

Get high-performance process and wastewater treatment in a single self-contained unit.

Providing a large area for filtration in a compact process vessel, the DynaDisc® delivers high-volume, low headloss disc filtration for tertiary wastewater and industrial process water applications.

The DynaDisc® is a compact tertiary cloth media filter with a 10 to 20 micron filter. DynaDisc® can be freestanding or installed within a concrete basin. The reliability of the seals and durability of the filter fabrics allows the system to be used in a wide range of applications.

Primarily designed for TSS and BOD removal, for which it delivers removals down to 10 mg/l for each, the DynaDisc® can also provide removals of effluent phosphorus down to 1 mg/l in its standard configuration and 0.25 mg/l with the addition of metal salts.

Applications

- Tertiary treatment of wastewater
- Pulp and paper industry
- Purification of industrial process water
- Recirculation of steel industry cooling water

Performance

Feature	DynaDisc®	DynaDisc® Floc
Effluent TSS removal	Down to 10 mg/l *	Down to 10 mg/l *
Effluent BOD removal	Down to 10 mg/l *	Down to 10 mg/l *
Effluent Phosphorus removal (with upgrade option to include metal salts dosing)	Down to 1 mg/l **	Down to 0.25 mg/l **
Maximum flow-rate per filter	up to 588 l/s	294 l/s

* effluent standards quoted to 95%ile

** annual average



Benefits

Fewer parts

The DynaDisc® 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

Keeps the seal length to a minimum.

Strong cassette body

Allows high tension on the filter cloth, prolonging its service life.

Integrated level tank

Provides a long level weir for the filtrate which reduces fluctuations at different water flows.

Less risk for biological flocks

The filtrate in the level tank is used for backwash so there is less risk for biological flocks compared to when the backwash water is taken from a much larger concrete tank.

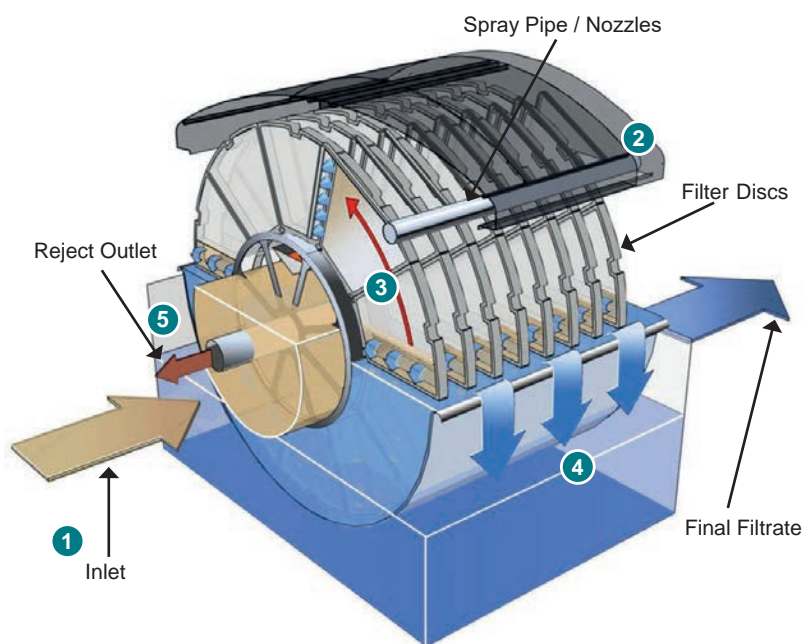
Reducing acid corrosion of the concrete

The chemical solution for cleaning the filter cloth is collected in the level tank thus reducing acid corrosion of the concrete.

How it works

1. 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 cloth.
2. Suspended solids are separated and accumulate on the inside of the filter cloth.
3. When the water level inside the filter increases to a preset point, the filter starts rotating and the backwashing of the filter cloth is initiated.
4. The high pressure backwash spray removes the accumulated suspended solids into the reject flume inside the central drum.
5. The suspended solids are then discharged via the reject pipe. 65% of the disc area is submerged in operation, providing a high area through which the flow can pass.

The washwater is harvested from the clean side of the filter and therefore no separate washwater tanks are required, and the process operates on a continuous basis.



Maintenance

Through provision of Service Agreements, Hydro International offer our customers the peace of mind of ensuring the best possible performance of equipment through effective preventative maintenance regimes and on-going monitoring of the condition of plant. Our agreements are tailored to specific site requirements and are aimed at optimising the assets placed under contract; ensuring continuity of operation and extended equipment life.



Learn more

To learn more about how DynaDisc® can help you improve TSS and BOD removals, visit hydro-int.com, search Hydro DynaDisc online or contact us:

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