

## LOOK TO US FOR SETTLING, SCREENING AND FILTRATION SOLUTIONS

As pioneers of inclined plate settling, continuous backwash filtration and microscreening, Nordic Water, is a leader in providing proven filtration solutions for water and wastewater treatment industries. Through

intelligent engineering and advanced technology, our single components and packaged systems deliver a reliable filtration and superior separation that will meet or exceed your expectations.

## OTHER PRODUCTS FROM NORDIC WATER:

- DynaSand Sand Filters
- Lamella Separator Compact Plate Settlers
- Zickert Sludge Scrapers and basin equipment
- Meva Screens and screenings treatment equipment
- NCS Conveyor Systems

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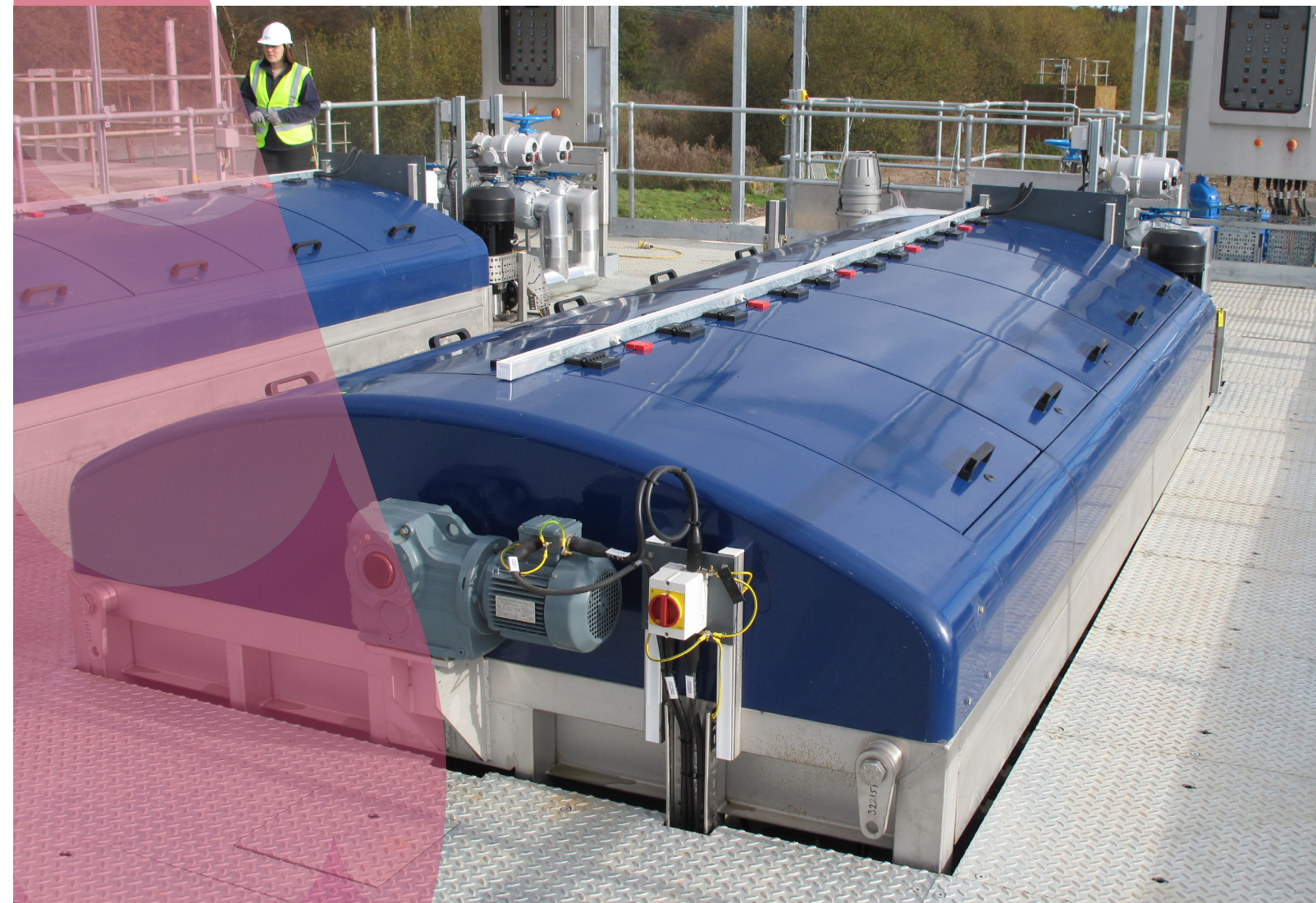
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## DISC FILTERS

