



BIGBOXBLOWER

BIGBOXBLOWER ROBOTICS

WHEELBLOWER

SURFACE MASTER SYSTEM

Micro-fine surface treatment for the perfect finish



**Eddy current
rotation process –
micri fine matting
instead of grinding**
Maximum perfection, time
and cost savings

CARTEC

The masters of micro- fine-matting

We – the CARTEC Autotechnik Fuchs GmbH - are well known, first and foremost, for our solutions for professional alloy wheel processing. Paint shop staff know; grinding wheel rims by hand is hard labour. To provide a remedy, we therefore developed the WheelBlower that we launched onto the market in 2014.

The eddy current rotation method for micro-fine matting, which we developed ourselves, ensures fast and accurate results – without tedious, manual grinding work. True to our own motto „**There has to be a better way!**“ and with a lot of that famous Swabian inventiveness, we subsequently developed other machines of today’s “SURFACE MASTER product family” in the company’s own CARTEC Research and Development Department. This has made our method for painting preparation state of the art for (almost) all surfaces and customer requirements.

Our motivation – We make painting preparation quick and easy.
So long sandpaper!



Your advantage

- fine peeling instead of tiresome grinding
- Unequalled perfection and maximum paint adhesion due to the CARTEC eddy current rotation method

Surfaces of all kinds – alloy wheels, bumpers, plastic parts of PP/EPDM, PUR-RIM or GRP, aluminium or steel engine bonnets and doors, carbon spoilers and panels, chrome-plated water taps that are to be coated stylishly in white or black but also structured wood surfaces can be prepared for painting perfectly and extremely quickly.

Here, the members of the SURFACE MASTER product family ensure fast, optimum results as well as the highest possible technical and economic benefit with maximum quality.

As a medium-sized family business based in Pluederhausen near Stuttgart, Germany, we are intimately familiar with the daily tasks and challenges of car dealers and car repair shops as well as specialised body and paint shops. Even renowned German car manufacturers and car parts suppliers as well as industrial paint shops in the medical industry rely on our more than 32 years of know-how.

