

BELT DRYER 2x BD 3000/8

Howard County Savage, MD (USA)



Little Patuxent Water Reclamation Plant (LPWRP)

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 4.0 t/h. The electromechanical **turnkey installed** plant is designed for the complete drying of 5.0 tons of wet sludge per hour 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).



Belt Dryer (Line 2) with back-mixing station

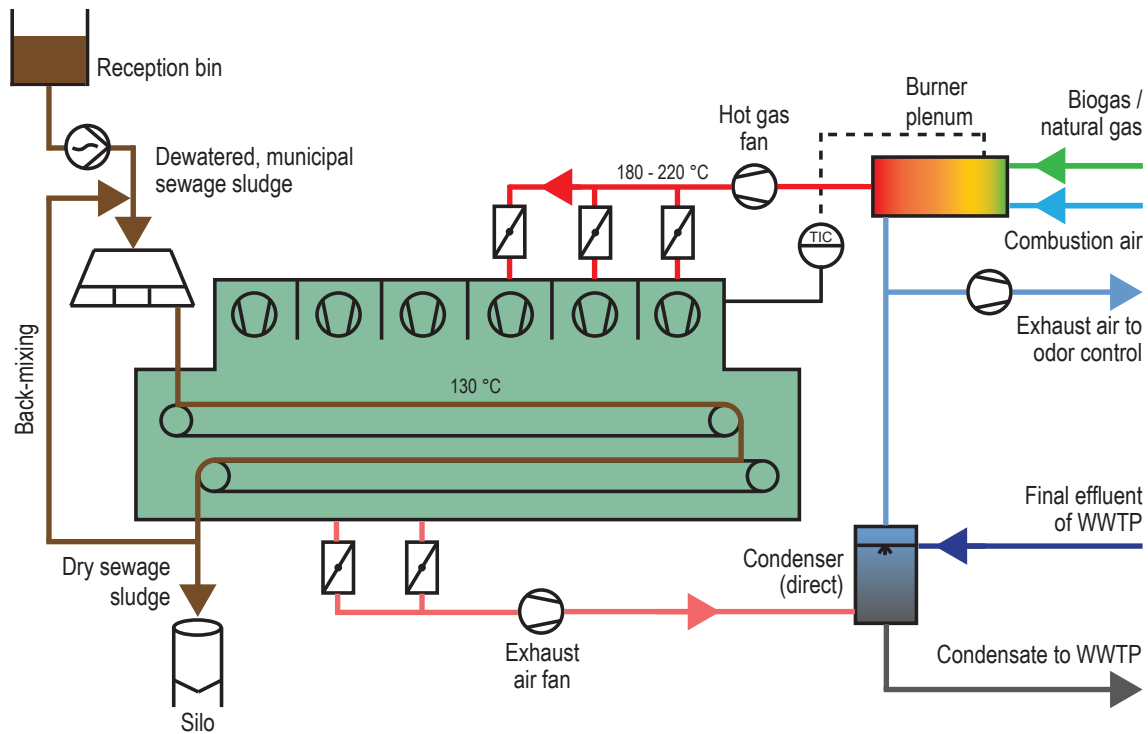


Exterior view of the dryer building with 2x dry material storage silos

SEVAR

Drying Technologies

FUNCTIONAL PRINCIPLE



Source: SEVAR AG

TECHNICAL DATA

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:	40,000 t/a (5,000 kg/h) / 8,000 t _{DS} /a
Water evaporation:	4,000 kg H ₂ O/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 well-known 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.

We reserve the right to alter the specifications at any time without prior notice.

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