high capacity on a small footprint





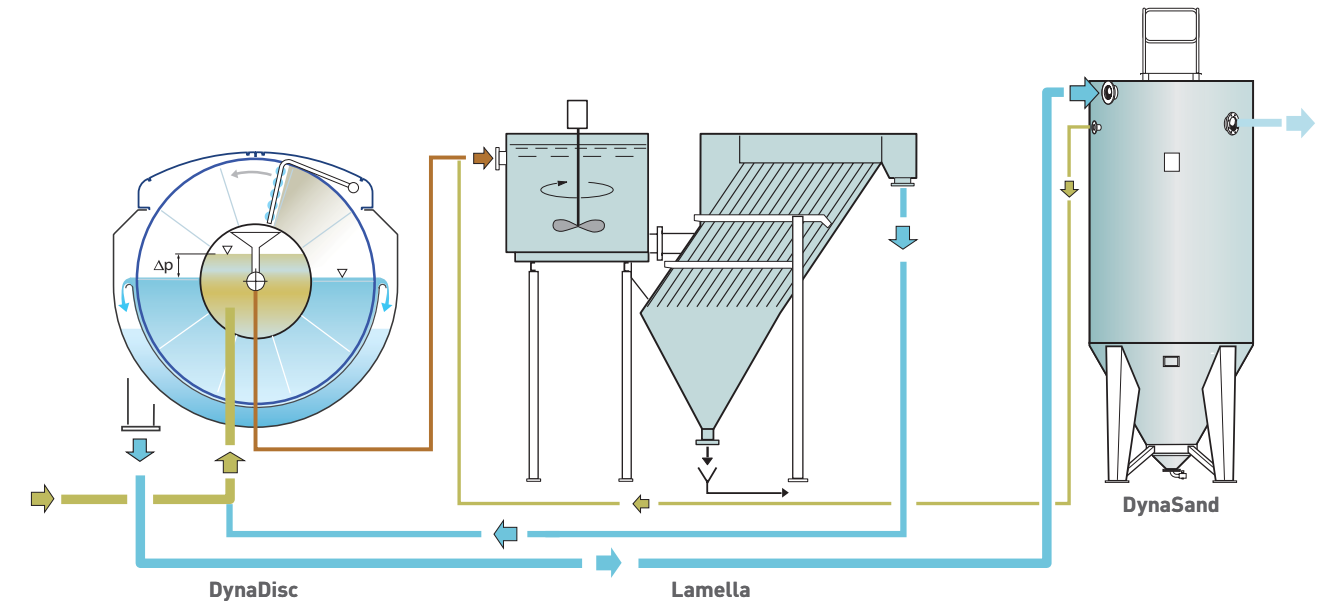
# REVOLUTIONIZE YOUR FILTRATION PERFORMANCE

From raw water screening to wastewater polishing, each DynaDisc filter delivers superior filtration performance for water, wastewater, and water re-use applications.



