

PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

Dioxin Emission Continuous Sampling (DECS) Isokinetic Dioxin Sampling system

Manufactured by:

CDL Tecora

ZA de la Prairie Bat 6
91140 Villebon sur Yvette
France

has been assessed by Sira Certification Service
And for the conditions stated on this certificate complies with:

**MCERTS Performance Standards and Test Procedures for Automatic Isokinetic Samplers,
Version 3 dated September 2016
& EN15267-2**

Certification Ranges :

Isokinetic sampling velocity 2 to 20 m/s

Project No. : 70187493
Certificate No : Sira MC 180344/01
Initial Certification : 25 September 2018
This Certificate issued : 09 October 2018
Renewal Date : 24 September 2023

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Environmental Project Engineer

MCERTS is operated on behalf of the Environment Agency by

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Approved Site Application

Any potential user should ensure, in consultation with the manufacturer, that the monitoring system is suitable for the intended application. For general guidance on monitoring techniques refer to the Environment Agency Monitoring Technical Guidance Notes available at www.mcerts.net

Basis of Certification

This certification is based on the following Test Report(s) and on Sira's assessment and ongoing surveillance of the product and the manufacturing process:

CESI	Report Number: A6032630 dated 11/12/06
CESI	Report Number: 06002702 dated 22/05/06
CESI	Report Number: 06007279 dated December 2006

Product Certified

The Dioxin Emission Continuous Sampling (DECS) measuring system consists of the following parts:

- Heated probe mounted in the stack (with a Pitot tube to measure the velocity of the flue gas)
- Sampling unit installed on a platform on the stack
- Control unit that is installed in control room

DECS measuring systems supplied by CDL Tecora direct to the customer will have a serial number:
CU 0.5.001 onwards for control unit (05=my, 001 = sequential number)
SU 05.001 onwards for sampling unit (05 = my, 001 = sequential number)

This certificate applies to all instruments fitted with software version 1.0.2 onwards (serial number 001 onwards).

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Certified Performance

Results are expressed as error % of certification range, unless otherwise stated.

Test	Results expressed as % of measured value				Other results	MCERTS specification
	<0.5	<1	<2	<5		
Accuracy of isokinetic sampling rate response to changes in flue gas velocity				4.6		±5%
Accuracy of determination of volume of gas sampled			1.44			±2%
Linearity of isokinetic sampling rate			1.5			±5%
Response time T ₉₀ (seconds)					75 s	<100 s
Flow repeatability under laboratory conditions				4.5		±5%
Minimum operational velocity					1.97 m/s	2 m/s
Short term drift			1.7			±2%
Accuracy of the determination of volume of gas sampled calculated as an average of ten runs performed during the first and the last month of testing		1.0			Note 1	±5%
Flow reproducibility under field conditions calculated from ten independent measurement results at one fixed location within the duct	0.5					±5%
Availability over three months continuous use					100%	>95%

Note 1: The Dioxin Emission Continuous Sampling (DECS) system was assessed on the basis of three month field trial mounted on a waste incinerator.

The instrument was tested under the following conditions:

- Approximately 8 tonne/h
- Abatement: denox with NH₃ + sleeve filter with injection of lime and carbon (dry system)
- Combustibles: RSU (Urban Waste)
- Stack Temperature: 150°C
- Stack volumetric flow rate: 300 kNm³/h
- Stack gas velocity: 12-15m/s
- Stack gas humidity: 11-12%vol
- Dust Emission level: under 5mg/m³

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Description

The DECS or 'Dioxin Emission Continuous Sampler' is an emission sampling system which is based on the automatic isokinetically controlled sampling of the flue gas. The system can be used for long term measurement of Dioxins, Furans and other POP's.

For measurement of dioxins the system uses the filter condenser method with adsorbing trap on the wet gas in accordance to EN1948-1.

The system consists of two main components:

- Sampling unit, with heated probe and Pitot tube to measure the stack gas velocity, mounted on the stack at sampling point platform.
- Control unit that is installed in control room

The two units are connected via a sampling line, power and measuring cables. Each control unit can have up to 4 sampling units connected.

The manufacturer states the temperature range for the equipment is as follows:

- Sampling unit located outside the stack: -15°C to +45°C
- In stack probe: up to 350°C
- Control unit: 0 to 40°C

General Notes

1. This certificate is based upon the equipment tested. The Manufacturer is responsible for ensuring that on-going production complies with the standard(s) and performance criteria defined in this Certificate. The Manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management system shall be subject to regular surveillance according to 'Regulations Applicable to the Holders of Sira Certificates'. The design of the product certified is defined in the Sira Design Schedule V00 for certificate No. Sira MC180344/00
2. If certified product is found not to comply, Sira Certification Service should be notified immediately at the address shown on this certificate.
3. The Certification Marks that can be applied to the product or used in publicity material are defined in 'Regulations Applicable to the Holders of Sira Certificates'.
4. This document remains the property of Sira and shall be returned when requested by the company.

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