



Testing Laboratory 1045.1 accredited by the Czech Accreditation Institute pursuant to  
ČSN EN ISO/IEC 17025:2018

**Strojírenský zkušební ústav, s.p. Zkušební laboratoř**  
**(Engineering Test Institute, Public Enterprise, Testing Laboratory)**  
**Hudcova 424/56b, Medlánky, 621 00 Brno**

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## INITIAL TYPE TEST REPORT 30-16100/T

**Product:** Fireplace stove for wood

**Type designation:** Kat I (trade mark Sofia 6/8)  
Kat II (trade mark Sofia 10/14)  
Kat III

**Customer:** Stove Italia srl  
Via del Santo 11/B  
35010 Loreggia  
ITALY

**Manufacturer:** Stove Italia srl  
Via del Santo 11/B  
35010 Loreggia  
ITALY

**Employee responsible:** Ing. Radek Machara

**Report issue date:** 2022-06-10

**Distribution list:** 1 copy to the Customer  
1 copy to the Engineering Test Institute

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The tests were performed based on these documents:

- Order B-76446 of 2022-05-18
- Contract B-76446/30
- Amendment to the contract 0215-RaM/27627 of 2022-06-01

## **I. Description of product tested**

Hot air wood stoves Kat I, Kat II, Kat III are designed for additional heating and heating of living rooms and adjacent rooms by connecting to the central heating system, ie in an ordinary environment.

The fireplace stove consists of a steel weldment.

Primary and secondary air is supplied to the grate-free furnace by means of a pull rod under the door. Secondary air vents at the top of the fireplace.

Tertiary combustion air is supplied to the center of the furnace through a pipe, which is part of the metal deflector.

A catalyst grid is located in the flue.

The products are designed for interrupted operation.

A more detailed description is given in the operating and installation manual, which is an integral part of the documentation.

### **Basic technical data of the fireplace stove for wood**

(Table 1)

Type	Main dimensions (mm)			Nominal output (kW)	Fuel consumption-wood (kg/h)	Flue gas connector diameter (mm)	Flue draught (Pa)
	Height	Width	Depth				
Kat I (trade mark Sofia 6/8)	765	567	354	8	2.5	120	12
Kat II (trade mark Sofia 10/14)			537	13	4.1		
Kat III			720	18	5.5		

## **II. Sample tested**

(Table 2)

SZU reg. no.	Product name	Date of submission
0215.22.36555.002	Kat I	2022-06-06
0215.22.36655.003	Kat II	2022-06-08
0215.22.36555.001	Kat III	2022-06-07

The visual inspection, tests and verification were carried out by Radim Řepka at the test station of SZU

The tests were performed using measuring and testing equipment with valid calibration.

**III. Measuring and test equipment:**

(Table 3)

No.	Name	Inventory number:	Calibration valid until:
1.	Barometer	MaR09_B	06/2023
2.	Thermometer – ambient	MaR10+11_V	06/2023
3.	Hygrometer	MaR10+11_V	06/2023
4.	Draught gauge	MaR08_Tah	07/2023
5.	Scale	022333	03/2024
6.	THERM	021763	01/2023
7.	Analytical scale	021458	04/2023
8.	Calliper	ME 543	06/2022
9.	Combustion product analyser	022317	x
10.	Elemental analyser	022305	
11.	Gravimat	ME 583	09/2023
12.	Kit of temperature measurement	022399-A_T	11/2023

Note: x... Verified using calibration standards prior to measurement  
 + ... ± 5% of the values measured

## Uncertainty of measurement

(Table 4)

Parameter measured	Uncertainty of measurement
Gas analysis	
CO	≤ 6 % of the limit values in Table 8
CO <sub>2</sub>	≤ 2 %
O <sub>2</sub>	≤ 2 %
Temperature	
Flue gas	≤ 5 K
Ambient room	≤ 1.5 K
Water	≤ 0.5 K
Surface	≤ 2 K
Touchable Area	≤ 2 K
Water flow	≤ 0.005 m <sup>3</sup> /h
Static pressure	≤ 2 Pa
Mass	
- fuel consumption	± 20 g
- residue	± 5 g
- fuel load ≤ 7.5 kg	± 5 g
- fuel load > 7.5 kg	± 10 g

The following expanded measurement uncertainties have been calculated as the coefficient of measurement uncertainty and the expanded coefficient  $k = 2$ , which corresponds to a coverage probability of 95% for normal distribution.

