



Filtration Solutions

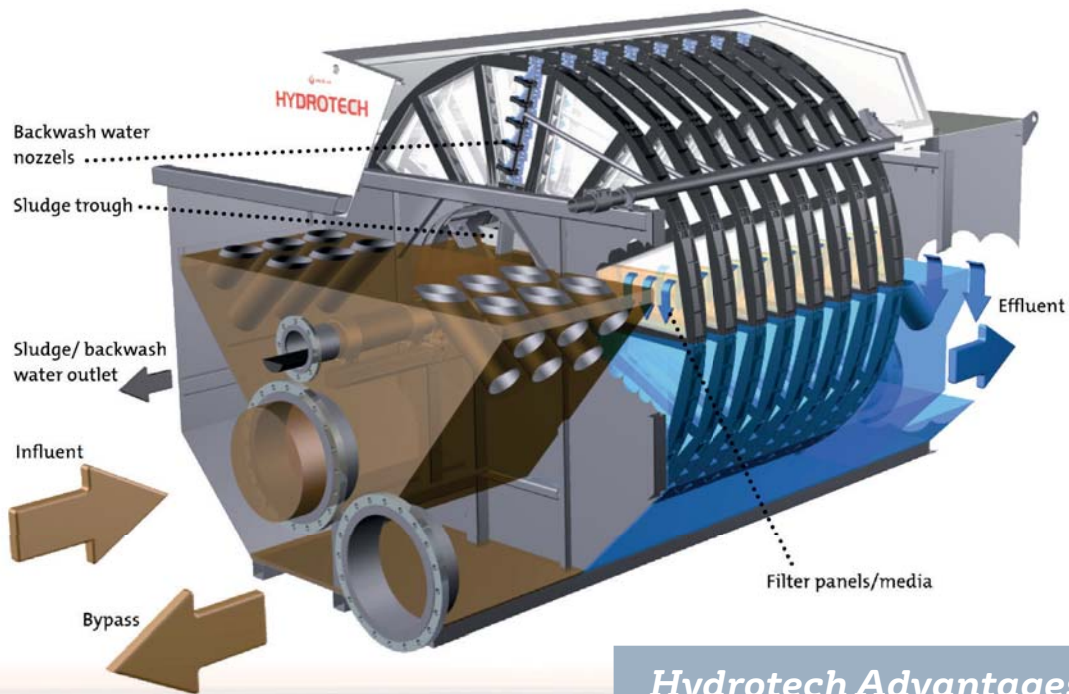
US Municipal Portfolio

WATER TECHNOLOGIES

Filtration Solutions

The Hydrotech Discfilter provides proven experience for today's demanding wastewater treatment applications through an efficient, yet easy-to-operate design. Influent flows by gravity into the center drum and then passes through the filter media mounted on both sides of the discs. The solids are retained on the media within the discs. Only purified water flows to the collection tank. The inside-out flow path prevents solids accumulation in the tank.

As solids collect on the inside of the media the influent water level rises. Maximum head loss through the media is <12 inches. The inlet water level is measured and the control system automatically initiates backwashing. The filtered effluent is pumped to the backwash spray nozzles, washing solids into the sludge trough as the discs rotate. The backwash water is typically 1% to 2% of the total flow to the filter, while the sludge return is typically <1%. Filtration is continuously maintained, even during backwash.



Hydrotech Advantages

- Unmatched experience and performance
- Innovation: patented designs offer real savings
- Robust construction with 304 or 316 SSSL
- Proven media: durable and chemically resistant
- Meets or exceeds Title 22 requirements at hydraulic loading rates up to and above 6 gpm/ft²
- Consistently produces high quality effluent despite high-solids loadings and upset conditions
- Ideal for "retro-fit" projects in existing basins
- Compact design requires far less space
- Simplified control system and lower installation costs than other filtration technologies
- Improved backwash efficiency reduces operating costs and carbon footprint

Hydrotech Discfilter 1700 Series



- Up to 8 discs
- Up to 1 MGD per unit in effluent polishing
- Ideal for small scale projects

2200 Series



- Up to 24 discs
- Up to 9 MGD per unit in effluent polishing
- Excellent for a wide range of project sizes

2600 Series



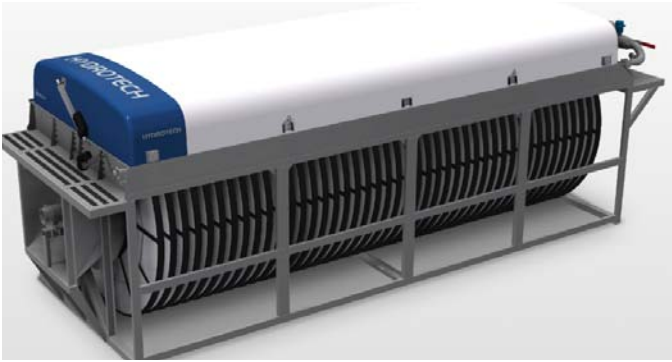
- Up to 18+ MGD per unit in effluent polishing
- Provides highest filtration area and most compact footprint
- High flow rates maximize treatment in a given footprint
- Energy reduced 15% and footprint by 25%
- User-friendly design for minimal maintenance

Compact Series



- Tank versions with reduced footprint, maintenance and cost
- Flexibility for flange locations
- Automated systems for supplemental chemical cleaning

