

## **Environmental protection through safe retention of micropollutants**

*New: GRAF treatment plant EcoLoop Saphir according to DWA-A102*

**When treating rainwater from sealed surfaces, such as public car parks, the finest solids pose the greatest challenge. Micropollutants such as heavy metals or organic pollutants preferentially accumulate on these. In order to protect the quality of surface waters and thus the environment, these fine substances from precipitation water must be retained to a sufficient extent. The filterable substances with a size between 0.45 µm and 63 µm (AFS63) are therefore the guiding parameter of the DWA-A 102 worksheet published in 2020. With the new EcoLoop Saphir from GRAF, the fines can be effectively retained both from moderately polluted Category II precipitation water and from heavily polluted Category III precipitation water. The GRAF innovation convinces with its high efficiency and the currently highest area performance for Category III stormwater of comparable treatment systems.**

The high efficiency is achieved through the design features of the EcoLoop. The bionically shaped tangential inlet reduces turbulence and causes a circular motion of the inflowing water around the centre of the tank. Due to the so-called teacup effect, even the fine solids sediment effectively and sink through the internal funnel into the settling chamber in the lower part of the system. The two-chamber system prevents sediment remobilisation, even during heavy rainfall events. The water slowly rises up and out of the plant through a flow-calming weir at the level of the inlet. This third, calmed area is an additional barrier for fines, which can slowly sink here.

Up to 1,140 m<sup>2</sup> of Category II or 590 m<sup>2</sup> of Category III can be connected to the GRAF EcoLoop Saphir treatment system. Combinations of Category I, II and III areas can be individually

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dimensioned and reliably treated. The connection of larger areas is possible by using several hydrodynamic separators.

The treatment plant was tested and approved for categories II and III by the independent testing institute PIA. Various rain events were simulated in these tests.

The EcoLoop Saphir convinces through its compact design with a low space requirement. The system is pre-assembled ready for installation and avoids installation errors. There is no height offset between the inlet and outlet, which further simplifies installation. The system is centrally accessible for inspection and maintenance through the shaft opening without removing internal components. The system can be installed in areas that can be walked on or driven over.

## Infobox

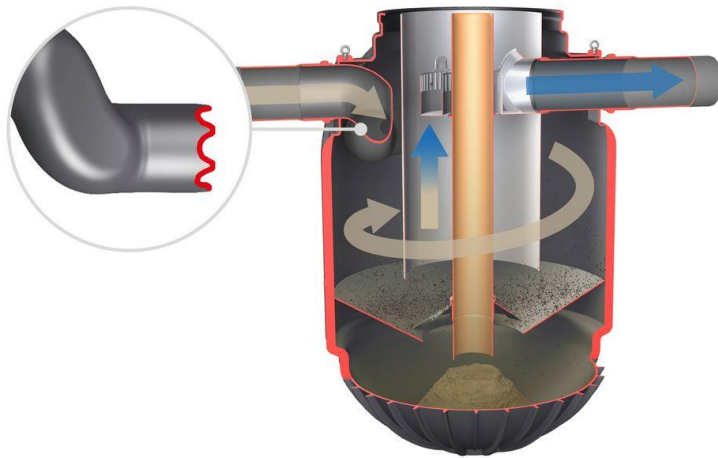
Area Category I	Yard and path areas without/with little motor vehicle traffic, private parking spaces
Area Category II	Moderately frequented courtyard and path areas as well as traffic areas in residential areas
Area Category III	Highly frequented yard and path areas as well as traffic areas in industrial areas



### ***GRAF\_PR\_EcoLoop Saphir\_01\_10x15\_rgb\_300dpi.jpg***

The rainwater is cleaned in the GRAF EcoLoop Saphir in a two-chamber system.

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## ***GRAF\_PR\_EcoLoop Saphir\_02\_10x15\_rgb\_300dpi.jpg***

The bionically shaped inlet of the GRAF EcoLoop Saphir reduces turbulence.

You can find more information about Otto Graf GmbH here:

[graf.info/unternehmensprofil](http://graf.info/unternehmensprofil)



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