If a statement of conformity is given, the decision rule pursuant to ILAC-G8: 09/2019 Art. 4.2.1 – binary statement for the simple acceptance rule shall be used.



**Test title:** Structural safety

**Requirement specification:** ČSN EN 13240/A2:2005 Art. 4.2.4, 4.2.5, 4.2.9

**Sample tested:** Fireplace stove for wood Kat I, Kat II, Kat III

**Measuring equipment used:** No. 8, Table 3

Required product properties	Requirement specification	Test result	Note
<b>CSN EN 13240/A2:2005 Art.:</b>			
<p><b>Flue spigot or socket</b> For horizontal flue connection, the flue spigot/socket shall be designed to allow fitting, internal or external, over a length of at least 40 mm, of a flue gas connector. For vertical flue connection, the fitting shall overlap by at least 25 mm. NOTE For inset appliances (made for fireplace recesses) with a vertical chimney flue connection and where the manufacturer's installation instructions specify, in addition to the flue gas connector, that an insulating mortar infill should be added around the connector to seal the appliance to the chimney flue, then in this case it is permissible for the flue spigot/socket overlap to be reduced to a minimum of 6 mm.</p>	4.2.4	+	Vertical, from top 150 mm
<p><b>Flueways</b> The size of the flueway in its minimum dimension shall be not less than 30 mm except it shall be permissible to reduce it to not less than 15 mm for appliances designed only to burn fuels other than bituminous coals and peat briquettes, and where an access door(s) is provided for cleaning the flueway. It shall be possible to clean the flueways of the appliance completely using commercially available tools or brushes, unless special tools or brushes are provided by the appliance manufacturer.</p>	4.2.5	+	> 50 mm
<p><b>Control of flue gas</b> If a flue damper is fitted it shall be of a type, which does not block the flue totally. The damper shall be easy to operate and incorporate an aperture within the blade, which in a continuous area occupies at least 20 cm<sup>2</sup> or 3 % of the cross-sectional area of the blade if this is greater. The position of the damper shall be recognizable from the setting of the device. If a draught regulator is fitted the minimum cross sectional area requirement shall not be applicable but the device shall be easily accessible for cleaning.</p>	4.2.9	0	

\*) Evaluation result:  
+ .... Requirement fulfilled  
0 .... Requirement does not apply to the product in question



**Accredited test number and title:** T 004 **Test of residential solid fuel burning appliances – Roomheaters**  
T 005 **Test of heat output**  
**Test of flue gas composition**

**Test method:** ČSN EN 13240/A2:2005 Art. A1-A6, FprEN 16510-1 Annexes A-I, FprEN 16510-2-1 Annexes A-I

**Sample tested:** Fireplace stove for wood Kat I, Kat II, Kat III  
**Measuring equipment used:** Nos 1 + 12 – see Measuring and Test Equipment  
**Test results:** Kat I

