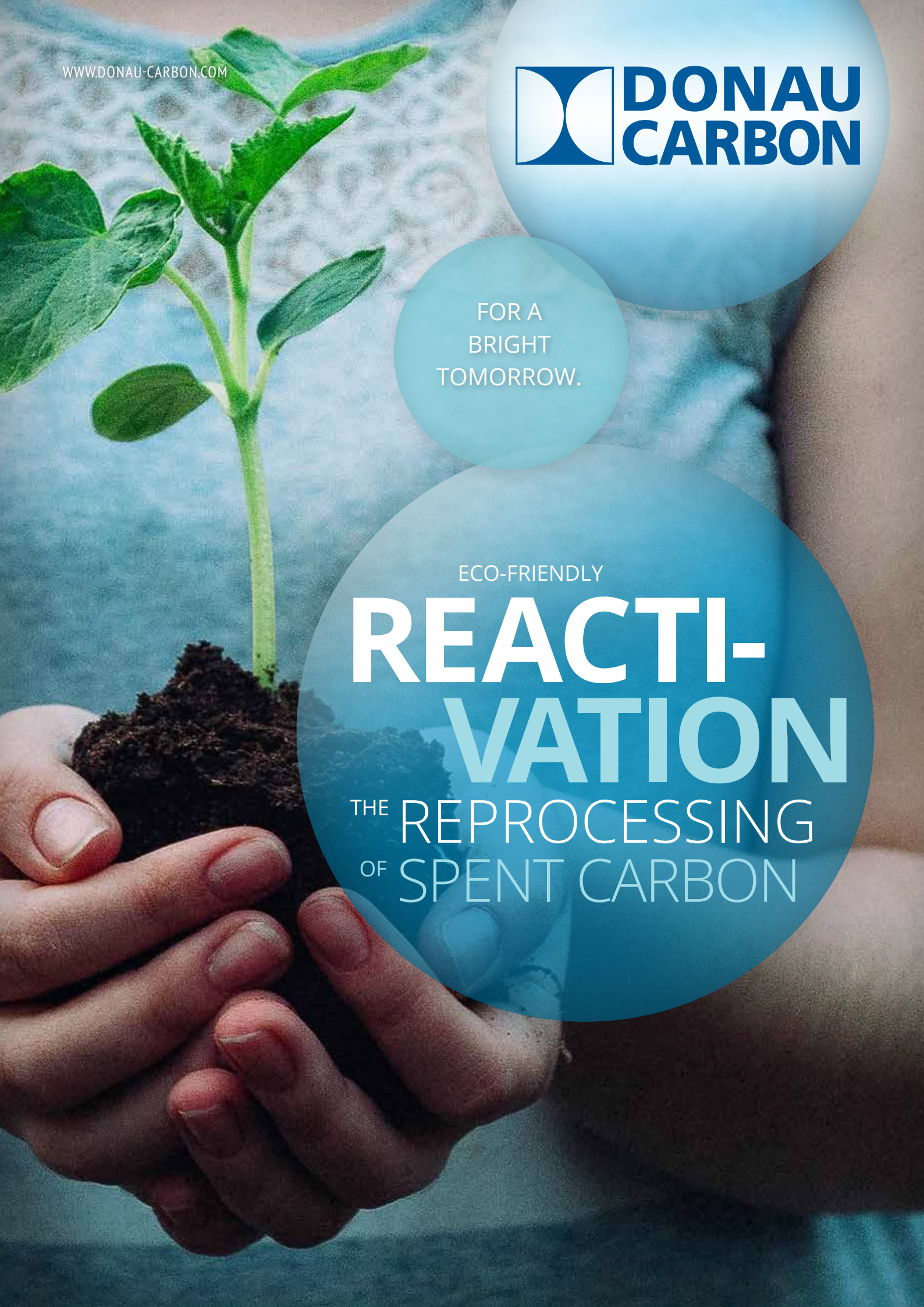

WWW.DONAU-CARBON.COM
DONAU CARBON
FOR A BRIGHT TOMORROW.
ECO-FRIENDLY
REACTI-VATION
THE REPROCESSING OF SPENT CARBON

REACTIVATION

The reactivation of spent activated carbons provides an environmentally friendly and cost-effective alternative to the use of virgin activated carbon.

Apart from increasing procurement costs for virgin carbons, based on the "Closed Substance Cycle Waste Management Act" it is also necessary to check whether the exhausted activated carbon is no longer usable or can be thermally regenerated. Donau Carbon has reactivation plants available at several locations that use modern technologies to ensure the gentle processing of spent activated carbon.

