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FOR A
BRIGHT
TOMORROW.

EFFECTIVE

WATER

TREATMENT

WITH ACTIVATED CARBON

Why

ACTIVATED CARBON?

Flexible solutions with powdered (stir-in process) or granulated activated carbons (fixed bed process)

The development of specially optimized, highly active activated carbons for water treatment makes it possible to remove even the smallest quantities of pollutants from the water with a high degree of effectiveness and to guarantee perfect drinking water quality.

Activated carbon is used in wastewater treatment to meet even the most stringent discharge requirements. An increasingly emerging field of application for activated carbon is the elimination of so-called trace substances. These are micropollutants that accumulate in the water cycle over the years and pose an ever-increasing problem. In many wastewater treatment plants, the so-called 4th purification stage is therefore introduced for the treatment of trace substances.

Donau Carbon offers activated carbons from the Hydriffin® series for a wide range of water treatment applications:

- » **Drinking water:** Ensuring the highest purity and quality, free of TOC, chlorine, ozone, PFAS, etc.
- » **Wastewater:** Removal of COD, AOX & trace substances.
- » **Landfill leachate:** Removal of COD and AOX.
- » **Industrial wastewater:** Elimination of various pollutants depending on the process (e.g. textile industry, oil refinery, steel industry).
- » **Boiler feed water & condensate:** Removal of organic substances (TOC) from feed water or oil from recycled condensate.
- » **Swimming pool water:** Removal of excess free chlorine, chloramine & disinfectant by-products (e.g. THM).

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How do I fulfil SPECIFIC REQUIREMENTS?

Increasing quality and environmental standards can be reliably maintained with activated carbon.

Compliance with legal requirements has top priority: Donau Carbon's products offer a suitable solution for (almost) every task and challenge.

Drinking water

European Directive (EU) 2020/2184 on the quality of water intended for human consumption with focus on PFAS:

- » Limit value of 0.1 µg/l as a cumulative limit value for a group of 20 PFAS relevant to drinking water from 12.01.2026.
- » Limit value of 0.02 µg/l for the substances PFOS, PFOA, PFHxS and PFNA from 2028.

Wastewater

Effective removal of micropollutants and trace substances in the newly introduced 4th cleaning stage.

Landfill leachate

Typical COD values of 800 - 1000 mg/l.

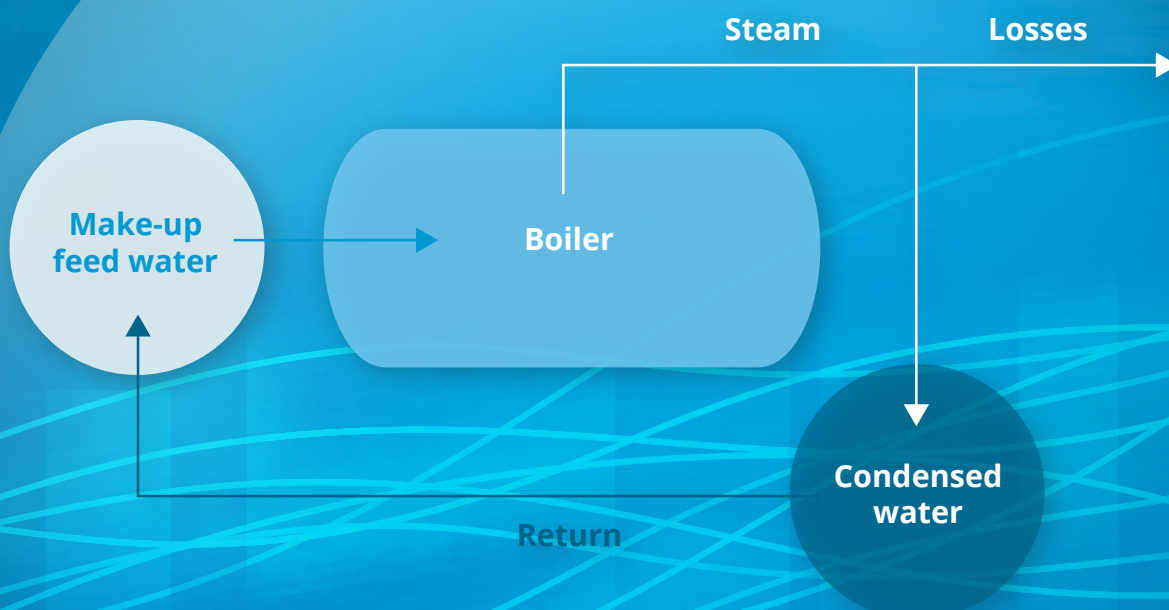
Limit values according to European regulation:

