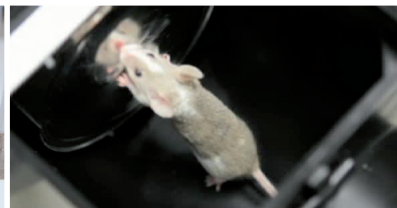


INTEWA

INTEWA PRODUCTS

rainwater harvesting filter for tank
installation with unique efficiency –
self-cleaning, patented.

PURAIN



WATER, WE'RE IN OUR ELEMENT

www.intewa.com

We have designed the PURAIN Rainwater filter, sometimes known as the hydraulic jump filter, for roof areas ranging from 60m² to more than 6000m². This filter automatically cleans itself by means of the hydraulic jump. The design model for PURAIN Rainwater filters comes from nature. At almost every course in a stream, you can see how the hydraulic jump functions. The water flows over one of the stones, smooth and rounded by the action of the water over time. At the bottom of the dip, the waterflow changes to a subcritical flow in a process now commonly known as hydraulic jump. This resulting increase in water power is similar to a strong eddy and any impurities are then forced over the next level and washed away downstream. The following types of PURAIN Rainwater filters are designed for a variety of:

▶ **PURAIN PR 100**

for a single family dwelling: including a nonreturn valve, protection against small animals and skimmer overflow

▶ **PURAIN PR 100**

for a single family dwelling: including a skimmer overflow

▶ **PURAIN PR 150 bis PR 400**

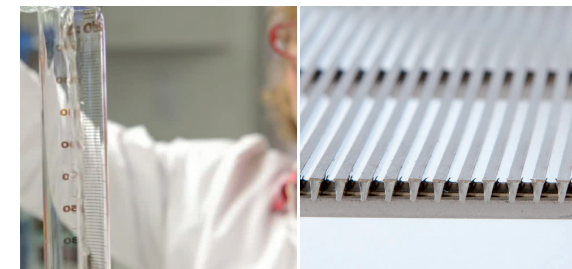
for industrial, public or commercial buildings



INNOVATION

Best water quality

The rainwater filter is designed to filter rainwater coming off roofing. Samples analyzed by us confirm an excellent quality of water. The water is best suited for use in flushing toilets, in the washing machine and for garden irrigation as well as some other commercial applications. Using soft rainwater saves on detergent costs, prevents the calcification of piping and appliances and is the most natural thing you can give your plants.



The sturdy sieve is break-proof and is designed to last the life of the filter. Its trapezoidal shape and diagonally set profile prevents the dirt from settling and clogging it. The water surface in the tank is further cleaned by means of an overflow skimmer integrated into the PURAIN Rainwater filter PR100. The design of PURAIN PR100 features a nonreturn valve of standard size, as stipulated by most regulations. This prevents the overflowing dirty water from flowing back into the system and also stops small animals from entering the tank.

Self-cleans with 98% efficiency

Low rainfall events account for over 97% of total annual rainfall. Therefore, it is particularly important that the filter be designed to collect this light rainfall.



High rainfall events, that occur approx. 4 to 10 times in a year, contribute only about 3% to total water yield and are used by the PURAIN Rainwater filter for self-cleaning. These high rainfalls lead to the formation of an eddy in the PURAIN rainwater filter, the so called hydraulic jump, which spins with such great force that even dirt accumulated in the tray is flushed and discharged with the overflow.



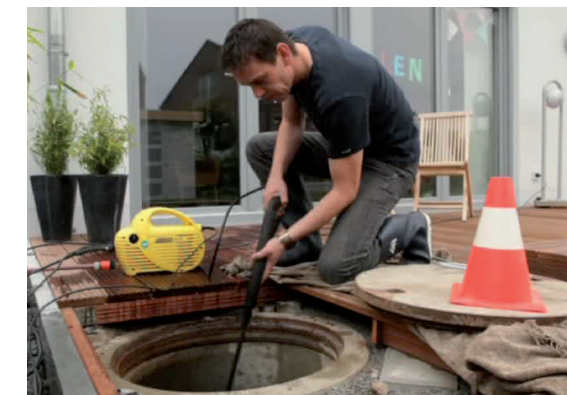
The PURAIN Rainwater filter cleans itself during heavy rainfall events. It means minimum maintenance costs for the user in comparison to other filter systems. An overall rainwater filtering efficiency of 98% is achieved with the unique, self-cleaning PURAIN Rainwater filter.



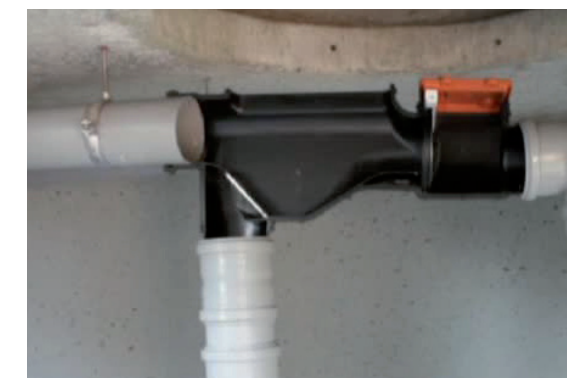
TECHNOLOGY

Easy to assemble, install and maintain

This filter requires extremely low maintenance in comparison to other self-cleaning rainwater filters due to the self-cleaning by means of hydraulic jump design as well as the sturdy construction of the wedge wire sieve. If water is accumulating in the try area, the sieve can be cleaned manually within a few seconds with a high pressure cleaner. This is done simply through entry via the tank lid. We recommend the use of a PR-100-RSDS backflushing nozzle for filters installed in hard to reach tanks.



Now, flushing can be done manually using a hand valve or automatically using a timer controlled valve.



Rainwater harvesting with system

The best place to install a rainwater filter is in the tank. Now there is no need for separate downpipe filters or separate filtration tanks. The PURAIN Rainwater filter itself can be directly used as an overflow and all roofing downpipes can be connected to one single filter. A lot of tank manufacturers and dealers are already providing PURAIN rainwater filters built into their tanks. Due to its low height offset and its size the PURAIN rainwater filter can be retrofitted easily into most tanks.

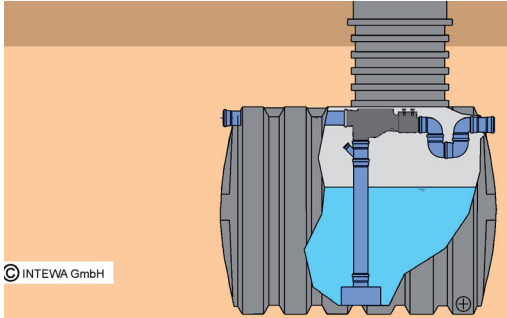


TECHNOLOGY

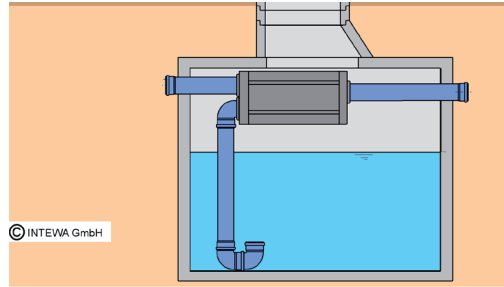
Sample installations:

To follow are a few examples of the PURAIN rainwater filter integrated into various tanks:

- ▶ **PURAIN rainwater harvesting filter PR100 for single family dwelling in plastic tank**



- ▶ **PURAIN rainwater harvesting filter PR150 for industrial, public or commercial buildings in concrete tank**



PURAIN

References



In 2001, the self-cleaning PURAIN rainwater filter patented by INTEWA was launched. Since that time, more than 20,000 units have been installed. The PURAIN Rainwater filter, originally named the hydraulic jump filter, on the basis of its cleaning principle, is now well known all round the world as the leader in rainwater filtering technology.

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