

For decades storage tanks have been vented to atmosphere, continuously or prior to- and during cleaning operations, releasing Millions of Tons of harmful emissions to the atmosphere and exposing those on site. A practice that is still going on today

When a Vapor Recovery Unit or VRU is out of operation due to maintenance or (unexpected) outage, the VOC's released by the terminal / plant are vented to atmosphere or operations have to stop.

VRU's are designed for a specific capacity and application. With trade increasing continuously, product change more frequent than ever and rising summer temperatures, the VRU can be the restricting factor in optimizing plant, tank terminal and jetty utilization.

A situation that is all too familiar for many terminal and plant operators.

To overcome the release of harmful emissions, avoid exposure to personnel, create a safer working environment increase utilization and avoid shut down of operations, SIS GmbH developed the Flying Combustor[®], a mobile Vapor Combustion Unit or VCU.

The Flying Combustor[®], a fully integrated certified mobile combustion solution that guarantees > 99.9% destruction rate of hydrocarbons. Guaranteeing permit compliance, reducing harmful emissions and exposure significantly.

The Flying Combustor[®] is the most versatile, flexible and safest mobile VCU available today, with among others: integrated power generation, support gas supply, certified Zone - 0 Blower, automatic stack erection and 4x internal- and 4x external gas detection.

When required the Flying Combustor[®] can be equipped with continuous emissions measurements for reporting to authorities.

When there is an environment off < 99.9% Nitrogen, CO₂ or air, even with 100% humidity, this can still be processed by the Flying Combustor[®].

Support gas is automatically added to maintain the combustion temperature at the desired level to guarantee the lowest emissions.

Where possible the unit will run full automatically without interference.

Internal and external gas detectors are used to warn in case of explosive environments.

The Flying Combustor[®] is designed to be plug and play for numerous applications, is mobilized quickly and can be operational within 1 hr after entering the site.

1 Unit not sufficient? Multiple units can be combined to handle larger flows.

Storage Tanks

To reduce downtime of storage tanks, the Flying Combustor[®] is used to extract VOC's by the certified Zone – 0 blower from the storage tank to be combusted in the Flying Combustor[®].

This does not only avoid harmful emissions to the environment it also brings the tank faster below LEL, shortening the downtime.

Once the tank is below LEL, the industrial cleaner can start the cleaning process.

The Flying Combustor® remains in operation during cleaning activities, creating a quintuple benefit:

- 1) Avoiding harmful emissions to the atmosphere released by the cleaning process.
- 2) Reducing exposure to those working on site, creating a better and safer working environment (SWE), especially to those in close proximity to the tank.
- 3) The Flying Combustor® maintains the tank below LEL so cleaning operations can continue 24/7 and do not have to be stopped.
By doing so we also create a better / safer working environment (SWE) for the industrial cleaner.
- 4) Because of the above we reduce the cleaning time of a tank and are saving costs in the process.
- 5) It results in bringing the tank faster back online.

And here is where terminals and plants make their profits.

Vapor Recovery unit

Vapor Recovery Units or VRU's are found wherever hydrocarbons are processed and produced. For most operators, refineries, chemical plants and tank terminals it is the preferred choice for emissions control of small VOC streams.

When a VRU goes offline for maintenance, breaks down unexpectedly or facing capacity restrictions, the challenge begins.

In these cases, The Flying Combustor® can be mobilized quickly to backup a VRU and increase vapor processing capacity. In any event we guarantee continuity, optimized operations and reduce waiting time for ships and vessels.

A lot of information, but the capabilities of the Flying Combustor® are best demonstrated by the animation that can be found on our website :

<https://www.s-i-s.com/equipment/flying-combustorr/>

It is time to reduce emissions and improve our working environment.

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