

The many years of experience in the field of tertiary treatment of waste water, have led Giotto Water to design a filter disc from the highest performance, suitable for the most varied applications, both municipal and industrial.
Typical applications: municipal and industrial tertiary filtration, wastewater reuse and process water filtration.

The principle of discs in the filter operation is extremely simple. The water to be treated is usually fed by gravity inside the central drum and flows from inside-out through the panels. Solids are separated from the water by the filtering panels fitted on both the sides of the disc sectors. Solids are kept inside the discs, while treated water flows outside to the same tank / basin containing the machine.

The discs operate submerged for about 65% of their diameter. During normal operation, the disks remain stationary until, due to clogging due to the accumulation of solid panels, the water level in the feed channel reaches a predetermined value. At this point, the backwash cycle starts automatically and the solids are removed and discharged into the collection hopper while the disc is set in rotation.

The countercurrent flow and the nozzles ensure the cleaning of the filter media with the use of already filtered water. Nozzles are designed for their easy maintenance and replacement.



About CirTec B.V.

To maintain a good and healthy environment for future generations, it is crucial that we reduce the disposal of waste and encourage recycling of valuable components. CirTec aims to contribute actively to the sustainability of our society, and reuse of (waste) materials in particular.

With both proven and innovative technology, we are able to provide the most appropriate solution for a large number of environmental issues. We focus on the development of alternative raw materials such as recovered cellulose from municipal wastewater and the use of low value residual heat for evaporation of concentrated streams. Cooperation and sharing knowledge are the keys to progress and an integral part of our business model.

CirTec is an exclusive partner for GIOTTO WATER in the Netherlands and Belgium.

“HEAVY DUTY” DESIGN

The Disc Filter, thanks to the specific panel design, unlike the lower headloss allowance of other outside/in flow designs, our inside/out flow characteristic prevents problematic and costly overflow situations assuring that the filtrate is always accessible and in plain view.

HIGH EFFICIENCY WASHING SYSTEM

The Disc Filter's pleated media design offers quick release cleaning for efficient cycling without labor-intensive maintenance. This and other features improve the cleaning process while helping prevent media wear. The specially designed spray mechanism offers twice as many nozzles in a configuration that efficiently releases solids from the pleated media. The inherent simplicity of our configuration minimizes lifetime costs with fewer moving parts and lower energy demands for backwashing.

RETROFIT OR UPGRADING OF EXISTING PLANTS

The Disc Filter has been developed to make sure that existing filtration systems can be upgraded using the same concrete structures and existing tanks or simply by replacing the panels and the washing system.

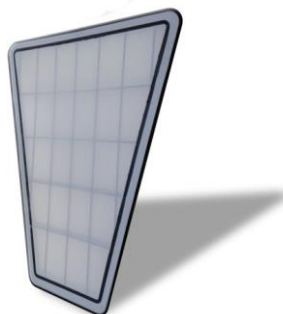
The panels are available in three kind of filter cloths, according to the specific needs of the requested application:

- Patent flat panel in AISI 316L with higher performances in terms of treated flow and strength
- Patent flat panel made of polyester
- Patent “pleated” panel with polyester mesh that provide 40% more surface area at equal number of discs

Each disc can be easily replaced in a matter of seconds, simply by loosening the locking screws. The panels can be easily and fast removed with no need of emptying the tank or disassemble the filter.



Paneel in rvs 316



Paneel in polyester



Gepatenteerd geplooid paneel

The main features of Giotto Water Disc Filter are the following:

- Minimum energy consumption
- Minimum backwash water consumption
- Modular design with maximum flexibility for possible future expansion and/or different effluent requirements
- Limited headloss
- Easy replacement of filtering cloths
- Frame filtering panels in highly strong plastic material
- Seal between the panels and support structure with L type “assisted” gasket in order to ensure a perfect seal between the parties
- Concrete basin and steel tank versions
- Totally made in AISI 304 or 316 stainless steel
- Completely enclosed unit with removable and modular cover
- Simple and automatic control system with minimal instrumentation