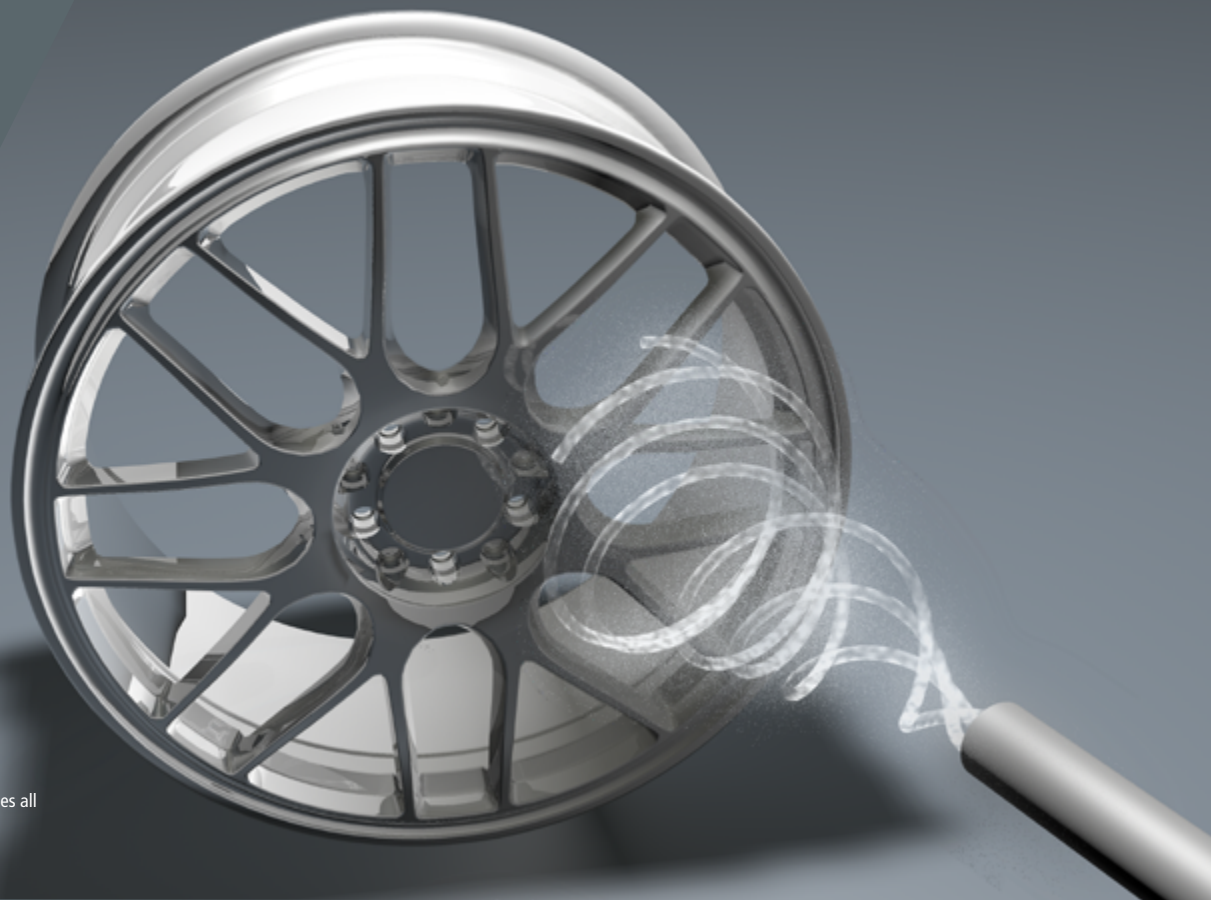
// INNOVATIVE PLUS EFFECTIVE
PAINTING PREPARATION MADE EASY

Grinding rethought: the CARTEC eddy current rotation method

Whether by hand or by machine, manual preparation of surfaces for painting binds a whole lot of resources in terms of time, material and personnel – with usually less than convincing results at the end of the day. The Surface Master product family puts an end to all this!



Grind, grind, grind Manual painting preparation uses up a lot of time, nerves and material. Especially in confined spaces and with complex designs.



The eddy current rotation method reaches all corners and edges effortlessly



Perfectly matted bumpers down to the finest detail.

Your advantages

- No tiresome manual work
- Maximum time saving
- Accurate results
- Almost all surfaces

The solution:

The innovative eddy current rotation method from CARTEC enables micro-fine matting of surfaces and therefore brings maximum time and cost saving.

The method is not like sandblasting – its principle is more similar to that of a rotary sander

And this is how it works:

Propelled by compressed air, micro-fine particles of a special matting substrate are set in an extremely fast rotational circular movement. The sensitive surfaces are not damaged by the rotation and edges cannot be ground round. The eddy current achieves an optimum surface finish even down to the most complex contours. This completely rules out uneven grinding marks.

The surface is therefore optimally prepared for re-coating and guarantees perfect paint adhesion. The innovative technique is therefore the perfect alternative to manual grinding for all soft and sensitive surfaces such as plastics, aluminium and many other applications. The method can even be applied to carbon and chrome trim parts without any problems.

