

Nordic Water DynaBelt™ provides efficient filtration in a compact footprint

07 May 2024

Designed to deliver energy efficient primary filtration in a compact package, Nordic Water, a Sulzer brand, has launched its new DynaBelt™ filter for fine filtration. With market-leading capacity, an operator friendly design and smart control features – the DynaBelt is a perfect solution for maximizing the capacity and efficiency of wastewater treatment processes.

Designed for maximum hydraulic flow and occupying just 10% of the space needed for an equivalent sedimentation tank, the DynaBelt offers municipal water treatment works the ability to reliably improve throughput within existing spaces – ideal for facilities in built up areas.

A seamless, auto tensioning belt filter is attached to self-cleaning slave and drive rollers and surrounded by the longest emergency overflow weir on the market. As the filter collects suspended solids and head loss occurs, low consumption internal spray bars activate and water is moved to the integrated backwash system. A highly controlled hot water flush also eliminates fat, oil and grease from the filter without the need for chemicals.

The DynaBelt features a unique sludge discharge roller, which rotates at high speed and creates a partial vacuum. This removes the sludge from the belt into a dedicated compartment separate from the backwash reject water to ensure no dilution occurs. The sludge can then be pumped into storage for further processing. Unlike

competitor designs that use energy intensive air knives or blowers, this allows the DynaBelt to consume less than 0.6 kW in operation, providing a large energy cost saving and a sizable reduction in carbon footprint.

It also offers the largest effective filtration area compared to its competitors at 2.7 m², delivering a 30%-50% average reduction in total suspended solids. Furthermore, three sizes are available to suit different requirements, whether that is pilot schemes, low flow applications or larger systems. DynaBelts can be arranged in parallel to optimize capacity, enabling larger throughput.

User friendliness is another inherent quality of the DynaBelt. Quick connectors allow for a fast belt change, which only needs to be carried out once every one or two years, depending on the application. Lightweight covers mean easy access to the filter belt unit without cranes or tough lifts. The low and compact design of the DynaBelt tank also reduced headroom requirements.

The smart features of the DynaBelt add further benefits for operators. With an integrated human machine interface (HMI) control panel with two variable frequency drives (VFDs), the belt filter can also provide failure validations and notifications to inform maintenance personnel. Operating torque, water consumption, energy usage and head loss detection displays provide ample information daily checks. By specifying the optional 4G antenna, wireless monitoring is also possible, and compatibility is available for a wide range of industrial control systems.

As a Sulzer brand, Nordic Water also offers single source access to a complete range of screening, sedimentation and filtration systems, including the provision of sludge pumps and pipework, further simplifying procurement and future maintenance.

Image captions:



Image 1: The DynaBelt is a compact wastewater filtration solution that maximizes capacity and efficiency.

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About Nordic Water

Nordic Water offers a wide range of equipment and systems for water purification plants, waste water treatment plants and industries of all sizes. Working on improving the effectiveness of water treatment since 1961, Nordic Water is a pure engineering company with a passion for developing original ideas and technical solutions that have the potential to revolutionise the water sector and drive the whole industry forward.

Nowadays the company is 100% Swedish-owned with the head office based in Gothenburg and its products distributed worldwide through a network of own sales companies and representatives.

For more information, visit <https://www.nordicwater.com/>

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