

Performance control system for SM-5

PROCESS & EMISSIONS MEASUREMENT SYSTEMS

Fixed or mobile system for the on-site control of SM-5 continuous mercury analyzers.

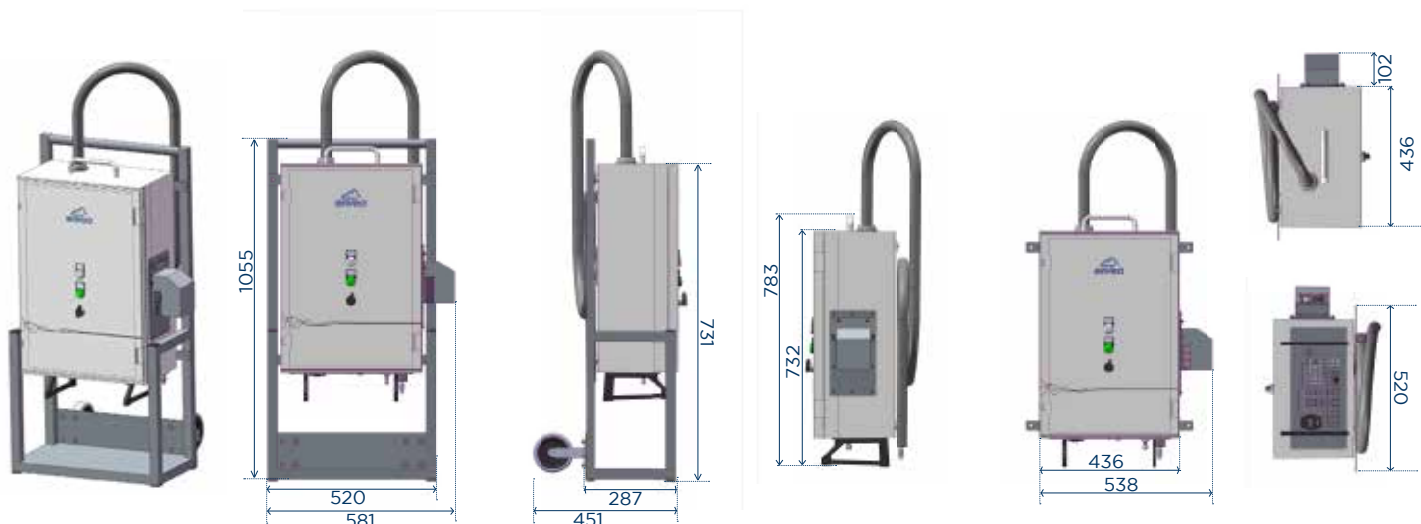


KEY CHARACTERISTICS:

As the SM-5 is QAL 1 certified by TÜV for use without calibration, the SC-5000 is offered only as an optional control system.

- Gas injection at probe head via dedicated port, to control the entire measurement system (AMS)
- Two-point SM-5 drift control, zero and 100%*
- Uses an ionic mercury solution (HgCl_2) prepared by an accredited laboratory. Linearity-check of complete AMS can also be done by using different HgCl_2 concentrations
- Dedicated, insulated and temperature-controlled compartment to maintain the ionic solution at between 5 and 15°C and preserve its properties
- Front-panel LEDs for quick visualization of system status
- Suitable for shared use between upstream and downstream SM-5 analyzers
- Available in fixed or mobile versions, for multiple applications on several SM-5 AMS from different combustion lines.

* The injection pump operates at 100% capacity, corresponding to a target value of $< 20 \text{ Qg/m}^3$ for a standard HgCl_2 solution with a concentration of 100 Qg/l.



Presentation of the SC-5000 system in mobile (on cart with wheels) and fixed versions. Dimensions in mm.

TECHNICAL SPECIFICATIONS

Type of solution used	Ionic mercury (HgCl ₂), standard concentration 100 µg/L (other concentrations are available on request)
Capacity	500 ml (can be used for approx 6 months to 1 year with monthly checks)
Control points	Two points: Zero & 100% (depending on control solution concentration)
Evaporator internal temperature	190°C
Temperature calibration solution	5 - 15°C
System status display	Front panel indicators: <ul style="list-style-type: none"> • Green = OK • Red = T° below setpoint • Flashing Red = T° above limits
Connection	Injection heated line 2.50 m as standard (other lengths optional)
Compressed-air supply	Dry, oil-free, class 3 : <ul style="list-style-type: none"> • Oil concentration < 1mg/Nm³ • Dew point -20°C Dust-free, class 2: <ul style="list-style-type: none"> • Concentration < 1 mg/Nm³ • Particle size < 1 µm Pressure : 3,5 bars minimum. Consumption : 10 l/mn max.
Power supply	230 V ; single-phase
Electric power	<ul style="list-style-type: none"> • SC-5000: stand-by mode (without injection) = 150 W • SC-5000: injection mode = 1100 W • 110 W/m linear for heated line
Communication	RS485. Supplied with 5 m signal cable for connection to sample box
Cabinet dimensions (H x L x P) cm	79x54x26 (without cart)
Weight	24 kg



Emissions application (Hg stack measurement)



Raw gas application (Hg measurement upstream of smoke treatment)

