



## **Announcement for Aquatech 2025**

The innovative CARBONIT combination cartridges made of sintered activated carbon block and patented resin mixture make the difference. The radial flow through the combination filter is decisive here and ensures an optimum contact time and harmonised retention rates. Compared to pure activated carbon or ion exchangers, the performance and service life are significantly increased.

### **PFAS - the eternal chemicals**

The unique resin-absorber mixture improves and supplements the retention rates of CARBONIT's sintered activated carbon block filters in the areas of heavy metals and PFAS. The result is a highly selective removal of short and long-chain per-fluorinated and polyfluorinated alkyl substances (PFAS) from aqueous media below the expected EPA limits of 4 ppt for PFOA and PFOS. In addition, the removal of toxic heavy metals (precious metals, rare earths and base metals) from water is below the detection limit.

The more than 4,700 PFAS chemicals include per- and polyfluorinated alkyl substances and are a group of widely used man-made chemicals that accumulate over time in humans and in the environment. They are also known as 'perpetual chemicals' as they are extremely persistent in our environment and in our bodies. They can lead to health problems such as liver damage, thyroid disease, obesity, fertility problems and cancer.

PFAS are water, grease and dirt repellent as well as chemically and thermally stable. Due to these properties, they are used in numerous consumer products such as cosmetics, cookware, paper coatings, textiles and ski waxes. PFAS are also used for the surface treatment of metals and plastics, in pesticides and fire extinguishing agents.

### **Metals and precious metals**

Industrial process and wastewater streams often contain considerable quantities of metallic residues, which can be removed up to 100 per cent with the innovative combination cartridge, even if these substances are only present in the per mille range. Recycling makes sense for some metals due to their value (precious metals such as platinum, palladium, ruthenium, rhodium, iridium, gold and silver) or their availability (rare earths such as yttrium, lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, thulium, ytterbium). However, other metals such as copper or nickel are also reliably filtered out.

### **Total herbicide glyphosate**

The theoretically possible removal of the total herbicide glyphosate and its derivatives from aqueous solutions is currently being scientifically investigated and would further extend the range of applications of the new combination cartridges.

### **Ideal POU filtration**

The patented resin technology with a powerful activated carbon block results in a small and compact water filter that really fits under every sink:

- > Mineral water quality straight from the tap for the whole family
- > Clear and safe water with a combination cartridge
- > Reduces odour- and taste-impairing substances such as chlorine for more enjoyment
- > Reduces almost all harmful impurities such as bacteria, viruses, heavy metals, pharmaceutical residues, pesticides, asbestos, microplastics and volatile organic organic compounds
- > Natural, valuable and healthy minerals such as magnesium and calcium remain untouched and ensure that the water has a quality similar to mineral water
- > The pH value of the water remains unchanged and guarantees a balanced water filter
- > Only one single combination cartridge that needs to be handled and monitored by the consumer

The new CARBONIT combination cartridges are matched to the VARIO HP and FINO high-performance housings. The scientific studies on retention rates were also carried out with these housings. Any conclusions about the performance of the combination cartridges in other housings are vague and not supported by scientific studies.

These combination cartridges from CARBONIT will be presented at Aquatech 2025 in Amsterdam and will be available from that date.

### **Table-top housing in bioplastic**

The new SanUNO table-top filter made of bioplastic will also be presented at the Aquatech 2025 trade fair. This adds another application of non-fossil plastics in CARBONIT products to the product catalogue.

Salzwedel, 08. January 2025