REFERENCE

SEVAR
Drying Technologies

BELT DRYER 2x BD 3000/8
Howard County
Savage, MD (USA)


Little Patuxent Water Reclamation Plant (LPWRP)


Belt Dryer (Line 2) with back-mixing station


Exterior view of the dryer building with 2x dry material storage silos

Howard County operates the **Little Patuxent Water Reclamation Plant** (LPWRP) in the state of Maryland, USA. As part of the modernization of the treatment plant, the **„Biosolids Belt Drying System“** was installed and has been in operation since January 2021.

The commission of the drying system by **Clark Construction Group, LLC** took place in February 2017. The engineering service of the „Biosolids Processing Facilities Improvement Project“ was provided by the renowned American architecture and engineering firm **HDR, Inc.**

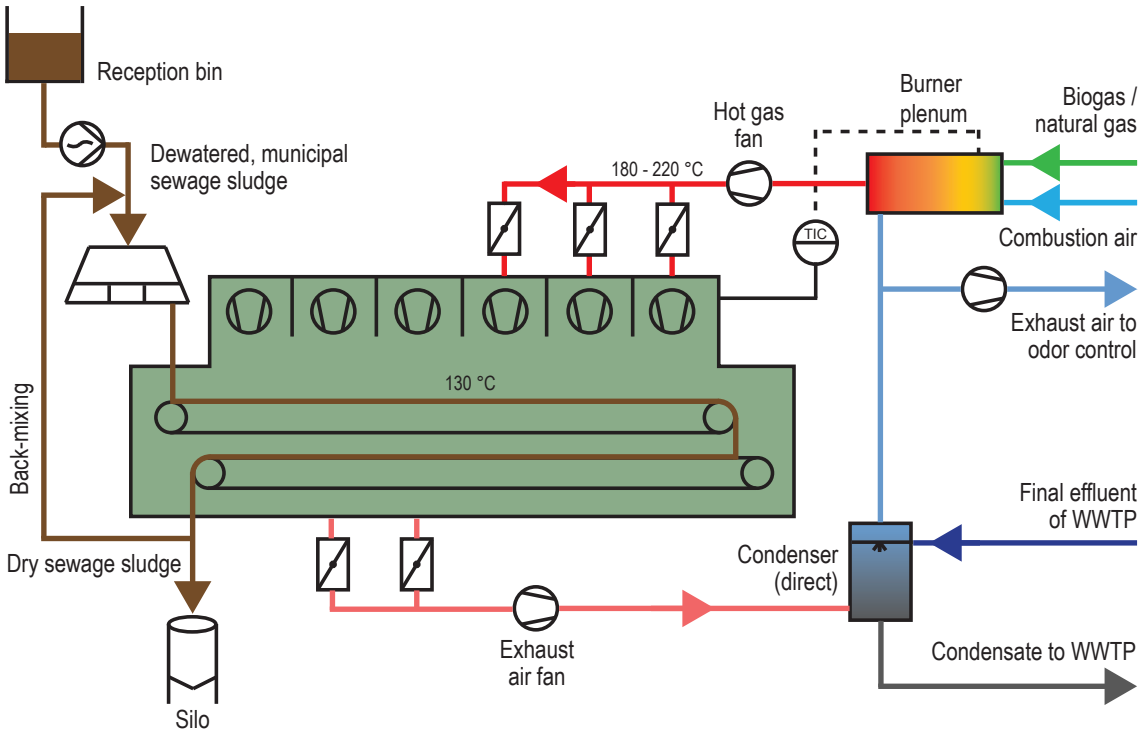
Two parallel operating lines of the directly with natural gas or biogas heated belt dryer with a receiving bin for dewatered sewage sludge, feed pumps, back-mixing, dry material storage silos and spray condensers were built for a water evaporation capacity of 4.4 t/h [8,800 lb/h]. The electromechanical **turnkey installed** plant is designed for the complete drying of 5.5 ton of wet sludge per hour [11,000 lb/h] with 20% DS to 90% DS. The wet sludge is mixed with dry sludge to 30% DS before being fed onto the upper dryer belt.

The aim of the project was to replace the current practice of stabilizing undigested sludge with lime with a modern process.
The construction of digesters and the subsequent full drying of the digested sewage sludge meets the high **Class A (US EPA 503)** standards with respect to the elimination of pollutants and pathogens. The dried sewage sludge is available for use by citizens as fertilizer or as a soil mixture. The use in sod/turf production is another possible application of the dried sewage sludge.

In September 2021 the project **„Little Patuxent Water Reclamation Plant Biosolids Processing Facilities Improvements“** was awarded the **Envision Silver Award for Sustainability** by the Institute for Sustainable Infrastructure (ISI).

SEVAR
Drying Technologies

FUNCTIONAL PRINCIPLE



Source: SEVAR AG

TECHNICAL DATA

t = tn.sh. (US unit)

Scope of supply:	2 lines Belt Dryer BD 3000/8 with reception bin and feed pumps for dewatered sewage sludge, back-mixing, spray condensers, dry material storage silos
Type of drying:	Full drying
Heating source:	Direct heating with natural gas or biogas
Material:	Digested municipal sewage sludge
DS input:	20%
DS output:	90%
Throughput_wet:	44,100 t/a (5.5 t/h) [88,200,000 lb/a (11,000 lb/h)]
Water evaporation:	4.4 t_{H2O}/h [8,800 lb/h]
Operating hours:	24 h/d, fully automatic
Commissioning:	2021

SEVAR AG

SEVAR AG emerged in 2020 from the environmental technology division of Haarslev Industries A/S. The over 30 years proven **technology of belt drying** is continued under the already wellknown name SEVAR with a motivated team. The young German company with headquarters and production near Karlsruhe is supported by an international network of partners and agents. SEVAR designs and manufactures equipment for the **thermal treatment of municipal and industrial sewage sludge**, biomass and digestate. The treatment of the humid exhaust air resulting from the drying process with condensation and odor control is also considered. Reference plants are available for visiting worldwide.