Rainwater Utilization & Benefits

The German Model
Experienced in rainwater harvesting since 1990

Leading developer and manufacturer of rainwater filters and rainwater harvesting systems

Worldwide unique self-cleaning filter systems for a better water quality
RAINWATER HARVESTING
The most natural resource – directly from nature
### Best practice

**WISY Vortex Fine Filters**

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Filters</th>
<th>Additional Features</th>
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</thead>
<tbody>
<tr>
<td>Residential building, 6 persons – Hammerbach, Germany, 1,938 ft² of roof area</td>
<td>1 x WFF 100; Toilets / laundry / garden</td>
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<tr>
<td>City- and sports-hall, 2,000 persons – Altenstadt, Germany, 26,910 ft² of roof area</td>
<td>4 x WFF 150; Toilets / irrigation</td>
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<tr>
<td>Monastery with church, 80 persons – Engelthal, Germany; 12,917 ft² of roof area</td>
<td>1 x WFF 300 + 1 x WFF 150; Toilets / garden</td>
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<tr>
<td>German Industry Lobby, 1,000 persons – Berlin, Germany, 43,056 ft² of roof</td>
<td>2 x WFF 300; Toilets / fire-fighting / irrigation</td>
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</tbody>
</table>
Clean rainwater: WISY-4-step-System

Self-cleaning Filters for fine filtration and oxygenation

Multifunction overflow for a clean water surface protects water quality

Harvest the cleanest water by using a Floating Suction Filter

Smoothing Inlet for stable sedimentation and oxygenation

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Adding Drinking Water

At least 20mm

\[ d_i \text{ Drinking Water Inlet} \]
Calming Inlet
Bulkhead Adapter
Properly Constructed Overflow
Basic filter design types. “First flush” type filters never “filter”.
After 3 years, still 70% of original efficiency
Collecting efficiency of WISY - Filters

Output filtered rainwater in %

Rainwater collected in gallons per minute

- **A** Filter Collector FS
- **B** Standpipe Filter Collector and Vortex Fine Filter WFF 100
- **C** Vortex Fine Filter WFF 150
- **D** Vortex Fine Filter WFF 300

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Drinking Water Economy and Storage Size

Drinking Water Economy (cubic meter/year)

Storage Size (10.76 sq.ft. roof area)

Average rain per year

Simulation Calculation
Filtered rainwater for home and garden.

WISY Filter Collectors

Integrated into the downpipes – filters and collects the rainwater

1. Fine filtering 0.28 or 0.44 mm
2. Collects up to 99% of rainwater
3. Self-cleaning, low maintenance
4. Absolutely safe function
5. Easy to fit and to maintain
6. Long life, 100% Recyclable-materials*

* Stainless steel, copper, zinc
Filter Collector
installed in a downpipe, section view

1. upper housing
2. filter insert
3. Main housing
4. Collecting space
5. filtered water connection

Rainwater from roof

Filtered water

Rinsing water with dirt and debris
The patented, unique
**WISY Filter Collectors**

available for different styles and sizes of downpipes
available for all kinds of metal or plastic pipes **

Standpipe Filter Collector
STFS
household + irrigation /
garden water, up to 2,153 ft² of
roof surface area *

Filter Collector
FS
household + irrigation /
garden water, up to 1,614 ft² of
roof surface area *

Garden Filter Collector
GRS
irrigation / gardening water,
861 ft² of roof surface area *

** Housing: Stainless steel, copper, zinc
* depends on local average rainfall

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Clean rainwater for residential, public and commercial buildings

WISY Vortex Fine Filters

integrated into groundpipes - filter and collect the rainwater

1. fine filter sizes 0.28 / 0.38 / 0.44 m
2. Collect up to 99% of rainwater
3. Self-cleaning, low maintenance
4. Absolutely safe function
5. Up to 32,292 ft² for one filter
6. Long life, 100% Recyclable-materials *

* Stainless steel, Polypropylene

Rinsing water to surface or sewer
Filtered water to the storage

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Vortex Fine Filter
section and function view

Removable filter insert stainless steel
Collecting space
Filtered water
Housing Lid up to 60 t
Rainwater from all groundpipes
Upper housing rotates a full 360°
Housing PE UV-resistant
Rinsing water with dirt and debris

© 2006 WISY AG / WISY-Consult
The patented WISY Vortex Fine Filters are available with adapters for different styles, sizes and materials of pipes.

WFF 100 for roof areas up to 2,153 ft² *

WFF 150 for roof areas up to 5,382 ft² *

WFF 300 for roof areas up to 31,292 ft² *

* depending on the average local rainfall
1. Harvesting water from the cleanest storage-zone
2. Fine or coarse filtering
3. Safeguards your pump
4. Low maintenance
5. For cisterns, tanks, ponds, wells
The patented WISY Floating Suction Filters

available with fine or coarse filters, in different sizes
with different hose connections also connectable to WISY’s flexible hoses

Floating Suction **Fine** Filter

* S A F F

  - normal size
  - Up to 2” intake

Floating Suction **Coarse** Filter

* S A G F

  - for pre-filtered water