



THE MOBILE ADSORBER RENTAL SYSTEM



CarboTech
The activated carbon people

AT A GLANCE

Our “Plug & Clean” promise for businesses:

- › High quality mobile adsorber rental systems (MAMS) “made in Germany”.
- › Practical, efficient solutions that can be used for a great variety of adsorption functions.
- › Available in different sizes, quickly configured, delivered, assembled and ready for use.
- › Effortless supply and disposal processes without loss of performance and with the shortest possible changeover times.
- › Comprehensive, competent, professionally sound advice.

WE'RE AT YOUR SERVICE

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ONE OF THE WORLD'S LEADING SUPPLIERS OF **ACTIVE CARBONS**

CarboTech is one of the world's leading suppliers of high-quality powdered, granulated and extruded activated carbons for every application.

As a market leader in recycling saturated activated carbon by means of thermal reactivation or energy recovery, we attach great importance to sustainability in what we do. Located in the Ruhr conurbation at the heart of Europe, our integrated production plants manufacture, refine and package tailor-made activated carbons, activated coke and carbon molecular sieves made from hard coal, coconut coke and charcoal.

Our fluidised bed process – the only one of its kind in the world – ensures our customers are supplied with highly effective activated carbon of consistent quality for a variety of challenging cleaning processes.

Thanks to our decades of experience and the expertise we've built up in the field of activated carbon, we are now a **full-service provider for our customers in various industries**.

We are your capable point of contact: From advice on product selection and production to logistical handling of activated carbon – in sacks, bulk bags (FIBCs) or in the form of MAMS mobile adsorber rental systems – right through to eco-friendly reactivation of used activated carbon and ultimately disposal. We also develop made-to-measure solutions and custom-fit products to your wishes and requirements.

This versatility is all thanks to our highly proficient application technology and our in-house lab facilities. If you are already using activated carbon solutions, we'll be happy to offer you more powerful alternatives from our product range.

Our definition of “full service” is always based firmly around your needs and requirements. Whatever the challenge, consider us at your service, ever ready to magic up the right solution for you.

Like our **“Plug & Clean”** promise: If you want to clean **gaseous or liquid substances** quickly and easily, but do not have the suitable filter systems, that's no problem because we have just the solution for you – our **“MAMS” mobile adsorber rental systems!**

A summary of the advantages of our MAMS can be found on the following pages.





ENVIRONMENTAL PROTECTION

Growing awareness of the environment and stricter statutory environmental protection regulations in trade and industry demand that any contaminated gas and water streams that are generated must be purified before being discharged into the environment.

SOLUTIONS BY CARBOTECH

The Mobile Adsorber Rental Systems developed by CarboTech in the **MAMS W** series (for the liquid phase) and **MAMS G** series (for the gas phase) are practical, efficient solutions that can be used for a great variety of adsorption functions.

CarboTech specialists take care of the system, the logistics and any matters concerning recycling or disposal of spent activated carbons. This reduces expenditure for the customer because they are merely responsible for operating the mobile adsorber. Reliable data on replacement intervals are available for many applications. This creates a dependable basis for cost calculations. The entire background knowledge is founded on our technicians' and engineers' wealth of experience. Combined with the constant high quality of the activated carbons used, this experience ensures the excellent technical and business parameters of CarboTech systems.

MAMS APPLICATIONS

The Mobile Adsorber Rental Systems from CarboTech have become indispensable for many applications. Some of the main fields of application in which they are used are:

- **MAMS W** for dewatering building sites, pumping tests and the redevelopment of hazardous waste sites, leachate purification, condensate purification, decolouration and purification of wastewater, ultra purification of spirits and end product refining in the chemical industry.
- **MAMS G** for adsorbing solvents and removing mercury, for desulphurisation of exhaust gases, the purification of stripping air, deodorization, biogas purification (siloxan separation), zero-emission tank breathing and purification of waste air from tanks.

