crane.



Transport of a disc dryer to the installation site.

Vapour condensation

The overall dryer system always includes the condensation of the vapours produced by the disc dryer. Depending on the project-specific conditions, there are various possibilities here.

- ▶ **Tube bundle condenser** (indirect condenser)
Compact design to maximise the extraction steam for district heating, as heating water is raised to the required temperature level directly in the condenser.
- ▶ **Injection condenser** (direct condenser)
Circulating and cooled vapour condensate is sprayed in the head of the condenser to knock down the condensable vapours. Robust and universal condenser variant.
- ▶ **Multi-stage condensation**
Consisting, for example, of a sludge preheater (for energy optimisation and polymer consumption reduction in the dewatering process) and an injection condenser as residual condenser.

Ease of maintenance disc dryer

Maximum reduction of the activities during walkarounds

- ▶ The main rotor bearings and the discharge screw bearings are supplied with automatic grease lubrication.
- ▶ Highly efficient direct drive with peripheral speed adjustment capability. Wear-optimised driving style and startup under load possible.
- ▶ Discharge screw is easily accessible and removable for replacing wear plates and screw spiral.

Unit sizes / performance

Unit size*	1854 (M)	2050 (M)	2064 (M)	2264 (M)
Max. water evaporation**	3,300 kg/h	4,000 kg/h	5,000 kg/h	6,500 kg/h
Disc diameter	1.8 m	2.0 m	2.0 m	2.2 m
Number of discs	54	50	64	64
Capacity sludge per dryer	5,000 kg/h	7,500 kg/h	9,500 kg/h	11,500 kg/h

* all dryers are optionally available with jacket heating.

** dependent on inlet and outlet DR.

