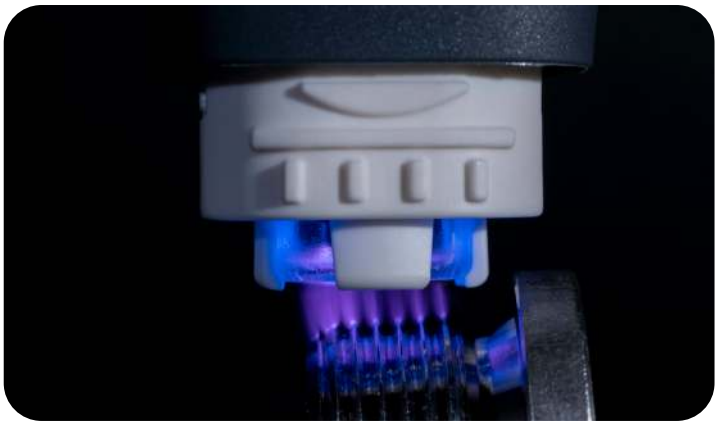
piezobrush® PZ3 and piezobrush® PZ3-i modules

For the plasma handheld device piezobrush® PZ3 and the plasma integration piezobrush® PZ3-i are currently five different modules available. The piezobrush® PZ3 and the piezobrush® PZ3-i are based on PDD technology® and generate cold plasma. Low input voltage is transformed to generate very high electric field strengths. Therefor the choice of the right module depends on the electical conductivity of the treated substrate.

Module „Standard“

This module is used for various applications on non-electrically conductive substrates such as plastics, ceramics, glass, natural fibers, leather, textiles etc. The range of the permissible working distance is approx. 2 to 10 mm. Electrically conductive substrates such as metals or conductive polymers cannot be reliably treated with this nozzle.

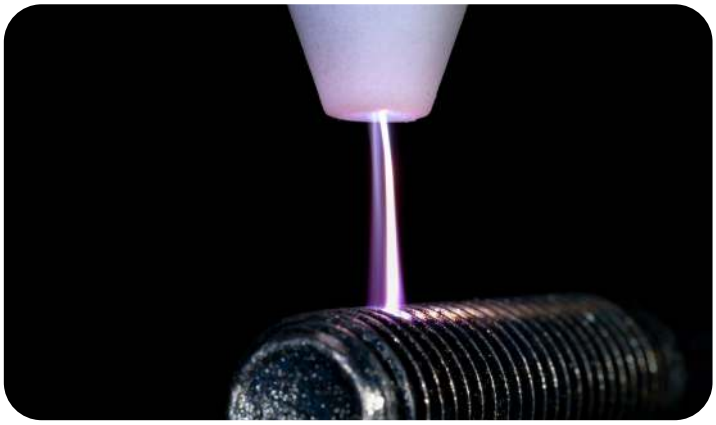


Module „Multigas“

This module can be used on non-electrically conductive substrates but also on electrically conductive substrates and is developed for the use with different gases. The flowrate range is approx. about 0.5 to 3 liters per minute. A silicone tube is enclosed for the lateral gas connector of the needle cap. The range of the permissible working distance is approx. 2 to 10 mm.

Module „Nearfield“

This module was especially designed for the treatment of electrically conductive substrates such as metals or conductive polymers. Even partially conductive materials such as carbon fiber reinforced plastics (CFRP) should be treated with this module. The device can only generate a surface activation if an electrically conductive substrate is in front of the device within the range of the permissible working distance from approx. 0.5 to 2 mm.



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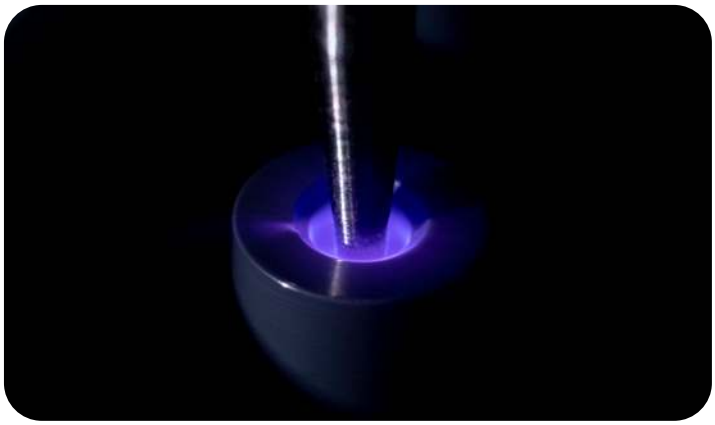
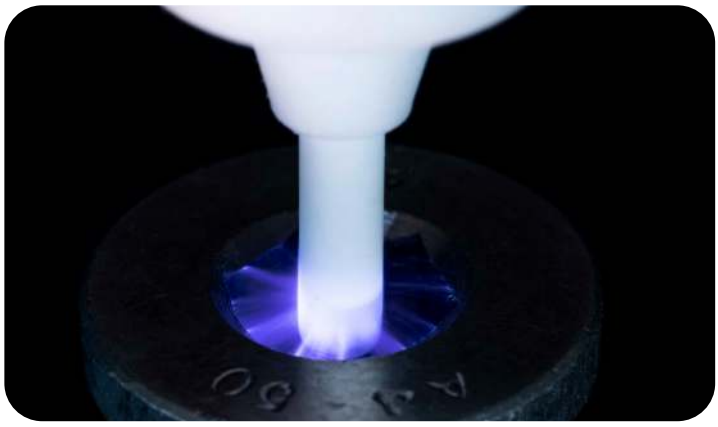
Different surfaces must be activated with the appropriate accessories in each case to achieve a good result in the end. Depending on individual customer requirements, there are therefore the five different exchangeable modules that are suitable for both the piezobrush® PZ3 handheld plasma device and the compact piezobrush® PZ3-i integration solution.

Module „Needle"

This module can be used to treat small or difficult to access areas on non-electrically conductive substrates. For treating narrow grooves, holes or other cavities the needle can be used for a precise treatment. The range of the permissible working distance is approx. 2 to 5 mm.





Module „Nearfield Needle"

The module can be used to treat small or difficult to access areas on electrically conductive substrates. The needle can be used for a precise treatment of narrow grooves, holes or other cavities. The range of the permissible working distance is approx. 0.5 to 2 mm.

Technical data:

	Standard		Nearfield	Multigas	Needle	Nearfield Needle
Typical working distance [mm]	2 - 10		0.5 - 2	2 - 20	2 - 5	0.5 - 2
Typical activation width [mm]	~ 5 - 29	~ 5 - 50	~ 14	~ 5 - 15	~ 2 - 5	~ 2 - 5
Gas types	Air	N_2	Air	Ar, He, N_2	Air	Air
For non-conductive material	x			N_2	x	
For conductive material			x	Ar, He		x

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