Up-Flo® Filter *Fluidized Bed Upflow Filtration System*

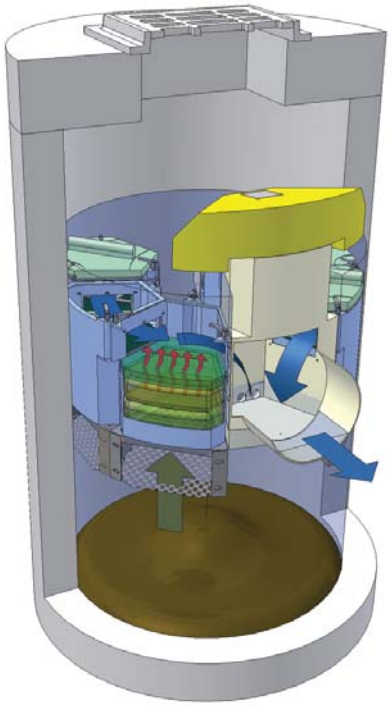
Stormwater filtration in less than 1/5 the footprint of other filtration devices

APPLICATIONS

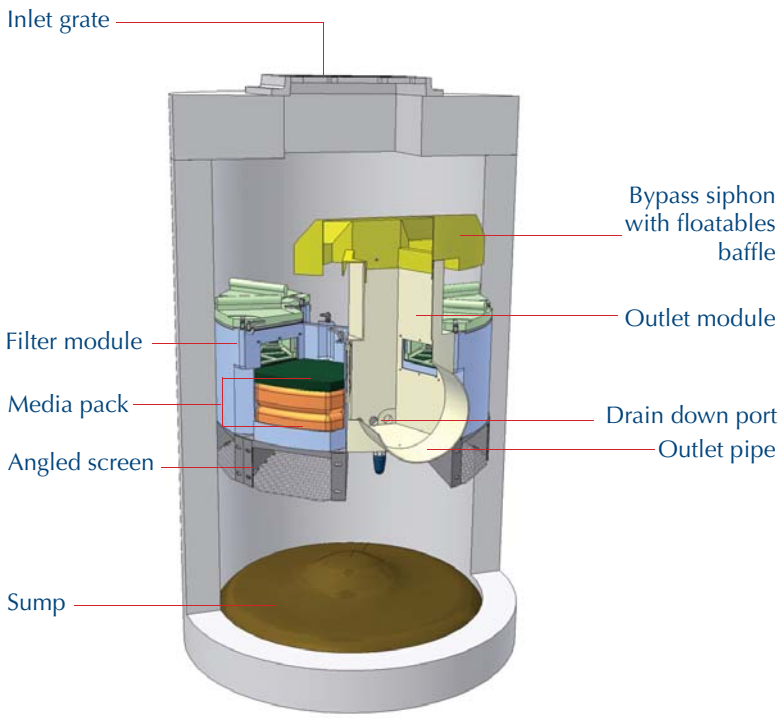
- New developments and retrofits
- Industrial and commercial facilities
- Source control
- Sediment and hydrocarbon control
- Nutrient control
- Heavy metals control
- Wetlands protection
- LEED® development projects

ADVANTAGES

- Available in manhole, vault and retrofit configurations
- Higher flow capacity resulting in smaller systems
- Includes 4mm pre-screening
- Variety of media options
- Patented drain down prevents media degradation
- Long media life and maintenance cycle
- Easy installation & maintenance



The **Up-Flo Filter** is the most efficient high-rate stormwater filtration technology available for the removal of trash, sediments, nutrients, metals and hydrocarbons from stormwater runoff. As the industry's only fluidized bed upflow filtration technology, the **Up-Flo Filter** provides a higher level of treatment, a higher rate of filtration, longer life of filter media and a longer maintenance cycle than other filter systems.



HOW IT WORKS

Stormwater enters the chamber via an inlet pipe or inlet grate and fills the chamber, as flow is directed up through the angled screen and Filter Modules (brown arrow).

Gross debris and sediment settle out in the sump. Oil and floatables rise to the surface of the water.

Treated water flows out of the Filter Module to the Outlet Module and into the outlet pipe (blue arrow).