Date of testing:	2022-06-06	$t_{ok} = 18$	°C	r.h. = 23	%	$p_a = 98.3$	kPa			
Place of testing:	At SZU	<input checked="" type="checkbox"/>	At the Manufacturer's premises	<input type="checkbox"/>	At the Customer's premises	<input type="checkbox"/>	Other:			
<b>Values measured and calculated:</b>	Unit					Limit acc. to:				
<b>Nominal output</b>		1	2	3	Average	EN 13240	DIN+	15a-BvG	I.BImSchV Stufe 2	
Fuel used: Hornbeam wood	mm	330								
Combustion air setting – primary/secondary-common	mm	55/55								
Mass of the test fuel fired hourly	kg/h	2,38	2,45	2,60	2,50					
Input attained	kW	9,9	10,2	10,9	10,3					
Combustion air temperature	°C	18	18	18	18					
Flue draught	Pa	12	12	12	12					
Average flue gas temperature	°C	241	227	231	233					
CO <sub>2</sub>	%	8,26	8,78	9,59	8,88					
CO – measured	%	0,0892	0,0662	0,0690	0,0748					
CO – at O <sub>2</sub> = 13 %	%	0,0855	0,0590	0,0557	0,0667					
CO – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	1068	737	697	834		≤1500		≤1250	
CO – at O <sub>2</sub> = 0 %	mg/MJ	738	509	482	576			≤1100		
NO <sub>x</sub> – measured	ppm	67	80	77	75					
NO <sub>x</sub> – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	133	147	128	136		≤200			
NO <sub>x</sub> – at O <sub>2</sub> = 0 %	mg/MJ	92	101	88	94			≤150		
OGC – measured	ppm	70	58	50	59					
OGC (TOC) – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	120	93	72	95		≤120			
OGC (TOC) – at O <sub>2</sub> = 0 %	mg/MJ	83	64	50	66			≤50		
Chimney loss	%	20,8	18,4	17,4	18,9					
Proportion of losses through latent heat	%	0,7	0,5	0,5	0,6					
Proportion of losses through combustible constituents in the residue	%	0,5	0,5	0,5	0,5					
Efficiency	%	78,0	80,6	81,7	80,1		≥75	≥80	≥75	
Total heat output attained	kW	7,7	8,2	8,9	8,3					
Heat output – uncertainty	kW	0,3	0,3	0,3	0,3					
Water heat output attained	kW	-	-	-	-					
Nominal heat output	kW	8,0								
Dry flue gases mass flow	g/s	8,2	8	7,9	8					

CO <sub>2</sub>	%	8,37	9,15	10,31	9,28					
Dust – measured	mg/Nm <sub>3</sub>	32	17	62	37					
Dust (TZL) – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	30	15	47	31		≤75		≤40	
Dust (TZL) – at O <sub>2</sub> = 0 %	mg/MJ	21	11	35	22			≤35		
Dust – uncertainty	mg/Nm	4	2	6	4		≤75		≤40	



**Test results: Kat II**

Date of testing:	2022-06-08	$t_{ok} = 25$	°C		r.h. = 38	%		$p_a = 98.5$	kPa		
Place of testing:	At SZU	<input checked="" type="checkbox"/>	At the Manufacturer's premises			<input type="checkbox"/>	At the Customer's premises		Other:		
Values measured and calculated: Nominal output	Unit							Limit acc. to:			
		1	2	3	Average	EN 13240	DIN+	15a-BvG	I.BImSchV Stufe 2		
Fuel used: Hornbeam wood	mm	330									
Combustion air setting – primary/secondary-common	mm	75/85									
Mass of the test fuel fired hourly	kg/h	3,95	3,84	4,40	4,10						
Input attained	kW	16,9	16,5	19,0	17,5						
Combustion air temperature	°C	19	19	20	19						
Flue draught	Pa	12	12	12	12						
Average flue gas temperature	°C	284	292	265	281						
CO <sub>2</sub>	%	9,55	9,16	9,07	9,26						
CO – measured	%	0,1353	0,1411	0,1262	0,1342						
CO – at O <sub>2</sub> = 13 %	%	0,1117	0,1198	0,1085	0,1133						
CO – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	1397	1497	1356	1417		≤1500			≤1250	
CO – at O <sub>2</sub> = 0 %	mg/MJ	991	1062	962	1005			≤1100			
NO <sub>x</sub> – measured	ppm	73	61	55	63						
NO <sub>x</sub> – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	123	107	98	109		≤200				
NO <sub>x</sub> – at O <sub>2</sub> = 0 %	mg/MJ	88	76	69	78			≤150			
OGC – measured	ppm	82	77	64	74						
OGC (TOC) – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	122	118	99	113		≤120				
OGC (TOC) – at O <sub>2</sub> = 0 %	mg/MJ	87	84	70	80			≤50			
Chimney loss	%	21,7	23,2	21,1	22,0						
Proportion of losses through latent heat	%	0,9	1,0	0,9	1,0						
Proportion of losses through combustible constituents in the residue	%	0,5	0,5	0,5	0,5						
Efficiency	%	76,9	75,3	77,5	76,5		≥75	≥80		≥75	
Total heat output attained	kW	13,0	12,4	14,7	13,4						
Heat output – uncertainty	kW	0,3	0,3	0,3	0,3						
Water heat output attained	kW	-	-	-	-						
Nominal heat output	kW	13.0									
Dry flue gases mass flow	g/s	8,2	8	7,9	8,0						
CO <sub>2</sub>	%	8,37	9,15	10,31	9,28						
Dust – measured	mg/Nm <sub>3</sub>	32	17	62	37						
Dust (TZL) – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	30	15	47	31		≤75			≤40	
Dust (TZL) – at O <sub>2</sub> = 0 %	mg/MJ	21	11	35	22			≤35			
Dust – uncertainty	mg/Nm	4	2	6	4		≤75			≤40	





