

TEST REPORT n. 1880-CPR-015-004-23

Initial Type Testing

Roomheaters fired by solid fuels
EN 13240:2001
EN 13240:2001/AC:2006
EN 13240:2001/A2:2004/AC:2007
EN 13240:2001/A2:2004/AC:2006
EN 13240:2001/A2:2004

Manufacturer: CS THERMOS SRL
VIA PADANIA, 35
31020 SAN VENDEMIANO (TV)
ITALY

Type designation: TRILLI 80

Type of appliance: Roomheater fired by wood without water heat exchanger.

Receipt date: March 09, 2023

Start test date: March 13, 2023

End test date: March 15, 2023

Testing laboratory: ACTECO SRL – Notified Body 1880
via Amman, 41
33084 Cordenons (PN)
Italy

Issue date: March 31, 2023

Head of Test Laboratory
Dr.ssa Claudia Marcuzzi

The results of the tests relate only to the tested appliance.
This test report shall not be reproduced except in full, without written approval of the laboratory.
The appliance was returned to the manufacturer after the end of tests.
All data is stored for 10 years

Pag. 1 / 5

TEST REPORT n. 1880-CPR-015-004-23

Task

ACTECO SRL was instructed to execute initial type testing to establish compliance according to the:

- UNI EN 13240:2006 (EN 13240:2001 + EN 13240:2001/A2:2004 + EN 13240:2001/A2:2004/AC:2006 + EN 13240:2001/A2:2004/AC:2007 + EN 13240:2001/AC:2006). Roomheaters fired by solid fuels.
- UNI CEN/TS 15883:2009 Residential solid fuel burning appliances. Emission test methods
- Client's documents

The practical tests were performed in the laboratory in Cordenons (PN), via Amman, 41.

The type designation indicated in page 1 is identical to the already tested appliance designated “**TRILLI 60**”. The practical tests were performed in the laboratory in Cordenons (PN), via Amman, 41 (see Test Reports: n°1880-CPR- 015-22; n°1880-CPR- 015-CL-22; n°1880-CPR- 015-001-22).

In the type designation:

TRILLI 80

the difference regards the cover design. The main parts, components, combustion room, heating parts are identical.

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Pag. 2 / 5

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Description of the appliance

Inset appliance fired by wood without water heat exchanger.

The combustion air is taken from the test room.

Key data of appliance

Appliance	TRILLI 80	
Fuel		wood logs
Fuel throughput	kg/h	1,56
Total heating output	kW	6,1
Carbon monoxide	mg/MJ	244
Carbon monoxide [at 13% O ₂]	mg/m ³	367
Dust emission	mg/MJ	16
Dust emission (at 13% O ₂)	mg/m ³	23
NO _x (as NO ₂)	mg/MJ	65
NO _x (as NO ₂ at 13% O ₂)	mg/m ³	98
OGC (as C)	mg/MJ	20
OGC (as C at 13% O ₂)	mg/m ³	30
Efficiency	%	91,2
Flue gas temperature	°C	104
Necessary flue draught	Pa	11,7
Flue gas mass flow	g/s	6,5
Minimum clearance distances from exposed / combustibile materials	from rear wall from side walls	300 mm 200 mm

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Pag. 3 / 5

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STATEMENTS OF THE TEST RESULTS

The following requirements of UNI EN 13240:2006 (EN 13240:2001 + EN 13240:2001/A2:2004 + EN 13240:2001/A2:2004/AC:2006 + EN 13240:2001/A2:2004/AC:2007 + EN 13240:2001/AC:2006) are met:

- materials, design and construction requirements specified in clause 4 (as declared by the manufacturer);
- the safety requirements specified in clause 5;
- the performance requirements specified in clause 6;
- the installation and operating instructions requirements specified in clause 7;
- the marking information requirements specified in clause 8.

PERFORMANCE AT THE NOMINAL HEAT OUTPUT TEST

Parameter		result	EN 13240 limit
carbon monoxide [at 13% O ₂]	%	0,029	< 1
efficiency	%	91,2	> 50

The appliance **TRILLI 80** of **CS THERMOS SRL** complies with the requirements of the harmonized European standard UNI EN 13240:2006 (EN 13240:2001 + EN 13240:2001/A2:2004 + EN 13240:2001/A2:2004/AC:2006 + EN 13240:2001/A2:2004/AC:2007 + EN 13240:2001/AC:2006).

Compliance with the clauses of the harmonized European standard UNI EN 13240:2006 confers a presumption of fitness of the appliance covered by annex ZA for the intended uses indicated by the quoted above normative; reference shall be made to the information accompanying the CE marking.

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Pag. 4 / 5

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The requirements for CO, NO_x, OGC and dust emissions and for efficiency German BIMSChv, French Flamme Verte and Swiss LRV for appliances hand fired by wood are the following.

German BIMSChv limits (at 13% O₂)

CO [mg/m ³]	dust [mg/m ³]	efficiency [%]
1250	40	75

Swiss LRV limits (at 13% O₂)

CO [mg/m ³]	dust [mg/m ³]
1500	75

French Flamme Verte limits (at 13% O₂)

CO [mg/m ³]	NO _x [mg/m ³]	dust [mg/m ³]	OGC [mg/m ³]	efficiency [%]	Dust + OGC [mg/m ³]
1500	200	40	120	65	150

Ecodesign limits (at 13% O₂)

CO [mg/m ³]	NO _x [mg/m ³]	dust [mg/m ³]	OGC [mg/m ³]	seasonal efficiency [%]
1500	200	40	120	65

The appliance **TRILLI 80** of **CS THERMOS SRL** fulfils the requirements of

- German BIMSChv
- Swiss LRV limits
- Flamme Verte
- Ecodesign.

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Pag. 5 / 5