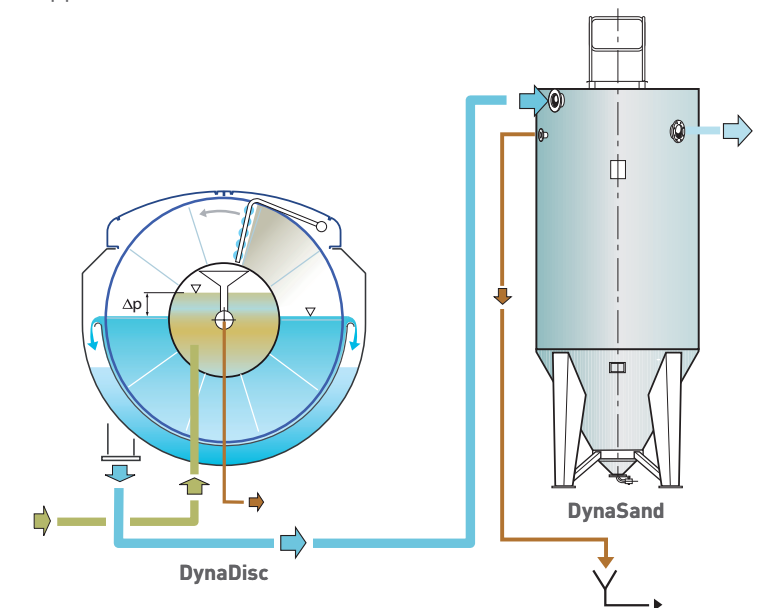
## RAW WATER TREATMENT

The raw water is pre-filtered in the DynaDisc filter before being treated in the Nordic Water DynaSand filter. The sludge is separated and concentrated in a Nordic Water Lamella separator. This system delivers high-grade processed water, with the least possible amount of reject.



## PROCESS WATER TREATMENT

A DynaDisc filter combined with a DynaSand filter delivers high-efficiency filtration for a wide variety of applications.



