

Customer interview

Plasmamatreat GmbH

“In Research and Development, we focus on things that help our customers get ahead.”

Plasmamatreat GmbH has established a global reputation as a custom machine builder focused on the development and production of atmospheric-pressure plasma systems. In this interview, Magnus Buske, Head of R&D, explains how Plasmamatreat came to work with Fraunhofer IPM, what has developed from this partnership and what challenges from the world of surface treatment he wants to tackle next.

What exactly is your job at Plasmamatreat?

Magnus Buske: As Head of Research and Development, I manage four teams that work on different aspects of plasma technology and plasma processes. We develop not only plasma nozzles and systems, but also customized plasma plants.

What are your core products and what drives your business?

We specialize in atmospheric-pressure plasma. Our core business is not only the products themselves, but customized solutions: We help our customers improve the adhesion of

adhesives, paints or lacquers on surfaces. The process usually starts with tests in our application engineering department, but it also involves research and development tasks at our technology center.

How important is it to collaborate with research institutes in this process?

Working together with institutes such as Fraunhofer IPM is very important to us. We look for partners with a focus on industry to develop applicable surface treatment solutions. Fraunhofer institutes are perfect for this, because they are able to bridge the gap between basic research and industrial application.

Where is your company positioned in relation to the competition?

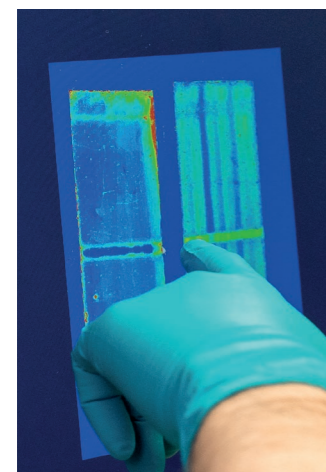
While there are competitors who also offer plasma technology, only a few take the same solution-based approach as we do. We don't just manufacture the nozzles, generators and transformers needed to power a plasma system, we also design special nozzle heads, for example, to achieve the best results for our customers.

What role do you think exclusivity plays in the development of new technologies?

We always strive for a certain level of exclusivity in atmospheric-pressure plasma technology so we can provide our customers with suitable and reliable systems. But we're not trying to be exclusive in every area – just where our technology is used.

What would you say are essential key technologies?

Our focus is on plasma pretreatment of surfaces, such as cleaning metal and glass surfaces in preparation for subsequent processes. This is where Fraunhofer IPM's F-Scanner for detecting contamination comes in.



“The F-Scanner helps us visualize different levels of contamination and to assess the effectiveness of the plasma treatment,” says Magnus Buske.



Plasmamatreat GmbH

Plasmamatreat is an international leader in the development and manufacture of atmospheric plasma systems for the pretreatment of substrate surfaces. Whether plastic, metal, glass or paper – the industrial use of plasma technology modifies the properties of the surface in favor of the process requirements. The Plasmamatreat Group has technology centers in Germany, USA, Canada, China, and Japan. With its worldwide sales and service network, the company is represented in more than 30 countries by subsidiaries and sales partners.

More info: [plasmamatreat.com](https://www.plasmamatreat.com)

How did you come across our institute?

An employee from our innovation management group who deals with state-subsidized projects first established contact. While working on an AiF project, in which Fraunhofer IPM was also involved, Mr. Blättermann learned about the possibilities of using plasma to treat surfaces and considered using F-Scanners for detection at Plasmamatreat.

And what happened next?

The results of our F-Scanner surface contamination detection project were compelling. Especially when it comes to metal components, such as die cast parts for electric motor housings, which need to be glued and sealed, it is important to remove contaminations such as cutting oil. The F-Scanner can detect these residues and show us how severe the contamination is. This allows us to visualize different levels of contamination and assess the effectiveness of plasma treatment.

Has the F-Scanner helped you achieve your unique position in the market?

We haven't come across any other provider who can measure surfaces as fast and comprehensively as we can with the F-Scanner. Other companies use similar principles, but none are able to deliver the resolution and speed we need. That made investing into this technology an easy choice – we couldn't find a comparable solution from any other company.

In addition to being a management expert and mechanical engineer, Magnus Buske is also an expert in adhesive technologies. Having previously worked for an adhesive manufacturer, he knows the difference a well-prepared surface can make. He is the Head of Research & Development at Plasmamatreat GmbH.

How do you make a decision with such far-reaching consequences?

Our groundbreaking decisions are based on a balance between strategic considerations and gut feeling. We evaluate our customer list and potential application cases, and then we decide how promising a specific project seems to us. We don't have a set target for when the investment should pay off: When we recognize a strategic value, we act accordingly.

And last but not least: What are your next challenges?

Replacing low-pressure with atmospheric-pressure plasma systems is an important trend. We're working on accelerating surface treatment and make it more cost-effective and energy-efficient. In everything we do, we focus on the needs of the industry and strive to replace existing low-pressure processes.

Thank you very much for talking to us, Mr. Buske!