Excess flows are discharged to the outlet using a Siphonic Bypass, which also acts as a floatables baffle preventing the escape of oil and floatable trash.

To guard against pollutant leaching and filter media degradation between storm events, water drains out of the chamber through the filtered Drain Down Port as the storm subsides.

Hydro International stormwater

Ph: 207.756.6200 • Fax: 207.756.6212 • Email: stormwaterinquiry@hil-tech.com
www.hydro-international.biz

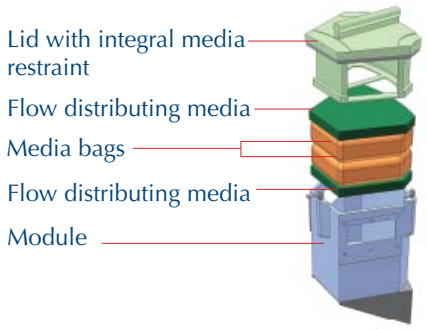
Up-Flo® Filter

Maintenance

Maintenance is simple with easy access to the sump and replaceable Media Packs. A vactor truck is used to remove sediment and debris from the sump and the Media Packs are manually replaced. Unlike other filtration systems, no specialized heavy lifting equipment is needed.

Filter Module Components

Each Filter Module has a typical treatment flow rate of 25 gpm.



Filter Media

A portfolio of media is available to accommodate site specific pollutant removal objectives.

- **Hydro Filter Sand:** TSS, Particle-bound Nutrients, Metals and Bacteria.

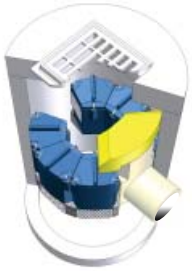
- **Perlite:** TSS and associated pollutants, Oils and Grease.

- **CPZ™ Mix:** TSS and associated pollutants, Nutrients, Bacteria, Metals and Organics.

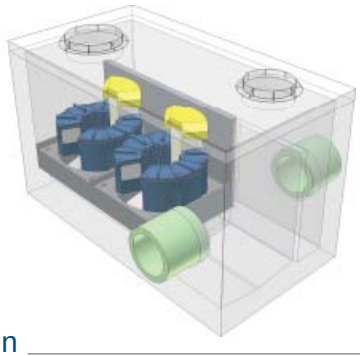
- **CPS™ Mix:** The cold climate alternative to our CPZ™ Mix.

Configurations

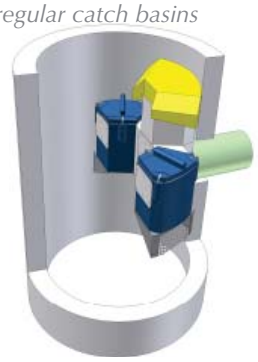
1 Ring - Standard Manhole
- upstream source control small drainage sites



2 or 3 Ring - Vault
- larger catchments



Up-Flo Retro
- retrofit applications for small or irregular catch basins



Up-Flo Filter Sizing and Design

Model	Chamber Size (ft)	Number of Modules	Typical Treatment Flow ** (cfs)	Peak Siphonic Bypass Flow (cfs)	Maximum Pipe Diameter (in)	Minimum/ Standard Headloss (in)	Minimum Oil Storage Capacity (gal)	Sump Storage Capacity (cu yds)
1 Ring (Standard Manhole)	4 (round)	1 - 6	0.33	6	15	19.5 / 29.5	50	0.90
2 Ring (vault)	6 x 12 (typ)*	7 - 12	0.66	12†	24	19.5 / 29.5	120 ††	2.7††
3 Ring (vault)	7 x 16 (typ)*	13 - 18	1.0	18†	36	19.5 / 29.5	180††	4.0††

** Size may vary* *** Based on >90% removal of Sil-Co-Sil 106*
†Vault configurations may also include an internal bypass weir for additional bypass capacity *††May vary with chamber dimensions*

For more information please call our office toll free at 800-848-2706
or inquire at www.hydro-international.biz.

Hydro International
stormwater

This information is subject to change without notice.

Certificate No. 961366

© Hydro International 2008