- » COD < 400 mg/l (indirect discharge)
- » COD < 200 mg/l (direct discharge)
- » AOX < 0.5 mg/l

Boiler feed water & condensate

Limit values for organic substances (TOC) from feed water or oil from recycled condensate in accordance with European regulation (EN 12953-10):

- » Oil < 0.5 - 1.0 mg/l
- » TOC < 0.1 - 2.5 mg/l



Quality ASSURANCE

The activated carbons are evaluated and tested for the most important characteristics in water treatment in our in-house laboratories:

- » Iodine number (mg/g)
- » Apparent density (kg/m³)
- » Pore size distribution (micro-, meso- & macropore content)
- » Grain size (mm) or (mesh)
- » Hardness (wt.%)

SUSTAINABLE, RENEWABLE

Activated carbon from coconut shells - our focus on bio-based raw materials

Multi-talented coconut

- » Complete utilisation of the main and by-products
- » Pulp and coconut water for food and cosmetics
- » Fibres and wood for textile and horticultural materials, among other things
- » Coconut shells as a raw material for our activated carbon

Local manufacturing

- » Environmentally friendly production with short transport routes

Ideal properties

- » Outstanding adsorption performance
- » Superior hardness
- » Lowest ash content

Recycling via reactivation

- » Best suitability for environmentally friendly & cost-saving reactivation

Carbon footprint

- » 5 times lower CO₂ emissions compared to hard coal-based activated carbon

In Donau Carbon, you have a trustworthy partner at your side who takes care of your activated carbon and filter systems, so you can concentrate on your core business. Our experience and our commitment to quality guarantee you first-class results.

CERTIFICATES

Depending on the requirements, Donau Carbon offers a wide range of certificates:

- » EN DIN 12915 Drinking water certificate for granular activated carbon
- » EN DIN 12903 Drinking water certificate for powdered activated carbon
- » Kosher & Halal
- » GMO & Allergen Regulation (EU) No. 1169/2011 & No. 1829/2003
- » Packaging - Declaration of suitability for food contact Regulation (EU) No. 1935/2004
- » NSF/ANSI 61

DID YOU ALREADY KNOW ... GAC vs. PAC?

Depending on the situation, powdered activated carbon (PAC) or granulated activated carbon (GAC) offers advantages.

Powdered activated carbon

- » Low investment costs
- » Temporary use possible
- » No preloading
- » Low space requirement
- » Multiple use

Granulated activated carbon

- » Possibility of environmentally friendly & cost-saving reactivation
- » Equalization of concentration fluctuations
- » Use as a safety/pollution stage
- » Low analytical effort
- » Easy handling

