

Rainwater filter series

# PURAIN

- ▶ Self-cleaning
- ▶ Patented
- ▶ Best efficiency



WATER, WE'RE IN OUR ELEMENT

INTEΨA

# PURAIN

## Rainwater filter series



We have designed the PURAIN Rainwater filter, sometimes known as the hydraulic jump filter, for roof areas ranging from 60m<sup>2</sup> to more than 15000m<sup>2</sup>. 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.

## 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 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.



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.



### PURAIN PR 100

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



### PURAIN PR 150-S and PR 150-200-S

for industrial, public or commercial buildings is suitable for wall and tank mounting as well as for ground installation



### PURAIN PR 150 bis PR 400

for industrial, public or commercial buildings



### PURAIN PR-HD 150 to PR-HD 400

model SWL60 (heavy duty vehicles up to 60 tons), is designed as a subsurface variant. PR-HD rainwater filters are made accessible with conventional covers and rings.

## TECHNIK

### 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.

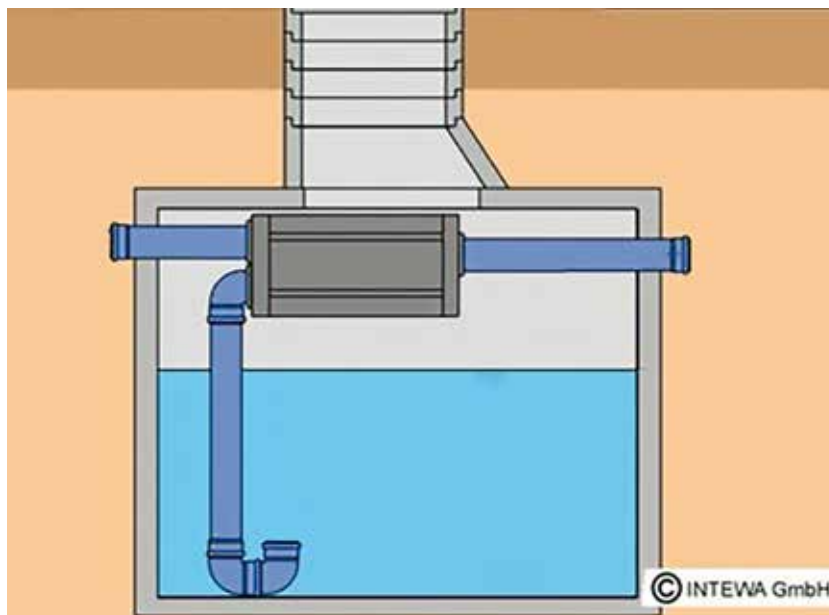
If water is accumulating in the try area, the sieve can be cleaned manually within a few seconds with a high pressure cleaner. This is done simply through entry via the tank lid.

### Rainwater harvesting with system

The best place to install a rainwater filter is in the tank. The big PURAIN filters are suitable for installation in a tank, chamber, house wall or for direct installation in the ground.

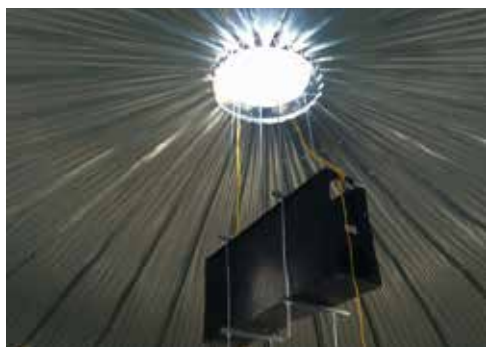


Example: PURAIN PR-150 to 400 in a concrete tank or GFK tank



## REFERENCES

More than 30.000 units of the PURAIN filters have been installed worldwide.



Your dealer: