



FROSCH

Oberflächentechnik

...the world is colorful

Paint stripping • Sandblasting • Fixture construction
Powder coating • PVC plastisol rubber coating
Assembly • Transport service

„The green coater“

Brochure
2021



Over
10
years of
experience

3	INTRODUCTION	A short introduction of Frosch Oberflächentechnik	12	POWDER COATING	The world is colorful - we take care of that
4	OUR STORY	A fairytale about a frog, who refused to accept	14	PVC RUBBER COATING	We protect your components from scratches and abrasion
6	OUR ASPIRATION	What we have in mind whatever we do	16	FIXTURE CONSTRUCTION	Our machine park comprises a lot more than you think
8	CERTIFICATES	What we do to ensure quality and more	18	ASSEMBLY	You don't have the time or ressource to do it? Leave it to us
10	SANDBLASTING	We get rid of rust and paint as a full service	20	SHIPPING & TRANSPORT	How we pack and ship the goods safely

THE WORLD IS COLORFUL

SURFACE TREATMENT - FROM SANDBLASTING TO RUBBER COATING

Is your product still missing the finishing touches before it can be shipped around the world? Then you've come to the right place. We offer our customers a wide range of surface treatments. From **sandblasting** to **electrostatic powder coating** to **PVC rubber coating** of various types of components - we offer the right solution for your problem.

You want a sample first? No problem! We handle your components **individually**. From single pieces to large series - the possibilities are huge.

Frosch Oberflächentechnik skillfully combines **economic**

operation with **ecological** sustainability. Bit by bit we are working our way to the "green" coating.

Have we gained your interest? Then take a look onto the following pages and let yourself be inspired by the variety of possibilities. Here you can also find out what all of this has to do with "the frog" and what philosophy we pursue. Those inquisitive can certainly learn a thing or two about coating and rubber in the respective chapters.

Would you like to get to know us personally or discuss projects? Just make an appointment with us.



OUR STORY

Once upon a time there was a young frog. In 2018 he asked himself why so many contract coaters do not consistently implement sustainability. He just kept hearing that it wasn't possible or that it was too expensive. However, he was never one of those creatures who just swallowed things. So the young hopper set off to prove that it was possible after all.

True to his motto "Better to go on your own than to follow the crowd", he moved his machines to Finnentrop - Lenhausen, where he had enough space on around 350m² to show what was possible. Lo and behold, the young frog was right: if you want, you can find ways - and he wanted!

Within a very short time he developed into a reliable supplier for medical technology, mechanical engineering and the electrical industry and is also a wage-earner with his work as a tier 1 supplier in the automotive and agricultural machinery industry.

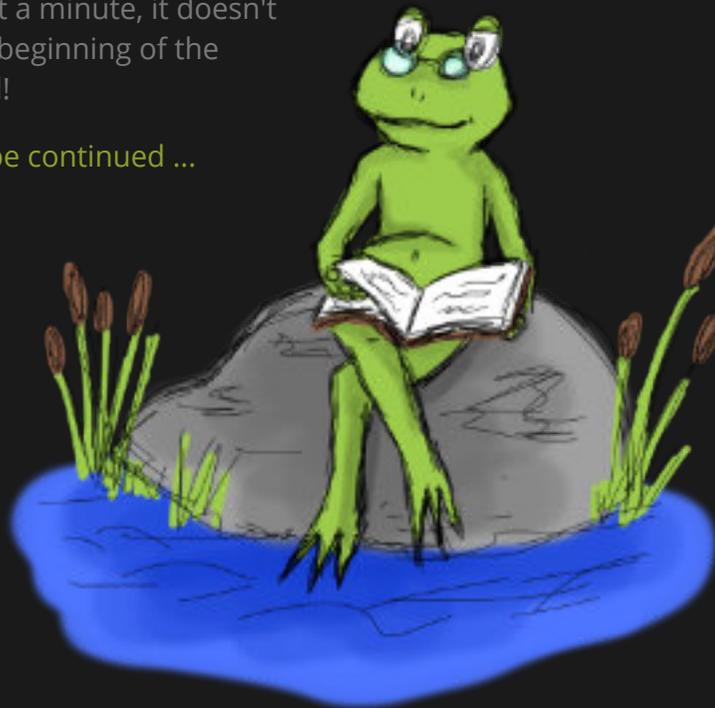
And since the frog is happy about every customer who wants to refurbish an old component instead of buying it new, he has also built up a reputation in the region for itself as a contact for private customers. Whether motorcycle frames or rims, balcony railings or milk jug - every part is processed with the same love and dedication as large series of over 100,000 components.

So the months passed and the frog noticed that it was slowly getting too quiet in his hall. He didn't want to stand still. The wheel of life keeps turning and so does everyone with it. In 2020 the decision was made that it couldn't go on like this. No, the frog didn't want to leave it - on the contrary: he wanted to take his idea further, become even better, be even closer to the customer. In addition to further investments in machines and systems, a new location is now being planned, which is expected to open in 2021.

Until then, the bass of the music and the laughter of the like-minded frogs that he has gathered around him over time will continue to blast in the Mühlenstrasse 29. Because why shouldn't you have fun at work ?!

And they lived happily ev... Wait a minute, it doesn't work that way! This is only the beginning of the story and by no means the end!

That's why instead we say: To be continued ...



WHAT THE FROG?!

But what does the frog have to do with it? Is it a symbol for the environment and nature? Does it stand for the diversity of life, since it can move on land and in water? Or should the poor animal only serve up for this fairy tale? All wrong! There is actually no great magic behind this.

The company name "Frosch" is the German word for frog and in our case these are the initials of the head frog and company founder **Frank Robert Schulze**. The plan to name his future company "Frosch" was already clear as a child. The colors were already a done deal as well. The only thing missing was an idea for self-employment but that followed a few years later. It was a happy coincidence that this little animal also fits well with the company's philosophy in other respects.



OUR ASPIRATION

After more than **15 years** in the field of vehicle restoration and surface coating, we gave a lot of thought to founding the company. In today's very fast-paced world, the demands of customers, requirements for coatings as well as our own change every hour. That is why we have set ourselves clear **goals** right from the start, which are consistently pursued.

The point is not to betray your own values but also not to stand still. We combine a world in which the **word** and the **handshake** still mean something with current **requirements** and the latest **knowledge** from research and technology.

List of our aspirations that are mainly related to a better environment:



CO2-neutral shipping



optimized **storage system**



up to **100% recovery** of materials used in production



organized **waste management** with packaging recycling



paperless office without printer cartridges / toner



heat recovery of the systems for hall heating



own **wastewater treatment system**



continuous **training** of employees with room for their own development

These are just a few of the points that we are already consistently implementing. We are particularly proud of the good cooperation with our **suppliers**. Short decision-making processes and production "**made in Germany**" show that we can react particularly quickly and flexibly - **for our customers and our environment**.

FROSCH IN NUMBERS

Here you will find a brief overview of some important facts but also some unnecessary baloney:

90 % less wastewater through in-house water treatment

Since 2018 **22,000 m²** of coated area - more than **3** soccer fields!

In 2020 alone, **53,483** joints and threads were kept free of coatings

Transport vehicle with up to **8** loading spaces and **3** tons of payload

17 years Experience in vehicle restoration and surface coatings

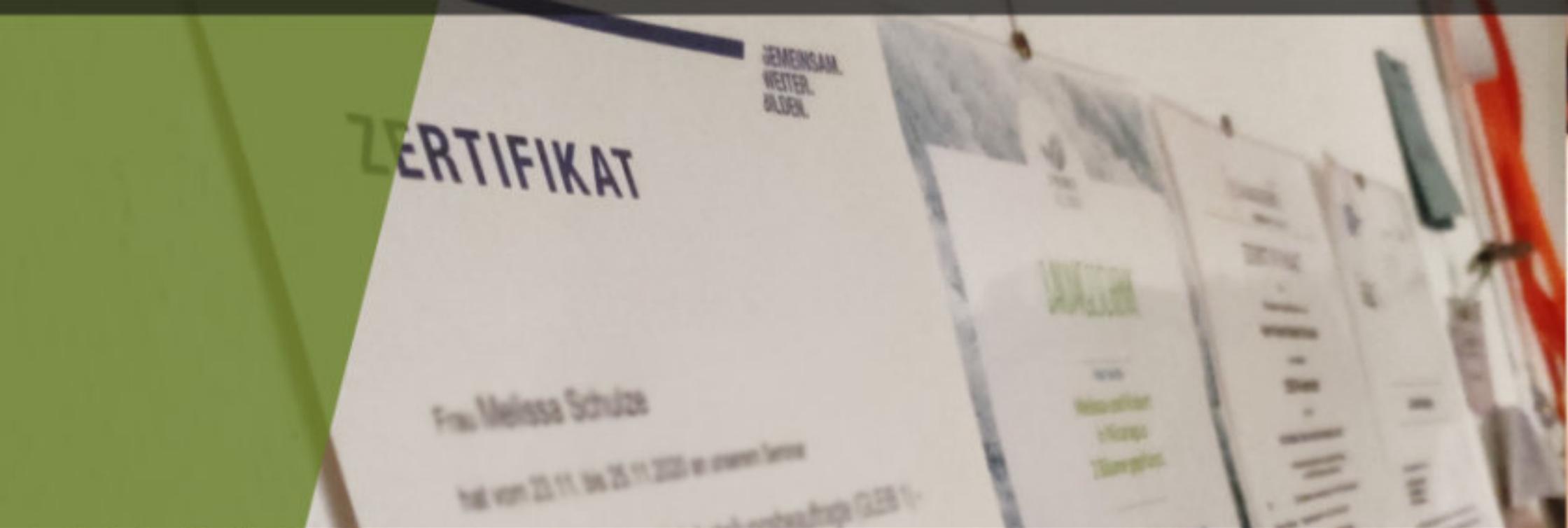
2 modern powder coating systems from Gema

4 Chamber furnaces with individual loading

More than **5 tons** of various powder coatings in stock

70 % of the production is partially automated

at least **1l** of coffee a day



CERTIFICATES

Quality and sustainability - those are big words that are currently on everyone's lips. Frosch Oberflächentechnik doesn't just talk about it, it lives it. Satisfied customers and a healthy environment are our top priorities.

Since the company was founded, we have been dealing with certification and qualification out of personal conviction. **DIN EN ISO 9001: 2015** and **DIN EN ISO 14001: 2015** are not foreign words to us. At the moment we are still setting up our integrated management system (as soon as we are certified, you can download the documents on our website), but we pay attention to compliance with standards even without certification. The goals set in our company policy are pursued just as much as the possibility of continuous improvement.

In addition, we offer certification of an ESD specialist in accordance with **IEC / DIN EN 61340-5-1** in order to meet the quality requirements of ESD-sensitive parts.

But of course not only the products and customers are important to us but also our employees. In order to guarantee the highest level of protection for them, our **HSE manager**, together with the management, regularly reviews the risks relating to health, safety, fire and environmental protection.

"The world is colorful" - there is actually more to our motto than what meets the eye. The world has always been a colorful place. For this reason, it was a personal concern for us to have an **equal opportunities officer** in our team despite the lower number of employees and without specifications from third parties.

OUR SERVICES

SANDBLASTING



POWDER COATING



PVC RUBBER COATING



FIXTURE CONSTRUCTION



ASSEMBLY



SHIPPING & TRANSPORT





SANDBLASTING

Do you want to remove rust and paint from motorcycle frames or properly pretreating new components?

For us, sandblasting is a full service and an important part of our quality philosophy!

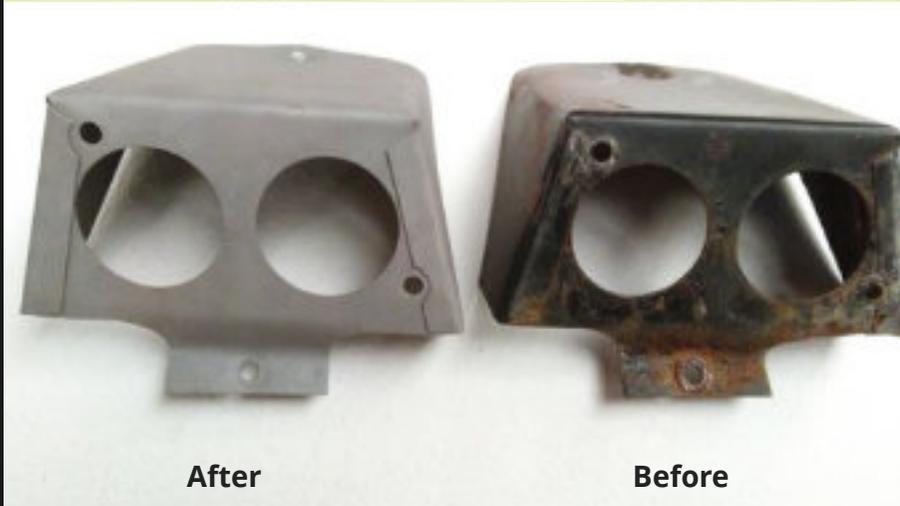
Sandblasting fulfills various functions:

- Components can be **derusted, stripped** of paint and **descaled**
- **Cleaning** the surfaces of impurities
- The roughening of the surface has a positive effect on the **adhesion** of other coatings

- **Matting** the surface of e.g. stainless steel
- **Compaction** of e.g. aluminum

We are able to blast up to purity grade **SA3**. We use various abrasives such as high-grade **corundum** or **glass granulate** to adjust the roughness accordingly. Our spectrum ranges from sweeping hot-dip galvanized components to abrasive blasting to remove paint or rust. As we are constantly developing, we use various blasting systems. We use different blasting cabins to minimize set-up times and contamination.

Quality at the highest level? We are happy to support you!



After

Before

Technical specifications

Currently in use are:

- 2 injector hand cabins with 400-1000L volume
- 1 injector hand cabin especially for stainless steel components for glass bead blasting
- 1 free jet room with pressure jet fan for the rough things with 4000L air throughput per minute at up to 10 bar



Glass granulate



Corundum



Copper slag



POWDER COATING

With years of experience and passion, we offer you **electrostatic powder coating** as one of our coating processes.

Due to the constantly increasing flexibility and quality of the powder coating, there is a long list of **advantages**:

- Up to **100%** utilization of the powder coating
- **Solvent free**
- **Fast delivery** times as the paint does not have to harden
- Wide **range of colors** in various color registers such as RAL and DB as well as special colors

- Various degrees of **gloss** and surface structures
- Small bumps are touched up, creating a **smooth** and easy-to-**clean** surface
- High quality **corrosion protection** up to protection class C5I / C5M
- And much more

With us, every component is coated by hand, which makes us particularly **flexible for samples, individual pieces** and **small series**. With process-optimized systems, we also manufacture



series with over 10,000 components. So that we can maintain our high quality level for our customers, we work exclusively with machines and powder coatings from well-known manufacturers with certified production.

With various **measuring devices**, we can also record compliance with the requested specifications on request and thus meet the high quality requirements.

Our **powder store** holds a few tons of powder paint - from primers to various metallic paints to facade powder paints or candy paints. We process epoxy, polyester and polyurethane powder coatings as well as mixed powders according to customer specifications. Powder coatings that we do not have in stock can usually be ordered on the next working day.

Contact us, we will be happy to help you!



Before

After



Technical specifications

Currently in use are:

- 2 powder guns from Gema
- 4 chamber furnaces with individual loading
- various measuring devices



PVC RUBBER COATING

In the area of **rubber coating with PVC plastisol** dip pastes, we offer years of experience from individual items to large series.

The rubber coating is primarily a functional coating. For example, we manufacture for the following uses:

- **Non-slip** e.g. for tools, handles, drive rollers, grippers, conveyor systems, transport racks ...
- **Abrasion-resistant** e.g. for machine components subjected to abrasive or mechanical loads such as centrifuges or trovalizing machines
- **Scratch-resistant** to protect components from scratches or not to leave scratches with tools

- Vibration and **shock absorbing** e.g. for transport journeys or brackets in the automotive sector
- **Isolating** e.g. for isolating busbars up to several kV
- Heavy **corrosion protection** e.g. for electroplating plants or mining protection

Our standard pastes have a hardness of **Shore A70 + -5**. The long-term temperature resistance is **-40 ° C to + 80 ° C**, briefly higher. PVC has a very good resistance * to UV radiation, acids and alkalis. Layer thicknesses of **0.5 to 7 mm** are possible through repeated dipping. In addition to metals such as **steel, aluminum** and **copper**, temperature-resistant **plastics, glass and wood** can also be coated. In addition, rubber coating can be combined very well

with electrostatic powder coating. In this way, technically and optically high-quality surfaces can be produced!

Our pastes were developed according to our specifications and are all produced by certified companies in **Germany**. All of our pastes are **physiologically harmless, phthalate-free** and are processed in accordance with legal requirements.

With our own **color mixing system**, we are able to mix almost all colors ourselves. This saves storage space and increases our flexibility, as we can serve every customer request from small samples to large series. In addition to a smooth and a rough paste, additives for e.g. ESD-conductive surfaces, propellants or flame hammers can also be mixed in.

* Please contact us for more precise resistances. We have a detailed overview.



And what does PVC have to do with environmental protection?

PVC is still a flexible, important and widely used plastic. In our opinion you have to be careful with resources.