**Test results: Kat III**

Date of testing:	2022-06-07	$t_{ok} = 25$	°C		r.h. = 22	%	$p_a = 98.2$	kPa	
Place of testing:	At SZU	<input checked="" type="checkbox"/>	At the Manufacturer's premises		<input type="checkbox"/>	At the Customer's premises		<input type="checkbox"/>	Other:
<b>Values measured and calculated: Nominal output</b>	Unit					<b>Limit acc. to:</b>			
		1	2	3	Average	EN 13240	DIN+	15a-BvG	I.BImSchV Stufe 2
Fuel used: Hornbeam wood	mm	330							
Combustion air setting – primary/secondary-common	mm	110/60							
Mass of the test fuel fired hourly	kg/h	5,50	5,42	5,70	5,50				
Input attained	kW	23,6	23,2	24,5	23,8				
Combustion air temperature	°C	20	20	20	20				
Flue draught	Pa	12	12	13	12				
Average flue gas temperature	°C	298	306	339	314				
CO <sub>2</sub>	%	9,74	10,94	12,60	11,09				
CO – measured	%	0,0349	0,0606	0,1526	0,0827				
CO – at O <sub>2</sub> = 13 %	%	0,0271	0,0415	0,0889	0,0525				
CO – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	339	519	1112	657		≤1500		≤1250
CO – at O <sub>2</sub> = 0 %	mg/MJ	240	368	789	466			≤1100	
NO <sub>x</sub> – measured	ppm	72	78	77	76				
NO <sub>x</sub> – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	115	110	92	106		≤200		
NO <sub>x</sub> – at O <sub>2</sub> = 0 %	mg/MJ	82	78	65	75			≤150	
OGC – measured	ppm	26	58	138	74				
OGC (TOC) – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	37	72	149	86		≤120		
OGC (TOC) – at O <sub>2</sub> = 0 %	mg/MJ	26	51	106	61			≤50	
Chimney loss	%	22,7	21,1	20,9	21,6				
Proportion of losses through latent heat	%	0,2	0,4	0,8	0,5				
Proportion of losses through combustible constituents in the residue	%	0,5	0,5	0,5	0,5				
Efficiency	%	76,6	78,0	77,9	77,5		≥75	≥80	≥75
Total heat output attained	kW	18,1	18,1	19,1	18,4				
Heat output – uncertainty	kW	0,4	0,4	0,4	0,4				
Water heat output attained	kW	-	-	-	-				
Nominal heat output	kW	18.0							
Dry flue gases mass flow	g/s	16,6	14,6	13,3	14,8				
CO <sub>2</sub>	%	10,70	11,93	13,88	12,17				
Dust – measured	mg/Nm <sub>3</sub>	11	32	60	34				
Dust (TZL) – at O <sub>2</sub> = 13 %	mg/Nm <sub>3</sub>	8	20	32	20		≤75		≤40
Dust (TZL) – at O <sub>2</sub> = 0 %	mg/MJ	6	16	25	15			≤35	
Dust – uncertainty	mg/Nm	2	3	4	3		≤75		≤40



