



SAPIO PRODUZIONE IDROGENO OSSIGENO S.r.l.

SEDE LEGALE: 20122 MILANO
 2 GALLERIA PASSARELLA
 UFFICI OPERATIVI: 20140 CAPONAGO (MI)
 27 VIA SENATORE SIMONETTA
 TEL. 02 957051
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CERTIFICATO DI TARATURA
 CERTIFICATE OF CALIBRATION

ENEL PRODUZIONE S.P.A. CAVRIGLIA CAVRIGLIA S.BARBARA

CLIENTE / CUSTOMER
 COMMESSA / ORDER NO. **620391**

RECIPIENTE / VESSEL **BOMBOLA VALVOLA UNI 4409** MATRICOLA / NUMBER **MP7/798**

SCADENZA DELLA PROVA IDRAULICA / HYDRAULIC TEST EXPIRES ON **01/09/2016** CAPACITÀ IN ACQUA / WATER CAPACITY **10**

CONTENUTO / CONTENTS **MISCELA DI GAS**

METODO DI PREPARAZIONE / METHOD OF PREPARATION **gravimetrico-sec. norma ISO 6142**

COMPONENTI - COMPONENTS

PER TARATURA / FOR CALIBRATION	C	ΔC / C	PER TARATURA / FOR CALIBRATION	C	ΔC / C
OSSIDO DI CARBONIO	99.1 ppm	± 0.02			

COMPLEMENTO / COMPLEMENT **AZOTO**

CONCENTRAZIONE C espressa in termini di / CONCENTRATION C expressed in terms of **mol/mol (rapporto molare)**

PRESSIONE DI RIEMPIIMENTO / FILLING PRESSURE **150 bar**

PRINCIPALI RISCHI PER LA SALUTE / MAIN HEALTH HAZARDS

PRESSIONE MINIMA DI UTILIZZO / MINIMUM UTILIZATION PRESSURE **10 bar**

PROPRIETÀ FISICO-CHIMICHE / PHYSICO-CHEMICAL PROPERTIES

TEMPERATURA MINIMA DI STOCCAGGIO / MINIMUM STORAGE TEMPERATURE **0 °C**

TERMINE DELLA GARANZIA / GUARANTEE EXPIRES ON **36 MESI**

08/09/2009

154806

COLOMBO-GL

DATA DI PREPARAZIONE / PREPARATION DATE N° DI REGISTRO / REGISTER NO. OPERATORE / OPERATOR

Mod. XCP BA 11
 Mod. XCP BA 11
 Mod. XCP BA 11



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CERTIFICATO DI TARATURA
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ENEL PRODUZIONE S.P.A. CAVRIGLIA CAVRIGLIA S.BARBARA

CLIENTE / CUSTOMER
 COMMESSA / ORDER REF. **620391**

RECIPIENTE / VESSEL **BOMBOLA VALVOLA UNI 4406** MATRICOLA / NUMBER **MP15/984**

SCADENZA DELLA PROVA IDRAULICA / HYDRAULIC TEST EXPIRES ON **01/05/2012** CAPACITÀ IN ACQUA / WATER CAPACITY **10**

CONTENUTO / CONTENTS **MISCELA DI GAS**

METODO DI PREPARAZIONE / METHOD OF PREPARATION **gravimetrico-sec. norma ISO 6142**

COMPONENTI - COMPONENTS

PER TARATURA / FOR CALIBRATION	C	ΔC / C	PER TARATURA / FOR CALIBRATION	C	ΔC / C
OSSIGENO	21.05 %	± 0.02			
COMPLEMENTO: AZOTO					
CONCENTRAZIONE C espressa in termini di / CONCENTRATION C expressed in terms of mol/mol (rapporto molare)					
150 bar					
PRESSIONE DI RIEMPIMENTO / FILLING PRESSURE			PRINCIPALI RISCHI PER LA SALUTE / MAIN HEALTH HAZARDS		
PRESSIONE MINIMA DI UTILIZZO: / MINIMUM UTILIZATION PRESSURE 10 bar			PROPRIETÀ FISICO-CHIMICHE: / PHYSICO-CHEMICAL PROPERTIES		
TEMPERATURA MINIMA DI STOCCAGGIO: / MINIMUM STORAGE TEMPERATURE 0 °C			TERMINE DELLA GARANZIA: / GUARANTEE EXPIRES ON 36 MESI		