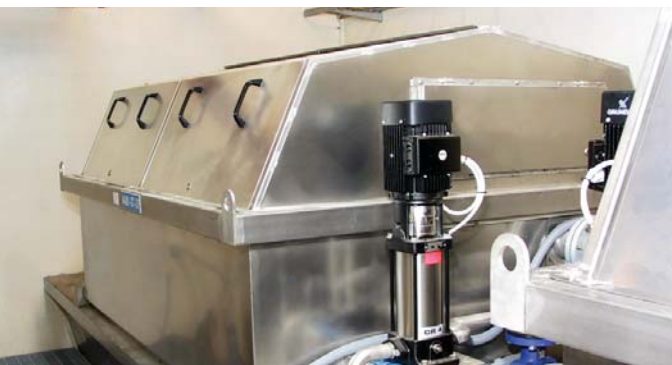
Hydrotech Performance Filter



Particle Guidance System (PAGUS™)

- Optimized disc design for guidance of backwashed particles
 - Improved communication between disc segments and drum
 - Re-designed and optimized solids trough
 - Improved backwash design
- The optimized disc design offers even better results such as:
- Increased filtration area and smaller footprint per disc
 - Parts per disc reduced by 75%, cutting down on maintenance time and cost
 - Improved hydraulic design to minimize pressure loss.
 - Optimized disc design with PAGUS™ Technology for guidance of backwashed particles
 - Simplified process to replace filter panels for easier maintenance
 - Enhanced water flow communication between disc segments, between drum and disc and between the disc and the solids trough

Hydrotech Drumfilter



Hydrotech develops and manufactures high performance filters for water purification and product recovery. The Hydrotech Drumfilter is a mechanical and self-cleaning filter specially designed to achieve efficient solids removal while offering trouble-free operation in the toughest conditions. The filter functions without pressure and is robustly designed with few moving parts to ensure long life and low maintenance costs.

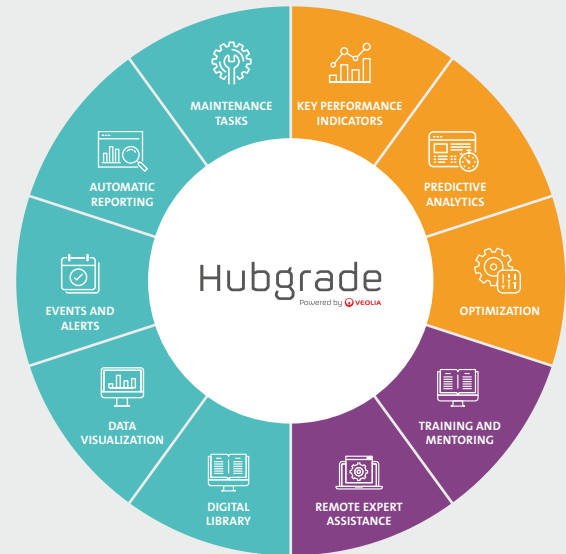
The compact and robust Hydrotech Drumfilter is the right selection for a variety of applications, including:

- Filtering intake water from streams and lakes for water supply systems
- Polishing effluent from municipal wastewater treatment works
- Filtering effluent for water reclamation/reuse or phosphorous removal
- Providing pre-treatment for other treatment processes (e.g. membranes)
- Separating solids for CSO, SSO and primary treatment applications
- Applications requiring solids removal with small footprint

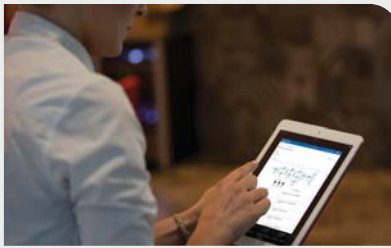
Digital Services

Hubgrade™ is Veolia's highly flexible suite of digital service offerings for water treatment and reclamation facilities. Hubgrade™ helps these facilities improve treatment performance and compliance, reduce operating and maintenance costs, and in many cases postpone or avoid capital expenditures.

Hubgrade™ provides several levels of service to match Veolia's expertise with the needs of the customer.



Hubgrade ESSENTIAL



Performance Optimization Tool

- Secure cloud portal to facilitate better access and use of data
- Digital library to access all relevant documents
- Data visualization to collect and display process data
- Events and alarms to prevent shutdowns or regulatory breaches
- Automatic reporting to facilitate data analysis and reporting regularly

Hubgrade ASSIST



Access to Veolia Experts

- Expert assistance to help facilities proactively address performance and maintenance needs
- The latest in augmented reality tools for enhanced remote support
- Increase operator skills with e-learning courses and operator refresher training programs
- Expert support is enhanced with the use of Hubgrade Essential

Hubgrade PERFORMANCE



Online Smart Control Tool

- Key performance indicators assess the quality of the operation and guide operational decision making
- Predictive analytics predicts the evolution of strategic operation parameters or anticipates the failures, reduces downtime risks and optimizes maintenance
- Optimization features provide simulated operational scenarios and setpoints



Aftermarket Services

Customer support is a continuous process, from the design, to start-up, to operation. Our team of informed and experienced professionals are available for anything from process reoptimization, preventative maintenance or spare parts. Additionally, we offer Hydrex™ chemical cleaners to provide the most effective cleaning method available.

We also maintain an extensive parts inventory so that most items can ship the same day the order is placed. In addition to parts, we can provide a repair service that includes a trained technician to assist with the part replacement.

