

PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

***Continuous Isokinetic Dioxin Sampling System
GT90 Dioxin+
(standard and compact versions)
(Previously named Model G.20 and G.21)***

Manufactured by:

Gasmet Technologies Oy

Hauptstrasse 39
3001 Mauerbach,
Austria

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

QAL 1: EN15267-1, EN15267-2:2009

**MCERTS Performance Standards and Test Procedures for Automatic
Isokinetic Samplers Version 3 dated September 2016**

Certification Ranges :

Isokinetic sampling velocity 2 to 20 m/sec

Project No.: 70191350/ 80028105
Certificate No: Sira MC050065/14
Initial Certification: 07 October 2005
This Certificate issued: 12 February 2020
Renewal Date: 06 October 2020



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Environmental Project Engineer

MCERTS is operated on behalf of the Environment Agency by

Sira Certification Service

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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

On the basis of this evaluation the isokinetic sampling system is considered suitable for continuous sampling of dioxins, furans and other persistent organic pollutants (POPs) on any process where the stack conditions are within the performance of the certification range of this instrument.

The Model GT90 Dioxin+ Standard and Compact versions sampling system was assessed on the basis of two three-month field trials mounted on both a waste incinerator and a cement plant. The instrument was tested under the following conditions:

- Velocity range 15 to 21 m/s and 20 to 28m/s
- Stack temperature range 100°C to 110°C and 135°C to 137°C
- Ambient temperature range 15°C to 42°C and 10°C to 35°C
- Particulate concentration 1 to 5 mg/Nm³ and 20 to 30 mg/Nm³

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:

Environment Agency: Laboratory and Field Tests of Continuous Dioxin Sampling Systems, September 2005

Product Certified

The GT90 Dioxin+ is a fully automatically controlled continuous sampling system, which consists of the following parts:

- Stack mounted dual probe sampling unit
- Isokinetic control unit
- Control Cabinet

The GT90 Dioxin+ can also be fitted with the following options:

- Outdoor box for the sampling probe unit
- Air-conditioning for the control cabinet
- Multiplex extension for sampling switching between two chimneys using one control cabinet
- Titanium cartridges for heavy metal and fine dust measurements

This certificate applies to all instruments fitted with software version 3.2 (serial number 790574-001, and both hardware model versions GT90 Dioxin+ Standard and Compact versions) 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	<4		
Accuracy of isokinetic sampling rate response to changes in flue gas velocity			1.3%			±5%
Accuracy of determination of volume of gas sampled			1.3%			±2%
Linearity of isokinetic sampling rate				3.0%		±5%
Response time T ₉₀ (seconds)					58-62 s	<100 s
Flow repeatability under laboratory conditions			1.5%			±5%
Minimum operational velocity					1.0 m/s	2 m/s
Short term drift		0.9%				±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				3.1%		±5%
Flow reproducibility under field conditions calculated from ten independent measurement results at one fixed location within the duct				3.5%		±5%
Availability over three months continuous use					100%	>95%

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Description

The GT90 Dioxin+ is designed for long-term monitoring of dioxin emissions in conformity to the European standard EN1948-1 (dilution method for sampling of PCDDs and PCDFs and dioxin-like PCBs).

The system is suitable especially for continuous isokinetic sampling of hazardous organic compounds in industrial and domestic waste incineration plants. In addition to dioxins, the system is capable of measuring furans and other persistent organic pollutants (POPs), such as polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbons (PAHs). GT90 Dioxin+ can also be equipped with ParTrace option, enabling heavy metal and fine dust collection.

The GT90 Dioxin+ consists of heated sampling probe unit with zero pressure probe tubes, heated line and control cabinet. Optionally, a multiplex extension can be used to allow sampling from two measuring points. The used dilution method technique allows working without any flue gas condensate as only a dry cartridge will be transported to the laboratory for analysis.

The sampling probe unit includes automatic blowback and probe cleaning features as well as automatic switching for systems with the multiplex extension. System can also be equipped with remote access and control, allowing e.g. remote calibrations, leak tests and data download during operation.

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'.
2. The design of the product certified is defined in the Sira Design Schedule V00 for certificate No. Sira MC050065/14
3. 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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