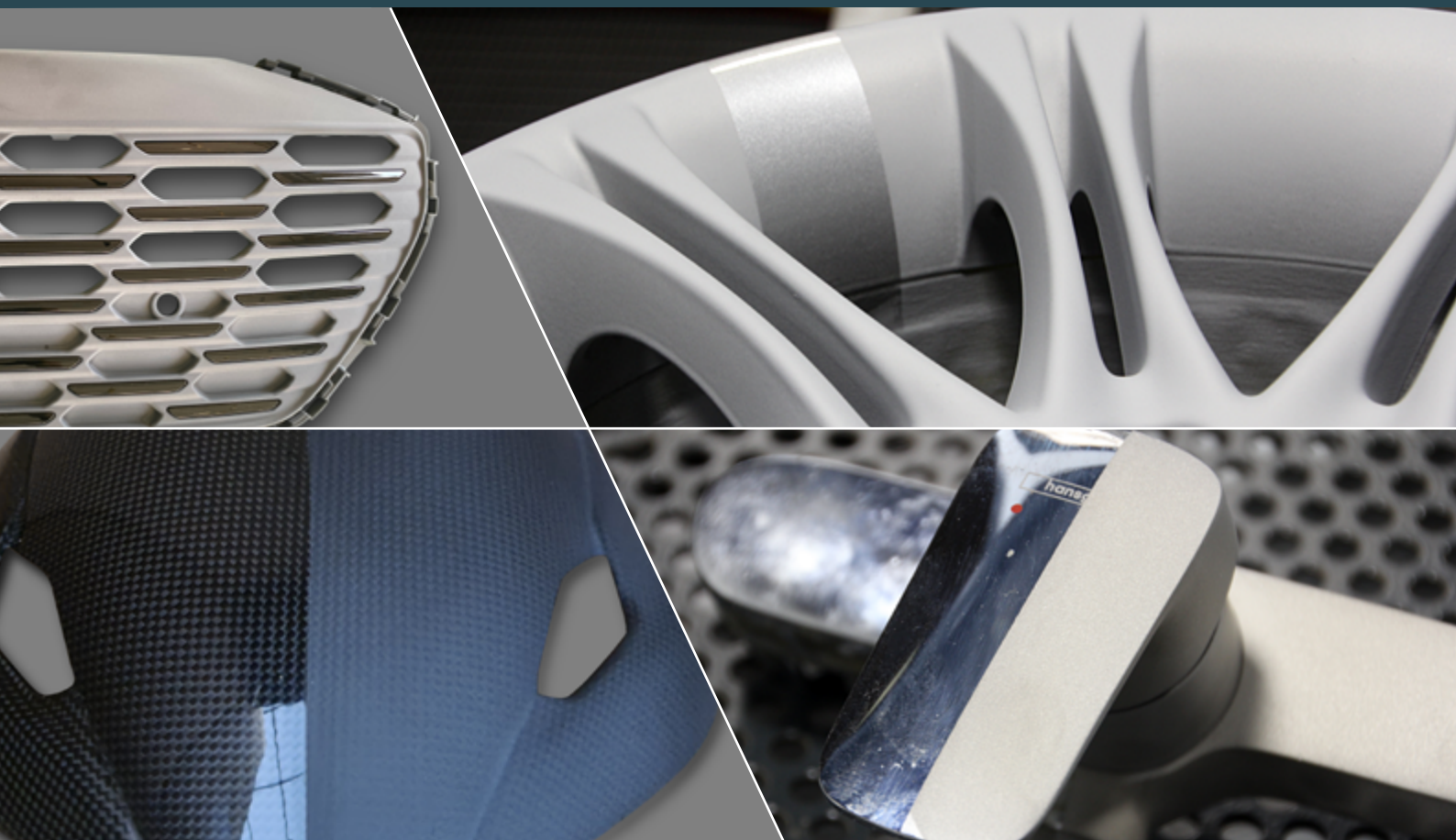
// THE BASIS OF OPTIMUM
FOR ALL KINDS OF SURFACES

SURFACE MASTER – painting preparation for the highest demands



You own a paint shop or industrial company?

You make high demands on quality and economy? Then this is just the right thing for you: With the innovative CARTEC eddy current rotation method, we have a greatly improved and process-reliable alternative to conventional grinding waiting for you. The process implemented in the SURFACE MASTER machines enables up to eight times faster, easier and, above all, absolutely reliable processing of all kinds of sensitive materials, whereby the surface receives a defined roughness depth on a par with that of a P400 – P1500 rotary sander depending on the distance of the object from the nozzle. This achieves even matting, free from grooves at the end of the processing – even in places with difficult access.



Your advantages

A much higher process reliability, no through-grinding as well as added efficiency and ecological sustainability.



