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## COMPARATIVE STUDY OF A CONSTRUCTION FIREPLACE WITHOUT AND WITH A HOTFIREDOOR ENCLOSURE.

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**File number: 23/32300955-R ENGLISH VERSION**

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**Reference of the petitioner:**

**FERROGÓN METAL SLU**  
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08290 Cerdanyola del Vallès  
Barcelona

**Date:**  
05<sup>th</sup> September, 2023

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LGAI Technological Center S.A. (Applus)

Responsible of Thermal Tests  
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File nº **23/32300955-R ENGLISH VERSION**

Summary report of the file bearing number 23/32300955

Date at which the sample was received: 17/03/2023

Date at which the test was performed: Start: 02/05/2023 End: 06/05/2023

## RESULTS

The results obtained during the tests based on the UNE-EN 13240 standards in the laboratory have been:

- Performance:

	Ud.	Open	with Hotfiredoor	Difference absolute	Percentage
<b>Efficiency</b>	%	31	70	39	x2,26
<b>Nominal heat output</b>	kW	3,9	15,7	11,8	x4,03
<b>Energy efficiency index</b>	--	35	92	57	x2,63

- Emissions:

	Ud.	Open	with Hotfiredoor	Difference absolute	Percentage
<b>Emission of CO at 13% O<sub>2</sub></b> (1)	%	0,81	0,20	-0,61	x-4,05
<b>Emission of NOx at 13% O<sub>2</sub></b> (2)	mg/m <sup>3</sup>	13,29	16,58	3,29	x1,25
<b>Emission of OGC at 13% O<sub>2</sub></b> (3)	mg/m <sup>3</sup>	244,21	29,57	-214,64	x-8,26
<b>Emission of PM<sub>HF</sub> at 13% O<sub>2</sub></b> (4)	mg/m <sup>3</sup>	1431,95	86,03	-1345,92	x-16,64

- (1) Carbon monoxide emission corrected to 13% oxygen  
 (2) Emission of nitrogen oxides corrected to 13% oxygen  
 (3) Emission of volatile organic carbon corrected to 13% oxygen  
 (4) Particle emission corrected to 13% oxygen

