



FILTRATION SOLUTIONS

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FILTRATION

INFIGROUP offers all possible variants of dry and wet filtration systems, which can be installed on the LCI, HDI, and FRI, range of products.

NO ADDITIONAL FILTER

— Filtration by the post-combustion



Post-combustion filtration results from the oxidation of gases from the combustion chamber. The dust contained in the fumes is partially eliminated at the same time as the microparticles contained in the fumes. Post-combustion, placed under the combustion chamber, completes the oxidation of fats, a process initiated in the combustion chamber.

- ✓ No cost
- ✓ Colourless and odourless fumes

- ✗ Remaining dust
- ✗ Pollutants largely eliminated
- ✗ Fumes rejected at 600°C

DUST COLLECTOR

— Filtration cyclone filter



It is a dry filtration method. Located after the post-combustion, the cyclone retains the dust resulting from the incineration which is already oxidized in the post-combustion.

They are then sent to a cyclone to recover the remaining dust, by gravity. The chimney is located directly above the cyclone.

- ✓ Low cost
- ✓ Colourless and odourless fumes

- ✗ Still some remaining dust
- ✗ Remaining pollutants
- ✗ Fumes rejected at 300°C

WET SCRUBBER

— Wet filtration

The wet scrubber (washer) is located after the post-combustion. The flow of smoke is led to the washer by the Ventury effect. The washer consists of a water injection ramp + reagent (liquid lime), a cyclonic bell and a pool (tank provided for this purpose). The dust resulting from incineration which is already oxidized in the post-combustion is then sent to the wet scrubber. The fumes are sprayed with a «water + reagent» mixture which weighs down the dust and which, by gravity, carries it into the pool. The contaminated water is then analyzed and neutralized to reach a neutral PH of 7. To do this, a dosing pump and a PH analyzer with a probe are directly immersed in the pool. The water + reagent mixture circulates in an open or closed loop. The chimney is located directly above the washer to expel the flow of clean air. For some cases, it is possible to install a double washer, meaning, two washers in series.



- ✓ Cost optimized
- ✓ Colourless and odourless fume
- ✓ It complies with CE standards in most cases but not certified in continuous for all types of waste
- ✗ Very little dust / pollutants remaining
- ✗ Fumes rejected at 200°C



FILTRATION BY CERAMIC FILTER

— Dry filtration

It is a combination of cyclone + ceramic filters). It is the only one certified 100% CE. Its role is only to regulate the flow of releases from gases if the installation does not works properly (bad regulation of burners, anomaly in oxygen management, etc.). The dust, already oxidized in the post-combustion, is sent to a cyclone in order to remove the remaining dust. The gases are meanwhile cooled, to be treated. The microparticles are captured by the reagents (hydrated lime + activated carbon) injected into the dilution reactor and led to the ceramic filter. The gases temperature drops down as they pass through the different modules. Ceramic filtration removes the few remaining harmful fluxes, through the reactants injected into the reactor, placed between the cyclone and the ceramic filter.

- ✓ 100% complying with CE standards
- ✓ Colourless and odourless fume
- ✓ Fumes rejected <100°C
- ✗ Expensive