- Utilization of the material at almost 100%
- Very good reusability of PVC
- Long-lasting coating
- As far as technically possible from renewable raw materials

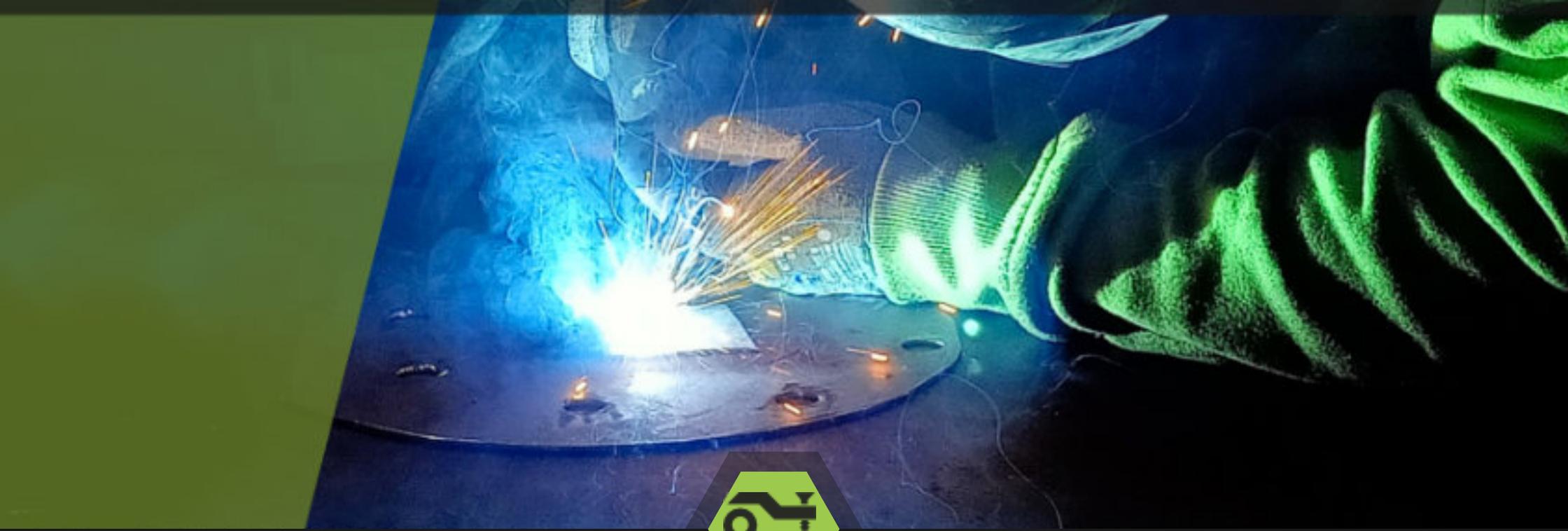
Just contact us, we will be happy to take care of your request.



Technical specifications

Currently in use are:

- 2 color mixing systems
- different plunge pools
- partially automated gumming system



FIXTURE CONSTRUCTION

Thanks to our in-house fixture construction, we are able to respond to special requests from our customers at short notice.

This enables us to design specially adapted **hangers** or to manufacture **cover material** that exactly fits the workpiece.

Our modern machine park consists of:

- MAG and TIG AC / DC welding machines
- Tube bending machine and segment edge bench
- Plasma cutting machine
- Various drilling machines

- Turning and milling machines

We always have a certain **stock** of hooks, tubes and metal sheets in stock - so we can respond to customer needs at short term.

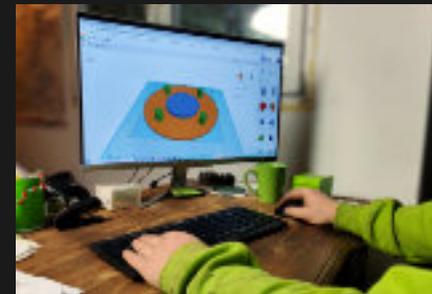


CUTTING PLOTTER

In addition, we also offer maskings on request. With two in-house **cutting plotters**, we can keep lettering, special cutouts and other requests free of coatings. In the end, this saves expensive rework!

Multi-colored coatings are also possible with this technique. There are virtually no limits to creativity.

Do you need cut **stickers** for your components? We can deliver pre-laminated sheet metal components as an in-house solution.



3D PRINTING

Since 2020 we have also had our own **3D printer** in-house, with which we can print test devices, additional components or, on request, your components directly. Since we work with different filaments, in addition to hard plastics (such as **PETG** or **ABS**), we can also print soft, non-slip parts made of **TPU**!

Do you have any questions? We're here to help!



