

STYRAX

Burn-Wet System

STYRAX – Waste Gas Treatment for Waste Gases from Demanding CVD Processes

The STYRAX tool family uses burn/wet technology and was specifically developed to manage demanding waste processes like CVD processes in the semiconductor and photovoltaic industries. The media supply of the systems can be carried out variably. Longer maintenance cycles increase the system's uptime.

Application

- › CVD
- › Etch (Metal, Poly, Oxides, ...)
- › Epitaxy
- › GaN
- › MOCVD
- › LED

Goals

- › Maintenance cycles for CVD processes > 1 month
- › High capacity for CVD gases SiH_4 , TEOS, ...
- › Highest DRE for Etch gases e.g. CF_4 > 99%

Basic Features

- › Burn/Wet scrubber with liquid recirculation
- › Based on well-proven technology of UPTIMUM
- › Reactor capacity up to 300 slm inert gas
- › Up to 2 independent inlets per reactor
- › Operation time > 99% through backup function
- › Second reactor allows uninterrupted operation during maintenance
- › Runs with different fuel gases
- › Low water consumption through closed-loop design



Single System **STYRAX INLINE**
Low footprint single reactor system

Also available as Plasma-Wet System



Dual System **STYRAX TWICE**
Dual reactor system with highest total capacity



Dual System **STYRAX DUO**
Dual reactor system with internal redundancy

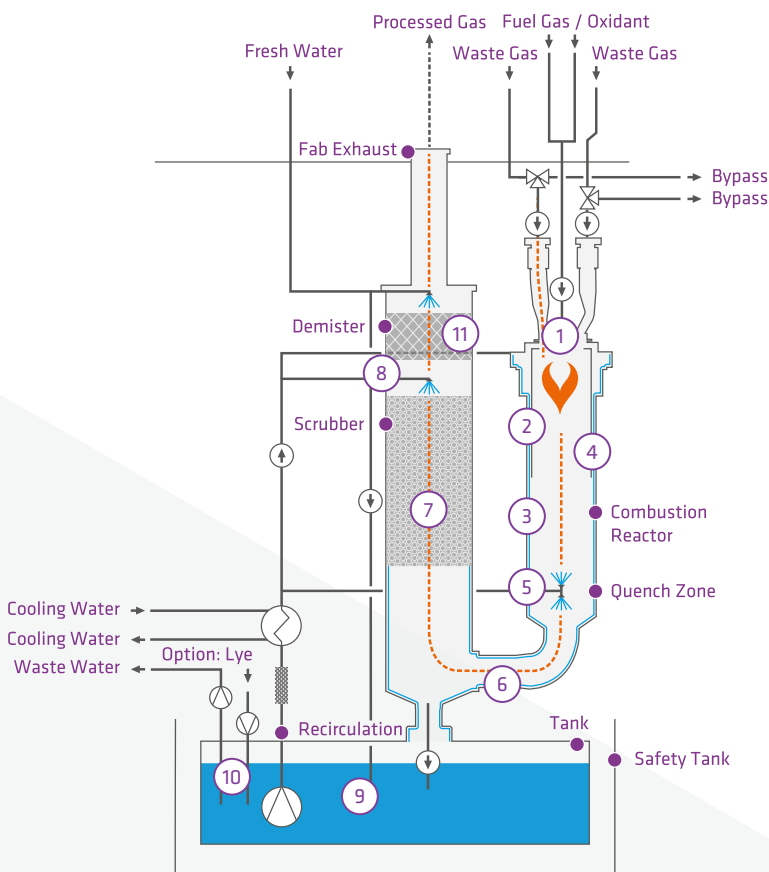
STYRAX

Burn-Wet System

Technical Data

	STYRAX <i>INLINE</i>	STYRAX <i>TWICE</i>
Dimensions (W x D x H)	1110 mm x 675 mm x 2070 mm	1865 mm x 675 mm x 2070 mm
Maintenance area	Front and back side	Front and back side
Gas entry	6 x DN25 oder 4 x DN40	2 x 4 DN25 oder DN40
Gas outlet	DN100	2 x DN100

System Description



- 1 One central burner, up to 4 waste gas inlets in top cover of reactor (optional heating jackets, plunger)
- 2 Burner flame detection (failsafe method)
- 3 Reactor wall inside covered by liquid film
- 4 Inserted heat reflector allows higher temperature
- 5 Hot gas is rapidly cooled by liquid spray
- 6 Treated gas passes through quench zone
- 7 Packed wet scrubber, large volume for better particle retention
- 8 Spray nozzle
- 9 Scrubbing liquid is recirculated
- 10 Water or water/lye mixture can be used
- 11 Demister on top of wet scrubber to eliminate spray droplets

System Description for Single System **STYRAX *INLINE***