Activated carbon is a versatile product for purification in the liquid or gas phase. It is based on renewable raw materials such as coconut shells or wood as well as those of mineral origin, which are processed into activated carbon by means of appropriate activation at high temperatures.

The mode of action of activated carbon is based on adsorption, that means the physical accumulation of the contaminants, which can be later removed again from the activated carbon by thermal treatment.

In various fields of application, such as the treatment of drinking water, food production, the chemical industry and the treatment of waste water, also purification of various types of exhaust air, activated carbon is used as a very effective solution for removing unwanted pollutants.

FOR A BRIGHT TOMORROW.

REACTIVATION PROCESS

A look behind the scenes.

During the thermal reactivation process, the spent activated carbon passes through several temperature zones within the reactivation furnace, in which it is continuously heated to temperatures of up to 1,000 °C.

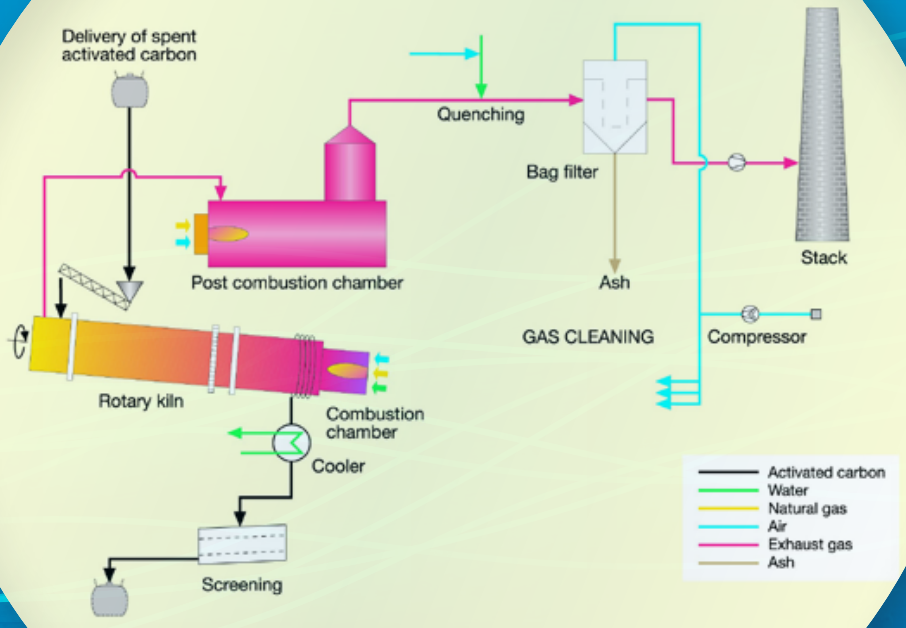
During this controlled temperature increase, the substances adsorbed by the activated carbon begin to detach from the inner surface (desorption). Finally, the now unloaded activated carbon is activated by the influence of steam (re-activation). The inner pore structure is reconditioned and if necessary expanded, finally the resulting reactivated carbon can be reused.

The substances transferred to the gas phase during this reactivation process are eliminated in a post-combustion process at temperatures of up to 1,200°C. The resulting flue gas goes through a precise post-treatment to ensure that the entire reactivation process complies with current environmental regulations.

Our variable process control is adapted to the respective requirements and the different types of activated carbon. This ensures a consistently high quality of the reactivated carbon produced. The entire process is monitored by our in-house laboratories by means of continuous quality controls in order to maintain the highest standards.

In addition to our focus on quality and environmental protection, we ensure the protection of our employees with the detailed evaluation of the spent activated carbon before reactivation.

Flow sheet without storage facilities and gas neutralization equipment.



What can you
EXPECT FROM US?

» Coverage of a wide range of activated carbon applications using various reactivation techniques
» Delivery reliability thanks to several locations in Europe
» Compensation of reactivation losses as „make-up“ with suitable activated carbon
» The return of spent activated carbon is possible
» Trained service personnel for the transport of adsorbers and silo trucks
» Customer-oriented reactivation management by our experienced specialist departments
» Strict batch separation if required - every customer receives exactly the same activated carbon as reactivate

CAP

Our aim is to ensure that spent activated carbons can be reactivated safely for people and the environment. To this end, we have a spent carbon management system („CAP - Carbon Acceptance Procedure“), in which we respond to the needs and requirements of our customers and their applications.

This results in the following benefits:

» Comprehensive testing of the reactivability of your spent activated carbon
» Support in selecting the waste code (EWC)
» Feedback on the activated carbon to achieve maximum efficiency and performance
» Approved customer profiles speed up further processing
» Ability to handle hazardous waste
» Support with the disposal of non-reactivatable spent activated carbon

Advantages for
OUR CUSTOMERS

Donau Carbon offers comprehensive technical application support, far beyond the sale of activated carbon and its commissioning.