**Fuel analysis:**

Type of fuel	Hornbeam wood		
Analytical indicator	Symbol	Unit	Value
Carbon	C	[ % of mass ]	43.6
Hydrogen	H	[ % of mass ]	6.2
Total water in original state	$W_t$	[ % of mass ]	12.3
Ash	A	[ % of mass ]	0.46
Net calorific value	$Q_j$	[ kJ/kg ]	15430

*Note:* Sample in original state

Analytical indicator	Symbol	Unit	Value
Carbon	C	[ % of mass ]	42.19
Hydrogen	H	[ % of mass ]	5.59
Total water in original state	$W_t$	[ % of mass ]	14.08
Ash	A	[ % of mass ]	0.52
Net calorific value	$Q_j$	[ kJ/kg ]	14930

*Note:* Sample in original state



**Accredited test number and title:** T 004 Test of residential solid fuel burning appliances – Roomheaters  
 T 005 Adjustability test

**Test method:** ČSN EN 13240/A2:2005 Art. A1-A6, FprEN 16510-1 Annexes A-I, FprEN 16510-2-1 Annexes A-I

**Sample tested:** Fireplace stove for wood Kat I, Kat II, Kat III

**Measuring equipment:** Nos. 1 ÷ 7, 12 see Table – Measuring and test equipment

**Test results: Kat I**

Date of testing:	2022-06-06	$t_{ok} = 18$	°C	r.h. = 23	%	$p_a = 98.3$	kPa
Place of testing:	at the Engineering Test Institute	x	at the manufacturer	<input type="checkbox"/>	at the customer	<input type="checkbox"/>	other:
<b>Variables measured and calculated</b>		<b>Unit</b>		<b>Value</b>		<b>Limit</b>	<b>Note</b>
<b>Fuel used:</b> wood		mm		330			
Fuel consumption		kg/h		0.82			
Heat input achieved		kW		2.70			
Room and combustion air temperature		°C		18			
Chimney draught		Pa		5		± 1 Pa	
Average combustion product temperature		°C		211			
Period of burning		min		36			
Combustion process restoration, after (time)		min		1		≤20	
Note:	The power input of the appliance is regulable within 33-100% by means of gradual setting of the regulator of primary combustion air supply.						

**Test results: Kat II**

Date of testing:	2022-06-08	$t_{ok} = 25$	°C	r.h. = 38	%	$p_a = 98.5$	kPa
Place of testing:	at the Engineering Test Institute	x	at the manufacturer	<input type="checkbox"/>	at the customer	<input type="checkbox"/>	other:
<b>Variables measured and calculated</b>		<b>Unit</b>		<b>Value</b>		<b>Limit</b>	<b>Note</b>
<b>Fuel used:</b> wood		mm		330			
Fuel consumption		kg/h		1.34			
Heat input achieved		kW		4.40			
Room and combustion air temperature		°C		19			
Chimney draught		Pa		7		± 1 Pa	
Average combustion product temperature		°C		262			
Period of burning		min		44			
Combustion process restoration, after (time)		min		2		≤20	
Note:	The power input of the appliance is regulable within 33-100% by means of gradual setting of the regulator of primary combustion air supply.						



**Test results: Kat III**

Date of testing:	2022-06-07	$t_{ok} = 25$	°C	r.h. = 22	%	$p_a = 98.2$	kPa
Place of testing:	at the Engineering Test Institute	<input checked="" type="checkbox"/>	at the manufacturer	<input type="checkbox"/>	at the customer	<input type="checkbox"/>	other:
<b>Variables measured and calculated</b>		<b>Unit</b>	<b>Value</b>	<b>Limit</b>	<b>Note</b>		
<b>Fuel used:</b> wood		mm	330				
Fuel consumption		kg/h	1.83				
Heat input achieved		kW	6.10				
Room and combustion air temperature		°C	20				
Chimney draught		Pa	7	± 1 Pa			
Average combustion product temperature		°C	296				
Period of burning		min	33				
Combustion process restoration, after (time)		min	2	≤20			
Note:	The power input of the appliance is regulable within 33-100% by means of gradual setting of the regulator of primary combustion air supply.						