Surface magnified 300 times

You can even see it:

Looked at under the microscope, the object matted with the eddy current rotation method shows an absolutely even and up to 100 times greater surface per cm^2 . This means that paints can intermesh optimally with the surface when coating – for a much better paint adhesion than with a manual grind. Such a service cannot be matched with currently available grinding utensils.

An example: Reasonable adhesion is not normally achievable on chrome surfaces. One of our customers has acquired the sole approval of an internationally famous plumbing supplier for repainting chrome-plated water taps thanks to their use of the CARTEC eddy current rotation method. Exhaustive tests had to be conducted. A cross-cut 0 paint adhesion was then achieved even on chrome. In addition, the matting process by eddy current ensures accurately drawn edges for maskings.

// THE SURFACE MASTER FAMILY
HAS THE RIGHT BOX FOR EVERY JOB

Blowern are the new grinding!



From small to large, from manual to automatic: The machines of the Surface Master product family offer a suitable solution for every field of application to do with the eddy current rotation method – an all-round product line that covers all your requirements reliably and efficiently.



» The eddy current reaches places where hands can never get. This ensures unequalled perfection and speed.«

Andre Hoffmann
Identica-Hoffmann, Berlin

The WheelBlower for the perfectly matted wheel rim and for everything else that will fit in.

Manual or mechanical grinding of wheel rims is tiresome, time-intensive and often does not achieve the desired result. On intricately segmented alloy wheels with the narrow spaces between spokes especially, optimum preparation by hand is virtually impossible. Precision matting of the surface is, however, essential for ideal adhesion of the later coat of paint.

With the WheelBlower, you matt the surfaces to be coated with a maximum time and cost saving. The eddy current rotation method implemented in the WheelBlower ensures this. Evenly matted, groove-free (aluminium) rims optimally prepared for the application in one to three instead of 30 to 60 minutes are the standard here – resource and cost savings included.

With the optionally available nozzle head holder and perforated plate insert you can also extend the WheelBlower for processing small parts such as radiator grilles and co. up to approx. 80 cm.





Technical data

- Dimensions WxDxH: 1.20 x 1.40 x 2.40 m
- Electrical connection: 400 V, 16 A
- Compressed air connection: 650 litres/minute

Your advantages

- 1 to 3 minutes per rim
- Continuous, precise and even matting
- Costs only 35 cents per rim
- Can be extended for small parts

» The gentle micro-fine matting produces a totally smooth surface without shadowing or scratching. The WheelBlower helps us enormously to meet tight deadlines. We matt both wheel rims and other parts with it. Our trainees are now extremely fast and highly motivated. They are ecstatic because the WheelBlower supplies high quality and undesirable paint spallings on the spokes have become a thing of the past.



Torsten Stüting
von Werner Bollwinkel, Bremen

The BigBoxBlower all-rounder for big challenges

Do you want to accurately matt parts such as bumpers, engine bonnets, boot lids, spoilers, alloy wheels or other large and small machine parts? This previously meant tiresome manual work with a sanding block or rotary sander. And, even after endless hours of work, the result was still often unsatisfactory, the material removal uneven and repairs and improvements ate up valuable resources. And then there were the difficult parts with confined spaces and undercuts – an absolute nightmare with regard to the time, material and work effort involved, not to mention the aspect of paint adhesion ...

» Finding suitable specialists was one of the biggest challenges in recent years. Thanks to the BigBoxBlower none of our employees grind manually any more but can be deployed specially for productive work. This enables us to handle the work with the existing team.«

Kevin Bürk,
Manager Identica-Bürk,
Winterbach



Technical data

- Dimensions WxDxH: 3.80 x 3.20 x 2.80 m
- Weight: 3,800 kg
- Electrical connection: 400 V, 16 A
- Compressed air connection: 1,700 litres/minute

Your advantages

- 8 times faster than by hand
- Continuous, precise and even matting
- Up to 50% cost saving in comparison with sandpaper
- Relieves the burden on staff

The BigBoxBlower is the same size as a small painting booth and can therefore be used universally for almost everything that is to be painted in trade and industry. The maintenance and service hatches to the machine technology are accessible from the inside so that the machine can also be operated in a small space. In order to have an unobstructed view of the parts at all

times, we rely in the BigBoxBlower on a powerful extraction system, high-quality LED interior lighting as well as a fully automatic substrate recovery via our floor conveyor system. Thanks to the extreme reduction in work time, better surface quality and relief on staff, the BigBoxBlower is already the lucrative alternative to manual grinding after just a

few parts a day. The investment is fully amortised after the first year in most cases. Because, regardless of how complex the geometry of the parts to be processed is – with the BigBoxBlower you only need about 4 minutes processing time for a perfectly matted surface per square metre area. Only 5 minutes for a front bumper.