» Compensation of reactivation losses as „makeup“ with suitable activated carbon in consultation with the customer.

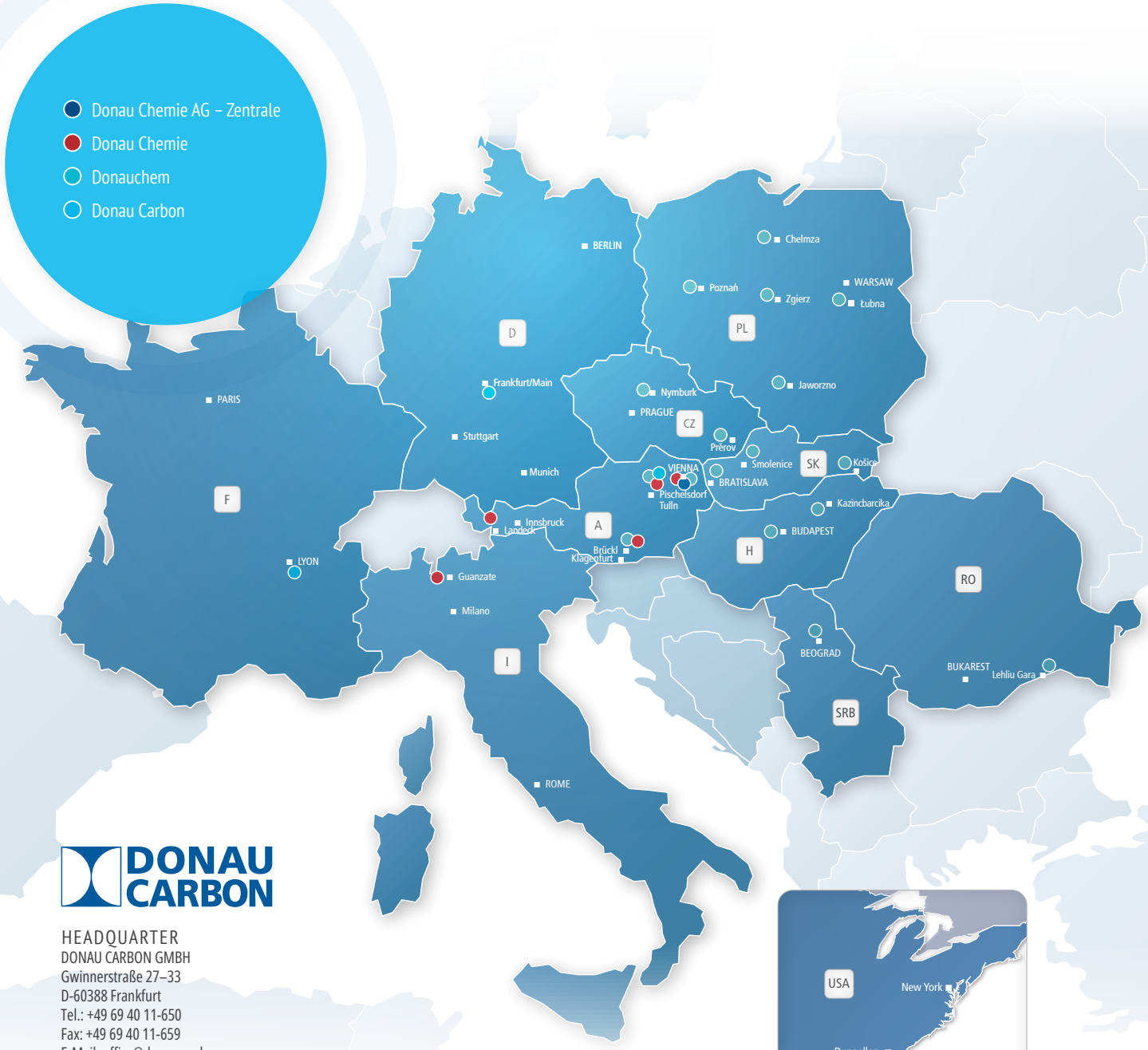
» For applications in which the customer‘s spent carbon can no longer be used when reactivated, we offer the replacement with fresh carbon. After testing the spent carbon, Donau Carbon can take it back.

» Complete service with acceptance of the spent carbon and filter replacement at the customer‘s site, as well as redelivery of the reactivated carbon or virgin carbon in silo vehicles or our mobile adsorbers.

» Strict batch separation if required - every customer receives exactly the same activated carbon as reactivated material.

We are

CLOSE TO YOU



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