**Accredited test number and title:** **T 004 Test of residential solid fuel burning appliances – Roomheaters**  
**T 005 Flue gas temperature and surface temperature test**

**Test method:** ČSN EN 13240/A2:2005 Art. A1-A6, FprEN 16510-1 Annexes A-I, FprEN 16510-2-1 Annexes A-I

**Sample tested:** Fireplace stove for wood Kat I, Kat II, Kat III

**Measuring equipment used:** Nos 1 + 2, 6, 7, 12 – see Measuring and Test Equipment

**Test results: Kat I**

Date of testing:	2022-06-06	$t_{ok} = 18$	°C	r.h. = 23	%	$p_a = 98.3$	kPa
Place of testing:	At SZU	<input checked="" type="checkbox"/>	At the Manufacturer's premises	<input type="checkbox"/>	At the Customer's premises	<input type="checkbox"/>	Other:

Measured point	Material	Temperature rise (K)	
		Measured	Limit acc. to ČSN EN
Door handle	Metal	52*)	35
Catalyst handle		63*)	
Total air control		17	
Primary air control		17	
Secondary air control		23	
Chimney flap		148*)	

Average flue gas temperature after spigot	°C	274	-
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**Test results: Kat II**

Date of testing:	2022-06-08	$t_{ok} = 19$	°C	r.h. = 38	%	$p_a = 98.5$	kPa
Place of testing:	At SZU	<input checked="" type="checkbox"/>	At the Manufacturer's premises	<input type="checkbox"/>	At the Customer's premises	<input type="checkbox"/>	Other:

Measured point	Material	Temperature rise (K)	
		Measured	Limit acc. to ČSN EN
Door handle	Metal	58*)	35
Catalyst handle		-	
Total air control		9	
Primary air control		9	
Secondary air control		15	
Chimney flap		-	

Average flue gas temperature after spigot	°C	331	-
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**Test results: Kat III**

Date of testing:	2022-06-07	$t_{ok} = 20$	°C	r.h. = 22	%	$p_a = 98.2$	kPa
Place of testing:	At SZU	<input checked="" type="checkbox"/>	At the Manufacturer's premises	<input type="checkbox"/>	At the Customer's premises	<input type="checkbox"/>	Other:

Measured point	Material	Temperature rise (K)	
		Measured	Limit acc. to ČSN EN
Door handle	Metal	105*)	35
Catalyst handle		-	
Total air control		15	
Primary air control		15	
Secondary air control		20	
Chimney flap		-	
Average flue gas temperature after spigot		°C	

\*) Note: It is necessary to use the supplied glove to control the handle of the front door and control of total air. The table shows the highest temperatures.



**Accredited test number and title:** T 004 **Test of residential solid fuel burning appliances – Roomheaters**  
T 005 **Thermal overload test – Temperature rise of the surrounding flammable materials**

**Test method:** ČSN EN 13240/A2:2005 Art. A1-A6, FprEN 16510-1 Annexes A-I, FprEN 16510-2-1 Annexes A-I

**Sample tested:** Fireplace stove for wood Kat I, Kat II, Kat III

**Measuring equipment used:** Nos 1 ÷ 7, 12 – see Measuring and Test Equipment

**Test results Kat I**

Date of testing:	2022-06-06	$t_{ok} = 18$ °C	r.h. = 23 %	$p_a = 98.3$ kPa
Place of testing:	At SZU <input checked="" type="checkbox"/>	At the Manufacturer's premises <input type="checkbox"/>	At the Customer's premises <input type="checkbox"/>	Other: <input type="checkbox"/>

During nominal output test (A.4.9.1)

Test no.	Ambient temp.	Flue draught	Maximum temperature rise				Floor protector	Limit	Fuel quantity
			Trihedron – distance						
			mm						
			rear	side	front	above			
-	°C	Pa	K						kg/h
1	18	12	45	48	49	49	16	65	2.5

During thermal overload test (A.4.9.2)

Test no.	Ambient temp.	Flue draught	Maximum temperature rise				Floor protector	Limit	Fuel quantity
			Trihedron – distance						
			mm						
			rear	side	front	above			
-	°C	Pa	K						kg/h
1	20	15	52	58	56	58	19	65	5,2

\*) NOTE: The test corner was placed at the distance of 400 mm from the appliance rear wall.  
The test corner was placed at the distance of 400 mm from the appliance side wall.  
The test corner was placed at the distance of 800 mm from the front of the appliance.  
The test corner was placed at the distance of 800 mm above the appliance.  
Due to the high rise in temperature, the space underneath the stove cannot be used as storage of fuel  
The tables show the highest measured values.