CARBOTECH HYBRID-MAMS

In recent years the further development of the mobile rental adsorbers has been the focus of special attention. The proven **MAMS G** and **MAMS W** series have been extended by a hybrid version, which provides the customers with the advantage of short delivery and set up times. Furthermore, particularly the hybrid adsorbers make it possible to implement advantages in chemisorptive separation processes. Thus, with the hybrid version, we have been able to include another safe and reliable type of mobile adsorber for flexible applications in gas and liquid purification in our product range.





A WIDE VARIETY OF ADVANTAGES

Advantages of CarboTech MAMS in terms of applications technology

- › Customised consulting and support
- › Uncompromising selection of materials for all types of MAMS
- › Long life-time even under extreme conditions
- › Compliance with maximum safety requirements
- › Options for connection in series or in parallel

Advantages of CarboTech MAMS in terms of adsorption technology

- › Optimal separation performance thanks to the superb quality of the activated carbons and recycled activated carbons from CarboTech
- › Use of impregnated activated carbons for complex separation tasks (MAMS G)
- › Reactivation of spent activated carbons by processing in the unique CarboTech fluidized bed reactivation process or professional disposal

Advantages of CarboTech MAMS in terms of operations

- Simple and safe to handle
- Can be put into service immediately thanks to pre-wetted activated carbon (MAMS W)
- No dirt or dust formation during adsorber changeover
- Simple sampling thanks to easily accessible removal nozzle
- Trouble-free relocation thanks to bumpers and transportation aids

Advantages of CarboTech MAMS in terms of costs

- No investment costs
- Free examination of activated carbons
- Daily pro rata billing

DATA SHEET

Net volume	Pressure range	Materials	Connections	Water flow rate range	MAMS W-Typ
1,5 m ³	0,1 MPa (abs), 0,6 MPa (abs)	coated steel, stainless steel	DIN, Storz C2, ...	0,25 – 8 m ³ /h	MAMS W 1.5 (vertical)
1,5 m ³	0,1 MPa (abs), 0,6 MPa (abs)	coated steel, stainless steel	Storz C2; DN 100 blind flange	0,25 – 8 m ³ /h	MAMS 1.5 Hybrid (vertical)
5 m ³	0,1 MPa (abs), 0,6 MPa (abs)	coated steel, stainless steel	DIN, Storz B3, ...	Up to 18 m ³ /h	MAMS W 5 (vertical)
25 m ³	0,1 MPa (abs), 0,3 MPa (abs)	coated steel, stainless steel	DIN, Storz C2, DN100 blind flange	Up to 40 m ³ /h	MAMS W 25 (vertical)

Net volume	Pressure range	Materials	Connections	Gas flow rate range	MAMS G-Typ
200 l	0,1 MPa (abs)	coated steel		Up to 250 Nm ³ /h	Drum adsorber
1 m ³	0,1 to 0,6 MPa (abs)	coated steel, stainless steel	DIN, Storz C2, ...	100 – 1000 Nm ³ /h	MAMS G 1 (vertical)
1,5 m ³	0,1 MPa to 0,6 MPa (abs)	coated steel, stainless steel	Storz C2; DN 100 blind flange	100 – 750 Nm ³ /h	MAMS 1.5 Hybrid (vertical)
4,2 m ³	0,104 MPa (abs)	1.4571	DN 250	Up to 4.000 Nm ³ /h	MAMS G 4 Light (vertical)
5 m ³	0,1 MPa to 0,3 MPa (abs)	coated steel, stainless steel	DIN, Storz B3, DN 200	Up to 2.500 Nm ³ /h	MAMS G 5 (vertical)
25 m ³	pressureless	coated steel, stainless steel	DN 900	Up to 25.000 Nm ³ /h	MAMS G 25 (vertical)



CONTACT

Interested in discovering more? Our products and solutions can be used to great effect in lots of other areas as well, and we'll be very happy to discuss and explain more.

We can also show you what our **activated carbon can do for your company** – we're always happy to advise!

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