John Cockerill **Europe Environnement**



Separation solution Separator Scrubber SLPH

The SLPH separator scrubber is a device through which a gas stream is cleared by gas/liquid separation of a substantial fraction of the droplets that it carries.

Although a majority of the pollution handled by our gas scrubbers is gaseous (HCI, NH₃, HF, etc.), there are still many cases where it comes from liquid vesicles suspended in the air (electrolysis, stirring, heating, bubbling, steam driven, etc.).

The treatment in this case consists of performing a high quality separation.

The SLPH separator scrubber is composed of a humidifying cell (to limit fouling), followed by high efficiency separation. High travel speeds (up to 6 m/s) make a **compact kit** with regard to the treated flows.

The main sectors affected by this process are the surface treatment industries (plating lines, deposits, basic pickling, etc.).

For the treatment of metal surfaces, SLPH scrubbers are suitable and effective for the following compounds:

- cvanide salts
- phosphates
- chromium
- alkaline vesicles ...

High performance separation efficiency greater than 99%

Made of PPh, HDPE, PVC or PVDF suitable for aggressive and corrosive effluents

Flows processed up to 60,000 m³/h others on request

Possible options (not exhaustive) Lined pumps, sloping bottom, finishing separator, etc.





Operation

The gas stream loaded with vesicles in suspension enters a humidification chamber where the droplets suspended in the gas are mixed with the scrubbing solution.

When it leaves this cell, the gas is directed towards the droplet separation system, consisting of one or more sets of separation blades with a sinusoidal profile.

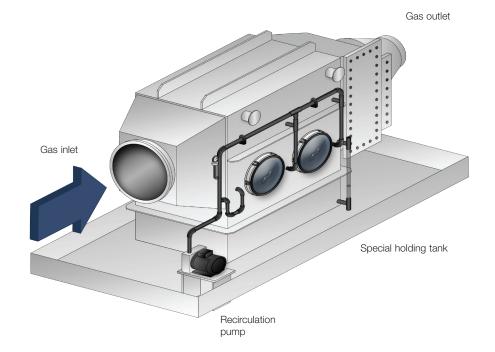
Dual blade system to optimise the efficiency of liquid/gas separation.

- Amount of liquid processed
- Size of the vesicles captured

For vesicular pollutants of very small size, the liquid spray cell can be followed by a coalescence pad which increases the size of the droplets and facilitates the final separation.

The scrubbing liquid is recirculated by a pump in the spray cell and is automatically deconcentrated (motorised purge valve and automatic water intake).

The purges should be directed to the water treatment station.



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1 rue des Pins - Parc d'Activités du Pays de Thann 68700 Aspach-Michelbach, France Tél. +33 (0)3 89 37 41 41 europe.environnement@johncockerill.com

