HALLSTATT

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:	HALLSTATT
Measuring equipment used:	see Chapter III
Date of test:	2022-08-29
Ambient conditions:	27.59 °C (Temperature) / 37.1 % (Relative humidity) / 99.029 kPa (Barometric pressure)

Variables measured and calculated: Nominal heat output	**Unit**	**Tests n.**				**Limit according to:**
		1	**2**	**3**	**Average**	**ČSN EN 16510-2-1:2023**
Fuel used: Hornbeam wood	mm	330				
Combustion air setting – primary/secondary	%	0/30				
Fuel consumption	kg/hour	3.68	3.65	3.68	3.67	
Achieved input	kW	15.8	15.6	15.8	15.7	
Ambient temperature in the room and combustion air temperature	°C	26	28	28	28	
Chimney draught	Pa	12	14	12	13	
Combustion product average temperature	°C	252	242	258	251	
Flue gas outlet temperature	°C	301				
CO_2	%	11.36	10.43	11.43	11.08	
CO – measured	%	0.0855	0.0453	0.0648	0.0652	
CO – at O_2 = 13 %	%	0.0640	0.0370	0.0483	0.0498	
CO – at O_2 = 13 %	mg/Nm^3	800	462	604	622	≤ 1500
CO – at O_2 = 0 %	mg/MJ	568	328	428	441	
NO_x – measured	ppm	78	80	78	79	
NO_x – at O_2 =13 %	mg/Nm^3	120	134	120	125	≤ 200
NO_x – at O_2 = 0 %	mg/MJ	85	95	85	88	
OGC – measured	ppm	28	13	28	23	
OGC – at O_2 = 13 %	mg/Nm^3	38	19	39	32	≤ 120
OGC – at O_2 = 0 %	mg/MJ	27	14	27	23	
Chimney loss	%	16.0	16.4	16.3	16.2	
Loss of gas underburning	%	0.5	0.3	0.4	0.4	
Loss of solid underburning	%	0.5	0.5	0.5	0.5	
Efficiency	%	83.0	82.9	82.9	82.9	
Total heat capacity achieved	kW	13.1	13.0	13.1	13.0	
Uncertainty of total heat output	kW	0.3	0.3	0.3	0.3	
Nominal capacity	kW	13.0				
Mass flow rate of dry combustion products	g/s	9.6	10.4	9.5	9.8	

CO_2	%	11.48	10.83	11.48	11.26	
Dust – measured	mg/Nm^3	36	39	37	37	
Dust – at O_2 = 13 %	mg/Nm^3	27	31	28	29	≤ **40**
Dust – at O_2 = 0 %	mg/MJ	19	23	20	20	