08/09/2009

154775

COLOMBO GL

DATA DI PREPARAZIONE / PREPARATION DATE N. DI REGISTRO / REGISTER NO. OPERATORE / OPERATOR

Mod. XCP BA 1
 Mod. XCP BA 1
 Mod. XCP BA 1



Verbale ARPA Molise

ASSISTENZA AI RILEVAMENTI ANALITICI SU EMISSIONI IN ATMOSFERA

L'anno 2009 addì 04 del mese di NOVEMBRE i sottoscritti TOTTI SP. GIANNARELLA
PIERPAOLO e ICTP ING. CH. PATAVINO ALESSANDRO

come da DETERMINA
n° 69/294 del 23/12/1978 emanat da MICA
n° del emanat da
n° del emanat da

hanno assistito ai rilevamenti analitici sul punto di emissione della Ditta ENEL - CAMPOTRANO
sita nel Comune di CAMPOTRANO in LOC. COCCICETE
n° 1 di cui è Legale Rappresentante ING. ROMOLO BRANZI nato a
FOLIGNO (PG) il 09/10/1955 e residente a FOLIGNO
in VIA RICHISONO n° 4

I rilevamenti analitici sono condotti da: ENEL - ASP - COE S. BARBARA - VIA DELLE
MINIERE, 6 - 52022 CARRIGNA (AR) nelle persone di: ING. CALTELLANO ROSSETTI ROBERTO
E.P.Ch. MAGGI CLAUDIO *NOT 3/10/08

utilizzando la seguente strumentazione: A) HONDA TG-250 con CHILY OCV + SENS
A TESTA RISCALDATA (TESTA MeC originale); linea girevole con tubo
di cava 180° e TERMOREGOLAZIONE SCATELLO (RSCOMPENSAT) - CIAS COCKER
MeC SM 307041753.

sui seguenti punti di emissione:

1. CAMINO TURBANO dalle ore 8:00	5.
2. <u>fuoco alle ore 11:40</u>	6.
3.	7.
4.	8.

NOTE AGGIUNTIVE: L'ASSISTENZA È STATA EFFETTUATA IN RELAZIONE
ALLA ISTANZA AMBIENTALE IN OLIARE ALL'A.I.A. - I RILEVAMENTI
SONO STATI CONSTATI ALLA PRESENZA DEL CAPE CENTRALE
DEL DI NANA ANGELO UTO & PROVVISORI IL 03/10/09
è residente a Termoli in via delle Piave n° 39. In copia sono
copie delle Determina n° 69/294 del 23/12/1978.

DICHIARAZIONI DI PARTE: NULLA

ENEL S.P.A.
Divisione GEM
IL RESPONSABILE (Firma e timbro)
C.le Turbogas Campotrano
Il Responsabile
A. Di Maria

DIPARTIMENTO
ARPA MOLISE
VERBALIZZANTI
Stefano
Aliberti
TERMOLI



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PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

PG-250 Portable Gas Analyser Pre-conditioner PS200

manufactured by:

Horiba Limited
*Miyano Higashi
Kisshoin
Minami-Ku
Kyoto
Japan*

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

MCERTS Performance Standards for Continuous Emission Monitoring Systems, Version 2, Revision 1 (April 2003)

Certification Ranges :

CO	0 to 95 mg/m ³
NO/NOx	0 to 125 mg/m ³
SO ₂	0 to 460 mg/m ³
CO ₂	0 to 20 % vol
O ₂	0 to 25 % vol

Project No:	674/0191
Certificate No:	Sira MC 050056/02
Initial Certification:	11 February 2005
This Certificate Issued	17 June 2008
Renewal Date:	10 February 2010

Technical Director

MCERTS is operated on behalf of the Environment Agency by

Sira Certification Service

12 Acorn Industrial Park, Crayford Road, Crayford
Dartford, Kent, UK, DA1 4AL

Tel: 01322 520500 Fax: 01322 520501

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Approved Site Application

Any potential user should ensure, in consultation with the manufacturer, that the emission monitoring system is suitable for the process on which it will be installed. For general guidance on stack emission monitoring techniques refer to Environment Agency Technical Guidance Note M2: Monitoring of stack emissions to air. This is available on the Agency's website at www.environment-agency.gov.uk

On the basis of these tests and the ranges required for compliance with EU Directives this instrument is considered suitable for use on large combustion plant applications.

The PG250 is designed for operation under normal conditions and environment and has not been designed for use in extreme conditions.

Note: The instrument should not be subjected to rainfall or water droplets

Note: The manufacturer states that samples must not contain any corrosive or reactive gas

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:

TÜV Köln	Report No. 936/809014 dated 20.01.01
TÜV Köln	Report No. 936/21205608/A dated 09/05/06
Scientific	Report No. LAB 06550 V1 dated 01/11/06

TÜV reports are accepted on the basis of the Environment Agency's document 'MCERTS – Guidance on the acceptance of German type approval test reports for CEMS' Version 2 (October 2003)

Product Certified

The PG250 measuring system consists of the following parts:

- PG250 analyser with sampling pump
- Built-in electronic cooler
- A condensate separator
- NO₂ to NO converter
- Heated sample probe and filter
- 5 meter heated line
- A supplementary cooler PS200

This certificate applies to all instruments fitted with software version P1000500001A onwards (serial number 41554990101 onwards).

