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**PROTOCOL**

(cachet)

**Introduction type test for household type pellet heating mechanisms according to EN 14785:2006**

**Protocol Number:** NB 1879 – K- 25-2014  
**Subject of the test:** EN 14785:2006 household type pellet heating mechanism

**Model:** “VIOLET”  
Manufacturing № 1400100  
**Heating device type:** Fireplace type stove working on cyclical burning mode with closed structure  
**Goal:** Living space (household type) heater  
**Fuel material:** Wood pellet

**Manufacturer:** HOŞSEVEN HEATING and INSULATION INDUSTRY and TRADE INC.  
Ankara Yolu 18. Km Kestel– Bursa, TURKEY

**Applicant for the test:** HOŞSEVEN HEATING and INSULATION INDUSTRY and TRADE INC.  
Ankara Yolu 18. Km Kestel– Bursa, TURKEY

**Letters rogatory:** 19.05.2014  
**Application:** № 16 / 19.05.2014

**Scope of the application:** Introduction type test according to CE inspection and evaluation methods and Meeting the requirements from the device according to EN14785:2006, appendix Z.A.2 BlmSchVve 20a LRV.

**Filing the application:** Engineer Goran Gaconov

**Base of the test:** EN14785:2006 VE SEN / TS 158832 : 2009



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## 1. Definition of the test device

### 1.1 Structure

- ◆ Heating device consists of fuel tank, water jacket, smoke tank, fan connected to aspiration pipe for removal of the smoke, expansion tank, fuel transfer torsion, lighter, water pump, automatic pellet feeding control device, control panel with pellet feeding control sensors, ignition, smoke removal
- ◆ Glass integrated, steel ignition door and heat insulation sheet on the front side. It covers ash pan and combustion chamber.
- ◆ Primary heating can be arranged automatically and smoke removal is performed automatically thanks to the engine.
- ◆ Pellet feeding is automatically done by a torsion inside. This part is installed inside the stove and has 13 kilograms of capacity.
- ◆ Removal and cleaning of ashes is done manually.
- ◆ Combustion chamber's side and rear walls lined with iron casting.
- ◆ The distiller is in the lower part of the device with a „П" shaped and 1.78dm<sup>3</sup> sized ash pan;
- ◆ Cast iron distiller is in the shape of a trapezoid and its measurements are 116 x 108 x 81 (width x depth x height) On the sides of the wall, there are four 6mm sized gaps, on the front side there are seven 4.5mm sized gaps. On the rear wall, there are 4mm sized gaps and an extra gap for lighter. At the lower part, there are 16 gaps sized 6.5 mm;
- ◆ Metal screen for shaft gases' gathering and removal is integrated and it meets with these gases to change their directions;
- ◆ The device is allowed to work when the doors are closed;
- ◆ One temperature safety sensor and one pressure safety sensor;
- ◆ It has electrical control panel for use in different modes, it also shows signs possible errors during operation;
- ◆ Vertical grate (armor) is movable and installed on the distiller.

For more information, device graphs provided by the manufacturer can be used.

**1.2 Basic dimensions: 48.0 x 47.0 x 86.3. cm** (widthanddepth x final pipe height)

### 1.3 Combustion Air

**1.3.1 Primer air:** The combustion air which goes inside the device through a metal pipe on the rear wall 18.09 cm<sup>2</sup> sized cross section and 48 mm in diameter. The pipe transfers the air to combustion chamber by going under the distiller. Gas removal engine creates the pressure in combustion chamber with regulation of its circuits. This process provides the air needed for combustion.

**1.4 Gas shaft and shaft connection:** Metal screen integrated on the combustion chamber meets the shaft gasses and changes their directions and later gathers and removes them. Shaft gasses goes down the hole thanks to the fan and is removed from the stove through a vertical stove shaft pipe sized 80 mm in diameter.

### 1.5 Minimum distance of heating device to flammable material (in mm)

- From back – 300;
- From sides – 400;
- From front – 800;

**1.6 Labelling:** Current arranged device protocol signboard is presented for the printed project. Information signboard shall be filled according to the information provided by this test. Label of the device should be explanatory and should be installed to a protected spot to ensure it is perpetually available.

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**2.Base of the Test:**

**2.1 EN 14785:2006** “Household type wood pellet heating device – test requirements and methods”

**2.2 SD CEN/TS15883:2009** “Home devices with solid propellants. Emission test methods”.

**2.3** Test documents of the applicant

**3. List of the attached documents**

- A1 – A11 Result and assessment of the test
- Graphs and specifications
- Instructions for installation and operation

**4. Scope of the application and performing of the test**

After the application for EN 14785:2006 based test, the introduction type test is performed. Appendix 1 is concerned with the following:

- Fire safety
- Emissions of the fuel products
- Removal of the dangerous materials
- Surface temperature
- Temperatures of the shaft gasses
- Maximum operating pressure
- Heat transfer / energy efficiency

According to the presented documents (certificates) during the operation of stove, materials which are not supposed to emit dangerous remnants should be used. Manufacturer must keep these information as proof.

According to EN 14785:2006 ‘s 7. and 8. articles, labelling and review of installation and operation instructions on the stove (fireplace type) is performed.

Explanation of test steps and gathered results are shown on Test Protocol Appendix A.

List of test devices used in test and measurement process is kept in test laboratory.

**Power data of the stove during nominal heat emission**

Param. Name Measurement	Power kW	Power of Water Heater kW	Fuel -	Fuel consumption kg/s	Temperature of shaft gasses °C	Efficiency	CO (%13 O2)	Volume of shaft gasses g/s	Tractio n Pa
Nominal	5.03	13.13	B	1.353	163	81.63	0.0341	6.13	12±2
Decreasing	2.72	2.30		0.703	109	85.05	0.0410	3.98	

B-Wood pellet



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Main features of the device are tested according to EN 14785:2006 and Appendix 1, since the device uses wood pellet as fuel material according to the manufacturer’s usage instructions. The test shows that stove (fireplace type) with closed door combustion chamber meets the requirements of heating according to Appendix 1.

It is also observed that requirements of installation and operation and use of instructions is in line with all national regulations.

Introduction type test according to CE compatibility assessment methods gave a positive result.

**ATTENTION!**

Test results only relate to test samples.

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Performer of the test:  
(sign) /Engineer Raev/

Laboratory President: (sign and seal)  
/Engineer G.Gaconov/

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