

Clean Water for Home, Apartment, or Well

Designed around your actual water quality — not a catalog. Whole-house filtration at the point of entry, or under-sink solutions for everyday drinking, cooking, and coffee.

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Every Water Source Carries Its Own Risks

Household water is never uniform. It can come from public mains, a well, a borehole, or a combined source.

It can be hard, high in iron, have an odor, carry turbidity, present a microbial risk, or contain substances you can't see or smell.

Typical modern loads: pesticides and herbicides from farmland, microplastics, disinfection by-products (chlorine, trihalomethanes), pharmaceutical residues, organic compounds, and off-odors.

Modern contamination is often invisible — but biologically active.



Clear-Looking Water Isn't the Same as Clean Water

Hardness

causes limescale deposits, higher energy consumption, and shorter appliance lifespan.

Iron and manganese

can cause water discoloration, deposits, metallic taste, and problems in piping.

Chlorine and odor-causing substances

in municipal water, these can affect taste, smell, and comfort when drinking, cooking, or showering.

Microbial risks

especially with wells, boreholes, and properties with irregular water use.

Pesticides and trace substances

may not be visible or noticeable by smell, but depending on the water source and location, they may be a reason for targeted polishing.



We Don't Start with a Filter. We Start with the Water.

- ☐ Most household filters address only part of the problem. Some remove turbidity, others improve taste or reduce chlorine.
- ☐ That's why we start with a water analysis and an honest look at where the water comes from, what it's been through, and how it's used.
- ☐ The goal isn't to sell a filter. The goal is to design a solution that makes technical, hygienic, and operational sense.
- ☐ Not every water problem is solved by a filter. And not every filter solves a real problem.

Whole House, or Just the Kitchen Sink?

01

Point-of-entry filtration (AC Home / AC Well)

water treated for the entire household — drinking, cooking, showering, and laundry. Also protects the boiler, washing machine, dishwasher, and fixtures from scale.

02

Under-sink filtration

a compact kitchen solution when you mainly want to treat water for drinking, cooking, and coffee. Low space requirement and lower upfront cost.

03

You can combine both — or expand step by step

start with an under-sink filter and later move to a whole-property system.

04

It's not just about drinking water.

It's about the water you use every day.





Carbon Nanotubes: Massive Surface Area, Extreme Speed

ART CARBON® is a patented Czech material based on carbon nanotubes immobilized on a carrier.

A single teaspoon of this material has an active surface area comparable to a football field – meaning extremely fast contact with contaminants.

Conventional activated carbon works like a sponge – contaminants have to diffuse into the pores, which takes time. Nanotubes capture substances directly on the surface, almost instantly.

That's why it works effectively even where water flows through the filter relatively quickly – the everyday household setting.

Why Standard Activated Carbon Isn't Enough

The main problem with standard carbon isn't total capacity — it's slow sorption kinetics. Hazardous substances occur in water at trace concentrations, and at normal flow rates, standard carbon simply can't capture them in time. According to tests conducted at the Technical University of Liberec:

Pharmaceuticals

ART CARBON® removed more than 90% of tested pharmaceuticals within 30 seconds; for the analgesic naproxen, over 91% was removed after just 10 seconds of contact. Standard carbon in the same time reduced naproxen by only 20% and carbamazepine by 16%.

Pesticides

ART CARBON® removed 89% of simazine after 1 minute and more than 90% after 2 minutes. Granular activated carbon captured virtually no simazine after 5 minutes and did not exceed 36% even after 20 minutes.

Direct comparison at ten minutes of contact

standard activated carbon reaches only 12–47% of ART CARBON®'s efficiency.

AC Home — Water from the Municipal Supply

A solution for households, apartment buildings, or smaller properties connected to the public water supply, where the goal is to improve water quality throughout the whole property. The assembly includes:

- 20" mechanical pre-filter, 1-micron porosity
- stainless-steel vessel with ART CARBON® adsorbent
- 20" mechanical filter, 1-micron porosity
- automatic disinfection dosing — a solenoid diaphragm dosing pump injects chlorine dioxide (ClO_2), controlled by water-meter pulses for flow-proportional dosing, to keep the distribution piping free of biofilm

Municipal water is already pre-treated by the utility, which makes final polishing more straightforward. The main benefit: consistent water quality throughout the property, based on a design tailored to your setup.



AC Well — Water from a Well or Borehole

A solution for properties that use their own water source. The design is always based on a water analysis, source depth, yield, extraction pattern, and the intended household use. The assembly includes:

- cascade of 20" mechanical pre-filters (50, 10, and 1 micron)
- stainless-steel vessel with ART CARBON® adsorbent
- automatic disinfection dosing (solenoid diaphragm pump, chlorine dioxide / ClO_2)
- ion-exchange resin — water softening with automatic regeneration
- 20" mechanical filter, 1-micron porosity

Water softening can alternatively be handled by a reverse osmosis system, which — unlike ion-exchange resin — does not release salt into the water.



Would You Like a Water Treatment Design for Your Home, Apartment, or Well?

01

Step 1

Tell us where your water comes from, how you use it, and what problem you're trying to solve.

03

Step 3

We'll design the right combination of filtration, hardness treatment, adsorption stage, and — where needed — disinfection or an under-sink solution.

Proposals and consultations are non-binding.

02

Step 2

We'll recommend an appropriate scope of water analysis for your setup.

04

Step 4

Once the design is approved, we handle delivery, installation, and a recommended service schedule.

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