Steinhagen, 2nd December, 2024

**New Openair-Plasma system for EPDM profiles**

Compact, efficient system with functional highlights from Plasmatreat improves manufacturing processes in the automotive industry

**Plasmatreat GmbH, the global market leader in atmospheric plasma technology, presented its new EPDM station with Openair-Plasma technology at Fakuma 2024. The new system offers manufacturers in the automotive industry an efficient, clean, environmentally friendly and highly compact solution for the surface pretreatment of EPDM/TPE profiles. The treatment improves the adhesion of adhesives and varnishes by activating the profile surface. With this development, the high-tech company from Steinhagen, Germany, underlines its comprehensive expertise in the pre-treatment of EPDM profiles and its competence as a partner of the automotive industry.**

Automotive door seals are typically made from EPDM/TPE. This non-polar material makes further processing difficult, such as flocking or applying lubricating varnishes. Therefore, the plastic profiles need to be pre-treated to activate the surface: The plasma beam introduces hydroxyl groups to the surface. Plasmatreat's Openair-Plasma technology has established itself in the industry as a clean, efficient and environmentally friendly process that improves subsequent processes. Plasma technology has been proven in EPDM production for over 20 years and has long been the standard among suppliers. Plasmatreat is now introducing a new EPDM station that further optimizes and simplifies the process with a more compact design and multiple features. For example, it offers greater efficiency and improved adjustment of the plasma nozzles for flexible use in production.

**New EPDM station - extremely compact and flexible**

Plasmatreat's new EPDM station goes beyond the current standard. The system is much more compact than the previous one and can accommodate up to 12 nozzles in one housing. The generator is housed in the housing to save space, so there is no need for an external control cabinet or additional cable connections. This gives users maximum flexibility with minimum space requirements. With up to twelve individually controllable plasma nozzles, the new EPDM station is also extremely flexible. Rotating plasma nozzles can also be used for gentle pre-treatment without visible surface changes in lubricant varnish applications.

**High-tech features for precise EPDM/TPE pretreatment**

For precision and flexibility, each nozzle on Plasmatreat's new EPDM station can be individually controlled with individual recipes via the user-friendly HMI (Human-Machine Interface). Nozzles can be selected automatically: The system recognizes the selected nozzles thanks to sensor detection and coding. This allows fast switching between stored recipes. Automatic detection of product movement enables intelligent nozzle activation and ensures efficient, reliable processes. The system selectively and precisely treats EPDM/TPE profiles with a homogeneous plasma jet. This results in improved direct adhesion of the materials and consistent coating quality.

**Clean processes, simplified maintenance - less system downtime**

For optimum energy-saving climate control, the system can be fitted with energy-efficient Rittal Blue e+ climate control technology on request. The new EPDM station is also equipped with an optimized extraction system. This keeps the working environment clean and reduces the need for cleaning. The sophisticated maintenance concept also helps to reduce downtime. The system's plug-in nozzles, quick-change system and overall maintenance-friendly design reduce service times to a minimum.

"With more than 25 years of experience in the plasma treatment of EPDM profiles, Plasmatreat now offers with the new EPDM station an innovative, advanced solution that further optimizes the production processes in the automotive industry and meets the strict quality requirements of the industry," emphasizes Joachim Schüßler, Sales Manager Germany, at Plasmatreat GmbH.

For more information, please visit: [www.plasmatreat.com](http://www.plasmatreat.com)

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***Info box:***

**How Openair-Plasma and PlasmaPlus optimize industrial processes.**

When plasma with its high energy level comes into contact with materials, it changes the surface properties, for example from hydrophobic to hydrophilic. Plasma technology requires only compressed air and electricity for operation. Fine cleaning with Openair-Plasma gently and reliably removes dust, release agents, additives, plasticizers and hydrocarbons from surfaces. Especially with non-polar plastics, plasma treatment achieves surface activation. It supports the increase of surface energy by introducing hydroxyl groups and thus improves adhesion in subsequent processes such as bonding, printing, painting and sealing. Plasmatreat's PlasmaPlus technology can also be used to create targeted functionalized surfaces with defined properties by applying (depositing) nanocoatings, e.g. as an additional adhesion promoter layer.

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**About Plasmatreat**

Plasmatreat 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.

Openair-Plasma® technology is used in automated and continuous manufacturing processes in almost every industrial sector. Examples include the automotive, electronics, transportation, packaging, consumer goods and textile industry, but the technology, cost and environmental advantages of the plasma technology are used in medical technology and in the renewable energy sector as well.

The Plasmatreat 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.

For more information, visit: [www.plasmatreat.com](http://www.plasmatreat.com)

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**Pictures and captions:**

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With the new EPDM station, Plasmatreat is setting new standards that go beyond the previous standard. Compared to the previous model, the system has a much more compact design and offers space for up to 12 nozzles within the housing.

(Copyright: Plasmatreat GmbH)



Bis zu 12 individuell einsetzbare und einstellbare Düsen aktivieren die Kunststoffoberfläche des EPDM-Profils mit Openair-Plasma inline im Prozess vor der Beflockung oder Lackierung. (Copyright: Plasmatreat GmbH)