NORDICWATER
A Sulzer Brand

Nordic LowTurb

The DynaSand filter provides the basis for what we call contact filtration, this is the most energy efficient and cost efficient way to treat surface waters with less space required of low to moderate level of turbidity or cloudiness, no matter is to produce municipal drinking water or industrial water.

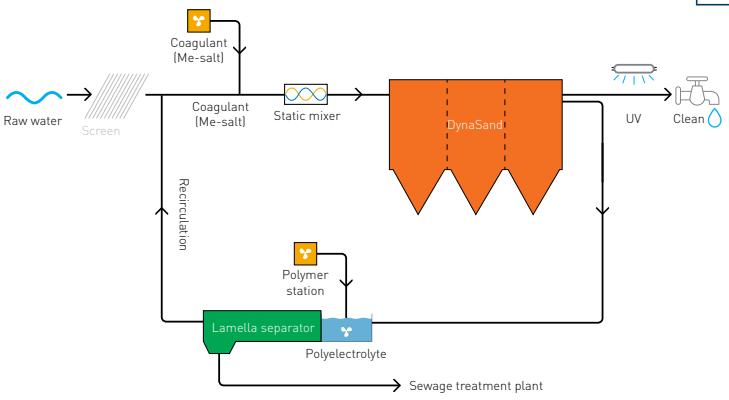
This process involves the lowest amounts of chemical precipitants, which being added just before it reaches the filters. Hydroxide flocks form and are then coagulated, filtered and separated directly inside the filter bed. There is no need for any pre-treatment, apart from possibly a screen or a micro-filter.

Contact filtration produces just as good results as conventional systems as it needs:

- 20% less space
- fewer treatment stages and components

This means the cost of investing in contact filtration will be considerably lower than opting for a conventional water purification plant.

Unlike sedimentation and flotation, contact filtration is based on building up small "micro-flocks". By switching from a conventional precipitation system to contact filtration, you can often reduce the amount of chemicals consumed by as much as 40%.



No polymers are used in the main water stream
With contact filtration, no polymers are used in the main water stream – the only coagulants used are iron or aluminium metal salts. Those who are well-versed in other processes often have more confidence in the reliability of contact filtration.

Effective wash water treatment
Wash water treatment is an effective method of taking care of the flush water from the contact filters. The wash water treatment involves processing in a flocculation tank, followed by separation. Gravimetric thickening is carried out in a Lamella separator. This set-up enables the total level of flush water loss to be kept to as low as 0.2% of the incoming flow.

In this respect, contact filtration using DynaSand is considered to be as effective at providing a hygienic barrier against bacteria, viruses and parasites as UV light, chlorination and other similar methods.

Over the past 30 years, we at Nordic Water have successfully installed this system in several hundred water purification plants and industries all over the world.

	Input values	Output values
Turbidity:	0.5-50 FTU	Approx. 0.1 FTU
Colour:	10-300 mg/l Pt	>5 mg/l Pt
CODMn:	1-40 mg/l	Approx. 2 mg/l