



FINAL REPORT

31-9690

Product: Hot-water boiler for solid fuel (wood pellets – C1)
with automatic fuel supply

Type designation: ECO TOP 33

Customer: Topling d.o.o.
Vojvode Stepe br. 6, 78340 Prnjavor
Bosnia and Herzegovina

Manufacturer: Topling d.o.o.
Vojvode Stepe br. 6, 78340 Prnjavor
Bosnia and Herzegovina

Report issue date: 2016-06-23

Distribution list: 1x copy to SZU (Engineering Test Institute)
1x copy to Customer



Conformity assessment was carried out according to ČSN EN 303-5:2013

Used certification scheme: ČSN EN ISO / IEC 17067:2014, Scheme 1a.

I. Specification of the product and its versions

The hot-water boiler for solid fuel (wood pellets – C1) with automatic fuel supply, ECO TOP 33, is intended for heating of large residential buildings and similar buildings. The boiler is designed for burning of wood pellets – C1. The boiler assembly comprises the boiler body, boiler burner, feed screw and the fuel chamber (storage of fuel). The boiler body is made of welded steel components. The boiler body is thermally insulated with mineral felt.

Further detailed descriptions of individual assembly groups are provided in the enclosed technical documentation to Task 31-9690.

Type designation	Fuel	Nominal heat output [kW]
ECO TOP 33	wood pellets – C1	33

II. Results of tests and evaluation

tab. 1

No.	Requirement	Technical standard, regulation applied	Source, report	Evaluation
1.**	General requirements	ČSN EN 303-5:2013 Art. 4.1	31-9690/TH	+
2.**	Construction requirements	ČSN EN 303-5:2013 Art. 4.2, 4.2.1, 4.2.1.1, 4.2.1.2, 4.2.2, 4.2.2.1, 4.2.2.2, 4.2.2.3, 4.2.2.4, 4.2.4, 4.2.4.1, 4.2.4.2, 4.2.4.3, 4.2.4.4, 4.2.4.5, 4.2.4.6, 4.2.4.7, 4.2.4.8, 4.2.4.9, 4.2.4.10, 4.2.4.11, 4.2.4.12	31-9690/TH	+
3.**	Safety requirements	ČSN EN 303-5:2013 Art. 4.3, 4.3.1, 4.3.3, 4.3.3.1, 4.3.3.2, 4.3.3.3, 4.3.3.4, 4.3.3.5, 4.3.4, 4.3.5, 4.3.6, 4.3.7, 4.3.8, 4.3.8.1, 4.3.8.2, 4.3.8.3, 4.3.8.4, 4.3.9, 4.3.9.1, 4.3.9.2, 4.3.9.3	31-9690/TH	+
4.**	Performance requirements	ČSN EN 303-5:2013 Art. 4.4, 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5, 4.4.6, 4.4.7	31-9690/TH	+
5.**	Marking	ČSN EN 303-5:2013 Art. 7, 7.1, 7.2, 7.3	31-9690/TH	+
6.**	Technical documentation, supplied with boiler	ČSN EN 303-5:2013 Art. 8, 8.1, 8.2, 8.3, 5.16.1	31-9690/TH	+
7.	Pressurized component tightness and strength test (1001.1*)	ČSN EN 303-5:2013 Art. 5.4, 5.4.1, 5.4.2	31-9690/T	+
8.	Surface temperature test (1003*)	ČSN EN 303-5:2013 Art. 5.12, 5.16.4, 4.3.6	31-9690/T	+
9.	Test of heat output, input and efficiency(1004.1*) Test of combustion product temperature (1004.2*)	ČSN EN 303-5:2013 Art. 4.4.2, 4.4.3, 5.7, 5.8, 5.10 ČSN EN 303-5:2013 Art. 4.4.3	31-9690/T	+
10.	Combustion efficiency test – emissions (1005.1*)	ČSN EN 303-5:2013 Art. 4.4.7, 5.7.3, 5.7.4, 5.9, 5.10.4	31-9690/T	+
11.	Test of heat output, input and efficiency (1004.1*)	ČSN EN 303-5:2013 Annex C, Deviation from Austria, C.2.2, C.2.3	31-9690/T	+
	Combustion efficiency test – emissions (1005.1*)	ČSN EN 303-5:2013 Annex C, C.3 Deviation from Croatia	-	0



No.	Requirement	Technical standard, regulation applied	Source, report	Evaluation
		ČSN EN 303-5:2013 Annex C, Deviation from Denmark , C.4.1, C.4.2	31-9690/T	+
		ČSN EN 303-5:2013 Annex C, Deviation from Germany, C.5.1, C.5.2	31-9690/T	-
		ČSN EN 303-5:2013 Annex C C.6 Deviation from Switzerland	31-9690/T	+
		ČSN EN 303-5:2013 Annex C C.8 Deviation from Italy	-	0
12.	Test of control, regulation and safety elements (1006.1*) Combustion efficiency test – emissions (1005.1*)	ČSN EN 303-5:2013 Art. 5.13, 5.14, 5.16.2, 5.16.3 ČSN EN 303-5:2013 Art. 5.9, 5.10.4	31-9690/T	+

Note:

No.: 1 - 6
 (**) Not a test

Evaluation:
 + Requirement fulfilled
 - Requirement not fulfilled
 x Not assessed
 0 Not applicable

III. Conclusion

It ensues from examination of the submitted technical documentation and from the verifications and tests performed that the product:

Hot-water boiler for solid fuel (wood pellets – C1) with automatic fuel supply, type: ECO TOP 33

has been designed and manufactured in compliance with ČSN EN 303-5:2013 (with the exception of Deviations C.5.1 and C.5.2 of Annex C).



IV. List of referenced documents

- Order B-53642 dated 2015-08-10 (received on 2015-08-11)
- Contract B-53642/31
- Amendments D1, D2, D3 and D4 of Contract B-53642/31
- ČSN EN 303-5:2013 – Heating boilers - Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW - Terminology, requirements, testing and marking
- Test report 31-9690/T of 2016-06-20
- Evaluation report 31-9690/TH of 2016-06-20
- Evaluation report 31-9690/H/E of 2016-06-20
- Evaluation report 31-9690/H/M of 2016-06-17
- A set of technical documentation:
 - Instructions for assembly, installation and operation of the boiler
 - Risk assessment
 - A set of required drawing documentation as per ČSN EN 303-5:2013

Document compiled by:

Ing. Pavel Fojtů

Person accountable for correctness and completeness
of the evaluations carried out:

Ing. Stanislav Buchta

Person accountable for review:

Ing. Dušan Šarlej

Employee responsible:




Ing. Aleš Onderek
Head of Product Certification Department