Certificate No: Sira MC 050056/02
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Certified Performance

The instrument was evaluated for use under the following conditions:
Ambient Temperature Range: 5°C to 40°C

Unless otherwise stated the evaluation was carried out on the certification range CO 0 to 95 mg/m³, CO₂ 0 to 20%vol, NO_x 0 to 125mg/m³, SO₂ 0 to 460mg/m³, O₂ 0 to 25%vol.

Test	Results expressed as % of max of certification range				Other results	MCERTS specification
	<0.5	<1	<2	<4		
Linearity	CO, NO	-0.4				<±2%
	SO ₂		0.8			<±2%
	CO ₂		-0.6			<±2%
	NO ₂			1.3		<±2%
	O ₂	0.13				<±0.3%vol
Cross sensitivity (H ₂ O, CO, CO ₂ , CH ₄ , N ₂ O, NO, NO ₂ , NH ₃ , SO ₂ , HCl)				2.9		
	CO			1.5		<±4%
	SO ₂			1.2		<±4%
	NO					<±4%
	NO ₂	0.0	0.7			<±4%
	CO ₂					<±4%
	O ₂		0.56			<±4%
Temperature dependent zero shift						
	CO	0.05				<±0.3%/°C
	SO ₂ , NO, NO ₂ , CO ₂	0.01				<±0.3%/°C
	O ₂	-0.03				<±0.5%vol/°C

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Test	Results expressed as % of max of certification range				Other results	MCERTS specification
	<0.5	<1	<2	<4		
Temperature dependent upper reference point shift						
CO	0.05					<±0.3%/°C
SO ₂	0.15					<±0.3%/°C
NO	0.18					<±0.3%/°C
NO ₂	0.13					<±0.3%/°C
CO ₂	0.04					<±0.3%/°C
O ₂	-0.07					<±0.5%vol/°C
Response time						
All gases except SO ₂					60s	<200s
SO ₂					160s	<200s
Detection limit						
CO	0.14					<±2%
SO ₂	0.11					<±2%
NO, CO ₂	0.01					<±2%
NO ₂	0.02					<±2%
O ₂	0.01					<±0.2%vol
Vibration (10 to 60Hz (±0.3mm), 60 to 150Hz at 19.6m/s ²)					See Note 1	To be reported
Mains voltage (190V to 250V)					Pass	Not specified
Sample gas pressure					See Note 2	To be reported
Sample gas temperature					See Note 2	To be reported
Analysis function ^{Note 3}						
CO					98.7%	>95%
CO ₂					97.8%	>95%
O ₂					99.9%	>95%

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Test	Results expressed as % of max of certification range				Other results	MCERTS specification
	<0.5	<1	<2	<4		
Integral performance ^{Note 3}						
SO ₂ , NO ₂					<10%	<10%
NO					<10%	<10%
Availability ^{Note 3}					99.3%	>95%
Maintenance interval ^{Note 3}						
All gases except O ₂					8 days	To be reported
O ₂					3 weeks	To be reported
Zero drift ^{Note 3}						
CO			1.8			<±2%/week
SO ₂ , NO			2.0			<±2%/week
CO ₂		0.8				<±2%/week
O ₂	-0.09					<±0.2%vol/week
Span drift ^{Note 3}						
CO			2.0			<±4%/week
SO ₂ , NO			1.9			<±4%/week
CO ₂			1.7			<±4%/week
O ₂	0.20					<±0.2%vol/week

Note 1: A visual examination did not identify any stack-mounted components that are likely to be effected by vibration. Hence the test was not performed.

Note 2: Tests not applicable.

Note 3: Field test was performed over 3 months on a refuse incineration plant.

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Description:

The PG250 is a portable gas analyser that uses an extractive system for measuring CO, NO or NO_x, SO₂, CO₂ and O₂. The analyser uses three measurement principles, chemiluminescence for NO, non-dispersive infrared (NDIR) for the measurement CO, CO₂, SO₂. O₂ is measured using a zirconia cell. The instrument measures a maximum of five gas components.

The PG250 system contains the analyser unit with sampling pump; a built-in electronic cooler for the removal of water vapour where the levels of moisture are low; a condensate separator; an NO₂ to NO converter for NO_x measurement; a heated sample probe; a 5 metre heated line and a supplementary cooler (the PS 200).

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 for certificate No. Sira MC 050056/02.
2. If certified product is found not to comply, Sira Certification Services 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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