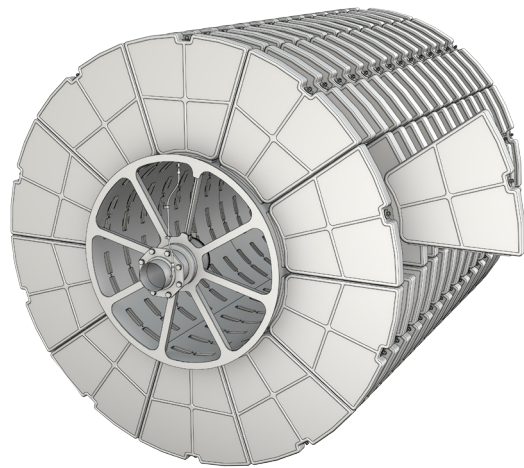


# SUPERIOR DESIGN SUPERIOR PERFORMANCE

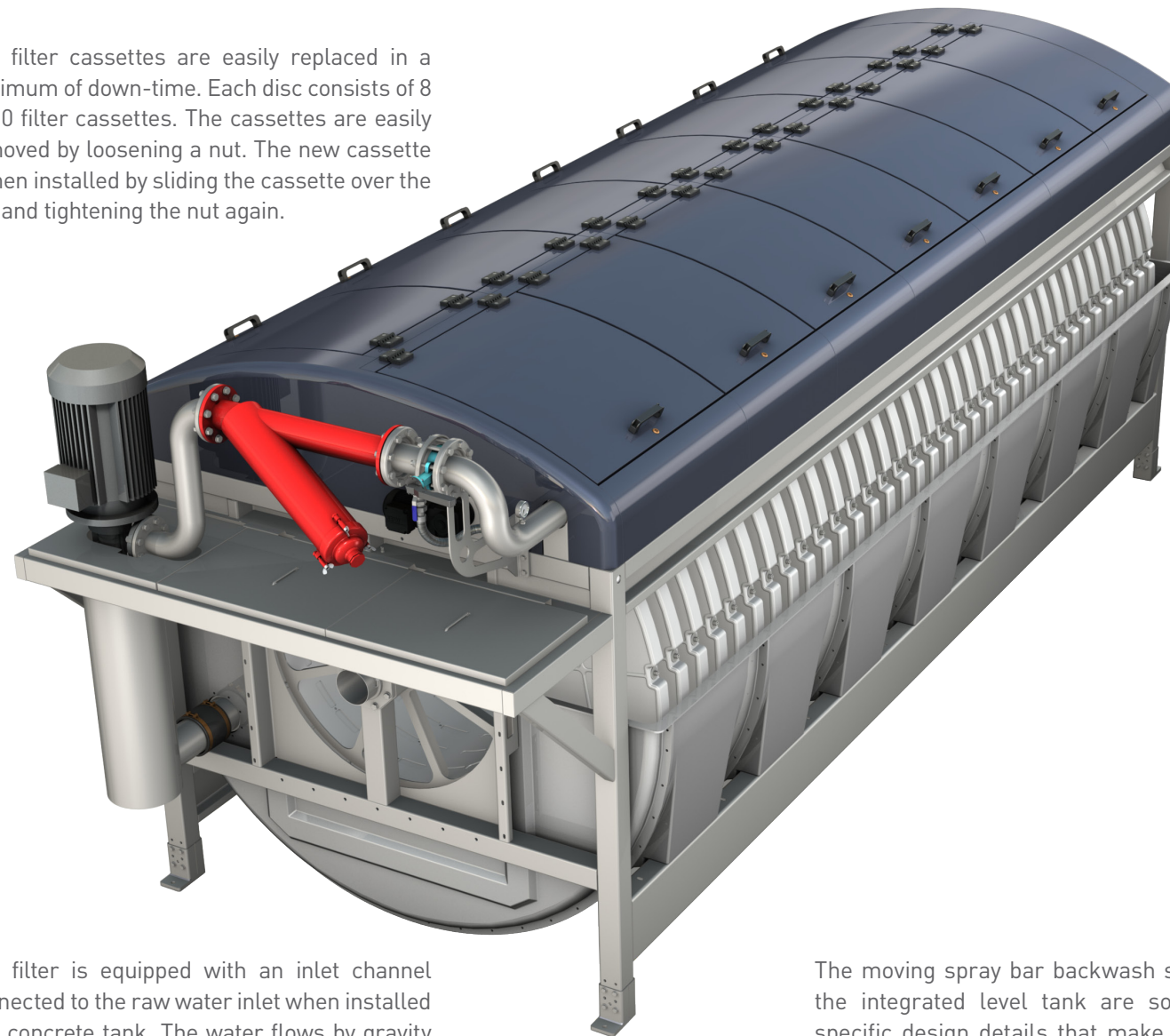
Combining intelligent engineering with sophisticated technology, the DynaDisc filter offers a distinct advantage when it comes to filtration applications. Our unique design enables professionals in the water treatment industry to get maximum reliability day in and day out, year in and year out.



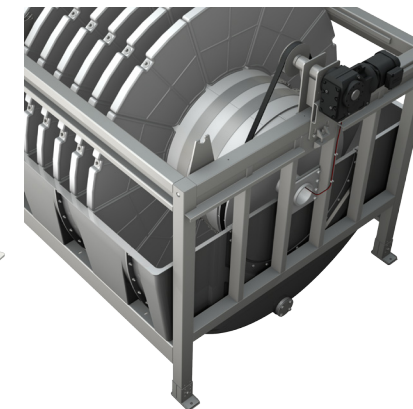
