

# S-WAVE

## Surface Wave Plasma Source

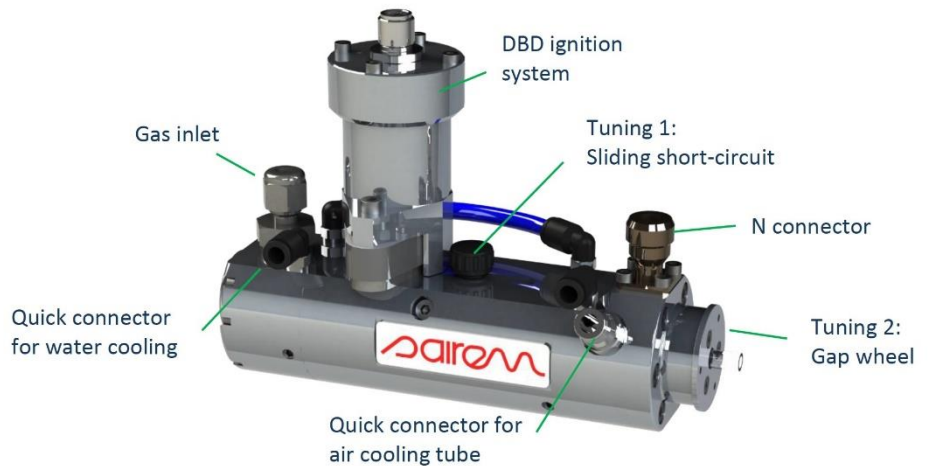
**S-Wave is a compact plasma torch designed for industrial and laboratory applications from  $10^{-2}$  mbar to atmospheric pressure**

The plasma is created in a dielectric tube placed inside the source. The microwave electric field propagates longitudinally at the dielectric/plasma interface (plasma behaves as an electrical conductor). Radially the wave is strongly attenuated at skin depth.

This principle allows to create and sustain plasma columns with lengths which depend on the operating pressure, microwave power and gas nature.

The S-Wave plasma source is inductively coupled, thus only two tuning adjustments are provided to match the impedance. Generally, nearly 0 % of reflected power is achieved using the integrated tuners.

In addition, for given operator-set discharge conditions, the plasma is fully reproducible without any need for retuning at start-up.



## MAIN APPLICATIONS

### LABORATORY APPLICATIONS

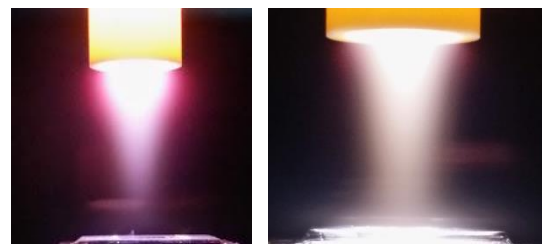
- Biological applications: sterilization, disinfection, bacterial inactivation, reduction of bacterial adhesion, treatment of chronic wounds and infected skin ...

### PLASMA APPLICATIONS

- Atomic Layer Deposition
- Decapsulation / failure analysis: Ar/O<sub>2</sub>/CF<sub>4</sub> plasma
- Surface activation

### CHEMISTRY APPLICATIONS

- Analytical chemistry



Decapsulation

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## Surface Wave Plasma Source

### KEY BENEFITS

#### DESIGN

- Compact plasma torch
- Quick connectors for water cooling and gas connection
- 6 / 8 mm diameters dielectric tubes

#### TECHNOLOGY

- Integrated ignition system
- Operates between  $10^{-2}$  mbar to atmospheric pressure



To get the complete data sheet :

- full specifications
- technical drawings

**CONTACT US !**

