

STYRAX

Plasma-Wet and Burn-Wet System

STYRAX - Treating demanding CVD and Etch process gases

The STYRAX product family was designed to meet highest demands for destruction and removal efficiency (DRE) of CVD and Etch gases in the semiconductor industry. Facing climate change and the increased necessity to apply renewable energy STYRAX is now available as plasma-wet tool to destroy all kinds of waste gases and uses electricity. The system shows the same well known performance as its burn-wet counterpart.

Options

- › Up to 6 waste gas inlets
- › Heated waste gas pipes, bypass valves and inlets
- › Circulation with water or lye
- › Process-Tool-Interface
- › Signal tower
- › Drip pan
- › Earthquake safety kit
- › Ethernet interface

Basic Features

- › Available as burn-wet or plasma-wet system
- › Runs with different fuel gases or none
- › DC arc plasma flame with N₂ carrier gas
- › Power supply: 3 x 400 V/50 Hz
- › Highest DRE of CF₄, SF₆ or NF₃ ≥99%
- › High capacity for CVD gases SiH₄, TEOS, H₂ etc.
- › Pump down capacity 1,000 slm
- › Low water consumption through closed-loop design
- › Maintenance cycles for CVD processes > 1 month



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Technical Data

	Plasma-Wet System	Burn-Wet System
Dimensions (W x D x H)	1110 mm x 675 mm x 2070 mm	1110 mm x 675 mm x 2070 mm
Maintenance area	Front and back side	Front and back side
Gas entry	6 inlets (3xDN25, 3x DN40) or 4 inlets DN40	6 inlets (3xDN25, 3x DN40) or 4 inlets DN40
Gas outlet	DN100	DN100
Fossile fuels	–	Natural gas, propane, on request
DC Torch Power	15 kW	–

System Description

Process waste gases are fed through a maximum of six separate inlets. Depending on the chemical composition of the waste gases, various reactions take place (oxidation, reduction, pyrolysis). A fluid wall film prevents corrosion and deposition of particles in the reactor. In the washing columns next to the reactor, soluble components are absorbed and particles suspended. The scrubbing liquid cools down and neutralizes combustion products such as hydrogen halogens.