Nordic Water has installed DynaDisc filters all over the world in many different types of applications since 1996.



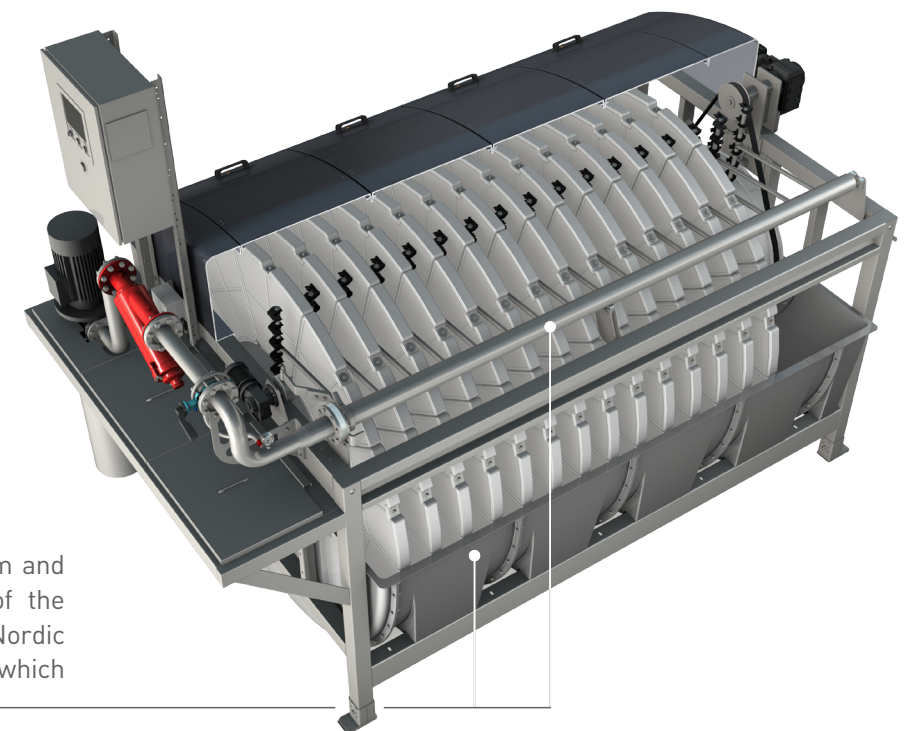
The filter cassettes are easily replaced in a minimum of down-time. Each disc consists of 8 or 10 filter cassettes. The cassettes are easily removed by loosening a nut. The new cassette is then installed by sliding the cassette over the rod and tightening the nut again.