After thermal overload test, no permanent deformation or damage to the appliance detected.



**Test results Kat II**

Date of testing:	2022-06-08	$t_{ok} = 25$ °C	r.h. = 38 %	$p_a = 98.5$ kPa
Place of testing:	At SZU <input checked="" type="checkbox"/>	At the Manufacturer's premises <input type="checkbox"/>	At the Customer's premises <input type="checkbox"/>	Other:

During nominal output test (A.4.9.1)

Test no.	Ambient temp.	Flue draught	Maximum temperature rise				Floor protector	Limit	Fuel quantity
			Trihedron – distance						
			mm						
			rear	side	front	above			
-	°C	Pa	K						kg/h
1	31	12	45	48	49	49	16	65	4.1

During thermal overload test (A.4.9.2)

Test no.	Ambient temp.	Flue draught	Maximum temperature rise				Floor protector	Limit	Fuel quantity
			Trihedron – distance						
			mm						
			rear	side	front	above			
-	°C	Pa	K						kg/h
1	31	15	52	58	56	58	19	65	5,2

\*) NOTE: The test corner was placed at the distance of 400 mm from the appliance rear wall.  
 The test corner was placed at the distance of 400 mm from the appliance side wall.  
 The test corner was placed at the distance of 800 mm from the front of the appliance.  
 The test corner was placed at the distance of 800 mm above the appliance.  
 Due to the high rise in temperature, the space underneath the stove cannot be used as storage of fuel  
 The tables show the highest measured values.

After thermal overload test, no permanent deformation or damage to the appliance detected.





**Test results Kat III**

Date of testing:	2022-06-07	$t_{ok} = 25$	°C	r.h. = 22	%	$p_a = 98.2$	kPa
Place of testing:	At SZU	<input checked="" type="checkbox"/>	At the Manufacturer's premises	<input type="checkbox"/>	At the Customer's premises	<input type="checkbox"/>	Other:

During nominal output test (A.4.9.1)

Test no.	Ambient temp.	Flue draught	Maximum temperature rise				Floor protector	Limit	Fuel quantity
			Trihedron – distance						
			mm						
			rear	side	front	above			
-	°C	Pa	K						kg/h
1	23	12	46	48	48	51	17	65	5.5

During thermal overload test (A.4.9.2)

Test no.	Ambient temp.	Flue draught	Maximum temperature rise				Floor protector	Limit	Fuel quantity
			Trihedron – distance						
			mm						
			rear	side	front	above			
-	°C	Pa	K						kg/h
1	24	15	53	61	60	58	22	65	10,3

\*) NOTE: The test corner was placed at the distance of 400 mm from the appliance rear wall.  
The test corner was placed at the distance of 400 mm from the appliance side wall.  
The test corner was placed at the distance of 800 mm from the front of the appliance.  
The test corner was placed at the distance of 800 mm above the appliance.  
Due to the high rise in temperature, the space underneath the stove cannot be used as storage of fuel  
The tables show the highest measured values.

After thermal overload test, no permanent deformation or damage to the appliance detected.

Tested by: Radim Řepka  
Reviewed and approved by: Ing. Radek Machara

Date: 2022-06-10 Signed:   
Date: 2022-06-10 Signed:

#### **IV. A list of referenced documents**

- Order B-76446 of 2022-05-18
- Contract B-76446/30
- Amendment to the contract 0215-RaM/27627 of 2022-06-01
- ČSN EN 13240:2002/A2:2005 – Roomheaters fired by solid fuel – Requirements and test methods
- Technical documentation (see Chapter II)

Test Report compiled by:        Ing. Jiří Dvořák

Test Report approved by:



Milan Holomek  
Heat and Environment-Friendly  
Equipment Test Station



– End of Test Report –