



**AUTHORISED
SYSTEM
PARTNER**

SOLAR TECHNOLOGY. SUSTAINABLE SUCCESS.

WENDEWOLF® SOLAR SEWAGE SLUDGE DRYING

The aim of clear sludge drying is to reduce the volume and moisture content to up to 90 % dry matter, which leads to considerable savings in disposal costs. The high-quality dried sludge can then be used in a variety of ways: for example in agriculture, road construction, phosphorus recovery, as a substitute fuel or for raw material substitution in the cement and clinker industry. The **WendeWolf®** forms the centrepiece of every solar drying system. As a fully automatic turning and conveying system that covers the entire width of the hall, it ensures uniform, energy-efficient and reliable drying of sewage sludge – with minimal labour costs.

The technology of the WendeWolf® is based on decades of practical experience in in-house operation. This expertise stands for maximum operational reliability, continuous development and proven process quality – **with over 200 successfully installed systems** worldwide.

The WendeWolf® distributes, turns and conveys the sludge fully automatically. The timing of the turning process is precisely aligned to the actual energy input from solar radiation – for maximum drying performance with minimum energy input. A weekly timer programme accurate to the minute enables individual work programmes to be started on a time-controlled basis. All processes can be easily and clearly customised and controlled via a user-friendly control panel.

TECHNICAL DATA

Example: WendeWolf SW-12

Length/Width/Weight	4.3m/11.7m/4.1to
Diameter of the turning drum	1.0 m
Clearance height	2.6 m
Lane distance	11.3 m
Protection class of the motors	IP66
Total connected load	15 kW
Voltage	380 – 460 V
Frequency	50 – 60 Hz
Drum speed	30 – 60 rpm
High speed	8.0 m/min
Working cycle	0.8 – 2.0 m/min



Dry granulate



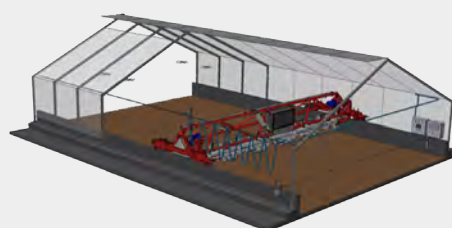
ADVANTAGES WENDEWOLF®

- ❑ Up to 95 % less energy consumption:
 - Electricity consumption/tonne of water removal 20 – 30Kwh (remaining solar requirement)
 - Conventional systems electricity consumption/tonne of water removal > 800 kwh
- ❑ No time-consuming back-mixing
- ❑ Versatile combination options with waste heat or additional energy
- ❑ Durable, robust and low-maintenance
- ❑ Batch or continuous operation
- ❑ Uniform fine-grained granules
- ❑ Storage of dry granulate in the drying hall over 80 cm layer thickness
- ❑ Filter cake over 40 cm layer thickness
- ❑ Over 400 m³ per hour turning and conveying capacity
- ❑ Mud cones over 100 cm are levelled without any problems

APPLICATION WENDEWOLF®

Concept for	medium-sized wastewater treatment plants
Plant size (PE)	5,000 – 500,000 population equivalents*
Drying area	500 – 12,500 m²*
Sludge quantities/year	approx. 400 – 32,850 tonnes (mechanically dewatered)*
System design	Modular
Individual hall size	12 x 120 metres = 1,440 m²

*Modular system, can be extended as required!



ZERODOR® – NEUTRALISATION OF UNPLEASANT ODOURS

ZERODOR® stands for a modern, effective form of odour neutralisation that does not rely on masking or complex filter systems, but on a targeted change in olfactory perceptibility. Instead of reducing the concentration of odour-intensive substances, their odour is significantly weakened – quickly, sustainably and without residue.

HOW ZERODOR® WORKS:

The reagent liquid specially developed for sewage sludge is introduced directly into the odour-contaminated air – either as a fine spray mist or, in the case of high humidity, as an anhydrous vaporiser using **ZERODOR DGD** (Dry Gas Dispersion) **technology**.



Zerodor fan with integrated spray nozzle

The reagents react directly with the odour-active molecules (e.g. H₂S, NH₃, mercaptans, skatole, etc.) and change their perception spectrum. The odours are significantly reduced or no longer perceptible to humans (and animals) – without physically removing the molecules.

TECHNOLOGY & APPLICATION

- ❑ Reagent consumption: approx. 10 ml/h per nozzle
- ❑ Compressed air requirement: approx. 7 Nm³/h
- ❑ Control via control centre with distributed dosing technology
- ❑ The dosing runs automatically and sequentially (e.g. 2 min. on / 2 min. off), adapted to the demand

ADVANTAGES AT A GLANCE

- ❑ No masking – true neutralisation
- ❑ Perceptibility reduced instead of concentration
- ❑ Immediate effect with minimal reagent consumption
- ❑ No residues, no filter change
- ❑ Compact: no additional fixtures or surfaces required
- ❑ Effectively reduces odours & insect infestation
- ❑ Environmentally friendly & non-toxic