

The Toveko

CX sand filter



Easy to install — Only 2,3 m high — Easy to operate
Minimum wash water — Gravity feed — Treats oily waste



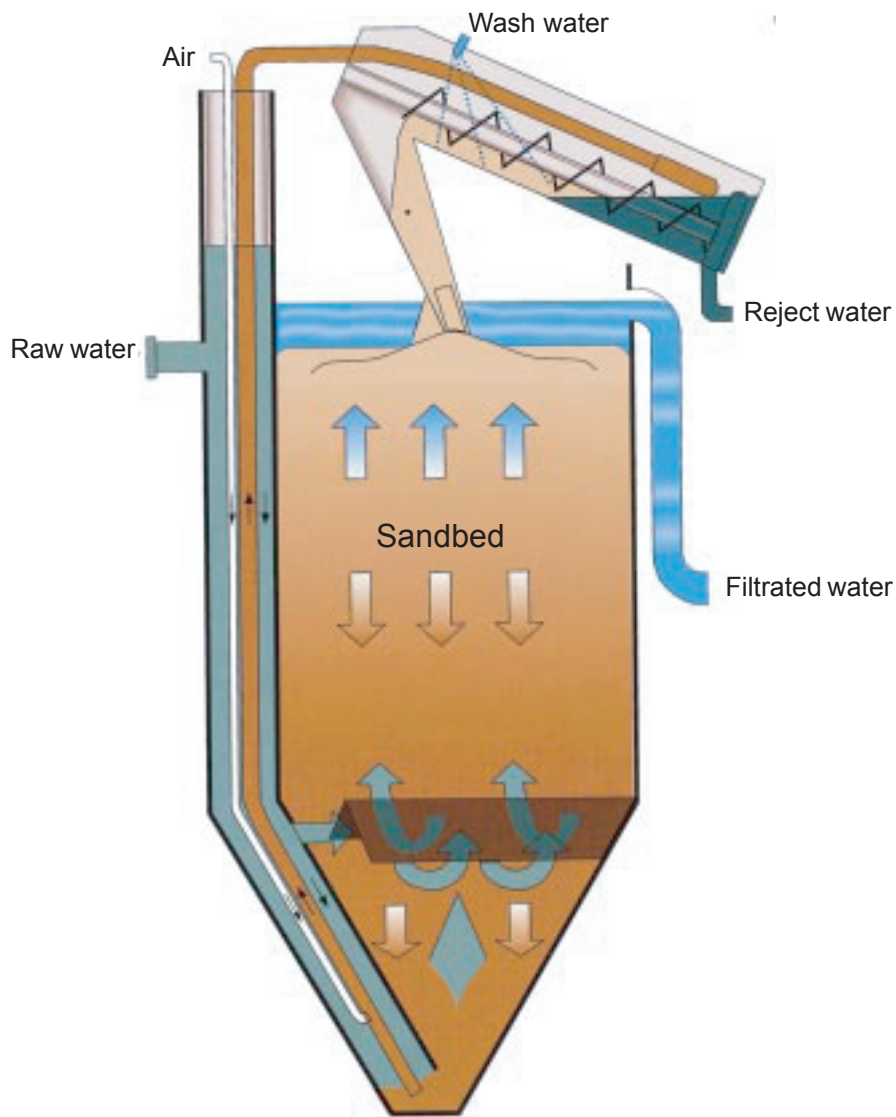
TOVEKO CLEANING SYSTEM AB
TCS

The Toveko CX sand filter

The TOVEKO CX continuous filter is a novel method of suspended solids removal using sand filtration. It may be used with or without chemical precipitation according to the application, and is well suited for tertiary filtration in both sewage and industrial waste water treatment applications. The Toveko CX sand filter continuously cleans

itself whilst in service, and the sand bed is therefore continuously moving. The compact nature of its modular construction provides significant advantages to the user in both space requirements and investment cost.

It is delivered to site largely pre-assembled and tested, thereby minimising set-up costs.



The unique sand washer is particularly efficient, making the filter suitable for particularly arduous duties. The dirty sand is cleaned by both active rubbing and simultaneous rinsing. As the sand washer moves back and forth, the cleaned

sand is re-distributed **evenly** across the surface of the sand bed. This eliminates problems of varying pressure drop and short-cutting, thereby providing stable operation, whilst using only a small volume of water for cleaning.

INSTALLATION MADE EFFORTLESS

Constructed in a rectangular, modular design, the Toveko CX sand filter is easy to install, minimising the space requirements. Reduced pump energy consumption is a result. Some installations operate under gravity feed.

SAND TURNOVER IS AUTOMATIC

The Toveko CX filter is designed to automatically adjust to compensate for a wide variety of loading profiles and does not require a minimum flow. The filter bed remains submerged at all times.

YES, IT IS AS EASY AS IT APPEARS

In simple terms, this is how the Toveko CX filter works. Efficiently. The incoming water is channelled to a longitudinal inlet shaft, injected into and spread evenly through the bed, solid impurities are filtered off from the water and will remain in the sand. The filtered water is led away from the surface by means of V-notch openings along the entire length of filter. The polluted sand is transported continuously using an airlift from the bottom of the filter to an open