Advantages for **OUR CUSTOMERS**

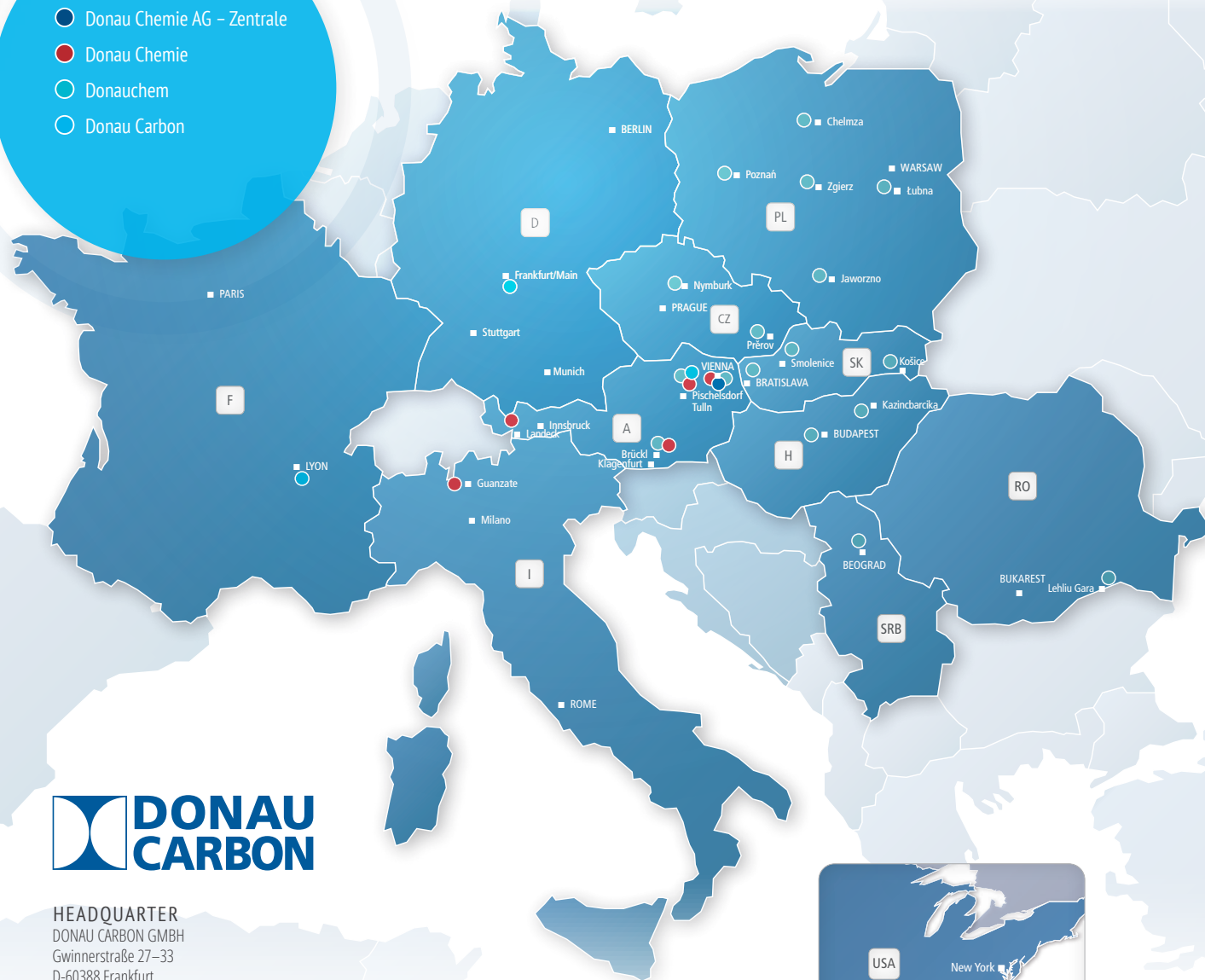
Donau Carbon offers comprehensive technical application support, that goes beyond the sales and commissioning of activated carbon.

- » Product development and adaptation of activated carbon qualities to customer requirements
- » Application-related brochures
- » Adsorption isotherms
- » Manuals for filling/backwashing/emptying procedures
- » Backwash and pressure drop curves
- » Filter design based on customer-specific operating parameters
- » Expertise on appropriate flow rate, flow velocity and contact time
- » Service life estimation



We are CLOSE TO YOU

- Donau Chemie AG – Zentrale
- Donau Chemie
- Donauchem
- Donau Carbon



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