The filter is equipped with an inlet channel connected to the raw water inlet when installed in a concrete tank. The water flows by gravity into the center drum, into the disc cassettes and through the filter cloth.

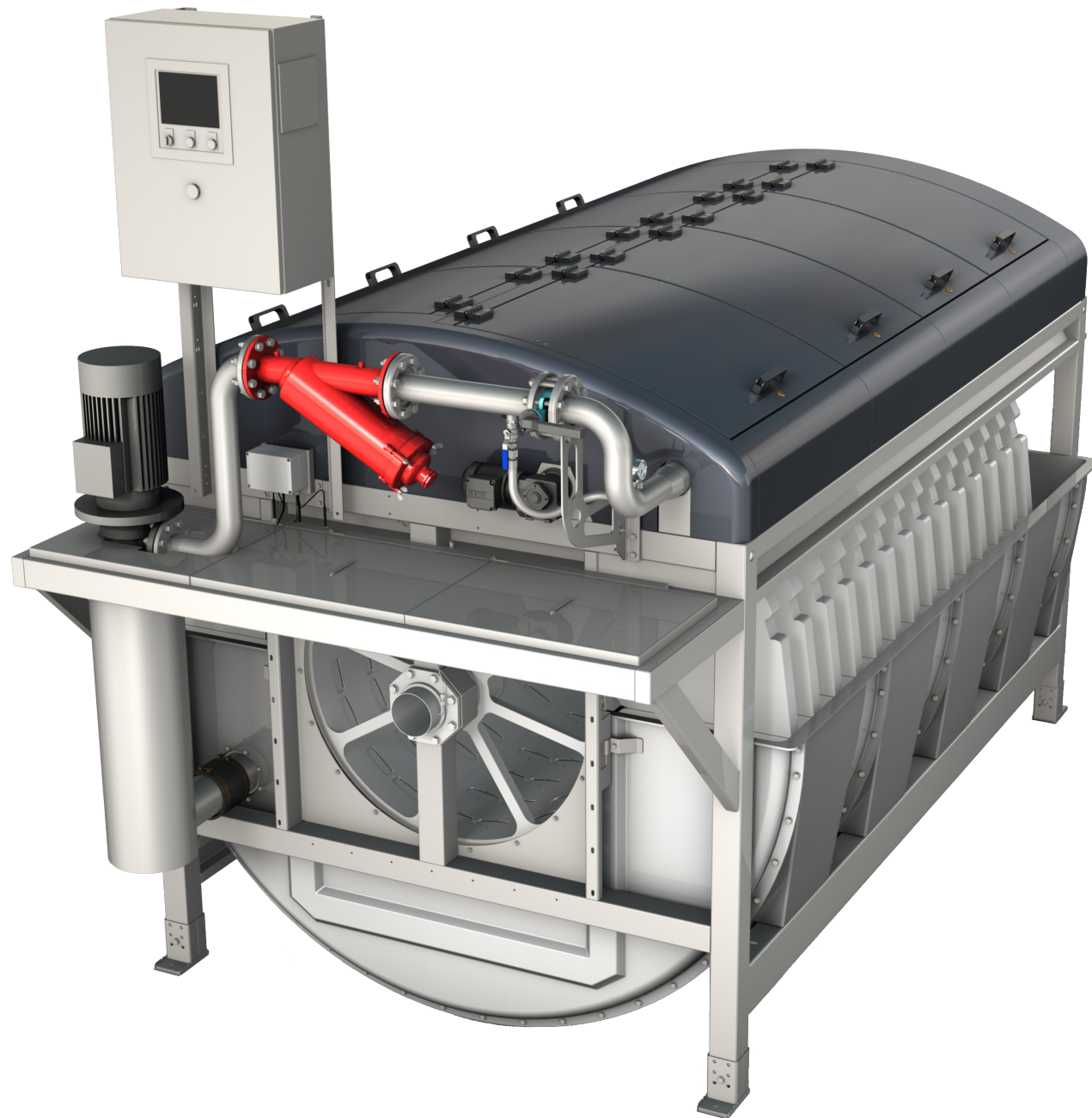


The rotation of the disc filter is driven by a helical-bevel gear drive via a non corrosive synchronous carbon fibre reinforced cog belt.



The moving spray bar backwash system and the integrated level tank are some of the specific design details that make the Nordic Water DynaDisc a reliable filtration unit which requires a minimum of maintenance.





## Benefits

### The patented filter cassette:

- Fewer parts – the DynaDisc by Nordic Water has 8 or 10 cassettes per disc, which is several times fewer than in disc filters from other manufacturers. This means faster replacement and less weight.
- Filter cloth fastened directly to the cassette body – reduces the seal length to a minimum.
- Low weight – allows for up to 35 pcs 2.4 m diameter discs to be installed in one unit, providing up to 197 m<sup>2</sup> effective filter area.
- Strong cassette body – allows high tension on the filter cloth, prolonging its service life.

### The level tank:

- Integrated level tank – provides a long level weir for the filtrate which reduces fluctuations at different water flows.
- The filtrate in the level tank is used for backwash – less risk for biological flocks compared to when the backwash water is taken from a much larger concrete tank.
- The chemical solution for cleaning the filter cloth is collected in the level tank, thus reducing acid corrosion of the concrete.

## Intelligent design – advanced performance

Consisting of multiple rotating filter discs, the DynaDisc filter features a well proven system that uses fine woven filter media. This sophisticated design produces a highly effective filtration process that can achieve high filtration efficiencies.

## How it works

Water to be filtered is guided into the rotor drum and flows by gravity into the filter discs through openings in the drum, and passes through the filter media. Suspended solids are separated and accumulated on the inside of the filter cloth.

When the water level inside the filter rotor increases to a pre-set point, the filter rotor starts rotating and the backwash of the filter media starts. The high pressure backwash spray removes the accumulated suspended solids into the reject flume inside the filter. The suspended solids are then discharged via the reject pipe. The discs are submerged to approximately 65 % and the water level of the filtrate is kept by a level tank.

## A full range of filtration applications

The versatile design allows for a wide variety of water treatment applications.

### The DynaDisc filter can be used for:

- Effluent polishing of wastewater
- Raw water filtration
- Water reuse
- Process water filtration Cooling water filtration
- Pre-filtration before sand filters
- Pulp and paper industry
- Aquaculture operations

## Two versions, one method

The Nordic Water DynaDisc filter is available as a freestanding unit with filter discs contained in a stainless steel tank and a version for installation in a concrete tank. The two versions have the same design regarding drive system, backwash system, level tank, disc cassettes, etc. The effective filter area can be up to 197 m<sup>2</sup> per filter.

# COMPLETE SYSTEMS STREAMLINED OPERATIONS

In order to meet the demands from municipalities and industrial facilities requiring complete water and wastewater package solutions, we have developed complete system configurations based on our competence and proprietary product line. These proven configurations meet stringent requirements while increasing water recovery and eliminate the need for you to allocate resources for detailed planning and implementation costs.

**Just leave it to us!**