Our complete product portfolio, coupled with our experts’ technological know-how, allow us to tackle the most challenging flue gas treatment (FGT) issues, allowing you to reach your emissions reduction targets in an efficient, cost-effective and rapid manner. Our three decades of experience mean we are an ideal turnkey air pollution control partner. We can design, build, install and commission your plant’s complete air emissions reduction solution.

**WHY CHOOSE OUR MERCURY ADSORPTION SYSTEM?**

**Our proven technology**
Our MAS can reduce mercury and other metals and contaminants by more than 90%.

**Our perfected mixing**
Our experts have calculated and tested the dosing function to perfect the dispersion of the reagent in the gas.

**Our flexible operations system**
Our system is fully automated with hands-free operation and integrated into the main operations centre of your plant.

**Our low reagent consumption**
We can inject the sorbent before the air heater, garnering a faster reaction, further reducing reagent consumption.

**Our expertise choosing the right adsorbent**
The right choice ensures a lower adsorbent consumption, a safe operation and a better integration with other reagents.

**Our One-Step Cleaning Solution**
Our proven system removes all pollutants with a highly compact design and offers easy and low-cost installation.
We can reduce your mercury and metals emissions by more than 90% with our Mercury Adsorption System (MAS).

Over the past few years, regulatory agencies in the United States, Canada and Europe, as well as in other regions of the globe, have been introducing stricter regulations to limit mercury, dioxins, furans and other metals produced by the use of alternative fuels. This impacts not only industrial boilers, waste incinerators and coal power plants, but cement and steel mills as well among others.

Indeed, research has shown that mercury in the air may settle into water bodies, transforming into methylmercury through microbial activity. Methylmercury accumulates in fish at levels that may not only harm the fish, but all those who eat them. Our Mercury Adsorption System can cost-effectively and efficiently help your plant achieve – and even surpass – its current and future mercury and metals emissions reduction requirements.

Our MAS is a cost-efficient solution in terms of CAPEX to reduce mercury and metals. It can be installed as a retrofit, added into existing ductwork, as well as integrated with our Dry Injection Desulfurization (DID) system. It can of course also be installed in a greenfield project. Our MAS is also low maintenance as it’s designed to reduce wear and tear on various facets of the system.

Our MAS is a solution in which powdered activated carbon (PAC) is pneumatically-injected from a storage silo into your plant’s flue gas ductwork or reaction tower. The PAC adsorbs the vaporized mercury from the flue gas and is then collected with the fly ash in the hopper.

REDECAM OFFERS TWO TYPES OF MAS:

**MAS – WITH IN-DUCT LANCES**

This is the standard configuration for an existing installation.
- Lower CAPEX
- No extra footprint required

**MAS – WITH A REACTOR**

This is applicable when a reactor is needed for desulfurization as well, mainly in new plants.
- No modification of ductwork required

REACTANTS

We use powdered activated carbon (PAC) and calculate the ideal pore size required depending on the application and your emission reduction targets. Indeed PAC is available in various pore size distributions which result in various catalyst dispersion rates over the carbon surface. We may also suggest PAC impregnated with certain chemicals which can optimize the reaction with mercury, depending on your process parameters.

Our Metal Adsorption System removes mercury (Hg), furans, dioxins, lead (Pb), cadmium (Cd), arsenic (As), chromium (Cr), manganese (Mn), as well as other metals.

CUSTOMIZING YOUR SOLUTION

Our experts will evaluate your mercury reduction needs and propose an air pollution control solution that’s right for you. They will then design, build and install a Mercury Adsorption System tailored to your unique application, meeting – or even exceeding – your emission reduction targets. Our project managers and engineers will work closely with your team to ensure all specifications and requirements for your new MAS are integrated seamlessly into your overall plant operating system.
Advantages of our Flue Gas Treatment Solutions

OUR COMPLETE PRODUCT PORTFOLIO

Our highly efficient and innovative filtration solutions can secure a better reaction from your flue gas treatment (FGT) system. From design to commissioning, we can provide everything necessary to optimize your emissions reduction system from air filtration to flue gas treatment, including conditioning, storage and handling systems.

MODELLING

We use Ansys's Fluent software to accurately design and study every solution. This allows us to engineer and analyze each system's broad physical capabilities, optimize the fluid dynamics and study the efficiency of pollutants removal. When a computerized simulation is not sufficient, we undertake a physical simulation on a 1:7 scale in our Milan workshop.

Redecam offers a comprehensive portfolio of air filtration, flue gas treatment (FGT), gas conditioning and transportation, handling & storage products. Please contact us to see how we can take care of all your air pollution control needs.

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