



Strojírenský zkušební ústav, s.p.
(Engineering Test Institute, Public Enterprise)
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Testing Laboratory 1045.1 accredited by the CAI pursuant to ČSN EN ISO/IEC 17025:2018

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TEST REPORT

30-17274/3/T

Product: Fireplace stove for wood

Type designation: AHLMA

Customer: MCZ GROUP SPA
Via La Croce, 8
33074 Vigonovo di Fontanafredda
ITALY

Manufacturer: MCZ GROUP SPA
Via La Croce, 8
33074 Vigonovo di Fontanafredda
ITALY

Report issue date: 2024-10-16

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

Test objective:	Hygiene, health and the environment Safety and accessibility in use Energy economy and heat retention						
Exact name of the test procedure:	1.4*, 1.5* - Tests of tightness, pressure resistance, thermal technical parameters, combustion efficiency, safety functions						
Test method:	ČSN EN 16510-1 ed. 2:2023, Art. A.4, A.4.1, A.4.2, A.4.3, A.4.4, A.4.6, A.4.7, A.4.10.4, A.6.2.1						
Sample tested:	AHLMA						
Measuring equipment used:	see Chapter III						
Date of test:	2018-05-22						
Ambient conditions:	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">26.0 °C</td> <td style="text-align:center;">39.0 %</td> <td style="text-align:center;">98.4 kPa</td> </tr> <tr> <td style="text-align:center;">Temperature</td> <td style="text-align:center;">Relative humidity</td> <td style="text-align:center;">Barometric pressure</td> </tr> </table>	26.0 °C	39.0 %	98.4 kPa	Temperature	Relative humidity	Barometric pressure
26.0 °C	39.0 %	98.4 kPa					
Temperature	Relative humidity	Barometric pressure					

Variables measured and calculated: Nominal and heat output	Unit	Tests n.				Limit according to: ČSN EN 16510-2-1:2023
		1	2	3	Average	
Fuel used: Beech wood	mm	250				
Combustion air setting	%	60 open				
Fuel consumption	kg/hour	1.82	1.78	1.82	1.80	
Achieved input	kW	7.8	7.6	7.8	7.8	
Ambient temperature in the room and combustion air temperature	°C	27	27	27	27	
Chimney draught	Pa	12	11	12	12	
Combustion product average temperature	°C	259	257	246	254	
Flue gas outlet temperature	°C	305				
CO ₂	%	12.00	11.46	9.99	11.15	
CO – measured	%	0.1422	0.0773	0.1168	0.1121	
CO – at O ₂ = 13 %	%	0.0932	0.0536	0.0936	0.0801	
CO – at O ₂ = 13 %	mg/Nm ³	1166	670	1170	1002	≤ 1500
CO – at O ₂ = 0 %	mg/MJ	843	485	847	725	
NO _x – measured	ppm	73	69	72	71	
NO _x – at O ₂ = 13 %	mg/Nm ³	99	98	118	105	≤ 200
NO _x – at O ₂ = 0 %	mg/MJ	71	71	85	76	
OGC – measured	ppm	96	41	45	61	
OGC – at O ₂ = 13 %	mg/Nm ³	115	52	65	77	≤ 120
OGC – at O ₂ = 0 %	mg/MJ	83	38	47	56	
Chimney loss	%	16.0	16.6	17.6	16.7	
Loss of gas underburning	%	0.8	0.5	0.8	0.7	
Loss of solid underburning	%	0.5	0.5	0.5	0.5	
Efficiency	%	82.7	82.5	81.1	82.1	
Total heat capacity achieved	kW	6.5	6.3	6.3	6.4	
Uncertainty of total heat output	kW	0.2	0.2	0.2	0.2	
Nominal capacity	kW	5.9				
Mass flow rate of dry combustion products	g/s	4.7	4.8	5.6	5.0	

CO ₂	%	12.28	11.63	10.39	11.44	
Dust– measured	mg/Nm ³	53	47	49	50	
Dust– at O ₂ = 13 %	mg/Nm ³	34	32	38	35	≤ 40
Dust– at O ₂ = 0 %	mg/MJ	25	24	28	26	