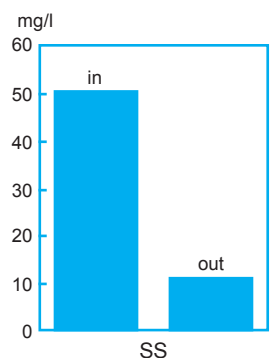
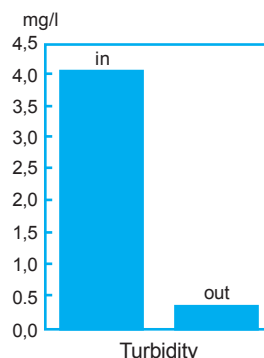
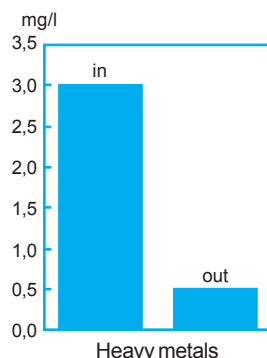
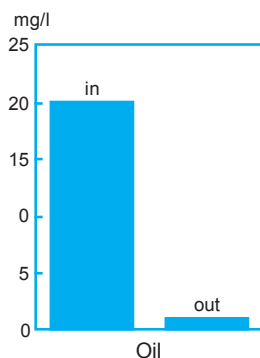
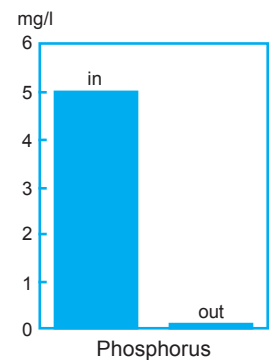
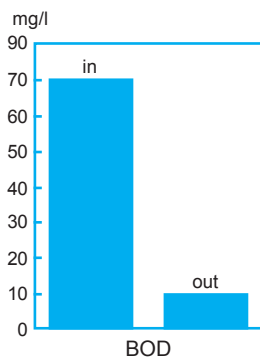
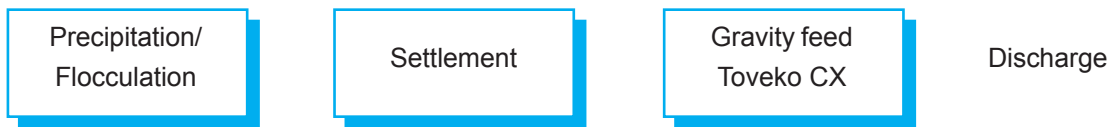
STABLE FILTRATION

The even surface of the sand layer gives a stable filtration with no risk of short circuits. The cleaned sand is returned to the top of the sand bed and is levelled out. This makes uniform sand bed and filter resistance all over the filter.

EFFICIENT PURIFICATION

The Toveko CX filter provides efficient purification even at very low flow rates. This is made possible by the special positioning of the air lift at the inlet shaft.

sand washer placed above the filter. The sand wash is of the leaning screw type, where the grains of sand are rubbed against each other in a counter stream of water. The washer speed is adjusted automatically according to the headloss across the filter. The maximum flow through the filter varies depending on the actual SS-content of influent. It can vary between 5 – 15 m/h. Loadings up to 15 m³/m²/hr can be treated.

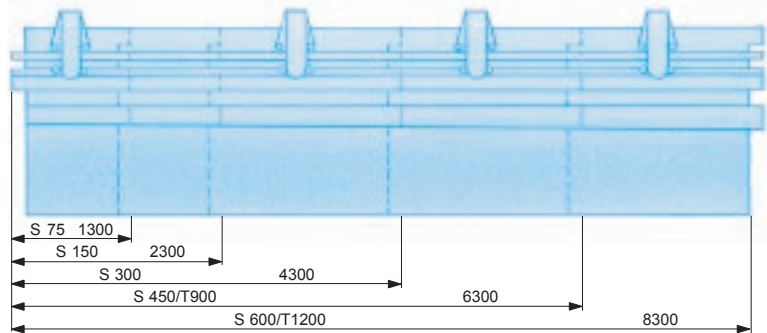
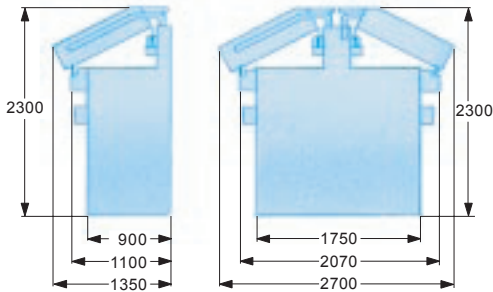


Before and after Toveko CX filtration

Typical values before and after putting the TOVEKO sand filter to work.

Technical details

	S75	S150	S300	S450	S600	T900	T1200
Hydraulic max. capacity; Raw water cleaning, approx. m ³ /twenty-four hours.	270	540	1080	1620	2160	3240	4320
Waste water cleaning, approx. m ³ /twenty-four hours.	180	360	720	1080	1440	2160	2880
Filter surface, m ²	0.75	1.5	3.0	4.5	6.0	9.0	12.0
Weight, excluding sand, kg.	350	600	1150	1700	2200	3100	4000
Weight, including sand (0,8-1,2mm) and water, kg.	1850	3700	7200	10700	14200	21100	28000
Power installed, W. (230/400 V A.C.)	360	360	540	720	900	1440	1800
Max. compressed air consumption, normal l/min.	30	50	100	150	200	300	400
Wash water (l/min)	3-6	5-10	10-20	15-30	20-40	30-60	40-80



About HH Toveko

In the field of water treatment, expert knowledge and design at the leading edge of technology are essential. With over 30 years' experience HH Toveko is considered as one of the world leaders. HH Toveko is owned by committed technicians with their main common interest in development of smart products and systems made of stainless steel for water and sewage treatment industry

The Toveko Commitment A Stable Business Relationship

We believe in building long-term vendor relationships, based on openness and trust. Our track record proves this point.

Long-term Service

We will provide the service and back-up you require throughout the lifetime of the products we deliver.



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