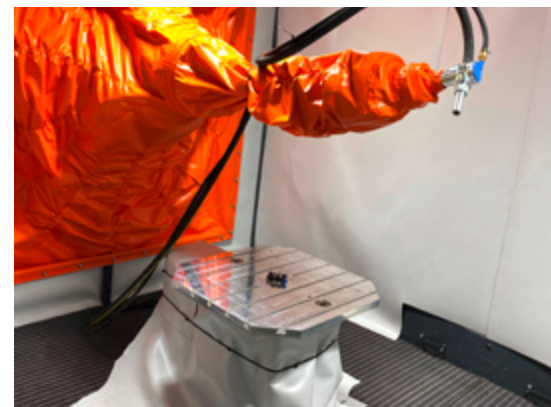
The BigBoxBlower robotics for small and large series

Industrial companies are frequently faced with challenges in the manufacture of small and large series. Since the same parts often have to be processed with absolutely identical quality within a narrow time frame, very high process reliability and reproducibility of the painting preparation are the key to success. Fast, reliable switching between different parts made of almost any materials at a high throughput rate is also high on the list of requirements.

For added process reliability and economy, CARTEC combines the BigBoxBlower with clever robot technology at the customer's request. The ARPP software developed by CARTEC specially for the matting of parts is used here.

Programming of new part versions can be implemented in just a few hours instead of the days and weeks needed by other providers.

But, in addition to the automatic robot processing, the BigBoxBlower can also be used for fully manual processing by an operator. No wonder, therefore, that the trickiest shapes, including corners and edges, can be prepared perfectly for painting. And the company gets added process reliability and economy.



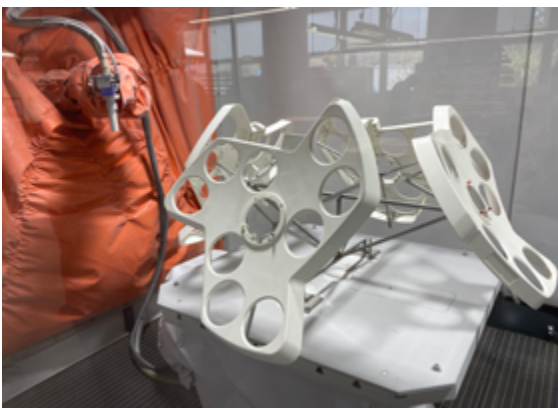


Technical data

- Dimensions WxDxH: 3.80 x 3.20 x 2.80 m
- Weight: 3,800 kg
- Electrical connection: 400 V, 16 A
- Compressed air connection: 1,700 litres/minute

Your advantages

- High throughput rate by reduction in process times
- Reproducible quality
- Reduction of waste parts
- Accurately drawn edges for maskings



» The parts are matted absolutely evenly and precisely. Manually, this would not be possible. Since we have been working with the BBB, we have registered a plus in process reliability and reproducibility as well as a reduction in the process times and material consumption in the area of grinding work. No-one ever wants to do without the BigBoxBlower again.«

Simple programming

Thanks to the 3D-CAD programming of the robot, parts like this can usually be prepared for automatic processing in less than one working day

Uwe Walter Operation manager Ritz Lackiertechnik

CARTEC | AUTOTECHNIK FUCHS GMBH

Boschstraße 1
73655 Plüderhausen / Germany
Phone +49 7181 482088-0
Fax +49 7181 482088-28
info@cartec-systems.de
www.cartec-systems.de