

## ENVIRONMENTAL PROTECTION with **SWIRL DROPLET SEPARATOR (DTA)**

Gas entering the droplet separator is accelerated in circumferential directions by means of a **stationary vane ring**. Specially shaped paddles prevent entrance losses and sudden flow changes. In the adjoining separator tube a stable rotational flow is formed. Droplets are propelled outwards by the centrifugal action and then captured on the walls of the tube.

The separating chamber itself is constructed as a **spiral tube**, Körting design. This is to prevent the resulting liquid film on the tube wall from moving in the direction of the gas outlet as a result of the induced force of the flowing gas. So the liquid runs downwards and not upwards in the flow direction of the gas. This effect is due to the careful shaping and construction of the "spiral tube" which leads downwards around the tube. The liquid is collected and drained off just above the vane ring.

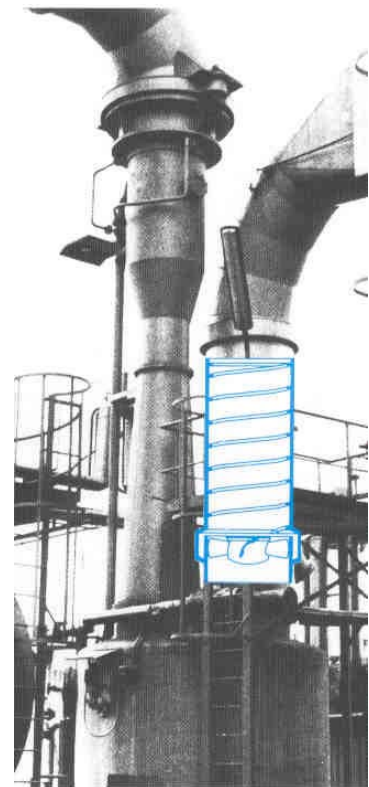
Furthermore, the spiral tube's function also permits the internal separator tube surface to be rinsed effectively *during* operation.

These measures ensure a **pollution- and maintenance-free** operation.

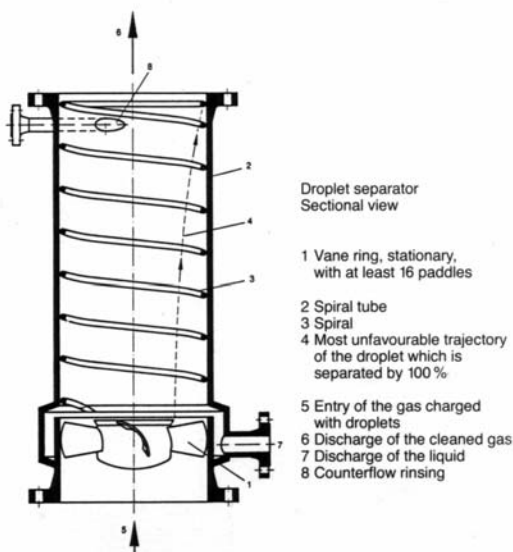
In particularly critical cases the twist generator can be sprayed additionally with liquid so preventing, for the most

part, sedimentations/precipitations on the paddles.

Droplet separators can be designed specifically so that larger liquid loads such as the wall film and gushes of water can likewise be drained off.

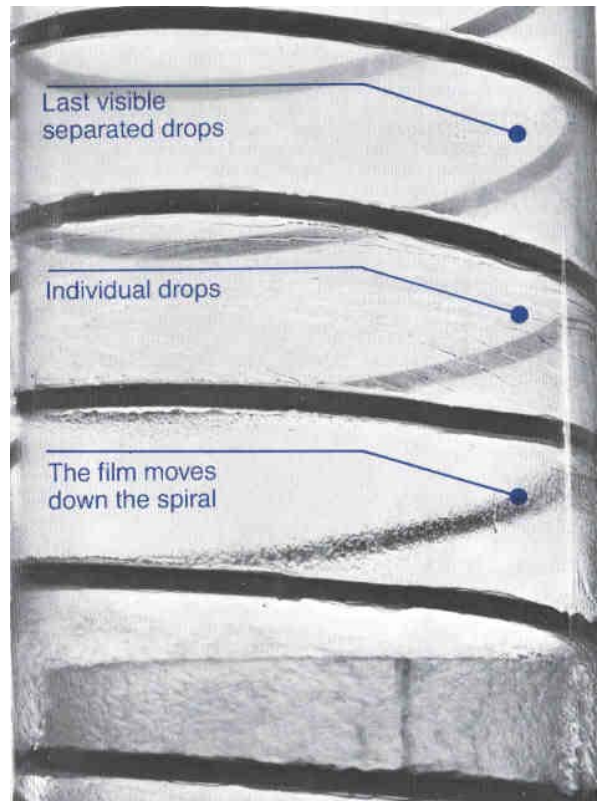
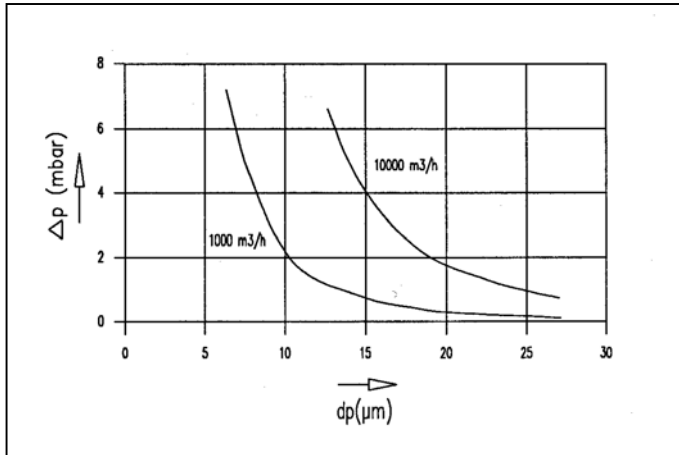


**Adjoining droplet separator**



**View inside the spiral tube**

## Performance graph



## Fields of application

- Gas scrubbing- and vacuum plants
- Condensate discharge in chimney stacks
- Evaporation plants
- Separation of difficult products (e.g. with an inclination to polymerisation)

## Constructional sizes

Gas flow [m <sup>3</sup> /h]	150...600	250...1100	...	40000...175000	50000...200000
Nominal width DN	200	250	...	2800	3000

further sizes on demand

## Materials

- Carbon steel, Stainless steel
- Coated steel (rubber, Halar, etc.)
- Plastics : GFK, PP, PVC, PVDF  
with and without reinforcement
- Special materials



DTA 200 coated with Halar



DTA chimney stack DN 3000



Twist generator DN 3000



DTA chimney stack DN 500