



Background:

Methods and apparatuses for improvement of the wettability of surfaces of articles by means of the plasma of open electrical discharges are state of the art for decades. Different embodiments producing a concentrated stream of a reactive medium being generated by plasma discharge, while a working gas is supplied and the workpiece surface to be treated being swept with that stream are known for years. Some of these devices are supplied with a high-frequency voltage. PlasmaTreat's patent EP 0 761 415 covers a very specific „method for improving the wettability of the surface of articles“, all other methods are not affected by this patent.

Technical comparison of our Plasma-BLASTER and Plasmatreat's plasma source:

A characteristic feature of the device of patent EP 0 761 415 is plasma production by a medium frequency arc discharge. In contrary to that, no arc discharge is ignited in our Plasma-BLASTER MEF, nor is it able to generate one. The formation of an arc discharge is effectively prevented by a specific airflow and the usage of an electric network, which limits the discharge current. Name of this discharge is “electric barrier discharge“ in analogy to the known „dielectric barrier discharge“ (= corona discharge), at which the current is limited by a dielectric layer. Electric barrier discharges produce a very effective plasma with significant lower power than the arc discharge of other market participants. This plasma is – at high efficiency – cold and lifetime of the central electrode is very high.

Legal situation:

Patent EP 0 761 415 protects the commercial usage of a „Method for improving the wettability of the surface of articles“ as described in the patent in the countries Austria, Germany, Spain, France, Great Britain and Italy. Applications out of these countries, pure research work and other processes than improving the wettability – i.e. layer deposition – are not covered by this patent.

Plasmatreat takes legal action against several market participants for several years. „Landgericht Düsseldorf“ in Germany rejected the complaint of Plasmatreat GmbH against TIGRES at 17.6.2008 since unsubstantiated. Plasmatreat could not explain among others, that TIGRES's Plasma BLASTER is operated using an arc discharge in sense of their own patent. (AZ 4a O 68/07). The judgement is today (7.7.08) not yet valid.

No other patent complaint is active against TIGRES in any sense.

MULTI-BLASTER:

While a single Plasma-BLASTER treats a stripe of approx. 8 mm width, the Multi-BLASTER can realize the treatment in any arbitrary width. This task was solved by a combination of an arbitrary number of electrical parallel controlled single discharge nozzles, mounted in one electrode and supplied by one generator. This construction is protected by German utility patent „DPMA Nr. 2004 008 285.3“ by TIGRES.

Confirmation

We confirm, that our customers do not infringe any patent when buying and using TIGRES's APP-Electrode „Plasma-BLASTER MEF“ – especially not the patents of Plasmatreat GmbH and that we indemnify our customers from any possibly claims of these companies.

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