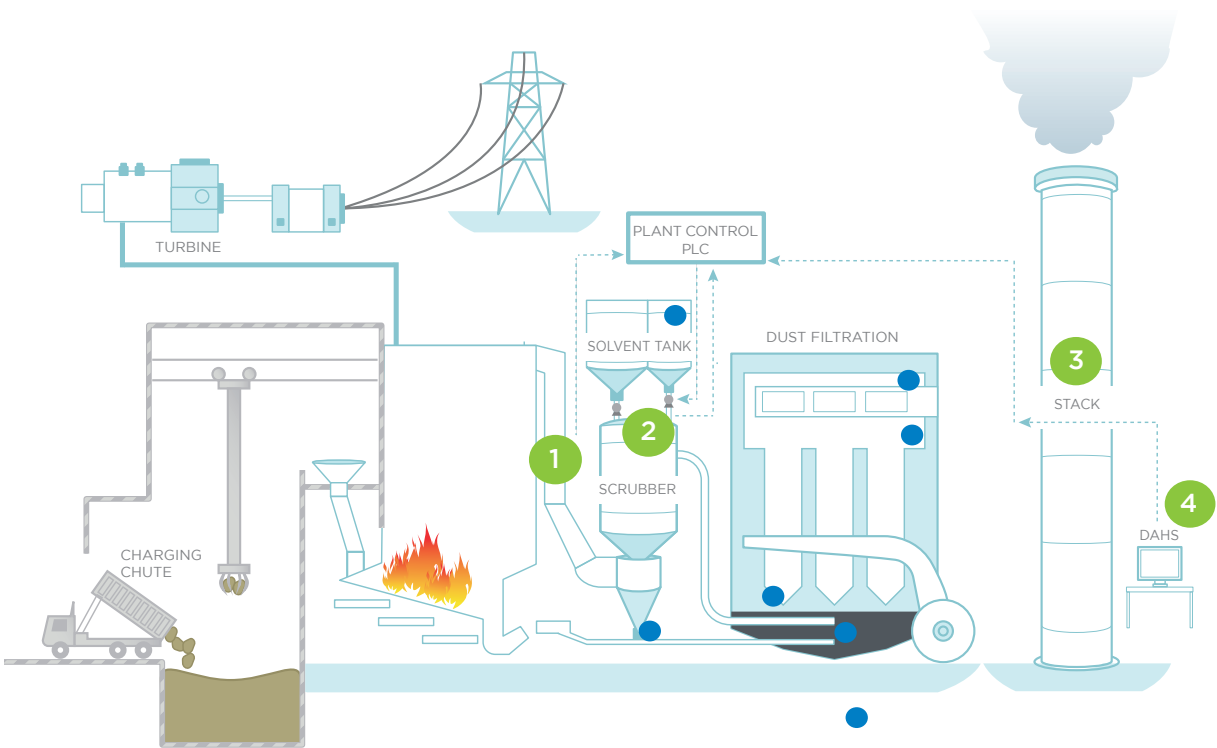




# GLOBAL SOLUTION FOR MERCURY MONITORING AND PROCESS OPTIMIZATION

*Compliance to latest BREF incineration  
applicable in EU (deadline: 12-2023)*



- 1 Continuous measurement of mercury in raw gases, upstream of exhaust treatments
    - Specific analyzer adapted to the process conditions offering a very high sensitivity on a very wide range of measurements
    - Mercury speciation possible ( $\text{Hg}^0$  /  $\text{Hg}^{2+}$  / total Hg)
  - 2 Continuous monitoring of reagent injection rates
    - Real time control of the quantities being injected
  - 3 Continuous measurement of stack mercury emissions
    - Very low concentration measurement
    - QAL 1 certification according to the EN 15267-3
  - 4 Optimisation and control of the whole flue gas conditioning process with the use of ENVEA's WEX™ DAHS
    - Real-time monitoring of parameters, overruns & calculated means / Trends / Emission Limit Value (ELV) exceedance detection / Reporting...
- We provide our customers with solutions to optimize all stages of their incineration process: level detection, flow/no-flow detection, measurement of filtration efficiency, etc. [See dedicated page on our website.](#)

The saturation phases of the flue gas treatment could be eliminated or at least minimized by using a regulation of the injection rate of the adsorbent product. Based on a continuous measurement of mercury upstream, this will allow a better reactivity and a real time adaptation to the process conditions.

## MERCURY CEMS SM-5

- QAL 1 certification range 0-5  $\mu\text{g}/\text{m}^3$ , the lowest on the market
- Additional ranges: 0-30 ; 0-45 ; 0-100 ; 0-1000  $\mu\text{g}/\text{m}^3$
- Very high accuracy: <0,1  $\mu\text{g}/\text{Nm}^3$  over 3 months
- Dynamic range switching for reliable measurement of mercury peak emissions
- Photometric measurement independent of the high-temperature converter to ensure very low maintenance times and costs
- Catalyst-free converter oven: no consumables required, minimal operating costs
- High temperature conversion method: **requires no reagent**, water refill or cartridge replacement
- Modular mercury injection system at the probe or at the analyzer for complete AMS checks
- Probe head port for optionally connecting a calibration system
- No need for carrier gas, dilution or air conditioning
- Fully heated sampling system to avoid mercury retention in the probe
- Sampling box mounted directly on the stack: no maintenance required and no transport of reactive Hg
- Two different power sources (protected/unprotected) in order to separate and secure the measuring system

### Main applications:

- Waste incineration plants
- Coal-fired power plants (before and after mercury absorbers)
- Cement kilns
- Determination of mercury at sulphur acid production plants
- Thermal treatment of contaminated soils, special waste, etc.
- Metallurgical plants with potential mercury emissions...



FEATURES	BENEFITS
Very low certification range	High measurement accuracy
Instrument certified to operate without calibration	Reliability & reduced operating costs
Simple and robust design	Easy servicing with low maintenance costs
Converter oven without catalyst	Requires no consumables, minimized operating costs
Very low instrument air consumption	Lower operating costs
Customizable heated sample line	Remote installation for easy access to the analysis cabinet
Measurement of mercury in raw gases	Anticipates mercury peaks, optimizes the quantity of reagents injected and reduces costs
Over 20 years of expertise in mercury analysis	Guarantee of a high quality and high performance product

These 4 key points treated as a whole allow a real optimization of the process and a high level of reliability in controlling atmospheric emissions. They also lead to significant environmental and economic benefits by limiting the quantity of chemical reagent and sorbent used.

	Hg
SM-5	0 - 5 / 0-30 ; 0-45 ; 0-100 ; 0-1000

Lowest/ highest ranges available, expressed in  $\mu\text{g}/\text{m}^3$   
(other available upon request)





You can download our catalogs by flashing the QR codes hereafter:



**SM-5**  
(product information)



**CEMS catalog**



**PROCESS catalog**



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