



## ATMOSPHERIC PLASMA WAND

ADVANCED TECHNOLOGY FOR  
RESEARCH & INDUSTRY

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SHEET

- SCOPE: What is an atmospheric Plasma Wand and what different nozzles are available?

The Atmospheric Plasma Wand is a hand-held device that requires no external gas hook up or vacuum chamber.

Plasma Wands are ideal for spot cleaning and surface modification of large objects before bonding. Applications in microelectronics could include cleaning bond pads prior to wire bonding, or cleaning areas that will be adhesive-bonded.

Surface activation generated with the Plasma Wand lasts about an hour as a rule of thumb, depending on the substrate treated. Metals and silicon last longer than plastics and rubbers.



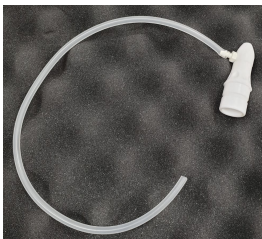
The Plasma Wand contains three different nozzle selections, what you use will vary depending on your application:



Standard Nozzle: - This is used for cleaning plastic, rubber and non-conductive materials.



Near Field Nozzle – This is used for cleaning metal and conductive materials. It works by creating secondary plasma between the glass and any surface that conducts electricity. It needs to be within 4mm of the surface to create this secondary plasma and it will be visible to the unaided eye. **This nozzle will not work on surfaces that do not conduct electricity.**



Multi Gas Nozzle – Using the supplied 2mm ID hose, it is possible to introduce a **non-flammable** input gas to create secondary plasma. The multi-gas nozzle may be used on metal surfaces **if you are using argon or helium**. It may not be used on metal with room air or any other gas.

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PATH: Plasma – Plasma Wand