

# Up-Flo® Filter

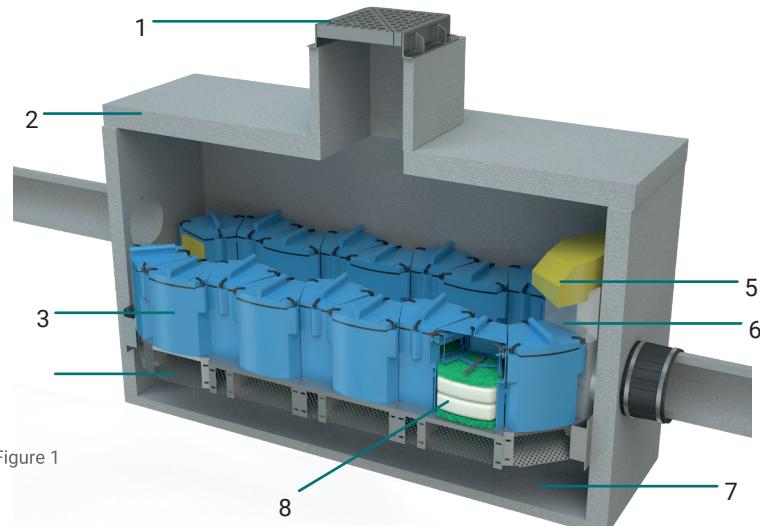
High Performance. Low Maintenance.

## Product Summary

### The Most Approved Filter in North America

Up-Flo® Filter utilizes a media blend so potent, it can remove up to 98% of TSS in a small surface area—media bags that weigh less than 40 pounds per module. This design enables high treatment of high flow with simple, low-labor maintenance.

Verified to remove 80% TSS but with demonstrated removal rates up to 98%, only the Up-Flo® Filter was developed in collaboration with the US Environmental Protection Agency and now has more approvals than any other stormwater filter in North America.



## Product Profile

1. Inlet grate (pictured) or Inlet Pipe (not shown)	5. Bypass Hood/Siphon
2. Precast Filtration Chamber	6. Outlet Module with Drain Down Filter
3. Filter Module	7. Pollutant Storage Sump
4. 4mm Screening	8. Media bags

## Applications

- » Sites requiring 80% TSS removal
- » Removal of sediment, nutrients and metals from runoff
- » Source control for redevelopment or new construction
- » Treatment downstream of detention systems
- » Sites operating under industrial or multi-sector general permits
- » Protection for groundwater recharge systems
- » LEED® construction projects

## How it Works

Proven to Remove up to 98% of TSS

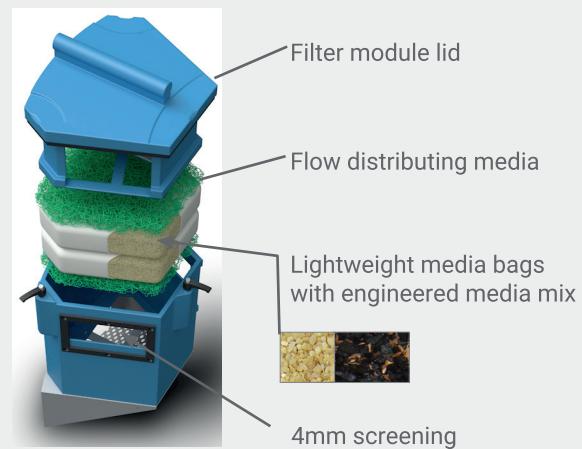


Figure 2

### Level 1: Pretreatment

Oil and floatables rise to the surface while sediment settles in the sump.

### Level 2: Screening

Flow is directed upward through an angled screen to remove debris before entering the filter module.

### Stage 3: High-rate Filtration

Water flows upwards through engineered media bags (see Fig.2) before leaving the outlet module to be discharged through the outlet pipe.

During peak flows, excess water is siphoned through the yellow bypass hood which also prevents the escape of oil and trash. As water levels return to normal, captured pollutants are washed off media bags, preventing blinding and prolonging media life.

## Benefits

- » More regulatory approvals than any other filter in North America
- » Proven to remove up to 98% of TSS
- » Reduce vault height by designing with zero drop between inlet and outlet (exceptions apply)
- » Lightweight media bags make for quick, easy, maintenance



Stormwater Solutions

→ [hydro-int.com/up-flo-filter](http://hydro-int.com/up-flo-filter)

## Product Profile

### Zero Drop Means Shorter Vaults

Save space and cost on vault height by using a filter that can be designed with zero drop from inlet to outlet. Contact Hydro International at [stormwaterinquiry@hydro-int.com](mailto:stormwaterinquiry@hydro-int.com) to confirm feasibility for your site.

Configuration	Treatment Chamber	Maximum Filter Modules	Maximum Treatment Flow Rate	Minimum Height (Sump to Rim)	Sump Depth	Maximum Pipe Diameter	Standard Inlet to Outlet Drop	Minimum Inlet to Outlet Drop	Operating Head
	(ft)	(No.)	(cfs)	(ft)	(ft)	(in)	(ft)		(ft)
Round Manhole	4	6	0.336	7.5	3.0	15			
Rectangular Vault	4 x 6	8	0.448	6.5	2.0	24	0.8	0.0*	2.5
	4 x 8	14	0.784						
	4 x 10	18	1.008						
	8 x 12	40	2.24						
	8 x 21	76	4.256						

Figure 3.

\* Some filter projects can be designed with zero drop from inlet to outlet. Please consult with a Hydro International engineer for more information.

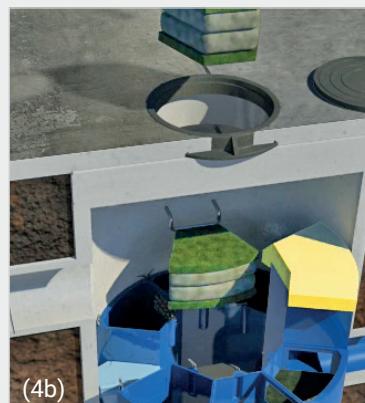
### Maintenance

Maintenance is simple with easy access to the sump and lightweight, replaceable media packs. A vector truck is used to remove sediment and debris from the sump (**Fig.4a**).

Unlike other filter systems whose media cartridges weigh upwards of 250lbs, our lightweight media bags can be manually replaced without removing the entire module (**Fig.4b**).



Sediment is removed with a standard vector truck.



Media bags are removed with no specialized equipment required.



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#### Download Drawings

→ [hydro-int.com/uff-drawings](http://hydro-int.com/uff-drawings)

#### Access the Operation & Maintenance Manual

→ [hydro-int.com/uff-om](http://hydro-int.com/uff-om)