ASSEMBLY

A coated component still has to be installed after coating?

We offer this service after consultation with you. A modern, versatile **machine park** helps us to implement your specifications. Processing directly to the end customer is feasible, which ultimately saves **shipping costs** and thus unnecessary CO2 **emissions**.

Just let us know your wishes.



TIRE FITTING MACHINE

Would you like to have your rims reconditioned but you have no way of removing the tires beforehand?

With our **tire fitting machine**, we can also take over the removal of the tires before machining the rims. This saves time and effort to either do it yourself or to visit a workshop.

As one of the few providers in the area, we can also balance wheels **without a center hole**. We can also fit **old-timer tires** with tubes.

When (dis)assembling, we can also consider different types of **valves** (different lengths, metal / rubber, angled, for cars / trucks etc.).

Of course, we pull the tires back on before handing them over and **balance** them. We also offer you **adhesive weights** for the new rim in matching color.

We can also order new tires directly from **wholesalers** whether for cars or motorcycles.





PACKAGING

In addition to our standard packaging, we offer you the option of having finished components **packed ready for the customer**. We are happy to implement your packaging requirements in the form of certain cardboard boxes, labels, etc. If you wish, we will only handle the components with your logo.

As far as possible, we only use **recycled** material and material made from **renewable** raw materials for packaging. The possibilities are already very large with cardboard and paper as well as packaging chips made from corn starch. If we need plastic packaging, we primarily use bioplastics, which are at least biodegradable, or recycling packaging.

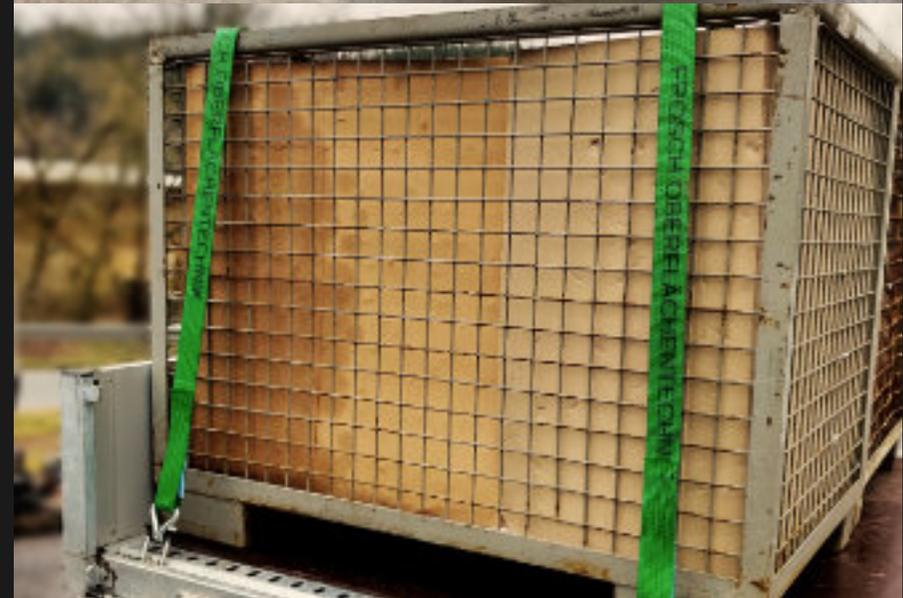
Important: If possible, we will try to use the packaging in which the goods were delivered. Therefore, please pay attention to **stable packaging**, especially for heavy components, which will survive the way back. If in doubt we will of course repackage.



SHIPPING

99% of goods that can be sent by parcel service are sent by Deutsche Post DHL. Deutsche Post is known as a reliable and generally fair-paying employer and also impresses with short transit times and the advance in electromobility in delivery traffic. Parcels are always sent **climate-neutral** without exception.

In order to avoid unnecessary mail trips, we have set the **shipping days** in our company to **Monday and Thursday**. If the goods need to reach the customer particularly quickly, special shipping is of course possible at any time.



TRANSPORT SERVICE

If you need your goods at short notice and / or are in the vicinity of our company, we offer **transport** from our own hand for an additional charge.

Our transport vehicle offers space for up to **8 Euro pallets**. With a payload of almost **3 tons**, we can move quite a bit.

FROSCH

Oberflächentechnik

...the world is colorful



Mühlenstraße 29
57413 Finnentrop



+49 2395/2128-345



info@frosch-ot.de



www.frosch-ot.de



Join us on Instagram

@frosch_oberflaechentechnik